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Key words:

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ENERGY EXPENDITURE AND HEART RATE IN DRIVING A WHEEL-CHAIR ERGOMETER

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with the assistance of Agneta Cronquist, MCSP, and Ewa Landegren, Lab. ass.

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ABSTRACT. Twenty young healthy females have been studied, driving a wheel-chair ergometer and an arm ergometer to determine the mechanical efficiency and the heart rate response. Technical details about the wheel-chair ergometer with variable settings are given. The results show that the mechanical efficiency in driving a wheel-chair is rather low, around 7–8 per cent, and may thus give a relatively high load on the circulatory system. The placement of the rim wheel influences the efficiency and heart rate only slightly. The mechanical efficiency was somewhat higher when the rim wheels were in the posterior position. The lowest heart rate in relation to the O_2 uptake was with the rim wheels in anterior, low position and similar to that during exercise with the arm ergometer.

In Gothenburg, several research teams are trying to analyse the factors which are of significance in connection with the design of wheel-chairs and which affect the possibilities of wheel-chair-bound persons to use a wheel-chair. As a step in these investigations, the research teams started in 1968 to perform physiological studies in which the mechanical efficiency and heart rate response were determined at different work loads and size and position of the rim wheels. For this purpose, the investigators constructed a special test wheel-chair in which the position of the wheels and their size could be changed and in which the wheel-chair work was varied through various loads. For the purpose of comparison, work was also performed on an arm ergometer.

The main questions to be investigated were:

1. The mechanical efficiency in driving a wheel-chair ergometer?
2. The influence of the work load on the mechanical efficiency?
3. The influence of the position of the wheels on the mechanical efficiency?
4. Oxygen uptake and heart rate in driving a wheel-chair ergometer?

The test wheel-chair

The investigation was carried out using a test wheel-chair consisting of a seat unit and a driving unit. The seat unit is constructed so that the angle of the seat in the horizontal plane as well as the inclination of the back support in relation to the seat can be adjusted as required. The distance between the seat and the foot supports can be adjusted to the height of the person tested to ensure sufficient support in driving the wheel-chair (cf. Fig. 1).

The driving unit consists of wheel-chair wheels with driving rims. The distance between the driving rims can be varied, i.e. it can be adjusted to the sitting width required by the wheel-chair-bound subject (cf. Fig. 2). The seat unit and the driving unit can be adjusted to each other so that the wheels can be placed at any height in relation to the seat and at any distance from the back support.

The two driving wheels are connected to a fly-wheel with a circumference of 163 cm and of the type used in von Döbeln's bicycle ergometer. The flywheel brake works on a friction basis (Fig. 3). The test equipment has been calibrated by the Department of Machine Elements at Chalmers Institute of Technology, Gothenburg.

This construction of the test wheel-chair eliminated the sources of error which can be caused by course instability in driving a wheel-chair. Only

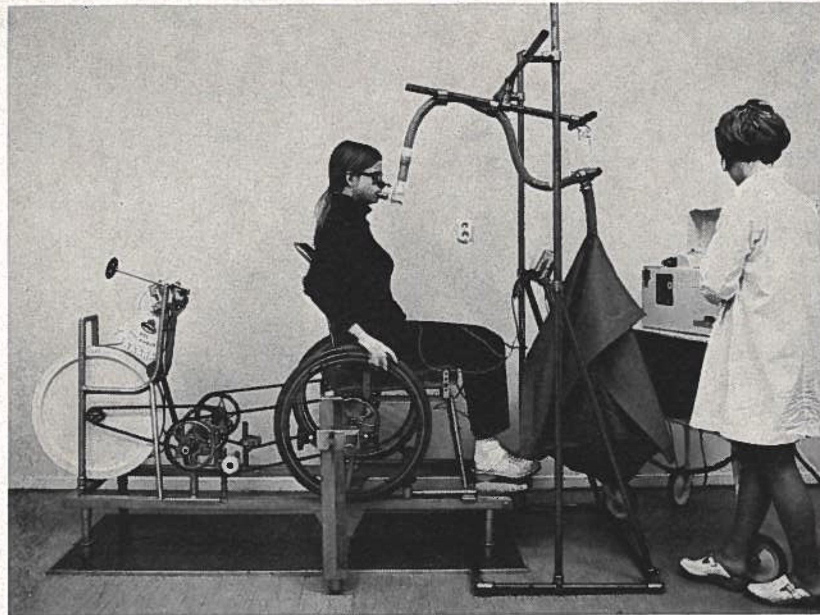

Fig. 1. Experimental set up. The angle of the seat, the inclination of the back support and the distance between the seat and the foot supports can be individually adjusted.

factors which are directly related to the driving function will be determined.

Bicycle ergometer

In order to make possible a comparison with the wheel-chair work, the subjects tested also had to perform cranking on an ergometer for arm exercises, constructed by O. Höök several years ago and used among others by Stenberg et al. (5, 6).

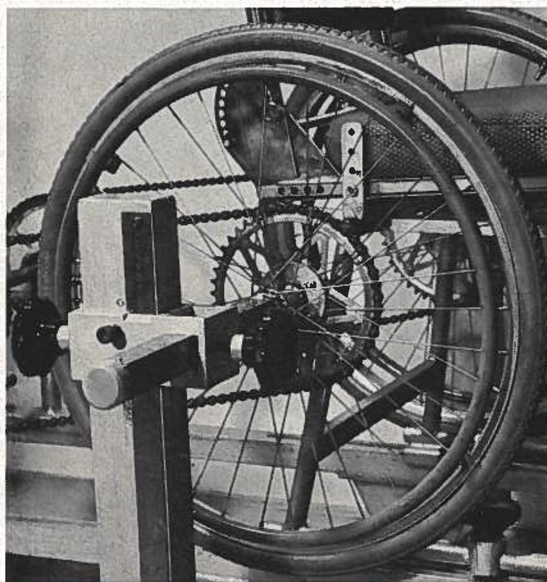

Fig. 2. The seat unit and the driving unit can be adjusted to each other. The wheels can thus be placed at variable height in relation to the seat and at variable distance from the back support.

TEST PERSONS

The primary objective of the investigation was to study the load involved in wheel-chair work and how different constructions of the wheel-chair affected the performance of the wheel-chair-bound subject. It was therefore important to eliminate the sources of error which could be caused by physiological and other factors in the subjects tested and which could change the test conditions, e.g. reduced vital capacity, partial paralyses or instability. Therefore, only persons who were not handicapped were used in the investigations. Twenty healthy female students of physiotherapy took part in the investigation. The mean age of the test persons was 22.4 ± 1.69; the body height 168.3 ± 4.69 cm and the body weight 57.9 ± 4.58 kg. None of the test persons had any previous experience in wheel-chair driving when they took part in the preliminary experiments.

The registration of heart rate and oxygen uptake

The heart rate was calculated on the basis of ECG-recordings. The analyses of the expired air were made after the air had been collected in Douglas bags for between 3 and 6 min at each work load. The volume of gas was measured in a dry gasometer and the analyses of the oxygen and carbondioxide was performed by means of the micro-Scholander technique.

The mechanical efficiency was calculated according to the formula:

$$\frac{\text{external work load} \times 100}{(\dot{V}_{O_2}\ \text{at exercise} - \dot{V}_{O_2}\ \text{at rest})\ 4.9 \times 427}$$

where the external work load was expressed in kpm/min and $\dot{V}_{O_2}$ in l/min.

The oxygen uptake at rest was calculated according to Carpenter. The caloric equivalent of oxygen was assumed to be 4.9 kcal per liter oxygen.

Conventional statistical methods and a 5% significance level were used.

Test conditions

In the main investigation, all 20 test persons had to carry out the different work steps in four work positions. In each work position, there were two loads. Thus, for each test person 8 different recordings were obtained. The four work positions were:

1. The rim wheels of the test chair in a posterior position and at a high level, approximately corresponding to the position of the wheels in the traditional rear-wheel-operated wheel-chair.
2. The rim wheels in an anterior position but at the same height as under 1 above.
3. The rim wheels in the same anterior position as under 2 above, but at such a height that the upper edge of the wheel was on the same level as the upper surface of the seat.
4. The arm ergometer positioned so that the crank case was at the same height as the shoulders of the test person.

During the test chair experiments, the distance between the wheel hubs at the anterior and posterior positions was 35 cm. As for the high position, the height of the wheels was adjusted so that the distance between the test person's shoulder joint and the height of the rim wheel was related to the shoulder width of the test person. The distance between the two rim wheels was unchanged during all experiments.

During the wheel-chair work, the rim wheels were loaded with 0.5 kp and 1.0 kp, respectively.

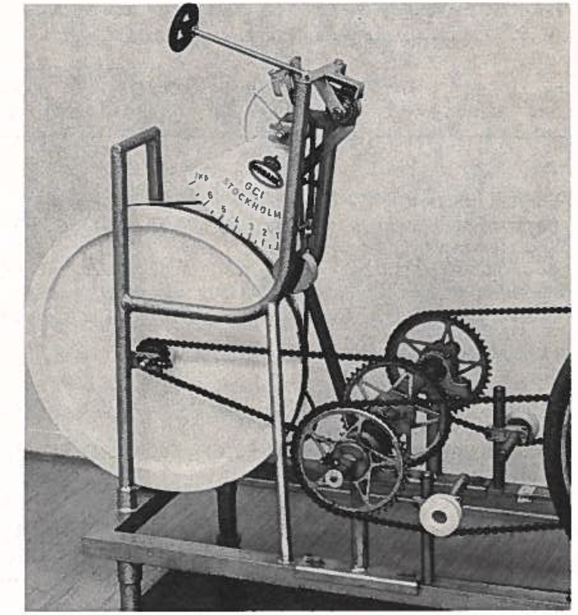

Fig. 3. The driving wheels are connected to a fly-wheel of the type used in von Döbeln's bicycle ergometer.

The test persons had to do 20–30 revolutions/min which gives an average speed of 2.5–3 km/hour. The work load was about 65 kpm/min or 110 kpm/min, respectively (10 and 18 Watt, respectively). On the arm ergometer, they did 50 revolutions/min. The work load was such that the work amounted to about 150 kpm/min and 300 kpm/min, respectively (25 and 50 Watt, respectively).

Each work step was carried out for 6 min.

RESULTS

Table 1 shows the means and standard deviations for the results from the different exercise tests.

At the lowest work load in each type of exercise (Work load I = 65 kpm/min), the mechanical efficiency was significantly higher with the posterior, high wheels than with the anterior high wheels (8.1% as compared with 6.8%). The mechanical efficiency in cranking the arm ergometer was more than twice that for wheel-chair driving. Oxygen uptake and heart rate did not differ significantly between the different positions in wheel-chair driving. It tended to be slightly lower at the chosen work load (150 kpm/min) cranking, but the oxygen pulse that is the amount of oxygen

Table I. *Physiological data on 20 healthy test persons driving a wheel chair and cranking an arm ergometer*

Test situation	Workload (kpm/min)	O_2-uptake STPD (l/min)	Ventilation BTPS (l/min)	RQ	Heart rate (stroke/min)	O_2-pulse (ml/stroke)	Mechanical efficiency (%)
Wheel chair							
Wheel in anterior position, high level	66.1±1.0	0.67±0.015	22.0±1.0	0.98±0.02	127±3.6	5.3±0.2	6.8±0.2
Wheel in anterior position, low level	64.6±1.2	0.67±0.020	20.6±1.0	0.94±0.02	123±3.1	5.5±0.2	6.8±0.2
Wheel in posterior position, high level	67.5±0.8	0.61±0.013	18.6±0.7	0.94±0.02	123±3.8	5.0±0.2	8.1±0.4
Wheel chair							
Wheel in anterior position, high level	109.1±1.8	0.87±0.021	27.4±1.6	0.95±0.01	143±3.9	6.1±0.2	7.9±0.2
Wheel in anterior position, low level	107.1±2.1	0.83±0.021	24.9±1.3	0.91±0.02	137±3.5	6.1±0.2	8.2±0.2
Wheel in posterior position, high level	110.8±1.7	0.80±0.019	25.6±0.9	0.97±0.02	145±3.9	5.6±0.2	8.9±0.2
Arm ergometer	150	0.62±0.018	19.2±0.8	0.95±0.01	116±3.4	5.4±0.2	17.7±0.6
	300	1.03±0.018	32.6±1.0	1.01±0.01	157±3.4	6.6±0.1	17.5±0.4

transported by each heart beat did not differ significantly between the four procedures.

At the higer work load (Work load II = 110 kpm/min), the mechanical efficiency was also higher with the wheels in the posterior position than in both anterior positions (8.9% compared with 8.2% and 7.9%). In all three procedures in wheel-chair driving the mechanical efficiency was higher at work load II than at work load I. At work load II, the mechanical efficiency at cranking was also more than twice the efficiency at wheel-chair driving. There was no significant difference in the mechanical efficiency for cranking between work loads I and II. The oxygen pulse did not differ significantly between the wheel-chair driving procedures. It was significantly higher when cranking at 300 kpm/min, where the oxygen uptake also was somewhat larger than at the work loads chosen for wheel-chair driving.

The heart rate in relation to the oxygen uptake is fairly similar in driving a wheel-chair with the wheel in the anterior position and cranking an arm ergometer. Wheel-chair driving with the wheels in the posterior position gave higher heart rate in relation to oxygen uptake, although the oxygen pulse did not appear to be significantly different.

The ventilation in relation to the oxygen uptake was similar for wheel-chair driving and cranking the arm ergometer although the ventilation was somewhat lower in relation to the oxygen uptake at wheel-chair driving with low wheels in the anterior position, resulting in a significantly lower RQ than during the other procedures.

DISCUSSION

The efficiency in driving wheel-chairs

In the present study, the mechanical efficiency in driving wheel-chairs was about 8% (7.9–8.9) when the effective work load was about 15–20 W (110 kpm/min). With a work load of about 10 Watts (65 kpm/min) the efficiency was lower (6.8–8.1%).

The mechanical efficiency in cranking an arm ergometer with an effective work load of about 25 W (150 kpm/min) was 18.6%.

The present study clearly demonstrates that the mechanical efficiency is considerable lower in driving a wheel-chair ergometer than in cranking an arm ergometer. The range for the mechanical efficiency fell close to the values reported for level driving by Voigt, Berendes & Hildebrandt (7) with the wheel-chair on a tread-mill and other experimental set ups. At a speed of 4 km/hour these authors found a mechanical efficiency of 7.7%. The authors also reported about the same difference between cranking and wheel-chair driving as in the present study.

Thus, our conclusions would be that wheel-chair driving in relation to other exercises involving about the same muscle mass consumes a rather high total amount of energy.

It is of interest to correlate the efficiency of driving a wheel-chair with walking. The mechanical efficiency for leg work on a bicycle ergometer is about 23% for young females (9). In normal walking, the efficiency was calculated to about 27% by Grandjean (1). Thus, the results show that driving a wheel-chair is a rather uneconomical way to move.

In our investigation, two different loads were used on the wheel-chair ergometer. At the lower load (work at 65 kpm/min) the mechanical efficiency was about 7% and at the upper load (work at 110 kpm/min) 8%. Voigt et al. have also found a corresponding difference. At an even greater load, they obtained a mechanical efficiency of almost 13–15%. Such a load, however, is very rare in ordinary wheel-chair work.

Heart rate and oxygen uptake in driving a wheel-chair

The heart rate at a wheel-chair load of about 65 kpm/min (10 W) averaged about 125 beats/min and at a load of 110 kpm/min about 140 beats/min. The oxygen pulse was 5.3 and 5.9 beats/ml, respectively. These results agree with the ones found by Voigt et al. (7). These authors also point out that these results indicate that wheel-chair work involves a considerable strain on the cardiovascular system compared with ordinary walking.

In our investigation we have demonstrated a fairly similar relationship between heart rate and oxygen uptake for wheel-chair driving and exercising an arm ergometer. Our investigations show that it is possible to use the relationship between heart rate and oxygen uptake obtained on an arm ergometer to estimate the energy expenditure from heart rate recordings during wheel-chair driving.

Our results are in agreement with the general findings for leg excercises (2). Hildebrandt et al. (3, 4), on the other hand, found that the heart rate response was similar in the two working situations when related to the effective (external) work load. This would mean that the heart rate in relation to the oxygen uptake was lower in wheel-chair driving than in cranking.

The influence of the position of the rim wheels on the mechanical efficiency and on the circulation

Three different wheel positions were used in the investigation: one with posterior position and two with the wheels in the anterior position at varying heights. The mechanical efficiency was 8.1% with posterior wheels and 6.8% with anterior wheels at a load of 65 kpm/min. The same finding was made when the work load was 110 kpm/min. The investigation thus shows that the mechanical efficiency is somewhat higher when the wheels are in the posterior position.

From the metabolic point of view, it seems that placing the wheels in a posterior position is somewhat better than the anterior position. Our observation is also in accordance with the findings of Hildebrandt et al. (3).

From the circulatory point of view, however, our study may indicate a less favourable response with the wheels in the posterior position. We found a somewhat higher heart rate in relation to the O_2-uptake with the wheels in the posterior than in the anterior position. The lowest heart rate in relation to the O_2-uptake was found when the wheels were in anterior, low position.

It must be remembered, however, that in answering the question of the placement of the wheels, other factors than the metabolic and circulatoric ones must be taken into consideration. Such factors are e.g. the maneuvreability of the wheel-chair, the possibility to move into and out of the chair, degree and type of possible paralyses, especially in the arm and shoulder region. The use of the wheel-chair, e.g. transportation, work chair, rest chair, also effects the choice.

Our physiological observations—as well as those of Voight & Bahn (8) and Hildebrandt et al. (4) have been obtained in laboratory situations where the driving of the wheel-chair was going on with a constant speed over a considerable period of time. This has been the only way to get a measurable response but there are several differences compared with normal wheel-chair driving, including that the normal driving is of a more interval type, and often involves several accelerative phases.

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Method for three-dimensional registration of movement patterns in full-scale tests

Sven-Olof Brattgård, Jan Paulsson & Barbro Petersson

National Swedish Building Research Summaries

R9:1971

A method for continuous, three-dimensional registration of tests in a full-scale laboratory has been developed by the Department of Handicap Research at the University of Gothenburg. By this method tests can be filmed from different angles simultaneously through the use of angled mirrors. Measurements are determined with the aid of scales of reference in the experiment area and by correction of the values obtained using correction factors.

The method has been used for dimensioning dwellings and interior fittings, for analyses of technical aids, studies of how these aids are used and for production of teaching material.

Key words:

building planning, dimensioning, full-scale test

determination of dimensions, full-scale test, movement pattern, spatial requirement, method of registration

handicap research, full-scale test, photographic registration

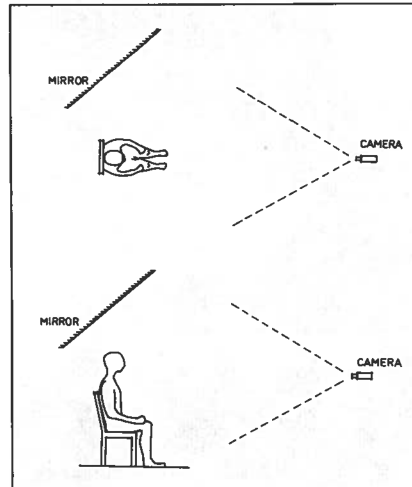

FIG. 1. *Basic principles of the mirror reflection method.*

It is of vital importance when planning both private and public environments to have access to analyses of the individual's patterns of behaviour and movement. In the case of projects of a more general nature, such as planning of housing and interior fittings, a scientifically conducted analysis of the patterns of movement to be found in representative groups of persons is needed.

These analyses require penetrating studies of the movement patterns of different persons. The studies must be based on records of the ways in which these persons move in different situations. A method of recording experiments using full-scale models is thus needed.

The qualities that can be required of this method are in short the following:

- ☐ Scope for registration of objects and persons from more than one direction (three dimensions).
- ☐ Scope for continuous registration of a movement.
- ☐ A simple and uncomplicated method of registration coupled with a method of evaluation which can be easily and rapidly applied and which permits immediate determination of dimensions.

The report contains brief descriptions of systems which have been developed for photographic registration of full-scale experiments. However, none of these fulfils the above requirements in all respects and it is this which has led the Department of Handicap Research at the University of Gothenburg to develop a method which comes nearer to fulfilling them.

Description of the "mirror reflection method"

The method, known as the mirror reflection method, is based on the principle that it is possible to observe an object from different directions from a single observation point by means of angled mirrors.

Experiments are conducted within a limited area over which hangs a mirror at an angle of about 45° in relation to the horizontal plane. Alongside the experiment area is another mirror which is fixed at an angle of about 45° to the limit of the area. The movements of the object (test subject) can thus be registered in three planes simultaneously.

The actual recording is done using a film camera positioned so that both the experiment area and the mirror fall within its range. A continuous sequence of events can thus be recorded on film.

Due to difference in distance the degree of enlargement of the three images will vary. Scales of reference are set out at suitable points during experiments in order to facilitate measurement. An effective method is to divide the floor of the experiment area into squares of 10 cm×10 cm and to place a vertical scale at the edge of the experiment area. This means that accurate scales will appear on the film.

The film obtained is run through a projector which can be stopped for scrutiny of interesting images. By directing the beam through a prism it is also possible to project the picture on to a

Report R9:1971 was financed by Grant Bb 373 from the Swedish Council for Building Research to the Department of Handicap Research at the University of Gothenburg.

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Summary of:

Brattgård, S-O, Paulsson, J & Petersson, B, 1971, *Metod för tredimensionell registrering av rörelsemönster vid fullskaleförsök.* Method for three-dimensional registration of movement patterns in full-scale tests. (Statens institut för byggnadsforskning) Stockholm. Report R9: 1971, 31 p., ill. 10 Sw. Kr.

The report is in Swedish with Swedish and English summaries.

Parallel to the publication of the report a 16 mm film is at present under production at the Department of Handicap Research in Gothenburg. The film, entitled "Registration of Movement Patterns", illustrates the method employed and contains a number of applied examples. It is estimated that it will be available from Svensk Byggtjänst from 1st August, 1971.

Distribution:
Svensk Byggtjänst
Box 1403, S-111 84 Stockholm
Sweden

photographic plate or on to a sheet of paper, on to which the shape may be copied.

Determination of dimensions

Dimensions can be determined by placing systems of co-ordinates in the experiment area with the x and y axes in the same plane as the grid and the z axis vertical to this. The camera is fixed so that its lens-axis is parallel to the y axis and so that the z axis after reflection in the suspended mirror is projected on to the film as a point. The vertical mirror is adjusted so that a line in the x-z plane on a level with the camera aperture will be reflected as a point.

Points on the vertical z axis then appear in the suspended mirror to be in their true position, while points outside the z axis seem to be further away from the axis than they actually are. The correct x and y co-ordinates cannot therefore be read off directly. Likewise, it is not possible to read off the z co-ordinates of points in the vertical mirror, if they do not fall within the height range of the camera lens. Correction factors are needed in order to obtain the correct co-ordinates. These factors have been calculated and are given in table form in the report. The method permits determination of the position of a point with an accuracy of ± 2 cm.

FIG. 2. *Studies of spatial requirements. Full-scale laboratory, Department of Handicap Research at the University of Gothenburg.*

Application

The mirror reflection method has proved to be both practical and simple. The equipment required is relatively inexpensive and easy to use. This method is in many respects clearly superior to other methods of registration, notably because of the three-dimensional image obtained, the continuity of the recording and the ease with which the recording material can be used.

The method has been used for:

- ☐ dimensioning of dwellings and interior fittings
- ☐ studies of the ways in which handicapped persons use their technical aids
- ☐ analyses of technical aids, in particular in connection with new designs
- ☐ production of teaching material showing the behaviour patterns of handicapped persons.

PUBLISHED BY THE NATIONAL SWEDISH INSTITUTE FOR BUILDING RESEARCH

Victor Pettersons Bokindustri AB, Stockholm 1971

Extract from
RÉADAPTATION, Paris
No 162, 1969, p. 11-18.

DESIGN OF WHEELCHAIRS AND WHEELCHAIR SERVICE BASED ON SCIENTIFIC RESEARCH

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We have today in Sweden about 120 different types of wheelchairs. It is quite impossible for doctors, physiotherapists or occupational therapists to know them all in detail or be able to recommend the best one for the disabled. Only the handicapped person himself can learn which is best suited to his needs. Furthermore, the variety in designs of wheelchairs in different countries makes it difficult for me to direct my talk to this international group. Instead of trying to offer advice in the choice of wheelchairs for the disabled, I will try to summarize the results our team in Gothenburg has discovered in our research on wheelchairs and the wheelchair-bound - try to give you some understanding of my own experiences of 20 years' work with and in the wheelchair. (I will also touch on some data from the work done by Dr. Isherwood in Loughborough, England).

To begin with, I would like to discuss the wheelchair from the viewpoint of functional demands. A wheelchair has two prime functions - to serve as a seat and as a means of transport.

Looking at the wheelchair as a piece of furniture to sit on we must devote our attention to four factors:
First, the size, constitution and posture of the disabled.

Second, the type and degree of disability.

Third, the type of activity to be carried out from the wheelchair.

Fourth, the length of time the disabled must be sitting in the chair.

As a means of transport, four additional factors must be considered:

First, the source of motive power of the wheelchair.

Second, the dimensions of the wheelchair.

Third, the properties of the wheelchair in relation to the surfaces to be travelled and safety.

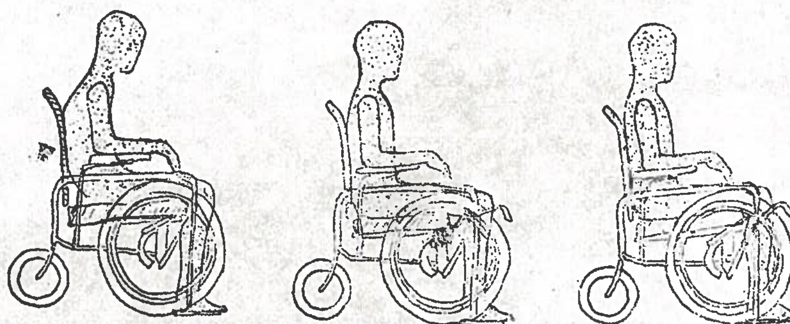
Fourth, the possibility of transporting the wheelchair itself.

Let us now return to the significance of the size, constitution and the posture of the disabled. I will summarize some of the most important factors for providing a correct or acceptable sitting position for the chair occupant.

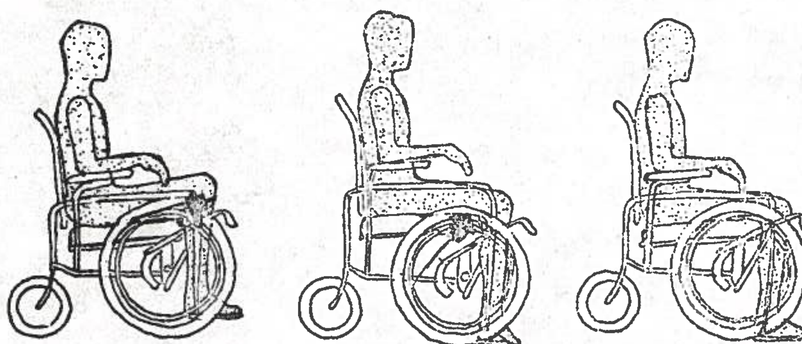
Factors of importance for the sitting function

Seat

The seat must be of the correct length for the particular individual who will use the chair. Too long a seat provides poor support for the back, too short a seat gives poor support for the legs. Both extremes will be more tiring for the handicapped: he will be more unstable in his movements and have more difficulty doing a lot of things. We conclude that: the length of the seat, in other words, depth of the chair seat, must be adjustable within an acceptable range, this can be derived from our anthropometric studies.

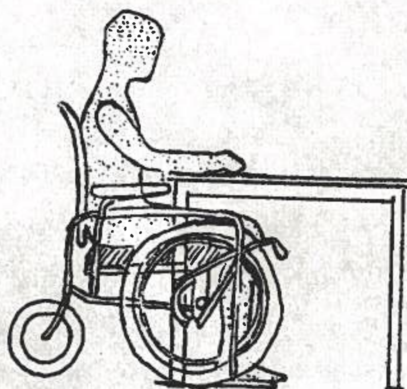


The seat must be at the right distance above the footplate. If the distance is too short the disabled is only sitting on the tubar ischii and he loses the support from his thighs. If the distance is too great the thigh will be pressed hard against the seat, particularly at its forward edge. This is dangerous for the muscles, but even more deleterious is the effect on the blood circulation and the nerves. X-ray pictures demonstrate this very clearly.

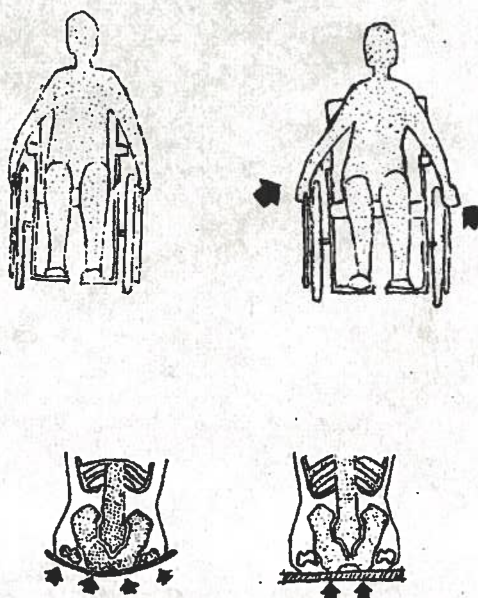


The inclination of the seat and back must be adjustable. I will return to this when I discuss the working position.

The height of the seat above the floor must be as low as possible or at least so low that it permits the knees to come under a table of ordinary height. This dimension we also get from the anthropometric studies. Another condition, which I can demonstrate, is that the foot-plates should be as near the floor as possible. Such a construction not only offers the lowest height of the knees but makes it possible for the disabled to stand or walk on the footplates without the chair tipping forward. It is wrong if the footplate must be put aside when the disabled enters the chair.



The width of the seat should be the minimum acceptable for the individual disabled person. If it is too narrow it doesn´t allow the disabled to change his position: if it is too wide he has difficulty operating the chair, and the wheelchair requires greater maneuvering space.

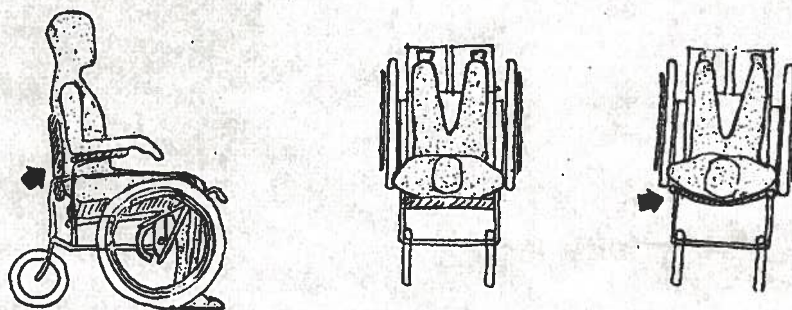


This figure will show you another problem in regard to the seat. The seat must give good position and support for the disabled. If the seat is designed as it is in most of our wheelchairs (see the figure) it leads to incorrect and dangerous sitting positions. The soft seat, suspended from the sides, forces the legs together and

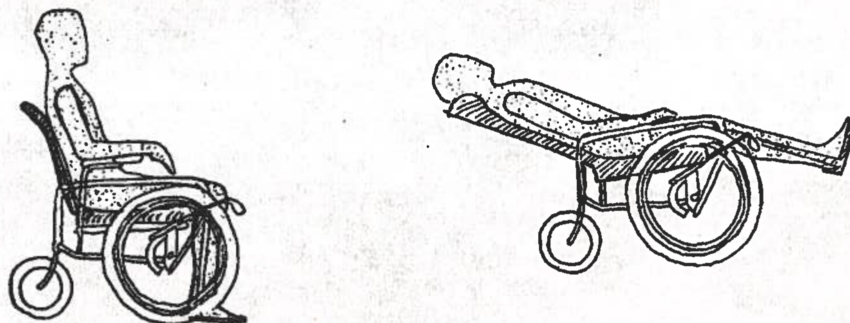
makes it difficult for the disabled to shift his position. The close contact of his legs and the increased pressure area against the seat favors unnecessary sweating and reduces ventilation. But even more serious is that the weight of the body is always on the same areas - and on the wrong areas - not on the physiological correct points.

Backrest

The backrest must give firm support when the disabled leans against it. Like the seat it therefore has the best properties when it is firm and well upholstered - best if it is upholstered for its user. It is necessary that the back be of the right height. If it is too high, it restricts the arm movements - too broad, it will do the same. The backrest need not be higher than the lower part of the shoulderblade, nor wider than the chest, if it is not used for fixation or stabilization of the occupant. The type of backrest seen here (figure) cannot be recommended for most disabled persons. Like everybody else the disabled must change his position, actively or passively, several times per hour.



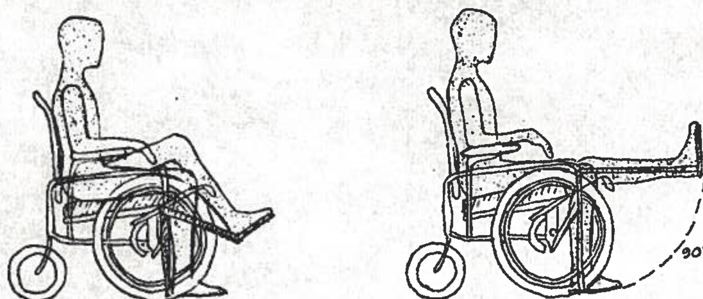
It is desirable - if not essential - to have the possibility of flexing at the hip, in other words, to vary the angle of the back support. Why not a reclining wheelchair - as in airplanes and buses, but deflecting all the way to the horizontal position to serve as a temporary bed.



Leg- and footsupports

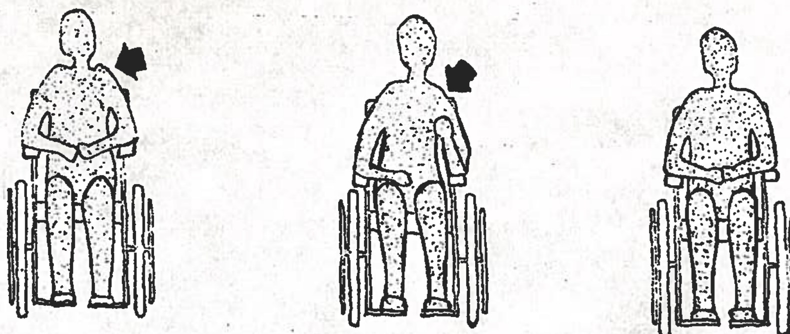
The most neglected point is movement at the knee joint. Most of the disabled persons who need wheelchairs have bad circulation in their legs. The muscle-pump doesn´t work and venous blood is not pressed up to the heart. The heart must work harder and in the legs we find oedema, bad temperature control, difficulties in wound healing,etc. The circulation will be much better if there is the possibility of changing the position of the legs. Another very important thing is that movement in the knee-joint prevents contractions in the muscles, tendons and ligaments. I cannot overemphasize this factor - based on my research and experience - that every long-term wheelchair-bound person with some flexibility in his knee-joint must have the possibility of changing the position of his legs. This may be provided in an active or passive way, but if this opportunity is not provided, it is criminal.

Movement must be effected - if I am to hold with my claims on a correct sitting position - in the axis of the knee-joint. Any other location will disturb the correct distance between the seat and the footplate.



Armrests

The armrest must be at the right height for the individual. With too high armrests the shoulders will be uncomfortably raised. Too low armrests cause the back to slump, resulting in pain in the muscles, small of the back and legs. It is therefore an essential demand that the armrests be individually adjustable. Many wheelchairs have armrests which make it impossible for the disabled to sit normally with the knees under an ordinary table. This causes much trouble for the disabled: because of the distance, it is difficult to reach objects on the table and there are psychological drawbacks, as well. In such a situation the disabled is always sitting a little behind his table companion and very seldom on the same level. For many disabled it is necessary to be able to remove or swing aside the armrest when they wish to move side-ways to a bed or a chair. The type and degree of disability influences the choice of wheelchair. I think I don´t need to develop these problems in detail. Everyone who has worked in this field knows the special demands made on the wheelchair in which the disabled transfers himself or the type of wheelchair in which he must be lifted by another person. The mode of operation of the wheelchair is dependent on the degree of disability. Some handicapped need electrical chairs, others can be propelled with the rims and some persons need levers.



The type of seat, backrest and armrests must be adapted to the degree of handicap. Sometimes the lack of power in the arms requires the type of seat which we call a catapult seat where a spring helps to push the disabled forward and out. In other cases it may be necessary to move the seat or the armrest up and down.

Thus we can conclude on the basis of our experiences and research work that any type of wheelchair must be designed with such flexibility, that it can serve adequately as large a number of individuals as possible. Even so, the scope of flexibility cannot be so great that only one design is suitable for all types and degrees of disabilities or uses expected of it.

The wheelchair must be used as a work-chair, a resting-chair and a transport aid indoors as well as outdoors. Our investigations show that it is impossible to fulfill all the different claims in one wheelchair. On the other hand one demand must be fulfilled by all types of wheelchairs - each chair must be adaptable to different sitting positions. It is much more important for the disabled than for the able to have a suitable chair. Most tasks are performed at table height (eating, washing, writing, etc).

One of the most important claims is therefore that the disabled can come under the ordinary table and work counters.

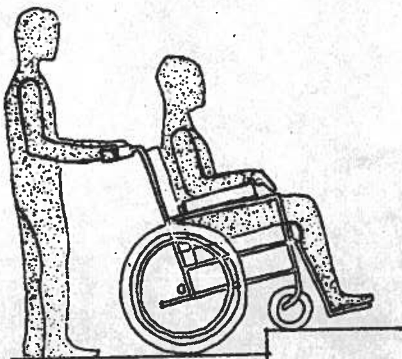
The time factor and the wheelchair

Obviously the demands placed on a wheelchair are affected by the length of time the handicapped must sit in it and the type of activity performed.

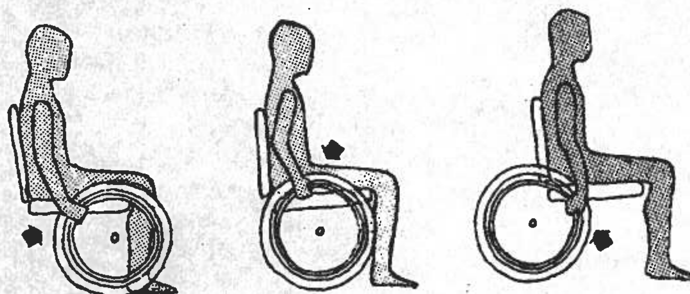
Temporary use does not require the same type of construction as whole day daily use. Some types, for example, sanitary chairs are employed for such short periods that the need of sittability is nowhere nearly as important as in chair to be used for work or resting.

Factors of importance for the driving function

In regard to wheelchairs as transport aids, the basic question is: who will operate the chair? If the disabled will always be propelled by another person, the chair must have suitable handles at the right height. The wheelchair will usually be pushed and that motivates the large wheel being at the back. The small wheel in the front makes it easier to push the chair over curbs.

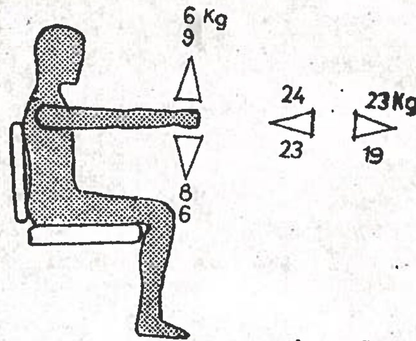


If the disabled himself will propell the wheelchair from the viewpoint of location of the large wheels will be under discussion. You can in principle have three different situations and,naturally, all transitions between them.



Preliminary results show that, in most instances, the greatest force is attained pulling the rims, e.g. when the large wheel is in the front. Some disabled with bad function in the flexor muscles in their arms and those who have poor stability in the trunk get better results when the large wheels are in the back.

Some results of measuring the arm strength of the disabled show that an horizontal push is the best. This indicates wheelchairs with levers. In conjunction with this type of chair operation we can point out two other advantages: it is easy to vary the gearing between the lever and the wheel and the driver's hand will not get as dirty as with rims. But there are negative aspects of the levers too. The operator does not have the feel of the travelled surface with this indirect power method, it is difficult to get that type of feeling which is so helpful for drawing over obstacles like curbs or sills. Future research work will perhaps give us more information on the pros and cons of operating different types of wheelchairs.



Today I will not discuss electrical drive of wheelchairs. But I would like to say that most of our electrical wheelchairs are very bad, probably because their design so closely parallels that of poorly designed, handdriven wheelchairs.

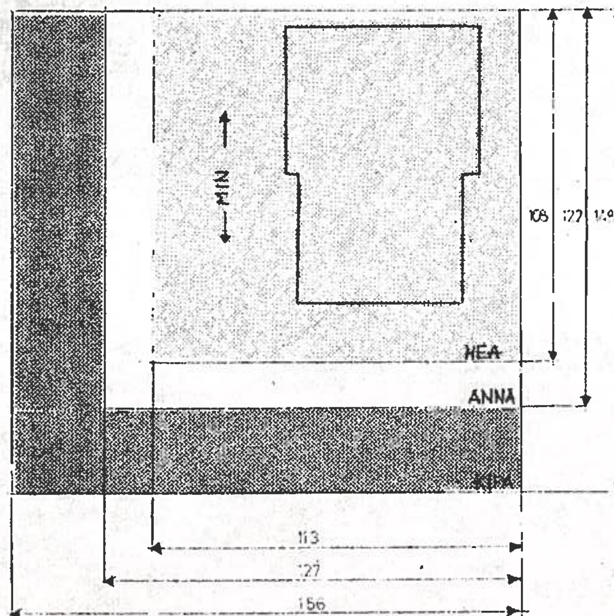
The dimensions of the wheelchair and easy passage

Since we lack a statistical basis for recommending a seat width in a chair, among other measurements, it is difficult to tackle the problem rationally. Since the type of driving power will influence the width of the chair, that is, the type of wheel, uncertainty becomes even greater. The importance of the smallest serviceable dimensions is obvious for planning of housing. The task of working out the functionally most correct minimal measurements for a wheelchair is therefore one of the most important projects in our housing program. We hope that developments will shortly revolutionize the (possibility to) approach to a tough problem.

There is an error in construction when as in, for example, my own wheelchair, the required construction details gives the chair a total breadth double that of my hips. The amount of free passage for the wheelchair is dependent on its turning properties.

The question of three - or four - wheeled chairs is also involved, and in relation to either type stability characteristics must be considered.

In our investigations we have studied the minimum area required for 180° turning, of different types of chairs.



The wheelchairs with small wheels in the four corners are extremely good in this aspect. There we need only a square area with the diagonal of the chair as side. We found that of the more traditional types of wheelchairs, the four-wheeled with the large wheels in front showed the best results. The other questions are whether the disabled can learn to operate his wheelchair in the most efficient way and whether occupational and physical therapists can find adequate teaching methods. We intend to produce in our lab series of slides which will show the best ways to operate the different types of wheelchairs. From the point of view of power it is not important which wheels carry most of the lead. This implies working out the optimal location of the center of gravity in relation to the wheel axles.

The properties of the wheelchair and the surface travelled

The stability and roadability of the wheelchair depend primarily on the length of the wheel base, the site of the center of gravity, the size of the wheels and the suspension system.

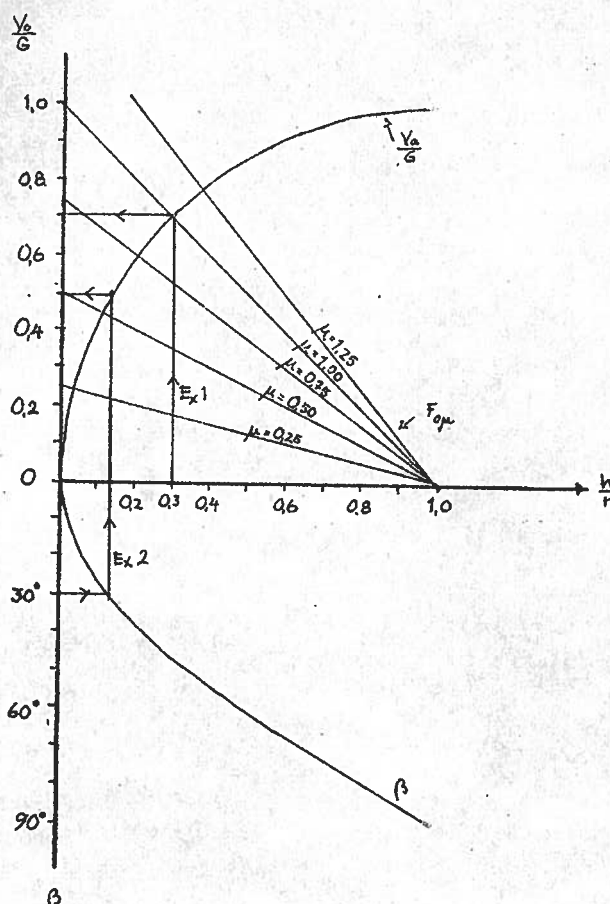
The goal of having the wheelchair as narrow and small as possible collides with the desire to have a broad wheel base. For the greater the wheel base the more stable is the chair. A four-wheeled chair, from the stability viewpoint, is safer than a three-wheeled one of the same length. Stability is also related to the location of the center of gravity when the patient sits in the chair. A person´s center of gravity when standing is approximately in the middle of the chest. When sitting the center of gravity is at the same level though forward of this point. The center of gravity of the wheelchair depends on its construction, primarily on the placement of the large wheels. From the stability point of view it is desirable that the common center of gravity be low and centered over the support area. Here one can only strive for the most favorable compromise. Since the wheel base and the centers of gravity are intimately concerned with the margin of safely risk for upset at movement or travel on an uneven surface, these factors must be carefully considered.

The size of the wheels, the dimensions and construction of the tires are decisive for certain functional properties. The ease with which the wheelchair mounts sharp-edged obstacles (thresholds, curbs,etc) depends on the diameter of the wheels.

The greater the diameter the more readily can the wheel climb over an edge.

From a series of investigations and calculations we have constructed a diagram from which you can read the force required for this moment when the weight of the disabled, the height of the curb, the wheel-radius and the friction coefficient are known.

Below the horizontal line we have the diagram for different slopes. The dimensions of the tires are important for the function of the chair. The wider the bearing surface the more stable is the chair: but also the more difficult it is to turn, since to date wheelchairs generally have two fast wheels, particularly if the surface is soft (soft rugs), the friction between the wheel and the surface is great and more force is required to overcome the resistance.



A wheel with a wide tire and low air pressure has great advantages for travel over rough road surfaces. No study has been made of the interrelation of these factors directed toward the most favorable combinations.

The most common wheelchairs lack a suspension system. But this is not necessarily a disadvantage for indoor transport. For certain disabled persons (spastics for example) a chair with no spring suspension on an uneven road surface can cause so much jolting that cramp may result. Should the spring suspension, however, be too soft, the sway of the chair when the disabled moves in the wheelchair can make him feel quite insecure. To date it has, however, not been determined which type of shock and vibration absorption can best be applied to the wheelchair.

Possibilities for transporting the wheelchair

The wheelchair is of course a transport aid but in regard to long trips by the disabled other modes of transport come into the picture. The wheelchair, in any case, must accompany the disabled on trips. Ideally it should be so constructed that the disabled himself can lift it in and out of his invalid car. For this purpose the weight as well as the dimensions of the chair are decisive.

At interview many physically disabled in Denmark who could be helped by using wheelchairs refused to obtain them. Their reluctance was based mainly on two factors: the fear that once accustomed to a chair they would not be able to get along without it and an aversion to the wheelchair per se. The latter factor is probably at least partially due to deficiencies in wheelchair design.

Wheelchair planning has been dominated by the technically easiest constructions and has ignored more esthetic aspects which might give pleasure to the disabled. The modern plastics industry can, however, remedy this situation without relinquishing functional and quality requirements.

The majority of the severely disabled are wheelchair-bound and the wheelchair is an absolutely necessary aid.

Only a very few have access to reserve chairs so superior quality is essential. Obviously good service and repair are equally important. This is not primarily an organization problem, rather it is a question of the basic construction of the wheelchair.

A wheelchair is a piece of furniture on which to sit and a transport vehicle which must have a large margin of safety. The disabled who can not support his weight with his hands places great demands on his chair when he sits in it. Thus a careful calculation of structure from the standpoint of safety is necessary.

From the viewpoint of the disabled the chair must be easily maneuvred when he moves about in it. The brakes and controls for adjusting the leg and back supports must be readily accessible and simple to use.

Even this brief survey reveals that wheelchair design has left behind the horse and buggy age of taking a chair and putting some wheels under it.

But I hope it is also clear that we need basic research in the anthropometric, physiological and technical fields to further our progress.

Research and development projects on the wheelchair require close cooperation between the technicians and the medical rehabilitation teams working with the disabled. Problem solutions varying in principle must be constantly tested in the disabled's environment. Results of such analyses are the basic tools for stepwise improvements.

The tests which each type of wheelchair should undergo must be set up in such a scientific manner that the essential variables can be analyzed.

To accomplish this objective disabled persons varying in type and degree of handicap must be accessible for the testing. Furthermore, the studies should be carried out under such conditions that the disabled is first taught how to handle a new construction. Such training is essential for the validity of the findings.

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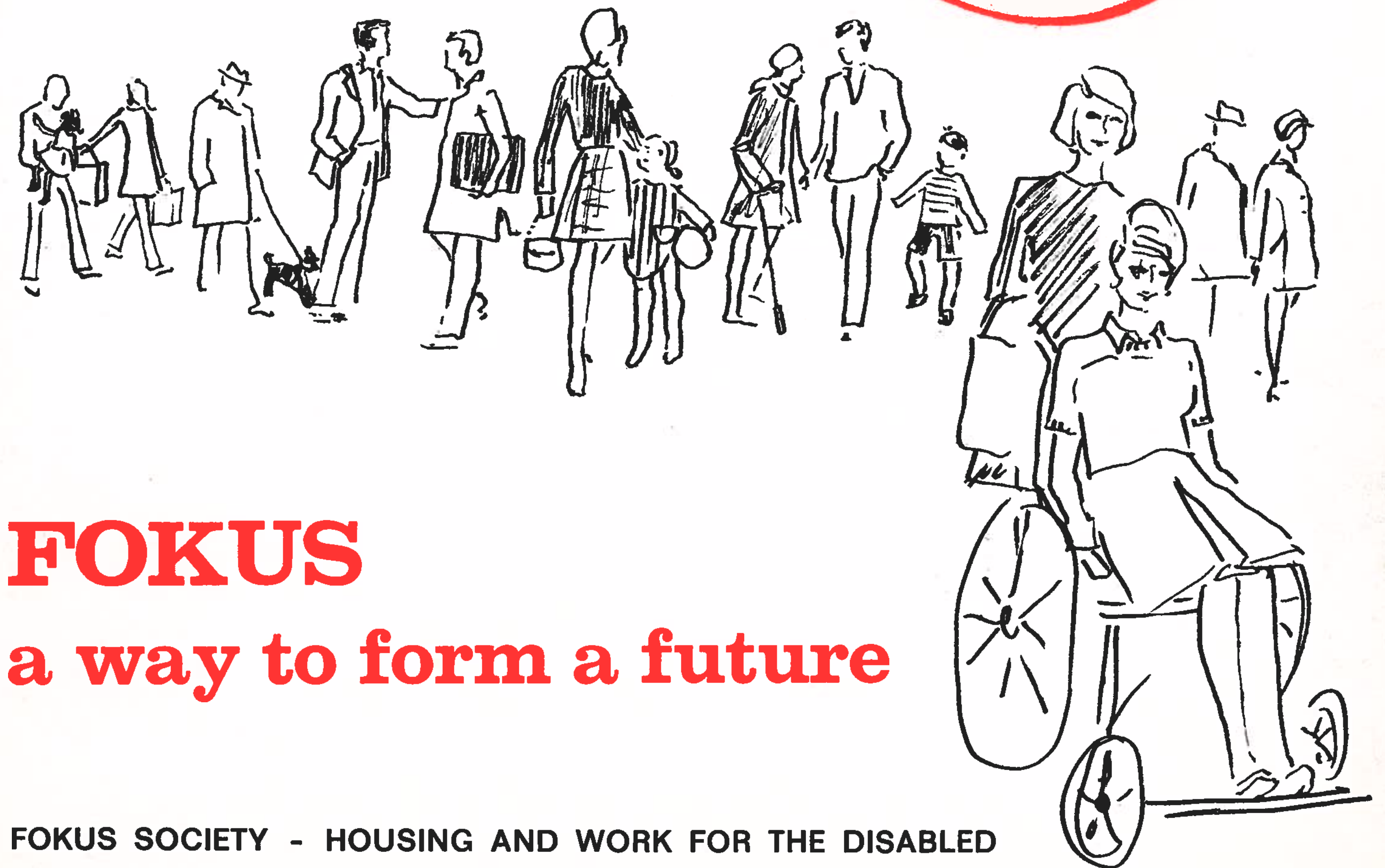
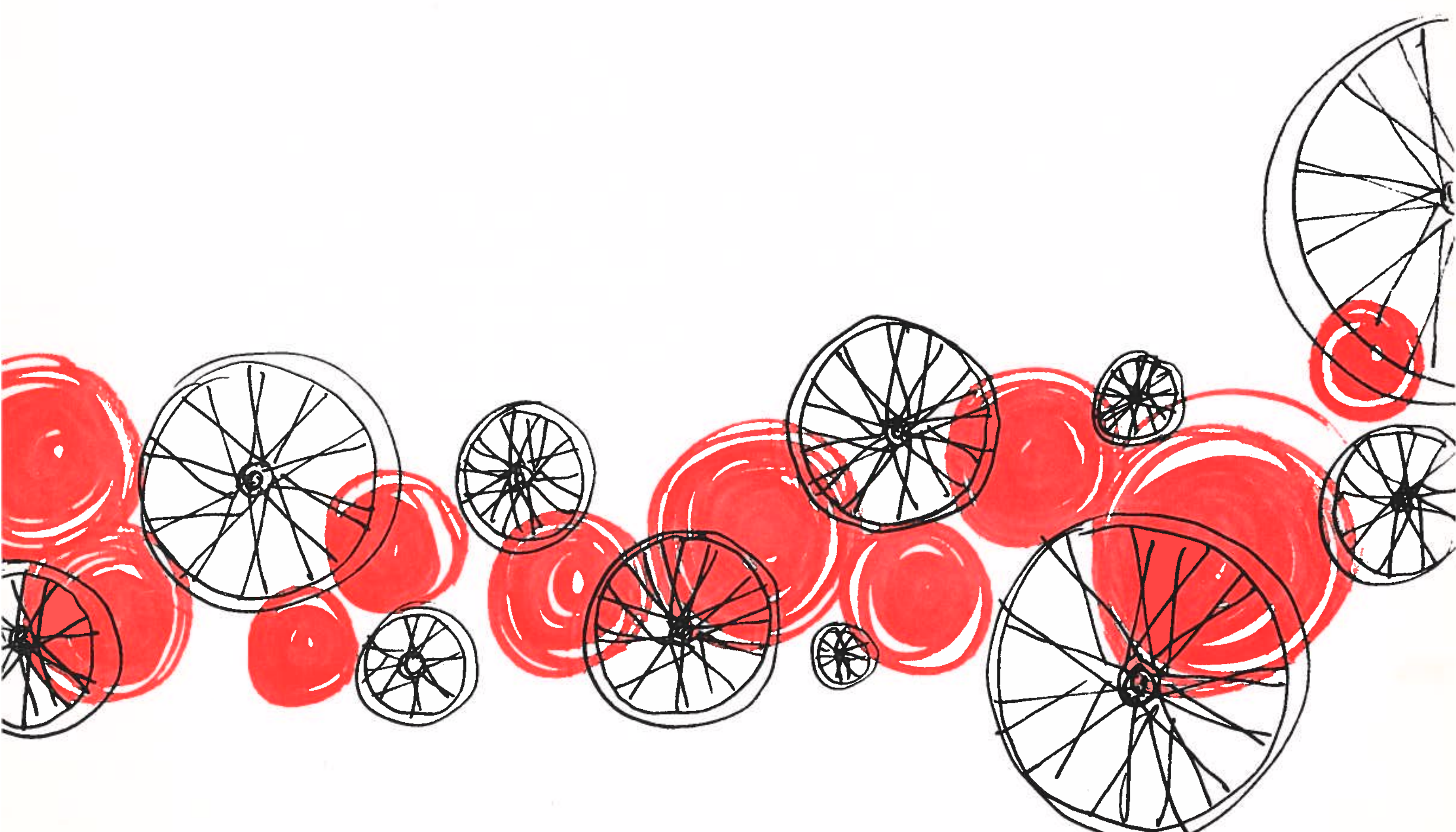


FOKUS

a way to form a future

FOKUS SOCIETY - HOUSING AND WORK FOR THE DISABLED



The Fokus Society, established in 1964, for the purpose of working jointly with state and county authorities to arrange housing for the severely disabled and to provide them with essential services as well as assist them in finding work and occupation.

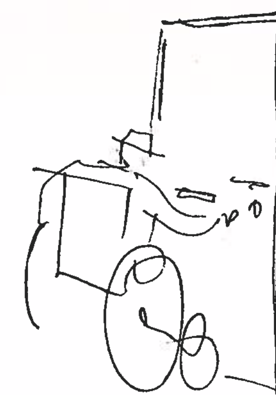
FOKUS — a way of life for living

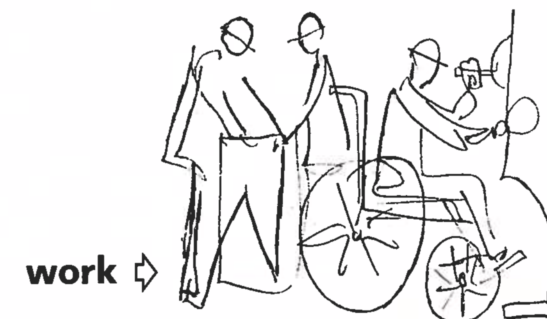
The disabled like everyone else longs to have his own home, to find work in a satisfying occupation and to enjoy usual free-time activities. A life of freedom and security despite his circumstances.

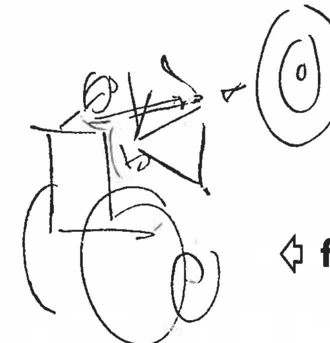
The Fokus Society supports these obvious statements and assists the severely disabled to achieve a good life. Thus Fokus activities expand the following principles or basic rights of the disabled:

- to live in a chosen geographical area
- to live under the same conditions and with the same opportunities as the non-handicapped
- to live in security with access to reliable personal service
- to have a choice of suitable occupation
- to enjoy satisfying free-time activities

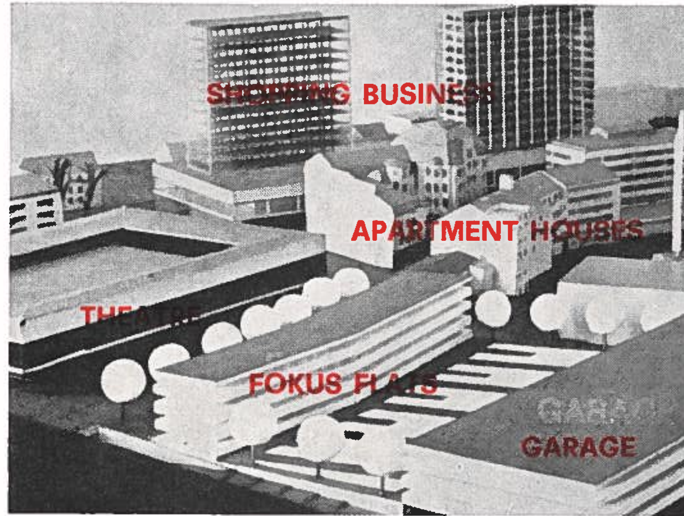
Providing the circumstances which permit the disabled to lead the active life offered by the Fokus program requires the intimate interaction of the community's different departments. Such cooperation involves solving the problems of self-support through work, of access to cultural activities and recreation and the concomitant transport requirements.







Fokus Flats

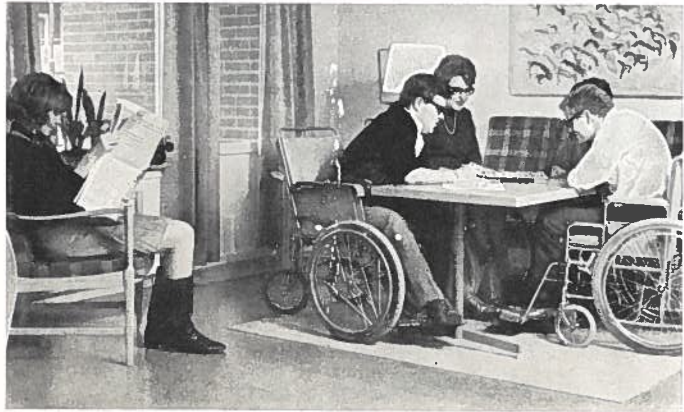


The Fokus flats are distributed in the regular housing near cultural and business centers in Örebro.

The flats are integrated in the central housing areas, which offers many advantages for the severely disabled. In particular it permits ready contact with the non-handicapped, opportunities to shop and work nearby as well as to participate in cultural free-time activities at will. Even the wheel-chair bound can lead a next-to-normal life.

Centralization into units within regular housing ensures the availability of personal service for the disabled and best exploits the resources of the Society. But category housing for the disabled with its unnatural milieu is strictly avoided. Experience has shown that 10—15 or 25—30 flats form the most workable unit size. The occupants of each unit have at their disposal a dining room with serving kitchen, a lounge and a hobby room, which is often also used for doing work in the home by some disabled who cannot work outside.

Specialized facilities are found, each with its tailor-made equipment, for example laundry, bastu, therapy, and bathing locales. Sometimes the houses provide swimmingpools and special services comparable to a small shopping centre.



Hobby-rooms and lounge offer companionship and relaxation.

The Fokus Society builds one, two and multiperson flats. One assumes that with support more and more disabled will have the chance to build a family.

The building as well as the individual flat is so planned that even the severely disabled can maximize thier capabilities. The furnishings and fittings in the flats are designed according to the Fokus principle of flexibility. This individually adapted environment supplemented by technical aids permits the disabled to capitalize their own potential and minimize the need of service.

Personal Service

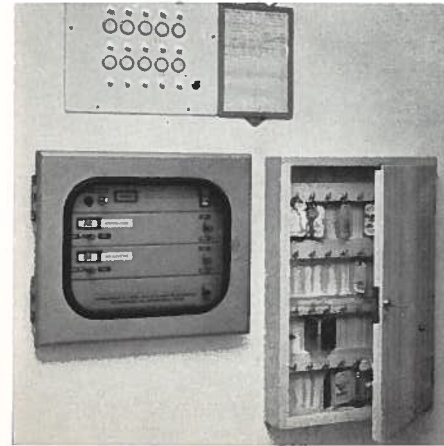
Many Fokus occupants formerly lived in nursing homes or relied on their relatives for help before Fokus flats were available. Now they live independently in their own homes which have been adapted to their individual needs. Not only the furnishings in the flats are personalized but each occupant's service needs, great or small, are fulfilled.

Even if the majority will manage almost everything themselves the entire scale of aid can be observed.

Many disabled need help with meals. These occupants eat in the communal dining room, or are helped with their shopping—even with the actual cooking or preparation of food.

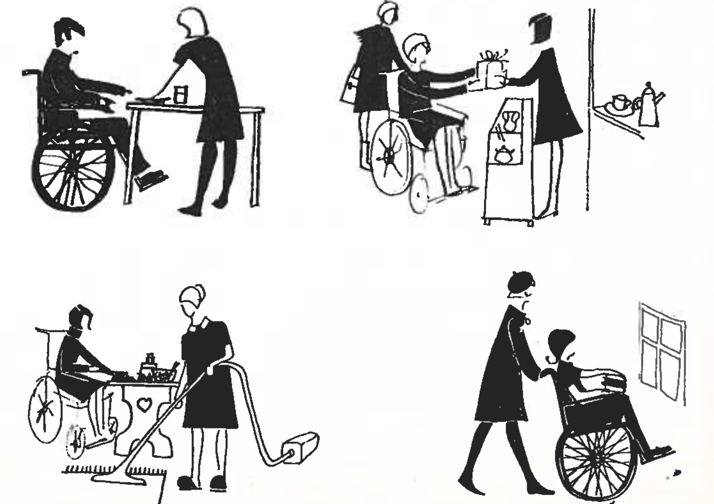
Personal hygiene and keeping fit are problems for many disabled, but Fokus personnel and technical aids in the physical training and bathing locales facilitate these necessary activities.

For safety and peace of mind signal and alarm systems are available in every room. It triggers an alarm in the duty room where someone responds day and night with immediate help.



These are the service controlles in the duty room.

Fokus occupants have around-the clock service.

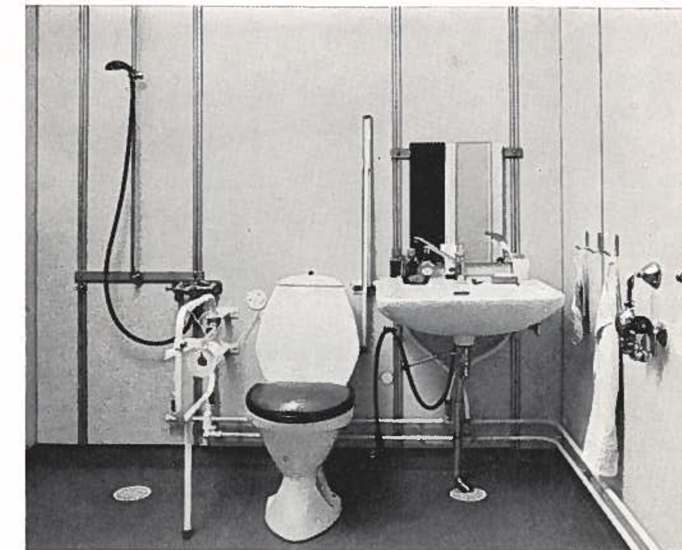


Flexibility of Furnishings

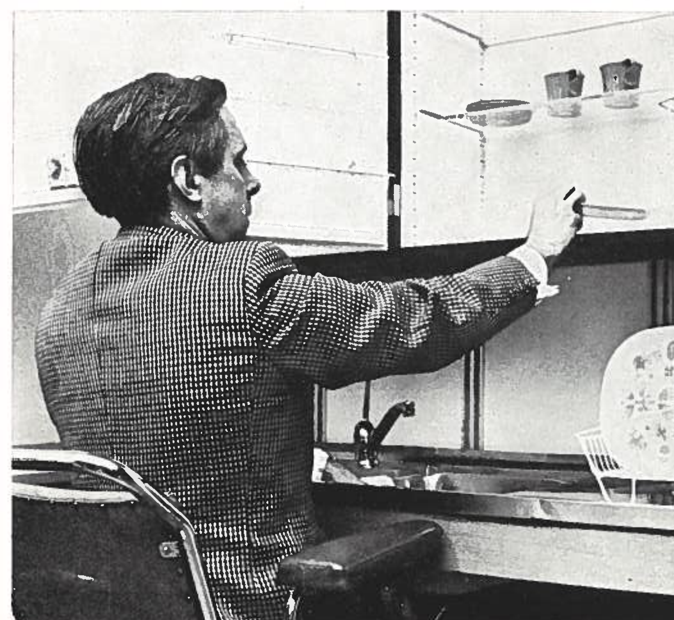
Flexibility not only entails cupboards and counters adjustable in height but also re-arrangement of fittings to fill exact needs, e.g. the hand basin and shower space are positioned in regard to the occupants' need to transfer to the toilet from the right or left side. The flats are equipped with specially designed cupboards and cabinets in which the wheel-chair bound can easily reach the contents.

The wall track and console system permits flexibility in outfitting the kitchen and bathroom. This Fokus principle permits ready, adjustment of cupboards, counters, sink or hand basin—to the ideal heigth for the occupant. Wheeled storage cabinets and drawers are easily moved aside when free space under counters, stove or sink is deserved.

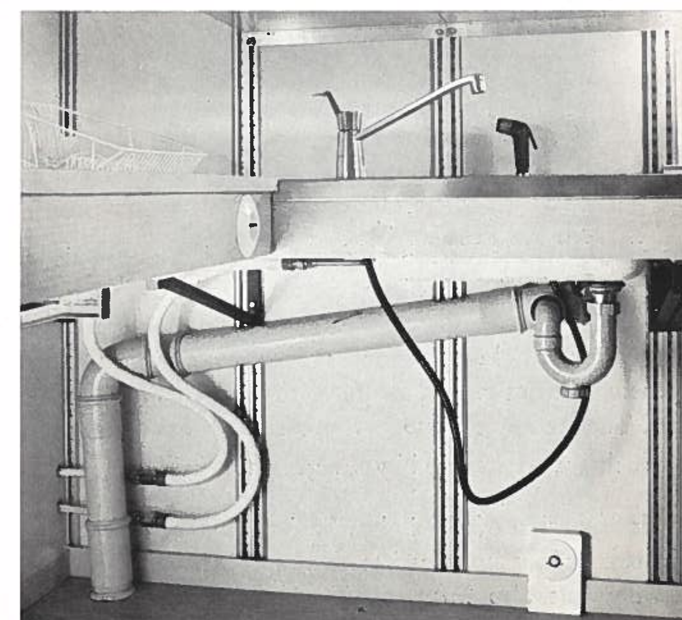
The cabinet and drawers on wheels grouped in a working unit give the disabled a chance to reach stove, water, groceries, utencils and waste bin without moving his chair.



The position of the shower and hand basin can be exchanged according to the need for sideways transfer from wheel-chair to toilet. The arm rest at the left can be swung to the side.



Wall cupboards, flexible in height, with small handy baskets on the inside of the doors. The watertap is easily manoeuvred with one hand and can be used by even the most severely disabled.



Water and drain are led to the side and don't obstruct the wheel-chair. Even the sink can be raised and lowered. The water supply hoses are flexible or fitted with telescopic sleeves like the drain. If one falls to the floor the signal button is handy.

Work Opportunities

A mighty important part of life is having satisfying work or occupation.

The Fokus Society accepts as one of its responsibilities the need to stimulate and support the disabled toward independence through work. Fokus units are built where employment, sheltered and open-market, exists for the disabled.

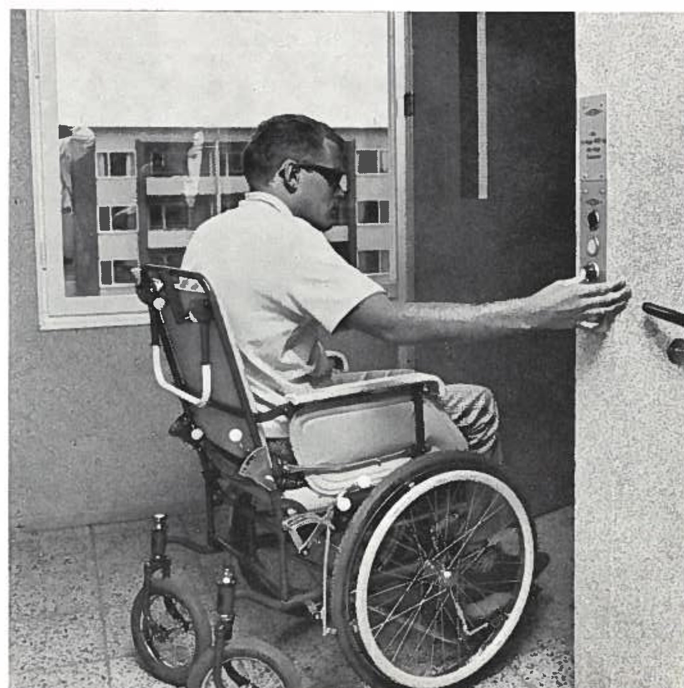
Hobby and occupational therapy locales in relation to the flats are another way the Society aids the occupants to find an outlet for work energy and creativity.

Communication is important. Radio and telephone for outside contacts, intercom for contact with service personnel and with the main entry. Switches for the lighting and an emergency signal are found at the bedside table. A smoke detector of fire is in the apartment.

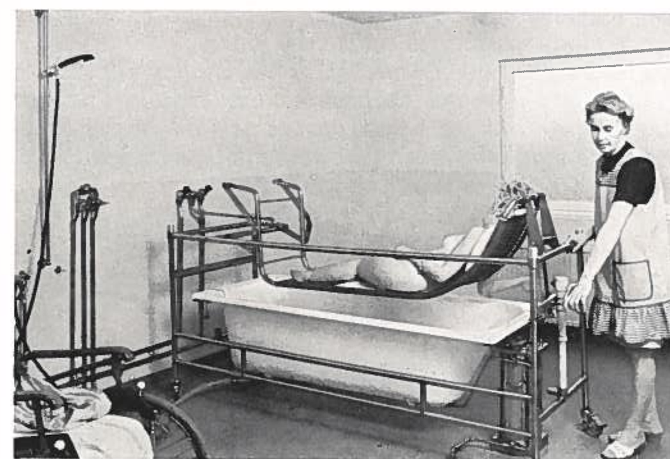
Fokus and the Occupant

The disabled hires his flat with the same lease conditions as anonyme else. The Society assumes that he, through his own employment or early pension, will be responsible for his own rent. Fokus guarantees the occupant that these expenses will not exceed 20 % of the disabled's gross income. The Society assumes responsibility for those expenses which are not covered by the general subsides.

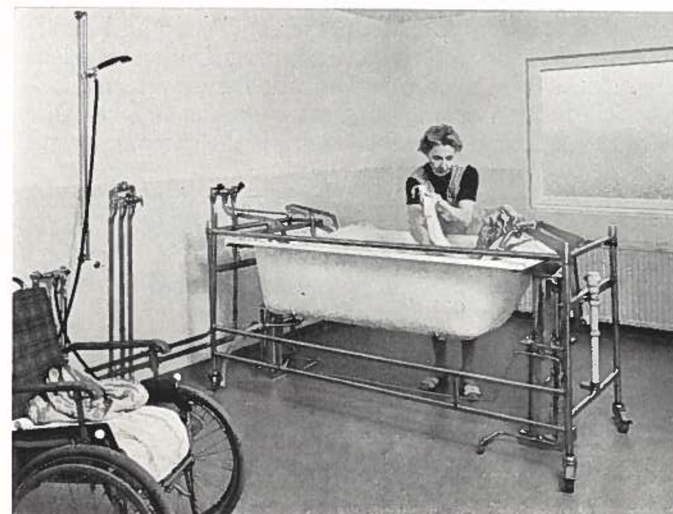
But the function of the Fokus Society in the community is broad. It not only assists the disabled with housing problems but also informs him of other compensating community resources and helps him surmount the inconveniencis which usually crop up before the disabled is fully integrated in the community.

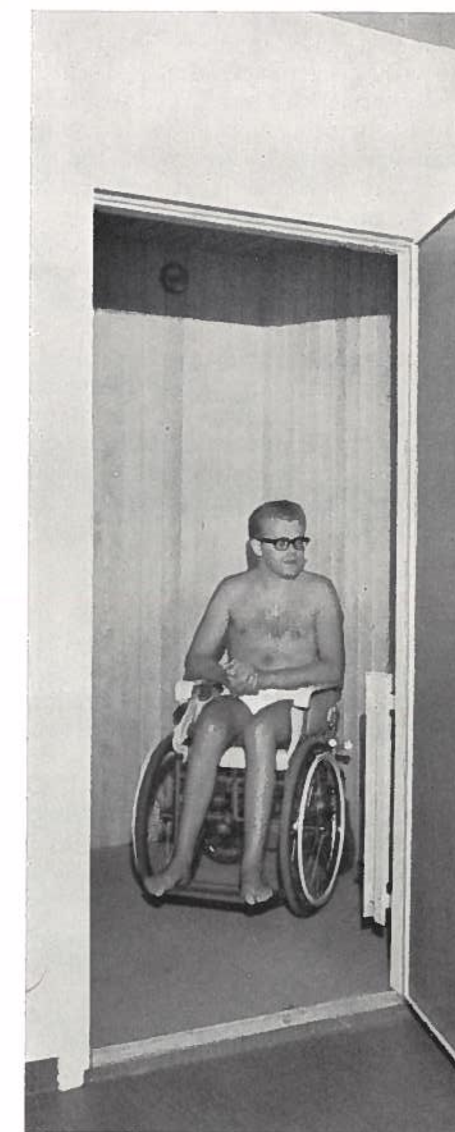


The disabled on his way to work via easily manoeuvred elevators with automatic door openers.



The special hydraulic lift raises the tub to a height convenient to the assistant. Such technical aids are also found in the physical therapy department.





Bastu bathing is suitable for many handicapped and is stimulating for the blood circulation. Fokus units offer this form of bathing and recreation for the occupants.

How did it all begin?

In the spring of 1964 two programs were sent on Swedish TV which aroused much attention. They concerned young people who were severely physically disabled because of Cerebral Palsy, polio, rheumatism, Disseminated Sclerosis, traffic accidents or other injury. These young people had a strong common desire: to be useful, but most of them were relegated to unemployment and isolation in their homes or in convalescent hospitals.
The programs produced a tremendous response from the Swedish public, and many persons telephoned spontaneously from all over the country asking how they could help.
The program contained, among other things, a proposal of Dr. Sven-Olof Brattgård at the University of Göteborg to improve the situation of the handicapped by organizing a society. Its goal should be to build, in conjunction with the city housing councils, suitably serviced housing and to assist in obtaining opportunities for work for the handicapped.

The Red Feather

In order to provide the economic support necessary for the Fokus Society to realize its aims the Swedish Radio and the Swedish Lions publicized and arranged a one-day collection for the benefit of the disabled in the name of the Red Feather in the spring of 1965.
The great collection day — April 3rd 1965 — culminated the Swedish Radio's and The Swedish Lion's all-out effort. TV started early in the morning with an entertainment program, and the radio presented, at regular intervals, reports of the sums obtained. In the evening a colossal collection program on TV was presented when people from all over the country telephoned in their contributions.
The collection results were far beyond all expectations. 12,000,000 Swedish Crowns were collected!

The Fokus society

This magnificient response provided the Fokus Society with the opportunity to tackle the job.
The steering committee of the Fokus Society consists of about a dozen representatives of the country's largest handicapped and aid organizations as well as the Association of Swedish County Councils. One of its first responsibilities was to start two projects.

Planning and research

An important question was: How many disabled need Fokus? The government could not say. In order to find out the Fokus Society started a study concerning the severely handicapped between 16 and 40 years of age. When the report was presented two years later it was seen that in all there were at least 1,000 such individuals in the country. Over and above this number there were doubtful border-line persons who also numbered at least 1,000.
Most of these were in need of personel help and service for a number of activities. The majority were wheelchair bound or in need of other aids for movement.
The main burden of care and management was borne by the relatives; home assistance through the community was available only exceptionally.
Another important question was: How to design the handicapped's apartment? Another research problem was to analyse how the handicapped functions in his home. From this analysis a research team elaborated a program for technically well-equipped, maximally flexible apartments. This program, which is be published separately, is today the basis for the planning of the Fokus apartments throughout the country. This research continues vigourously.

Fokus units are being built in

Falkenberg
Flats are planned in a centrally situated apartment house built by Hertigbostäder.

Kalmar
Flats were ready to take in use January 1968 in the Berga Gärde area.

Linköping
30 flats are planned in the Ryd area.

Luleå
Fokus is hoping to get flats in the central parts.

Lund
Flats are planned in a large service house in the Eka area.

Mölndal
Flats are being built in Toltorpsdalen close to the Göteborg border.

Skövde
Flats are being built in the block "Skattgården" in the central part.

Sundsvall
Flats will be built in the Nacksta area in a large servicehouse.

Täby
HSB are willing to let 15 flats in large building in Täby centre to Fokus.

Uppsala
28 flats are being built close to Kungsängstorg.

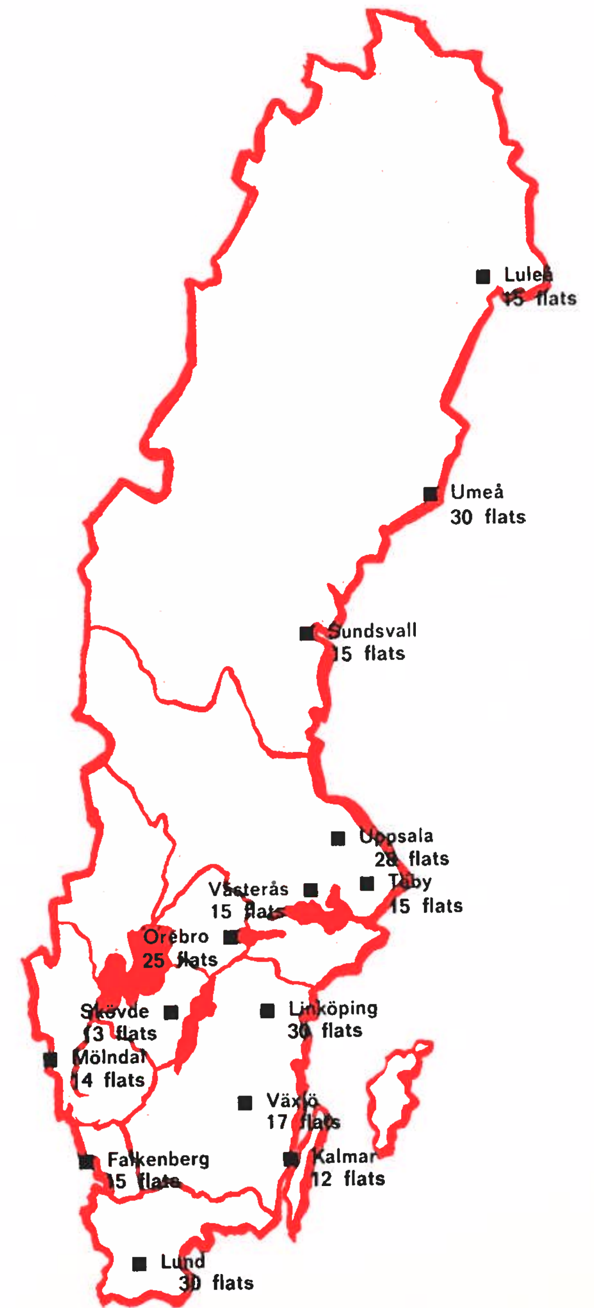
Umeå
HSB are willing to let 30 flats in an apartment house in the centrally situated block "Muraren".

Västerås
In the Bjurhovda area Fokus will hire 15 flats.

Växjö
17 flats out of 40 are planned for Fokus in Hov Västergård.

Örebro
25 flats out of 40 are planned for Fokus in a very centrally placed apartment house.

Sweden has a heavy concentration of population in the central and southern parts of the country. This explains the large number of Fokus units in these regions.



Social Rights in Sweden

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Occupational Health in Sweden
Public Health in Sweden
Services for the Handicapped in Sweden
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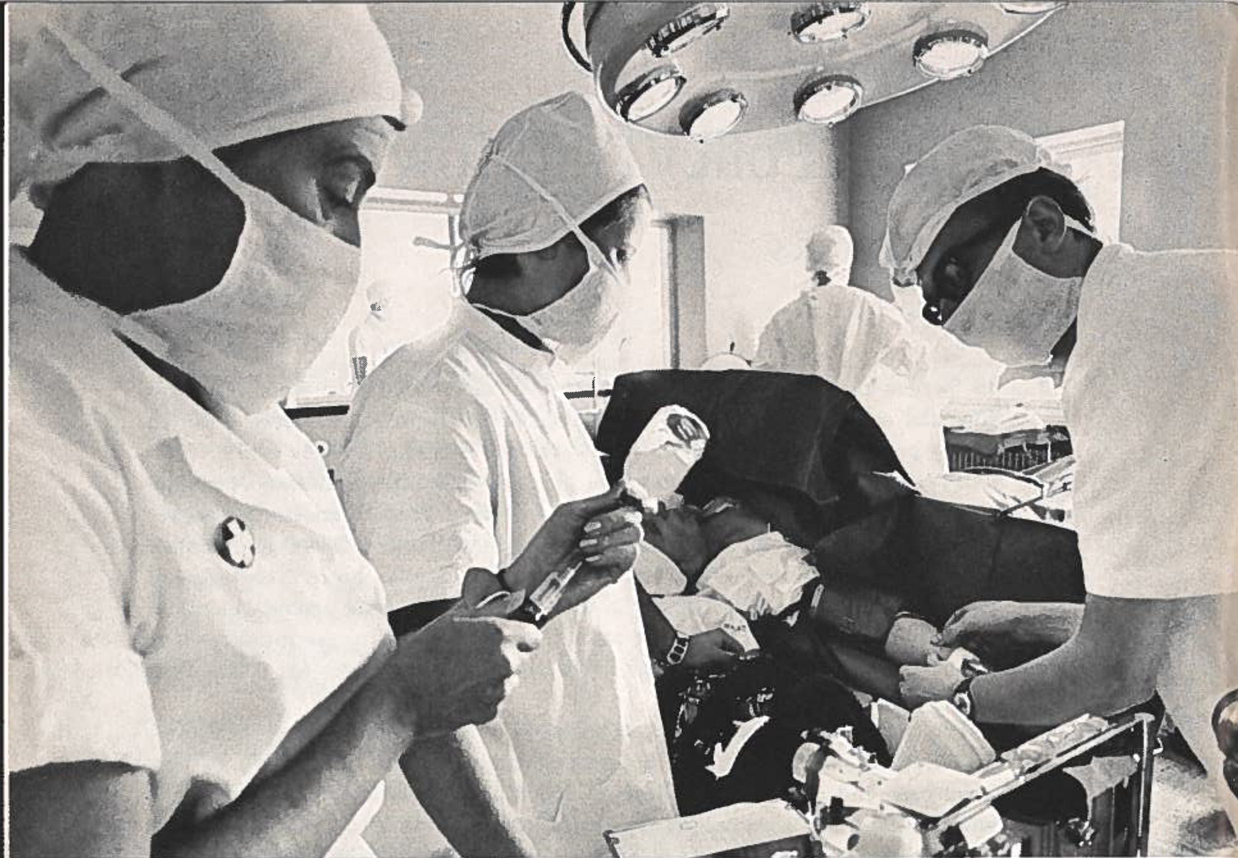
Social Policy and How It Works

by ÅKE FORS

In Sweden the state has assumed increasing responsibility for the individual's financial security in the event of illness, incapacity, old age, decease of the family provider, etc. Responsibility for personal care, for services, and for various types of preventive measures rests primarily with the communes, or municipalities, while responsibility for health and medical services rests with another type of local authority, the county councils. In all sectors, however, the state retains ultimate control as the legislating and supervisory body. Research and higher education are other sectors in which the state directly assumes the main responsibility. In many cases, the state financially supports the municipalities and county councils in respect of social and medical services for which they are responsible.

The emphasis in this booklet is mainly on central government measures, and thus on social benefits of a financial nature. The various forms of personal care and assistance provided by the municipalities and county councils are dealt with more summarily. However, no complete list of state grants and the terms on which they are given has been attempted. The object has been rather to offer a general picture of the social security system, and the level of the benefits received. A fair amount of space has been devoted to descriptions of how various measures have emerged, and the value judgements underlying their present structure.

This division of responsibility in the field of social services has an historical background. In mediaeval Sweden, it was the task of the church to care for the poor and the sick, even if the community as such probably played its part in practice even at that time. In the 16th century, at the time of the Reformation, when the state appropriated the property of the church, responsibility was assumed also for the latter's institutions for the care of the poor and sick. The state, however, soon found this an excessive burden, and transferred responsibility to the parishes. The King-in-Council decreed that each parish should maintain a home by the church and there "sustain its sick and support its poor". Such activities, which were naturally of the most primitive type, were financed by charity. Around the middle of the 18th century it was decreed that the parish's care of the poor and sick should be financed by local taxes.



Hospitals in Sweden are run by the county councils, which are responsible for both medical and health services.

The first hospital proper in Sweden, the Serafimer Hospital in Stockholm, was created in 1752. Originally it contained 8 beds, intended for patients from Sweden and Finland. By about 1800 there were 21 hospitals in Sweden. By this time there had emerged a certain division of responsibility, the counties answered for physical medical care at hospitals, while the state was responsible for mental care and the "open care" that was by then being provided by "provincial physicians", i.e. district medical officers, who offered health and medical services in their respective areas. The parishes answered for other care, i.e. mainly poor relief.

This division was confirmed upon the creation of the county councils in 1862, and subsequent changes have only increased the councils' responsibility

for medical services. In the 1960's, the 25 county councils and the three largest cities assumed responsibility also for psychiatric care and the system of district medical officers. Health and medical services are in fact the primary function of the county councils, claiming about 80 per cent of the funds the councils acquire via taxation and, in some cases, supplementary state grants. The fact that the county councils have been able to concentrate on this task is probably the main reason why Sweden has more hospital beds available per 1,000 inhabitants than other countries. Since hospital care is practically free, these resources are utilized to a high degree; this has led to an attempt to balance the central status of the hospitals by increased efforts in the field of open care.

That the municipalities and county councils are immediately responsible for the care of the individual, for social assistance, and for health and medical services, is generally regarded as a great advantage. Both the municipalities and the county councils are taxing authorities, and are entirely independent within the framework of the legislation enacted by the government and Parliament.

Medical and social services are administratively united in that both are led from the Ministry of Health and Social Affairs and the National Board of Health and Welfare, the latter being the chief administrative authority in this sector. This coordination at the top should lead in time to a closer coordination between medical services and social services at the local level.

Children in difficulties, alcoholics and their families, the partially disabled, old people who cannot manage on their own—all these have the right to assistance and care by the local authority. The municipalities also provide various types of service. They are responsible, for instance, for home help services for the aged and handicapped, and for families with children who require temporary assistance, e.g. if the mother falls ill, for homes for the aged, day nurseries, etc., and recreational facilities of different kinds.

There are hardly any private hospitals in Sweden. Social welfare services are provided by voluntary organizations only in the largest towns, and on a minor scale. The Red Cross is active to some extent among old people, the Link Society works among alcoholics, and various organizations promote different kinds of leisure activity. There exist some 20 national organizations of and for different groups with physical or mental handicaps. These organizations play a large and growing role.

The principles of Swedish social policy have been described for the United Nations as follows:

"*Social policy* is based on solidarity—solidarity between and within the generations.

We have in Sweden a system of general pensions for all citizens. Those of active age pay the pensions of those who have left gainful employment. We have general

children's allowances for all children and study allowances to all young persons who are studying. These allowances are paid by the active generation. When the children reach active age, they in their turn will pay the pensions of the next generation of pensioners. They will also be defraying the general children's allowances for the new cohorts of children, which in the future will have to pay their old-age pensions, and so on.

We also have a general sickness insurance covering all citizens. So long as we are healthy and able to work, we pay for the sick. And when we ourselves need support and care—for shorter or longer periods—then it is the others, those who are healthy and able to work, who have to pay for us. This can serve also as a description of the idea of solidarity within social policy as a whole.

In order to guarantee and maintain this solidarity, society must be provided with resources. One-sixth of the Swedish gross national income is set aside for social insurance, family benefits, medical care and social care. The costs are met from state and municipal taxes and social insurance fees, which can also be described as taxes. Prerequisites for this social policy are an active economic policy and full employment in the country."

The Swedish view is that everyone has the *right* to help from the community when they need it. Voluntary efforts can only supplement those of the community, and their value lies precisely in offering something beyond the routine. But charities must never be an excuse for public neglect, or delay efforts financed by taxation. Only public services based on public taxation can be the legislated right of all citizens.

The work of the municipalities has been facilitated by bringing them together into larger, more economically viable units. Even so, their economic capabilities still differ considerably. To level out these differences and make it possible for authorities of different types in different parts of the country to offer more or less identical social services, the state runs a tax equalization scheme by which "rich" authorities transfer tax revenues to the "poor" authorities. This is a form of solidarity between different regions. At present, more than SKr 2,000 million[1]) per year is transferred in this way. Certain municipal activities attract grants from the state. Special arrangements are made for municipalities in the northern rural districts that encounter difficulties owing to depopulation.

Many activities in this sector have been started on a voluntary basis and subsequently taken over by the public sector. Health insurance, for instance, was originally provided by various organizations, which in due course received assistance from the state. The greater such support became, the more their

[1]) Unless otherwise stated, information relates to the year 1972. 1 SKr (Swedish krona) = US $0.20 or £0.08 (approx.)

activities were coordinated and aligned, until health insurance became compulsory and the bodies concerned became in practice—if not formally—state organizations. The national supplementary pensions scheme has succeeded a variety of private pension plans, which, in so far as they are continuing, have been adjusted to the national system.

From poor relief to social insurance

The question of social legislation and the responsibility of society for the individual citizen was seriously broached shortly before the turn of the century. Discussion related to the possibility of creating other forms of assistance than poor relief.

Insurance systems were discussed; mainly whether or not they should be compulsory. The first act making employers liable for compensation in the event of serious industrial accidents was passed in 1901. The first compulsory insurance scheme, the old-age pension, was introduced in 1913. At that time, half the Swedish population was employed in agriculture. Both agricultural labourers and the majority of independent small farmers were faced with the same problems when age rendered them incapable of further work. For this reason it was preferred to create a *national* insurance, which admittedly offered only slight support even by contemporary standards, but which was still very important as being the first step along a new road. In the majority of Western European countries, social insurance has developed mainly as employee insurance, in close association with labour legislation. In Sweden, on the other hand, social security is based on the principle of public national insurance. Everyone has the right to compensation in the event of sickness, and everyone is entitled to a pension on retirement or, in the event of disablement or the death of the family provider, even earlier.

When the public sector began to try to create forms of assistance and provide social protection for its citizens, efforts were thus concentrated on finding generally applicable solutions. Two main approaches were adopted. The first, the preventive approach, was aimed at abolishing unemployment, preventing occupational injuries, and preventing disease through better housing and health services. The second line was to give support in cases where a need had already arisen. New and more rational methods of assistance were sought than the old poor relief, and they were found in the system of social insurance. Such insurance is designed to offer security in situations that are known to involve grave financial risks or strain for a large number of people, namely sickness, old age, disability, etc. The backbone of the Swedish social security system consists of insurances built up by the public sector or with its support. These are supple-

mented by various grants, which are designed mainly to cater to the special problems of families with children, and social assistance in individual cases.

In the thirties, the main concern was necessarily to find work for the unemployed. It also proved possible, however, to improve the old-age pension, lay the foundation of family support, and introduce a social housing policy. Further progress was made after World War II, with higher old-age pensions and the introduction of children's allowances. In 1955, a compulsory national health insurance scheme was introduced. In 1960, this was followed by the compulsory national supplementary pension (ATP). During the sixties, social insurance has been further expanded and co-ordinated. Special measures have been taken for rehabilitation and the support of handicapped persons. The growth rate is reflected in the budget of the Ministry of Health and Social Affairs, which has doubled in the past six years.

The Ministry of Health and Social Affairs handles national insurance—sickness insurance, basic pension and national supplementary pension—support to families with children, social services, health and medical care, social care, certain measures on behalf of the handicapped, occupational safety, etc.

Expenditures within the Ministry's sector during the fiscal year 1 July 1972—30 June 1973 comprise almost SKr 17,000 million, of which almost SKr 9,500 million for basic pensions. This is an increase in the national budget allocation by about SKr 1,860 million from the previous fiscal year.

This increase provides the free play for further improvements in important fields during the year. Efforts to improve the working environment are continuing. Increased resources are being allocated to occupational safety. The annual sum of the basic pensions is being increased by new increments and index adjustments. Care and services for the aged and handicapped are being increased. Grants for financial support to families with children are being raised. Public child minding services continue to expand. Medical resources are also being improved, primarily in the form of non-institutionalized care.

Committee reports on a number of important socio-political questions are expected in the course of 1972. The Commission on Working Environment is preparing new efforts to improve the working environment, partly by assigning increased influence in this field to the employees. The Commission on Sickness Benefits is investigating the possibility of making sickness benefits from the social insurance office comparable with taxed sickness pay from the employer. A draft dental insurance scheme is to be submitted by an expert committee. Following a decision by Parliament in the autumn of 1971 to extend greatly improved housing allowances to families with children, the Commission on Family Policy has included, in its final report, proposals on housing allowances to low-income groups without children. A thorough review of activities at day

Protective equipment at the place of work is ensured by legislation.

nurseries and playschools is being made by the Commission on Child Centres, which will consider activities for children of preschool age in its report this year. Also, the Commission on Social Welfare will present a basic report on the fundamental aims and organization of municipal social care.

From minimum benefit to protection of living standard

Social insurance in Sweden, the "national insurance", consists basically of four different insurances, namely sickness insurance, maternity insurance, the basic pension, and national supplementary pension. These have emerged one after the other, and are continuously being improved. They are now co-ordinated in a uniform and essentially simple organization.

The original idea of public national insurance was to guarantee all persons, regardless of income and employment, a uniform minimum standard. Subsequently, the more ambitious aim was adopted of supplementing this minimum protection with individually adjusted protection against loss of income. It is considered that an insured person who falls ill, becomes disabled, or retires from gainful employment by reason of old age should enjoy insurance benefits that will enable him by and large to maintain the standard of living to which he has previously been accustomed.

As indicated above, the state is responsible primarily for the financial support of general categories needing assistance, while the local authorities are responsible for personal services. The following information relating to handicapped persons will give a general picture of how responsibility is divided. The state provides advance pensions to persons suffering from 50 per cent or greater disability. The state pays the entire cost of technical aids such as artificial limbs, wheelchairs, etc., while the county councils answer for their distribution to the handicapped. The county councils are entirely responsible for medical rehabilitation, and organize also vocational rehabilitation with support from the state. It is the job of the municipalities, by active case-seeking, to make themselves acquainted with the needs of handicapped persons, and as far as possible meet them. The municipalities and counties, with some support from the state, run protected workshops for handicapped persons.

A number of organizations are active in this field, to promote the interests of different categories of handicapped persons, e.g. the organizations for the blind, the lame, the deaf, and the mentally retarded. As a rule, these organizations consist of both handicapped and non-handicapped persons. They function as pressure groups, and in most cases also collect funds. In the majority of cases they enjoy a certain support from the state and from the municipalities and county councils. It sometimes happens that such organizations start activities of an experimental nature, which are subsequently taken over and run by the public sector.

Municipal temperance committees exist for advice and assistance to alcoholics. Institutions for alcoholics are run and financed by the state.

The care of children and young people is a local matter, and is handled by

the municipal child welfare committees. In some cases, the state contributes to the municipality's costs. This applies, for instance, in the case of unsupported mothers, who are guaranteed a certain state support if the father does not meet his obligations in respect of maintenance. State grants are paid to the municipalities towards the building and operation of day nurseries. For socially maladjusted young people there are, for instance, state-run reform schools.

Steadily growing social responsibility

The state, as legislator, plays a central role in practically all fields of social policy. The duties of the county councils in the medical field are regulated by the Medical Care Act. Other acts regulate certain subsidiary sectors, such as the Act on Provisions for Mentally Retarded Persons, which lays down the duties of the county councils in this respect. The duties of the municipalities are stated in the Social Assistance Act, the Child Welfare Act, and the Temperance Act. Obviously, the municipalities have the right to go beyond what is laid down, for instance, in the Social Assistance Act. The individual, for his part, can appeal to a state authority if he considers that the municipality has not met the minimum requirements stated in the act.

Another way in which the state influences development is by awarding state grants. When the state wishes to stimulate or introduce a certain type of local authority activity, the effect is essentially greater if the state contributes at the same time to the costs involved. An example is care of the aged, where the state makes grants to the municipality to the equivalent of 35 per cent of the costs of home help. Another example is the state grants to municipalities for the construction and running of day nurseries.

The trend in Sweden has been towards a steadily increasing responsibility on the part of the community for the social security of its citizens, and for the provision of increased social services. The division of responsibility between state, county council and municipality is partly historically determined, but there is a clear tendency to give the municipalities—which are closest to the individual—the direct responsibility for individual care. Development has not rendered voluntary contributions superfluous. Such efforts are needed as a supplement to those of the community. Just as there is agreement today as regards the community's responsibility for social security, so too there is agreement as to the value of personal commitments and close personal contacts between different groups of people in the society.

Through the structure of its social policy, the public sector can be said to some extent to play the same role as an insurance company, namely to spread the risks. The national insurance provides support to those who are unable to

work by reason of sickness, age, or disability. This insurance is financed by those who are at work. The object of family policy is to insure families with children a standard of living that does not deviate excessively from that attainable by population groups not directly responsible for supporting children. In this way, even those who do not themselves have children under 16 contribute to the children's support. The sums transferred between different groups of the population in this way are very large. Including health and medical services, aggregate social services claim more than 18 per cent of the Swedish gross national product.

The effect of social policy on the distribution of income in Sweden has not been scientifically charted. It is clear, however, that it has a considerable levelling-out effect, by virtue of the emphasis on "basic security" in the social insurance system, by the support given to families and by free medical care.

All political parties in Sweden have endorsed this social security system. Various demands have been made for further improvements. Even if Sweden is in many respects one of the world's most advanced welfare societies, and has a correspondingly high level of taxation, the general opinion is that much remains to be done to improve both social security and social equality.

The need for security increases with affluence

The expansion of the social services system has afforded an experience that would previously have appeared paradoxical, namely that the individual's demand for security and social care rises with his affluence. Once a high standard of living has been achieved, there is more reason to aim at greater security rather than further increases in standard. The man who has much to lose has correspondingly much to protect, and he wants a guarantee that he will not find himself in financial difficulties that may devastate his home and family life. This is confirmed by the way in which the scope of supplementary insurance policies provided by private companies has increased parallel with the development of national insurance. We can also say that the general view of social security has altered. Previously, such measures were regarded purely as a burden on the economy of central and local government. Today, social policy is regarded as an important positive factor in that it offers the individual not only greater security but also a greater chance of making an active contribution in production and the life of the community. In other words, it is considered that social policy pays off in the national economy.

Care and support during sickness

Swedish medical care is organized and paid for predominantly by the public sector. By the terms of the Medical Care Act, the county councils shall provide

for those domiciled in their areas both non-institutionalized and institutionalized care for diseases, injuries, physical defects and childbirth. The county councils run their health and medical services independently, exacting taxes for this purpose from the local population.

Non-institutionalized medical care is usually the responsibility of district medical officers. To an increasing extent, these are now being brought together at multi-practice medical centres. Specialized open care is usually assigned to out-patient departments at hospitals. There are a fairly considerable number of private medical practitioners in Sweden, predominantly in the larger towns.

Preventive care, care of infants, and such medical care as can be provided in the home is given by district nurses. The county councils also provide maternity and child care at maternity and child care centres.

Institutionalized medical care is provided at the county council hospitals. Each county council has at least one specialized central hospital, plus other hospitals, mental hospitals, obstetrics departments, nursing homes for mainly older patients, cottage hospitals, etc. Highly specialized care is provided by regional hospitals, run jointly by several county councils. One regional hospital is also run by the state.

In-patient hospital care is free to the patient, except that the patient's sickness benefit is reduced by SKr 5 per day which the insurance office pays directly to the hospital. Old-age pensioners receive free care for one year, after which they pay SKr 5 of their pension per day.[1]) The actual cost of care, which in some cases amounts to several hundred Swedish crowns per day, is thus defrayed mainly by tax revenues.

The Swedish national insurance is compulsory and covers all persons over the age of 16 who are resident in the country, and their children.

A person who falls ill and visits a doctor within the non-institutionalized public system (a hospital physician, district medical officer, or doctor on call) pays SKr 7 if he calls on the doctor at his surgery, SKr 15 if the doctor visits him at home.[2]) The social insurance office does not reimburse this charge, but pays the rest of the cost of the visit directly to the responsible authority (usually the county council).

For the above-mentioned fee the patient will also receive any X-ray and laboratory examinations. The fee also covers referrals, prescriptions, and medical certificates for the purposes of sickness benefit. If the patient requires a whole series of X-ray or radium treatments, he will also receive these without further cost. If, for instance, the patient is referred by a district medical

[1]) A proposal has been put forth to raise these amounts to SKr 10 as from 1 January 1973.

[2]) A proposal has been put forth to raise these amounts to SKr 12 and 20 respectively as from 1 January 1973.

officer to a specialist at a hospital department, he will not be required to make any further payment for his first visit to the specialist. Further visits to a doctor are paid for as new visits.

A person using a private practitioner pays the doctor's entire fee. He then presents the receipt to the insurance office, which will reimburse him to three quarters of the total cost in accordance with a special list of charges. A state commission is currently reviewing the question of reimbursement to privately practising doctors, and the possible co-ordination of their activities with public non-institutionalized medical care.

Travel to a doctor is reimbursed by the insurance office, except for SKr 6, which the patient himself pays. Patients must travel in the cheapest manner possible in view of their medical state. Those who are hospitalized receive back the entire cost of travel.

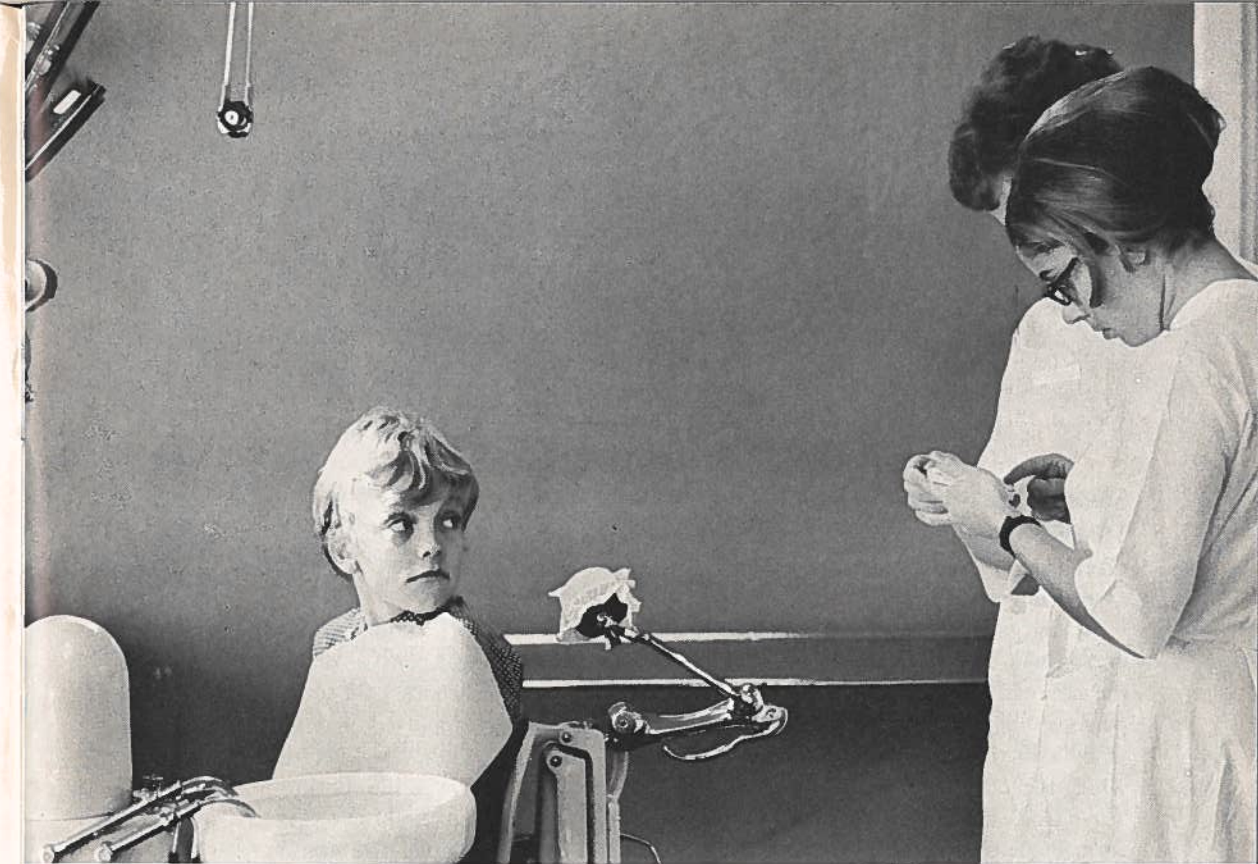
A person who falls ill and reports his illness to the social insurance office receives a sickness benefit, which is designed to compensate him for loss of income during his illness. The amount of sickness benefit thus depends on the income lost. Housewives (and men of equivalent status), who do not lose any income, receive a basic sickness benefit of SKr 6 per day. There is also a possibility for housewives and students, to obtain for a small charge supplementary, voluntary insurance, giving them a total sickness benefit of maximum SKr 15 per day.

Under the rules applying in 1972, each insuree is assigned to a sickness benefit class related to his normal income. Sickness benefit is tax-free, and adjusted to give the insuree about 80 per cent of his income after tax. In the course of 1972, a committee will be proposing an increase in sickness benefit, to bring it roughly to the level of sickness pay. Such benefit will then be taxed according to the same rules as ordinary earned income.

The sickness benefit is paid from and including the day after that on which illness occurred. The benefit is paid for as long as illness entails loss of working capacity. (When half working capacity is lost, then half sickness benefit is paid.) A person who is ill for more than one week is required to show a medical certificate. The sickness benefit is paid for an unlimited period, but in cases of prolonged illness can be replaced by a disability pension from the national basic pensions scheme. A person of 67 or more loses the right to sickness benefit once he has received such benefit for 180 days subsequent to his retirement.

Sickness benefit in cases of occupational injury is paid in essentially the same way.

The health insurance system also pays for or subsidizes medical preparations. Those suffering from certain serious diseases receive their medicine free of



A special organization, the national dental service, provides dental care for children.

charge (e.g. insulin). In the case of other preparations prescribed by a doctor, the general rule is that the pharmacy will give a rebate so that no one need pay more than SKr 15, regardless of how much the preparations purchased on any given occasion actually cost. The pharmacy receives compensation from the health insurance for its rebates, and for free preparations.

Dental care required by reason of illness is reimbursed to 3/4 of the cost. Expectant mothers, and those who have just given birth, receive compensation for dental care to 3/4 of the cost, in accordance with a special list of charges.

The county councils provide care under the national dental service, which primarily covers children between the ages of 6 and 16, in certain cases 3 and 5. These are treated free of charge. Adults, too, can receive dental care in so far as resources are available, paying in accordance with a special list of

charges. In 1970, about one million children and over half a million adults were treated under the national dental service.

A proposal on dental insurance is to be presented to Parliament in 1973. A commission is currently studying how a practical insurance scheme of this kind should be structured. A necessary condition for dental insurance will be the reinforcement of the national dental service's resources.

Health insurance is financed partly by contributions from insurees, partly by employers' contributions and state grants. National health charges are included on the individual's tax bill, and paid in conjunction with income tax. Charges vary, in that a higher sickness benefit class entails a higher contribution.

Measures on behalf of the aged

Modern care of the aged can be said to have three main functions, namely to offer elderly people financial independence, good housing, and such personal care as may be required.

By and large, it is the state that answers for financial support to the aged. A person who has reached the age of 67 is entitled to an old-age pension under the national basic pensions scheme. This pension is a basic benefit paid to all persons, regardless of previous earned income. Gainfully employed persons enjoy also the right to a national supplementary pension (ATP), the scale of which is related to previous earned income and number of years in the scheme.

As from July 1972, the basic old-age pension is approx. SKr 7,400 per year for a single pensioner, and almost SKr 12,000 for a married couple. The sum is index-adjusted, and rises with the general cost of living. Pensioners who have only the basic pension, or a low national supplementary pension, receive certain standard annual increments as decided by Parliament.

Approximately half of all pensioners receive housing allowances to supplement their old-age pension, these being subject to a means test. The sum in question is determined and paid by the municipal authorities, and covers to an increasing extent the actual housing costs of pensioners. A person living exclusively on the basic old-age pension plus housing allowance is not required to pay any income tax. Additional incomes of up to SKr 2,000 per year are also exempt from tax.

If the wife of a pensioner has reached the age of 60, she can obtain (subject to a means test) a wife's allowance from the basic pensions scheme, the allowance plus the husband's pension bringing their total pension up to the sum paid to two married pensioners.

The old-age pension can be increased, for instance, by children's allowances and disability allowances.

A person who by reason of a lasting illness or handicap has completely lost his working capacity is entitled to a disability pension from the national basic pensions scheme. The full disability pension is equivalent to the old-age pension paid to a single person. If working capacity has not been entirely lost, a disability pension of 2/3 or 1/2 of the full sum can be paid. Housing and disability allowances can be granted with an advance pension. The right to a disability pension has now been extended to cover also elderly employees who have reached the age of 63, and who are unable for physical or mental reasons to cope with their work, and cannot be offered suitable work in their district of residence. The same applies to persons of this age who have lost their jobs as the result of shut-downs or similar, and cannot obtain new work locally.

The national basic scheme provides also a widow's pension, which is normally equivalent to a disability pension, and a children's pension to children under 16 who have lost one or both of their parents.

The national basic pension is the same for all. The national supplementary pensions scheme introduced in 1960 provides a pension related to the individual's previous earned income. The size of pension depends also on the number of years (after 1960) during which the earner has been credited for this pension. The amount of annual income qualifying the earner for pension is determined by the tax authorities on the basis of his tax declaration. No annual income in excess of SKr 55,000 is credited for pension purposes however. The pension sum is protected against loss of value by index regulation to the cost of living. As with the national basic pension, the retirement age is 67. The national supplementary pensions scheme is in principle compulsory, and covers both employees and self-employed persons.

By about 1980, when the system is fully in force, the national supplementary pension plus basic old-age pension will give a pensioner on average about 2/3 of his previous earned income. However, the combination of the two types of pension means that the level of compensation will be over 2/3 in the lower income brackets, gradually falling in the case of those who have had higher incomes. The structure of the pensions system is based on the idea that the insuree should have an opportunity on retirement to enjoy by and large the same standard of living as previously. It is also desired to achieve a certain levelling effect, by ensuring low earners a reasonable level of pension.

To be eligible for a full supplementary pension, the main rule requires 30 years of qualifying earned income. In 1960, however, when the national supplementary pensions scheme was introduced, it was decided that a full retirement pension would be offered from the year 1980, i.e. after only 20 years. This means more favourable rules for persons born previous to 1924. Persons born before 1914 receive a reduced supplementary pension as follows: the

1913 annual cohort receives 19/20 of the full pension, the 1912 cohort 18/20, etc. Persons born 1895 or earlier receive no national supplementary pension.

The right to a national supplementary pension can be earned in different employments. The insuree is thus not tied to any specific employer. In the case of employees, charges are paid by the employer. (Self-employed persons pay their own contributions.) The employers' contributions are calculated according to the average number of annual workers in the company; the charge is in no way related to a specific individual. We thus have a collective charge made to a pay-as-you-go system, in which the charges exacted in one year in principle pay the pensions for that year. During the current period of construction, however, the sum total of charges is much higher than the payments made, creating within the system a large buffer fund which amounts as of 1972 to almost SKr 50,000 million. This fund is of great importance on the Swedish capital market, as an instrument for saving and lending.

As with the national basic pension, the national supplementary pensions scheme provides for a disability pension in cases of disability, a widow's pension and a children's pension. These benefits too are related to the previous level of income.

While roughly one million Swedes draw a national basic old-age pension in 1972, some 300,000 are receiving an additional pension from the national supplementary pensions scheme.

The majority of white-collar workers, and blue-collar workers employed by central and local government authorities, retire before the age of 67, by agreement with the employer. For these groups, the retirement age is usually 65. In these cases, the employer pays the pension from 65 to 67, after which they are incorporated in the national system. Against this background, a state commission is currently considering the question of lowering the general pensionable age. The same commission is considering also a flexible pensionable age.

As in most countries, the number of old people in the Swedish population is increasing. To give an example, there were in 1940 about 600,000 persons in Sweden over the age of 64, while the present figure is almost double this. The proportion of old people has risen in the last 30 years from 9 to 15 per cent and the increase is continuing. This places a great burden on public care for the aged, and it has not always been possible fully to meet requirements in spite of considerable efforts.

The general thinking in Sweden is that old people should be offered an opportunity to remain in their homes, in their accustomed environment, as long as they can manage. Only when the requirement for care reaches a stage at which it cannot be met by assistance in the home should the question of institutional care arise. In accordance with this view, the public sector supports the

Gymnastics and other activities for pensioners are arranged by both the municipalities and the pensioners' own organizations.

improvement of old people's housing and makes assistance in the home available.

A pensioner living in a poorly equipped dwelling, and unable to improve it by his own resources, can obtain state support for limited improvements, including water and drainage facilities, water-closet, heat insulation, heating facilities and improved kitchen equipment. Since 1964, over 100,000 dwellings mainly in country districts, have been improved in these respects.

For the old and handicapped to be able to continue living in their homes, even when they have wholly or partially lost the capacity to perform daily routine tasks, the municipalities have organized assistance in the form of visitors or "Home Samaritans". The state helps to finance such services, by paying 35 per cent of the municipalities' actual costs. The tasks of a Home Samaritan include assisting with shopping, cooking, cleaning and other domestic tasks. Severely sick or handicapped old people can receive assistance every day, others perhaps need help only once or twice a week. Those living exclusively on the basic old-age pension receive such help free of charge. Others pay a small charge, which is related to income. The scale of assistance in the home has steadily increased. The number of old and handicapped people receiving such help is estimated at present at about 300,000. The number of Home Samaritans is estimated at about 80,000, many of them housewives working part-time.

New types of activity have developed during the sixties, including car-borne "home care patrols" for effective short-term duties in the home. Certain rural districts are trying out a system by which Home Samaritans are equipped with vans, so that they can provide more efficient and extensive services to old people in isolated places. Such activities as the distribution of precooked food, pedicure, hair dressing, laundry and bath services have also developed very considerably in recent years. Efforts are also being made to give old people increased access to the stimulation involved in personal contacts, cultural events, different forms of occupation, and entertainment. The pensioners' own organization (for "profit and pleasure") has over 250,000 members throughout the country. Various organizations, including study associations, arrange activities for pensioners.

The responsibility of municipal authorities for the care of the aged includes also the provision of homes for those in need of such care and attention as these can provide. Sweden has at present some 1,200 homes for the aged, with a total of about 63,000 places. These provide predominantly for persons of advanced age, over half of those living there being over 80. The more recently built homes are acquiring to an increased extent the character of open institutions, with "day centres" for pensioners living in the area; the boundary between these and service flats is in some cases very fluid. The pensioners pay a charge to the home from their pension and any income, but are guaranteed 30 per cent of their pension and other income for their own use.

The responsibility for old people requiring continuous hospital care rests with the hospital authority, usually the local county council. Above and beyond the care given to old people at hospitals for acute diseases, nursing homes and departments for chronic cases have been set up to cater primarily for the elderly. The total number of places available at nursing homes is at present about 46,000. A further 2,000 places or so are available at the departments for chronic diseases. The development programmes of county councils now give priority to these forms of care.

Old people in need of medical attention (non-acute), and who can be offered suitable care at home, are eligible for "home medical assistance" under the auspices of the county council. Such care can be given by a relative or other person, in both cases with a nursing grant from the council.

Support to families with children

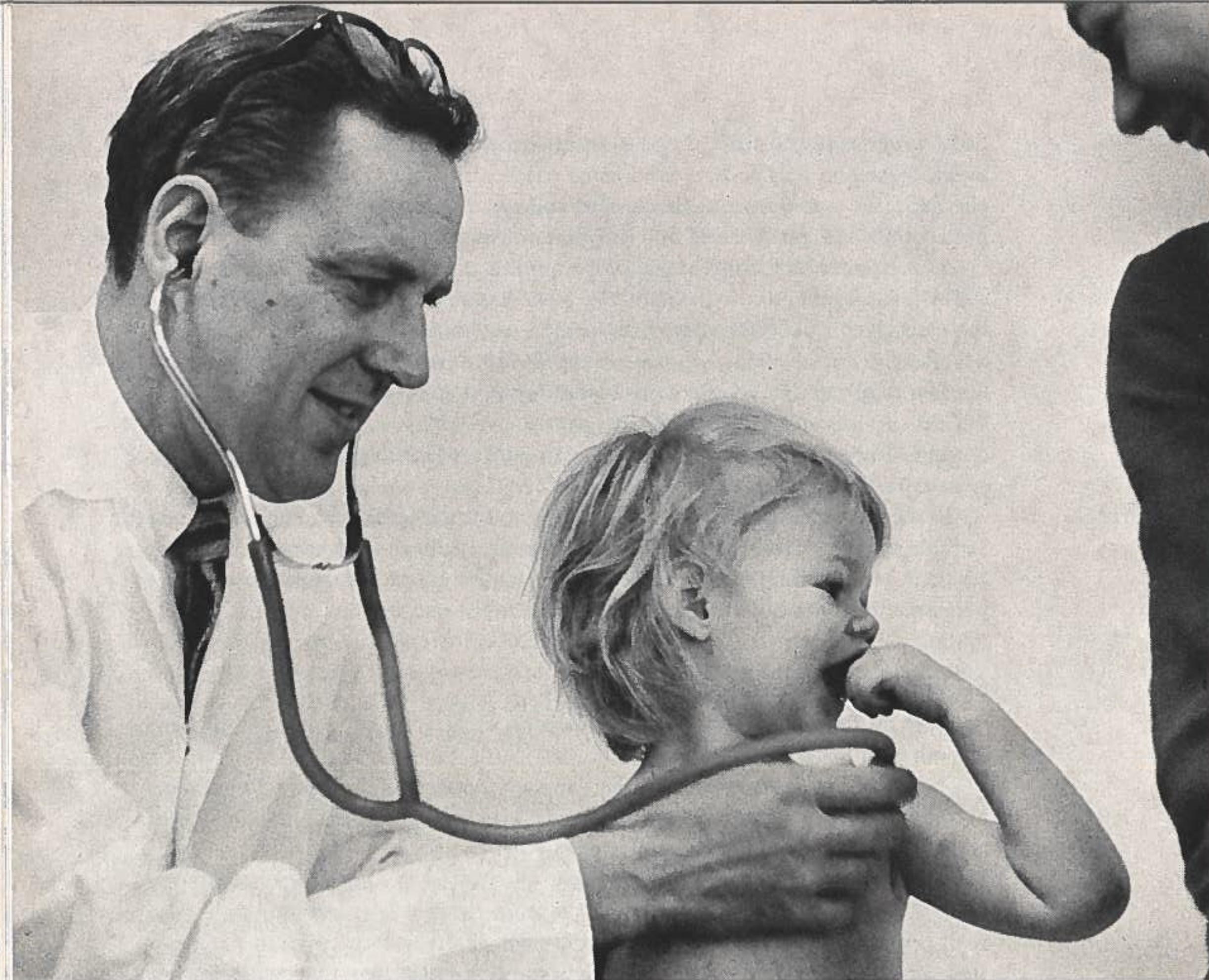
Support by the public sector to families with children is provided in the form of both cash benefits and services.

The main form of financial support to such families is the general children's allowances, which comprise SKr 1,200 per year for each child under 16. These allowances are paid quarterly, and are tax-free.

Central and local government housing allowances are an important supplement to the children's allowances for families with a low income, and those with several children. Almost half of Swedish families with children receive a state housing allowance, to a varying sum. It is estimated that some 90 per cent of single parents receive such an allowance. Housing allowances are subject to a means test, and can be paid to families with one or more children under 17 living at home.

The state housing allowance is SKr 75 per month for each child. The full grant is paid if the family income is about SKr 20,000 or below. A family in this income bracket with four qualifying children will thus receive SKr 300 per month in state housing allowance. The sum is reduced as income increases, ceasing entirely in the case of a family with only one child and an annual income of SKr 27,000. In the case of a family with four children, the corresponding limit is SKr 39,000.

Municipal housing allowances—the state makes a grant covering 60 per cent of the municipality's actual costs—are designed to relieve the situation of



A check on the children's health is kept by the Child Welfare Centres.

families with high housing costs, e.g. in recently built housing. These allowances cover 80 per cent of the cost of rent above SKr 400 per month to a certain upper limit. A family with four children, if it qualifies for such a grant, can obtain a maximum of SKr 320 in municipal housing allowance. In such a case, the total monthly sum received in state and municipal housing allowances can reach SKr 620.

The national insurance system incorporates numerous features dictated by family policy. Every woman giving birth to a child is entitled to a maternity

benefit of SKr 1,080 (SKr 1,620 if she has twins). The maternity benefit is designed mainly to cover expenditures on new items necessitated by the birth of a child.

In order that gainfully employed women should be able to afford to be absent from their work in connection with childbirth, they receive a supplementary sickness benefit from the national insurance. This is according to income, and is paid for as long as the woman refrains from gainful employment, to a maximum of six months. Such compensation is paid according to the rules for the ordinary sickness benefit, although it is somewhat lower than this.

A woman cannot be dismissed from a steady job by reason of her becoming pregnant, or giving birth to a child. She also has the right to six months' leave of absence in connection with the birth of a child.

The mother receives free advice and care at the maternity centre, both before and after delivery. Obstetric care is free. Practically all Swedish children are born in hospital. 90 per cent of expectant mothers make use of the maternity centres, and almost 100 per cent of the children are given check-ups at these centres during the first year. The frequency declines as the child grows older, so that a general 4-year check-up is now being introduced.

To facilitate initial home-making, loans for young couples are available to a maximum of SKr 6,000. Unmarried mothers or fathers with the custody of a small child can also obtain such a loan, to make a home for themselves and the child.

If a child's parents are separated, the parent who does not have custody of the child normally pays maintenance. To prevent the child from suffering if the person required to pay maintenance fails to meet his obligations, the community pays an "advance maintenance grant" amounting to approx. SKr 3,000 per year. A child welfare officer is usually appointed to assist single mothers. Single persons with the care of children also enjoy certain tax relief.

Financial protection on decease of the bread-winner is provided by the national insurance.

Widows with custody of a child under 16 receive under the national basic scheme a widow's pension, which is identical to the old-age pension paid to a single pensioner. The widow's pension is paid without a means test to women widowed after 30 June 1960. If the husband died previous to 1 July 1960, the size of the widow's pension depends on her income. The national basic pensions scheme also provides a childrens' pension of about SKr 2,000 per year for each child under 16 who has lost its father or mother. The widow's pension and children's pension under the national basic scheme are often supplemented by corresponding pensions under the national supplementary pensions scheme. Such pensions, which are related to the deceased's previous income, are based

on the deceased's estimated or actual own pension under the supplementary scheme. If a children's pension is also paid, the widow's pension is 35 per cent of the husband's pension. A children's pension under the supplementary scheme is paid to any child of the insuree under 19. If a man leaves a widow and a child entitled to a pension, this pension is 15 per cent of the father's own pension.

The national basic pensions scheme further provides a disability allowance payable to any severely handicapped child under 16. This grant, about SKr 4,500 per year, is paid in principle only if the child is looked after at home.

Families requiring temporary domestic help—e.g. if the mother falls ill—can receive assistance from municipally employed Home Samaritans. The fee charged is in relation to income.

The "home spouse insurance" incorporated in the national health insurance gives a non-earning housewife (or man of equivalent status) an insurance for a basic sickness benefit of SKr 6 per day, plus a certain bonus for children. Children are also entitled to the benefits of the national health insurance in respect of care by a doctor, hospital care, free and subsidized medical preparations, etc., without any special charge to parents. Free supervision of the child's health up to school age is provided by child welfare centres. Free consultation is available at the child guidance clinic, if the child is difficult to bring up or is maladjusted. The care of children and young people is handled by the municipal child welfare committees.

A general review of measures to support families has recently been made by a state commission, which in the spring of 1972 made various proposals for improvements. These proposals are to be submitted to Parliament.

Preschools and free-time centres

Preschool and free-time centres have developed in Sweden as an integral part of the child welfare system. The preschool has two parts, namely the day nurseries, which are open 11—12 hours a day 5—6 days per week, and the playschools, which provide three hours of activity per child per day for five days a week. The free-time centres are day nurseries for schoolchildren, primarily those in the 7—9 age group. The word preschool is used as a collective term for both day nurseries and playschools, to denote that both have and will continue to have an identical educational or pedagogic content. The day nursery is regarded as an extended preschool programme, incorporating meals and rest.

The day nurseries can receive children from the age of 6 months until they start school, which in Sweden is at the age of 7. The playschools offer places primarily to 6-year-olds, and in a few municipalities also to certain 5-year-olds.

The free-time centres take children at the Junior level (7—9).

During the fifties, the number of places increased only slowly, particularly in the case of day nurseries and free-time centres. A marked expansion has been achieved from the mid-sixties.

The common task of the preschools and free-time centres is, by their educational activities, to provide favourable conditions for the intellectual, social and emotional development of the children. Preschools and free-time centres are supplements to the home, and activities are pursued in close co-operation with parents. This means, for instance, that efforts are made to provide small units at convenient walking distance from the home. Apart from providing educational activities, the day nurseries and free-time centres are to remain open a sufficient number of hours per day for the parents to be able to take gainful employment. The time spent there is that necessitated by the working hours of the parents.

The playschool takes one group of 20 children in the morning, and another in the afternoon. Unlike the day nurseries and free-time centres, playschools are closed during the school holidays.

The fact that preschools and free-time centres are a part of the child welfare system means, for instance, that priority is given to children in particular need of a place. Priority has been given to the children of single parents and others dependent on gainful employment. In recent years, the social care system has tried to an increasing extent to use preschools for children with social, mental and physical handicaps. It should be possible, for instance, for the preschools to replace to some extent the residential children's homes. This question is at present being considered by a state commission.

The number of places at preschools and free-time centres has risen sharply during the sixties, and the interest in these questions has greatly increased. The most important reasons for this are the altered status of women on the Swedish labour market, and a new attitude towards bringing up children in groups. An underlying factor is also the new realization that both men and women have

No. of places	day nurseries	play-schools	free-time centres	family day nurseries[1])
1950	9,700	18,700	2,400	1,500
1965	11,900	52,100	3,000	8,000
1970	33,000	86,000	6,500	32,000
1972 (est.)	52 000	105,000	10,000	45,000

[1]) Run by the municipalities

double roles to play, one in the family and one in the community. This presupposes greatly increased support from the community in the form of preschool activities for children.

As in other industrial countries, women with children of preschool age have begun during the sixties to take gainful employment to a much greater extent. This trend has been particularly marked since 1965. As a result, there were in Sweden in 1971 about 220,000 preschool children with gainfully employed parents. We can see from this figure that there is a pronounced shortage of preschool places, which is bound to persist for the greater part of the seventies. In 1968, the King-in-Council appointed a Commission on Children's Centres, to review activities at Swedish preschools and free-time centres. The Commission's most important task is to formulate targets and evolve methods for work in the preschools. The Commission was also directed to consider the requirement for preschool places, and the possibility of introducing a public preschool for all children a year or two before schooling proper starts.

The Commission proposes a new educational programme for the preschools. The central points of this programme are ego development, communicative capacity and conceptual development. The Commission has formulated the aims of activities as follows:

"The preschool should endeavour, in co-operation with the parents, to offer each child the most favourable conditions possible for the development and use of its emotional and mental capacity. In this way, the preschool can lay a foundation for the development of the child into an open, considerate person, capable of arriving at its own judgements and solutions, caring for others, and co-operating with them. The preschool should stimulate children to seek knowledge in a creative manner, and to desire to use its knowledge to improve not only its own but others' conditions of life."

The educational programme provides for the staff working in teams, and by their way of co-operating with each other, with the children and with parents, offering concrete examples of how problems and conflicts can be jointly resolved in a democratic manner. It is proposed that the present groups, which are by age, be discarded in favour of "sibling groups", with children from 2 1/2 to 7 1/2 years in the same group. In view of their special requirements, children under 2 1/2 would be split up into two smaller groups, with 4—8 in each.

It is suggested that the sibling groups could contain a maximum of 20 children. In its new programme on premises, the Commission proposes that two sibling groups should be given both their own space and access to a common

play hall. The common play hall is to be large enough to contain several simultaneous activities, so that the children can move freely between them.

The Commission devotes great attention to the socio-political value of the preschool. This means, for instance, that children suffering from different forms of mental, social or physical handicaps should be traced and offered a place at preschool earlier than other children, to provide stimulation at an early age. The Commission's proposals are to be submitted to Parliament.

Help in education

Schooling is free in the compulsory comprehensive schools (9 years), secondary schools (2—4 years), and Folk High Schools (residential adult education schools). Higher education at universities and colleges is also free. Several lines of education at university level (e.g. medical studies) are subject to a *numerus clausus,* i.e. only a specific number of students can be accepted.

Students receive free school meals, free school books and other materials in the majority of compulsory schools, and in certain higher schools.

Young people over 16 who still attend the compulsory comprehensive receive an "extended children's allowance" of SKr 900 per year. Students between 16 and 19 attending secondary schools receive a study allowance of SKr 900 per year, in addition to which those between 17 and 19 can obtain, subject to a means test, an additional allowance of maximum SKr 75 per month during the school-year. If the student lives away from home while studying, he receives a lodging allowance of SKr 125 per month. In other cases, travel allowances can be made.

Students at teaching institutions above secondary school level (universities, etc.) can obtain study grants consisting partly of a study allowance, partly of a repayable loan. These grants are index-adjusted, amounting at present to approx. SKr 10,000 per year. A student who has custody of a child is eligible also for an additional children's allowance of about SKr 900 for each child under 16. Of these grants, SKr 1,750 is an allowance, while the remainder is in principle to be repaid, normally over 20—25 years.

Study grants are made with due consideration to the student's merits and financial resources. During the first two terms, however, study grants are received without any consideration to merit.

The main purpose of social support for studies is to remove the remaining financial obstacles that prevent young people from acquiring the education and training they desire, and which the community can provide. It has also been considered important to make it easier for adults with short and inadequate schooling to improve their level of knowledge. Publically supported adult edu-

Education is free at all levels.

cation is now on a considerable scale. Within the central and local government adult education system, some 170,000 persons were pursuing studies in 1971 in accordance with the official curricula for the Senior level of the compulsory comprehensive and secondary school. Instruction, which can also be to some extent vocational, is provided mainly on a part-time basis. Some 30,000 students were following the courses provided by the Folk High Schools.

The current adjustment and structural rationalization of Swedish business and industry has created a growing need for support to the training of individuals on the labour market. In the fiscal year 1971/72, over 100,000 persons participated in the "labour market training" provided by the state. This is mainly retraining and other vocational training for persons who are unemployed, in danger of becoming unemployed, or difficult to place on the labour market, and for whom such training is considered likely to permit regular employment. The average period of training is about 24 weeks, but can in some cases last for a year or more. A person undergoing labour market training

receives a state grant for living expenses during his period of study. Roughly half of the participants on these courses are women.

In the academic year 1970/71, some 1.6 million took part in the "study circle" activities run by voluntary study associations, with support from the state.

Support to the handicapped

Handicapped persons who have reached the age of 16—the blind, orthopaedically handicapped, mentally retarded, etc.—receive a disability pension under the national basic pensions scheme, if they have lost their working capacity by reason of their handicap. Disability pensions of this kind are paid to over 200,000 persons. A full disability pension is equivalent to the old-age pension paid to a single person. In addition to this, there is a municipal housing allowance (subject to a means test) and in some cases certain special handicap allowances. Many handicapped persons also receive compensation from the state industrial injuries insurance, from traffic injuries insurance, or by voluntary insurance based on agreements between the employers' and employees' organizations.

A person who has not lost his entire working capacity—but at least 50 per cent—receives 2/3 or half the disability pension.

Almost half of all disability pensioners also receive a pension under the national supplementary pensions scheme. This presupposes that the pensioner has earned an income qualifying for pension for at least one year. The disability pension under the supplementary scheme is related to previous earned income, in that the social insurance office estimates what income the insuree would have reached if he had been able to continue working until 65, and then computes the disability pension on this basis.

The state pays the entire costs of technical aids required by the handicapped. Such aids are incorporated in a special list covering 450 different aids, including hearing aids, electric and manual wheelchairs and vehicles, prostheses and orthoses, and a variety of aids for general daily living. Wigs and other cosmetic aids are provided if of importance to the handicapped. The same applies to ADL aids that are not specially manufactured for the handicapped, including washing and dish-washing machines, tape-recorders and electric typewriters. Certain aids for the partially blind are included in the list, although not ordinary glasses. Aids are provided without a means test by the county council's medical organization, which considers the handicapped person's needs for such aids.

Handicapped persons in need of a car for the purposes of study or gainful

employment can obtain grants towards purchase to a maximum of SKr 15,000, plus a maximum of SKr 4,000 for adaptation of the vehicle to the individual handicap. Such grants are subject to a means test. A person who by reason of his income is ineligible for the full grant can obtain a supplementary loan. The grant is combined with tax exemption for both the car and petrol. In the fiscal year 1970/71, some 1,500 handicapped persons received grants for a car.

Handicapped persons in need of special fixtures in the home, or in some cases additional space, can obtain a state grant of maximum SKr 15,000 towards the necessary adaptation. In certain cases, even larger grants can be made. Such a grant is not subject to a means test. In the fiscal year 1970/71, grants were approved for the adaptation of almost 2,500 dwellings. Loans for conventional improvements to the dwellings of handicapped persons can also be granted; a maximum of SKr 12,000 of such loans can be made free of interest, and written off after 10 years. Assistance in the home by "Home Samaritans" is given in accordance with the same rules as for the aged.

As regards the adaptation of other buildings to the needs of handicapped persons, the Building Code contains the following stipulation:

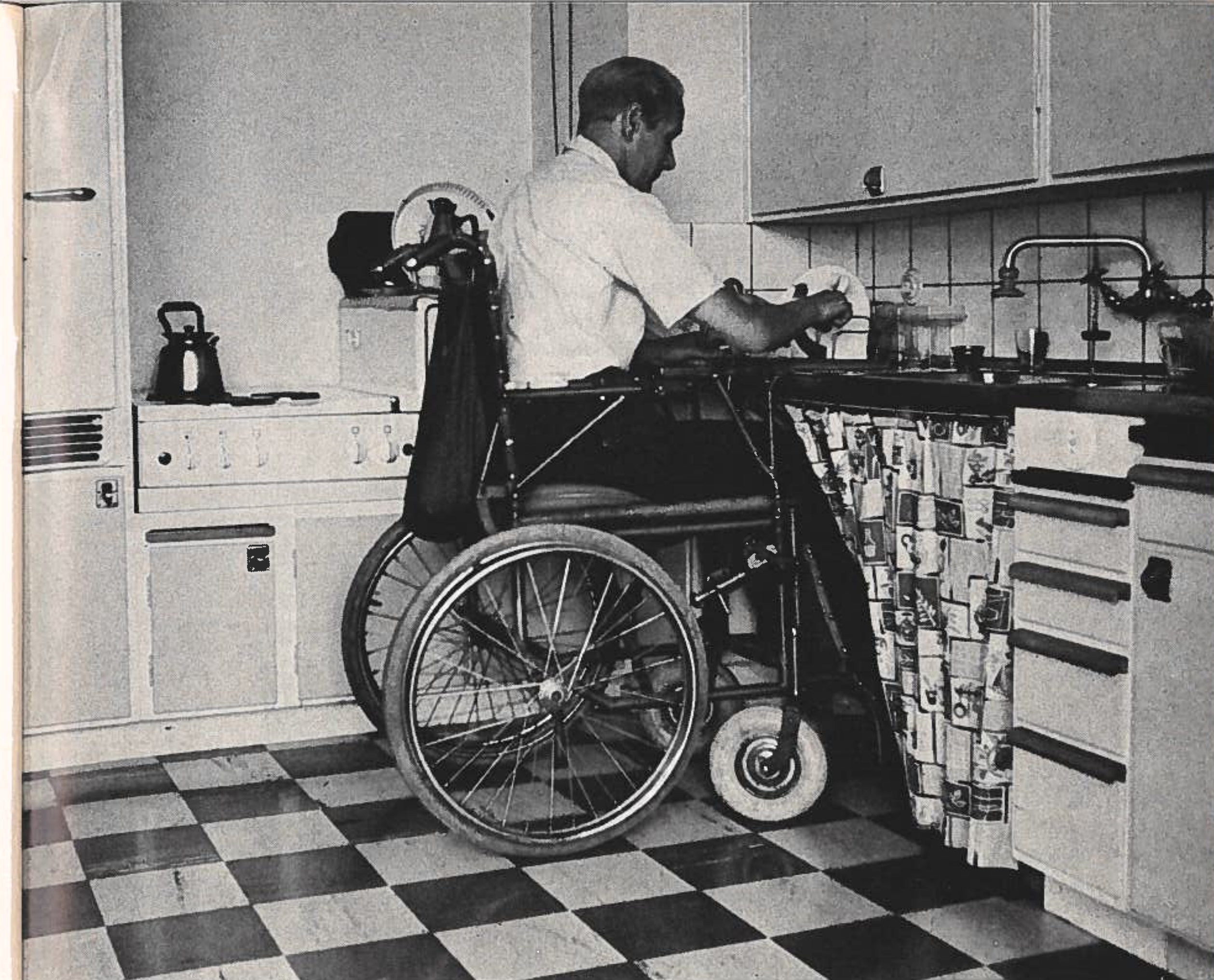
"In all buildings, those parts to which the general public is admitted shall be designed as far as reasonable in a manner making them accessible and usable for persons whose motor ability is restricted by age, disability or sickness."

The same stipulation applies to places of work.

Measures to rehabilitate and support the handicapped are taken under the auspices of the Labour Market Board. These include aptitude tests, the purpose of which is to clarify by work tests the handicapped person's capacity to take gainful employment, and industrial arts training. In addition to this, persons difficult to place on the labour market undergo training on special "adjustment courses".

For labour that is difficult to place, public relief work and "archive work" are arranged, plus semi-sheltered employment in industry. For handicapped persons, sheltered employment at workshops is also provided. Such workshops are run by the municipal and county authorities, with grants from the state. As of 1972, almost 40,000 persons are employed in sheltered work of this kind. Naturally, a large number of handicapped people are employed on the open market. An employer who takes on a handicapped person can receive a grant of up to SKr 15,000 for the necessary arrangements at his place of work. There is no obligation for the employer to employ any given proportion of handicapped persons.

The municipalities have a special responsibility for handicapped persons in



Wheelchairs and other aids for handicapped persons are supplied free of charge.

their area. They build a certain number of apartments and provide special housing allowances for the handicapped. On a limited scale, they also organize transport services for the orthopaedically handicapped. The medical rehabilitation of handicapped persons is the task of the county councils.

Special measures are required for the education of the mentally retarded, and their adjustment to the community. This is the responsibility of the county councils. Care and occupational activities are provided at special institutions, nursing homes, day and activity centres. Instruction is given at special schools, which are being integrated to an increasing extent with the regular education system. The most severely retarded are given instruction at training schools, which provide training in the activities of daily living.

Mentally retarded who cannot live at home but require no special care can stay at hostels, or small boarding homes for 5—6 persons. The latter are becoming increasingly common, and are usually integrated into ordinary residential areas.

Social assistance

Individually paid social assistance, subject to a means test, is provided by the municipalities. Such assistance is given when other aid cannot be obtained (either from insurance or elsewhere) or is insufficient, or cannot be obtained promptly. The usual form is a grant in cash.

Social assistance can be taken with certain reservations as a measure of the efficiency of other social security provisions. In relation to the rise in total costs in the social sector (excl. labour market and housing production), the scope of social assistance has in fact declined, from about 2 per cent in 1960 to 1—2 per cent in 1970. The relative importance of social assistance has thus declined, even though such assistance rose steadily in absolute figures during the sixties, from SKr 130 million in 1964 to SKr 359 million in 1970. The proportion of persons receiving assistance in the total population rose during the same period from 3.5 per cent to 5.6 per cent. On the other hand, the periods for which assistance is given are usually short, and are continuing to decrease.

Several reasons have been given for the increased dependence on social assistance, including business recessions and unemployment, urbanization and high housing costs, perhaps a change in attitudes among the population, more active outreach social care, and a higher standard of social assistance, etc. An important instrument in reducing dependence on social assistance is the provision of improved social insurance benefits to persons with a low income. This is being done, for instance, by improved housing allowances to families with children since 1971.

Those receiving social assistance consist largely of the sick and unemployed, single mothers, and families with many children. In the last ten years, single and young persons have increased their proportion among those receiving social assistance more than within the total population.

The persons and families receiving social assistance are not infrequently coping with composite problems. Their situation must therefore be judged as a whole, an approach which has previously been difficult to apply within the fragmented system of social care. Following an amendment to the law, the municipalities can, since 1971, replace their traditional committees with a single social committee. This offers greater opportunities to apply the "wholistic principle" in municipal social care. Efforts are also being made to achieve increased co-operation and integration between social care, health and medical care, the social insurance organizations, etc. Attempts are thus being made to achieve an overall solution to what is usually a highly complex set of problems.

Development is thus presenting increased requirements for social services other than in the form of financial help. The structural transformation, for instance, that is reflected in the migration to urban areas, the increasing participation of women in the labour market, and the decreasing possibility of relatives and neighbours looking after old people and children, all these things make a greater claim on the community at large. In the sparsely populated rural districts, the old, the handicapped, and those otherwise in need of help live on. In the urban areas difficulties of adjustment often arise, which manifest themselves in problems at work or in the home. The need for efforts by the community is thus increasing in both areas. The community has also greatly expanded its services to handicapped and elderly persons, and its care of children (child minding services).

Problems arising from alcohol are handled mainly by the municipal temperance committees. These committees deal with about 70,000 cases every year. In consultation with the person concerned, these committees arrange for a medical examination, care at a hospital, supportive measures, etc. The advice bureaux run by the committees are used on a large scale. Voluntary admission for treatment is becoming increasingly common.

The entire system of social care is at present under study by a special commission, and considerable changes in Swedish social care and services are to be expected in the future.

Housing policy

It is the responsibility of the municipalities to draft building development plans, and to ensure that residential construction is on an adequate scale. The state is responsible for the financial investment involved, by means of loans. Such state loans are designed wholly or partly to finance such production costs as are not covered by loans from banks or other credit institutes. Loans are made in respect of both multi-family dwellings and individual houses. About 90 per cent of residential construction in Sweden is supported by state loans. The in-

terest on these loans is set by the King-in-Council, the assumed period of amortization being 30 years.

The aim of housing policy in recent years has been to complete a million new dwelling-units during the 10-year period 1965—1974. (Sweden has a population of approx. 8 million.) So far, this programme has actually been exceeded.

In certain large towns there is a system of rent control, which does not however affect housing built since 1968. Disputes on rent levels can be referred to state rent tribunals.

The basic aim of housing policy is to make healthy, well-planned, spacious and well-equipped dwellings available to all citizens at reasonable cost. Rent costs have increased sharply in newly-built housing as a result of high production costs, and the community offsets this by housing allowances to low-income families with children, old people, and the handicapped.

Labour market policy

Extensive exchange services and training of unemployed are organized within the framework of labour market policy. To offset economic recessions and local disruptions to employment, labour market policy incorporates also a number of stimulatory measures, some of which can be listed here. State support for the location of industries can be extended to companies establishing themselves in areas where employment is weak. By means of special tax rules, companies can when business is good fund a certain amount of their profit, which can subsequently be used for investments when business levels have fallen off. During a recession, employment can be promoted by the bringing forward of state orders to industry. Job opportunities can be increased temporarily and in scope by public relief works, under central or local government auspices.

Each county has a county labour board, which plans and manages labour market policy at the regional level. Each such board has several employment offices. The public employment service is at the disposal of employers and job seekers alike. Its services include the handling of vacancies in all occupational sectors. Employment services are free of charge. Private employment services on a commercial basis (i.e. against payment by the applicant or employer) are forbidden in law. Thanks to a special system of notices, the local employment offices have a good overall picture of vacancies throughout the country. Contacts between job applicants and employers are established also by press advertising, particularly in the white collar sector.

State grants are paid to labour that is obliged to transfer to another district to obtain employment. Compensation is paid for travel and moving costs, plus

a starting allowance to cover the first weeks' living expenses, and support to such families as are obliged for some time to maintain two places of domicile. In certain areas, the employment service also assists in buying up the houses of those who obtain work elsewhere.

Unemployed or recently handicapped persons often need training for a new occupation. The labour market authorities therefore organize "labour market training", which in any given year covers almost three per cent of the labour force. While training is in progress, both the trainee and his or her family receive a grant.

The functions of the employment service include also occupational guidance both to schoolchildren and those already gainfully employed. Another branch of the employment service's activities is resettlement, which provides, among other things, training and employment for the handicapped. Many handicapped persons work in different kinds of sheltered employment.

In the case of most earners, financial protection in the event of unemployment is received from the unemployment insurance schemes run by recognized unemployment insurance societies. Such societies are organized to cover all gainfully employed in a given occupational sector. They are incorporated in the trade unions, and compensation is paid in the form of a per diem benefit, financed by state grants and contributions from those insured. A "readjustment grant" financed by the state, is paid to elderly earners who are long-term unemployed. Elderly persons who are no longer up to their job can also be granted an advance pension from the national pensions schemes.

By agreements between the employers' and employees' organizations, redundancy pay is extended to those who are laid off from their work, e.g. in the event of a shut-down. Redundancy pay is provided until compensation is received from the unemployment insurance society. By a special agreement, a person who has had to leave his employment as the result of revised operations at a company can receive a cash sum.

Employees have the right to paid holiday, regardless of whether they are employed by central or local government authorities, private companies or individual employers. The right to a paid holiday is guaranteed by law, and the employee is eligible for two days' paid holiday if he has worked for a minimum of 15 days during a given month. The total number of days' paid holiday during the year is thus 24, which with Sundays means 4 weeks' holiday. Work for a minimum of 8 days during a given month confers the right to 1 day's paid holiday. To some extent, days on which a person has been absent from work by reason of illness, occupational injury, childbirth or certain military service are also reckoned as working days for this purpose. Paid holiday should be granted primarily in the summer. A person terminating his employment

without having taken his holiday is entitled to cash reimbursement. The Act respecting Annual Leave contains stipulations on minimum number of days' holiday, etc. Over and above this, the employers' and employees' associations have agreed on longer paid holidays for certain employees.

The financing of social policy

Social benefits which are identical for all are financed mainly by taxation, while those adjusted to individual income are usually financed by charges paid by the insured person and/or his employer.

Health and medical services, care of the aged, support to families, and labour-market services are financed by taxation.

Since a considerable proportion of the national income is devoted to social services, and a large part is transferred to the old, the sick, families with children, etc., taxation is relatively high in Sweden. As shown by the following table, Sweden has high direct taxes as compared with other countries. In the case of indirect taxation, the majority of European countries have a level of taxation that is 14—17 per cent of GNP. Almost all European countries have a total level of taxation that is between 30 and 40 per cent of GNP.

Taxes and social insurance charges in different countries in per cent of GNP, 1969

	Direct taxes			Soc. insur. charges	Indirect taxes	Total
	Firms	Physical	Total			
Canada[1]	3.9	8.8	12.7	3.4	15.1	31.2
Belgium	2.3	8.4	10.7	9.6	13.3	33.6
Denmark	0.9	15.1	16.0	1.8	17.2	35.0
Finland	2.5	11.1	13.6	4.1	14.6	32.3
France	2.0	4.8	6.8	14.5	15.9	37.2
German Fed. Rep.	2.5	8.3	10.8	10.8	14.3	35.9
Italy	1.7	5.2	6.9	11.1	12.5	30.5
Netherlands	3.1	10.9	14.0	14.1	10.5	38.7
Norway	1.5	12.9	14.4	9.4	16.0	39.9
Sweden	1.5	18.4	19.9	7.9	12.6	40.4
Switzerland	2.5	8.4	10.8	5.8	7.4	24.0
United Kingdom	2.4	11.4	13.8	4.9	17.2	35.9
United States	4.5	12.1	16.6	5.6	9.3	31.5

[1]) 1968
Source: OECD

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Boken handlar om Stiftelsen Fokus verksamhet. Det gäller svårt rörelsehindrade med stort behov av personlig service. Verksamheten bedrivs på 13 orter. Genom riksplaneringen kan den handikappade som andra ungdomar fritt välja bostadsort. Han är inte som tidigare beroende av hemkommunens begränsade möjligheter till bostad, service och arbete.

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Friexemplar

BOSTAD OCH SERVICE

för svårt rörelsehindrade

REDOGÖRELSE FÖR
STIFTELSEN FOKUS VERKSAMHET
SAMMANSTÄLLD AV

SVEN-OLOF BRATTGÅRD
FOLKE CARLSSON
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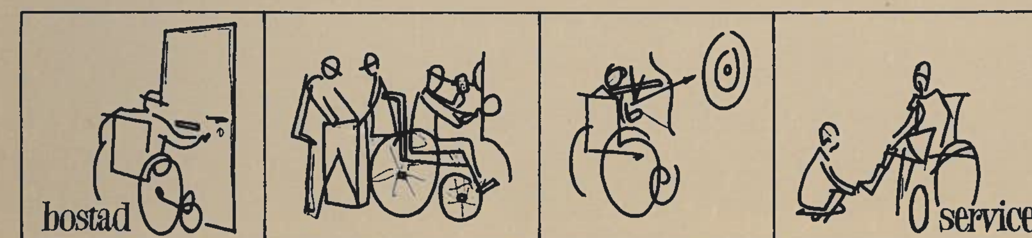

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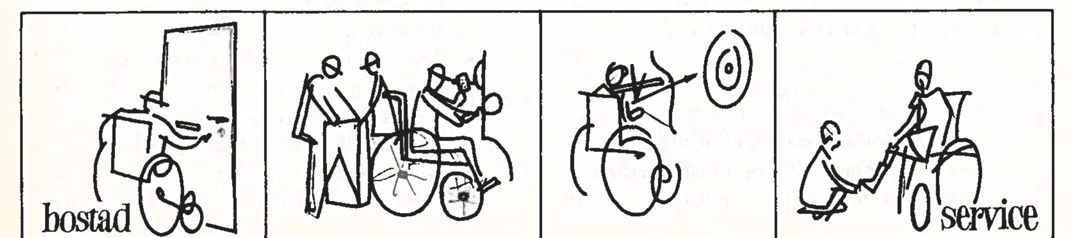

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DET GÄLLER...

svårt rörelsehindrade i yngre åldrar som helt eller delvis är beroende av tekniska hjälpmedel och personell assistans för att kunna förflytta sig, klara den personliga hygienen, av- och påklädning, inköp, matlagning och transport

bostad med service och garanterad omvårdnad för svårt rörelsehindrade, där de kan leva i egna hem på samma villkor som andra och inte vara hänvisade till isolering och sysslolöshet på vårdhem, långvårdskliniker eller bo kvar i föräldrahemmet, så länge föräldrarna nu orkar

arbete och fritid, som gör livet meningsfullt för svårt rörelsehindrade, som p. g. a. sitt medfödda eller tidigt förvärvade handikapp inte kunnat skaffa sig utbildning, arbete och egna inkomster och därför inte heller kunnat bli delaktiga i ATP-systemets förmåner

Stiftelsen Fokus verksamhet för de svårt rörelsehindrade vilka hittills i stor utsträckning glömts bort eller lämnats vid sidan om samhällets insatser och generella lösningar, men där stiftelsen visat att det finns ett även för samhället förmånligt alternativ

samhällets ansvar för att även denna grupp av svårt rörelsehindrade, var de än bor i landet, skall få möjligheter till egna hem, tryggad service och tillgång till arbete, sysselsättning och fritidsaktivitet.

Denna redogörelse gäller bostad och service för svårt rörelsehindrade. Vi vill fästa uppmärksamheten på samhällets ansvar i dessa frågor. Stiftelsen Fokus verksamhet har nu varit igång så lång tid att vi kan ge en mer ingående redogörelse som också omfattar de ekonomiska förhållandena. Trots de svårigheter och större kostnader som alltid hör samman med startandet av nya verksamheter har det visat sig att Fokusverksamheten är från samhällets synpunkt mycket fördelaktig. Men större betydelse ligger det dock i att den ger svårt rörelsehindrade möjlighet att skaffa egen bostad med tryggad service och nya möjligheter till arbete, sysselsättning och fritidsaktiviteter.

Stiftelsen Fokus verksamhet möjliggjordes genom svenska folkets ekonomiska stöd till Röda Fjädernaktionen 1965. Det måste nu bli samhällets uppgift att föra arbetet vidare och inordna försöksverksamheten i mer reguljära former.

Göteborg och Stockholm i januari 1972

Författarna

1. Stiftelsen Fokus

1.1. *Stiftelsen bildas 1964*

Under slutet av 1950-talet och början av 1960-talet hade intresset för åtgärder för svårt rörelsehindrade barn tagit fart. Detta yttrade sig bl a i att man började bygga skol- och behandlingsinstitutioner ute i landet. I förlängningen av denna verksamhet, som fick sin fasta förankring i 1965 års elevhemslag för rörelsehindrade och andra handikappade barn i skolåldern, kom frågan om de handikappades situation efter skoltiden att bli aktuell.

Man koncentrerade sig främst på att inrätta indaghem, inackorderingshem och liknande institutioner. Ungdomarnas bekymmersamma situation kom våren 1964 att drastiskt belysas i två TV-program i Fokusserien av Lis Asklund. Ungefär samtidigt presenterade Sven-Olof Brattgård ett förslag till lösning av boende- och servicefrågan för svårt rörelsehindrade. Förslaget gick ut på att man skulle skapa smärre serviceenheter bestående av lägenheter insprängda i den normala bebyggelsen. Det vann sådan anslutning att man för att förverkliga idén hösten 1964 bildade Stiftelsen Bostäder och Arbete för Handikappade — som 1965 ombildades till Stiftelsen Fokus.

1.2. *Röda Fjädernaktionen 1965*

Den entusiasm med vilken förslaget mottogs och den allmänna viljan att försöka förverkliga idén ledde till att Sveriges Lions och Sveriges Radio den 3 april 1965 genomförde den första Röda Fjädernaktionen i landet. Under en dag gjordes en mängd insamlingsaktioner som kulminerade i de program som sändes i radio och TV under Lennart Hylands ledning. Röda Fjädernaktionen och övriga i samband med denna genomförda insatser inbringade sammanlagt en nettosumma av 11,1 milj. kronor.

Stiftelsen Fokus, som stod som mottagare av denna gåva från svenska folket, hade ursprungligen tänkt få medel till *en* serviceenhet. Genom gåvans storlek fann man det möjligt och i hög grad önskvärt att starta verksamhet på flera orter över landet. För att man skulle kunna genomföra en sådan riksplanering krävdes vissa undersökningar rörande antalet tilltänkta hyresgäster samt deras behov av sådan service och personlig hjälp som beskrivs närmare i kapitel 2 avsnitt 5.

1.3. *Stiftelsens målsättning*

Stiftelsen Fokus har som målsättning att skaffa svårt rörelsehindrade bostäder med tillgång till service och möjligheter

till arbete och fritidssysselsättning. I enlighet med denna målsättning har Stiftelsen formulerat vissa grundläggande principer, nämligen att:

- **den handikappade skall ha rätt att själv välja sin bostad oberoende av var han bor i landet;**
- **den handikappade skall få bo i vanlig bostadsmiljö och få disponera sin bostad på samma villkor som andra;**
- **den handikappade skall få trygghet genom tillgång till personlig service;**
- **den handikappade skall ha allt behövligt stöd för att kunna välja, få och behålla arbete;**
- **den handikappade skall ha möjlighet att utöva meningsfull sysselsättning.**

Målsättningen skall förverkligas genom att anskaffa för svårt rörelsehindrade lämpliga bostäder, centralt placerade i vanliga bostadsområden och bostadshus. Genom teknisk utrustning och personell service skall den handikappade få den trygghet och det oberoende som är nödvänligt för att han skall kunna fungera. Fokus vill stimulera till arbetsinsatser och skapa förutsättningar för att hyresgästerna skall kunna tillgodogöra sig samhällets resurser inom arbetsmarknaden. Stiftelsen Fokus ser som sin uppgift att hjälpa den handikappade i *hela* hans situation och på det viset medverka till att hyresgästen kan leva sitt liv utan onödiga inskränkningar.

1.4. *Målgruppen*

Stiftelsens verksamhet är att skaffa bostäder med dygnet runt-service åt främst yngre svårt rörelsehindrade. Denna grupp handikappade hade tidigare i stort sett varit hänvisade till att bo kvar i sina föräldrahem, så länge de anhöriga kunde klara deras problem, för att sedan bli omhändertagna i olika former av vårdinrättningar.

Genom den successiva utbyggnaden i samhället med s k insprängda invalidlägenheter, där viss service kunde ges genom den sociala hemhjälpen, hade personer med mindre påtagliga rörelsesvårigheter beretts möjlighet till ett fritt och oberoende liv. För gruppen svårt rörelsehindrade fanns inte motsvarande möjligheter. Flera undersökningar om vad som hände med eleverna från skolinternaten för svårt rörelsehindrade, Eugeniahemmet och Norrbackainstitutet, efter avslutad skolgång visade också att dessa ungdomar hade svårt att på sina hemorter få arbete och sysselsättning, fortsatt medicinsk behandling och tillgång till fritidsaktiviteter. Att flytta till andra orter, där bättre möjligheter kunde erbjudas dem, var svårt och kunde i regel endast ske om hela familjen bröt upp. Många handikappade ungdomar kunde av olika skäl inte heller bo i sina föräldrahem. De var då hänvisade till vårdinstitution eller till ett kringflackande från det ena rekreationshemmet eller skolinternatet efter det andra i en ständig ängslan för framtiden.

Den målgrupp för vilken Fokusstiftelsen avsågs var alltså i första hand de svårt rörelsehindrade, som under skoltiden haft eller borde haft stödet av t ex elevhems- eller specialskolas resurser. Det är sålunda en liten grupp. Handikapputredningen räknade med att denna grupp svårt handikappade utgör ca 40 elever per år. Fokus undersökningar visade att det även fanns ett uppdämt behov för 1000—2000 handikappade i åldern 16—40 år. Även dessa behövde stödet av de resurser Fokusstiftelsen kunde erbjuda.

Det som kännetecknar denna grupp handikappade är deras behov av anpassade bostäder, tillgång till dygnet runt-service och att de får bo på orter där arbets- och fritidsaktiviteter finns tillgängliga även för handikappade. Behovet av personlig hjälp är varierande och skiftar från individ till individ. Det kan också skifta från tid till annan hos samma person. Servicen måste därför vara uppbyggd så att den kan anpassas efter den enskildes aktuella behov.

När man bedömer behovet av personell assistans är det inte endast fråga

om den hjälp den rörelsehindrade kan behöva för att utföra vissa funktioner. Även den psykologiska faktorn måste tas med i beräkningen. Många handikappade vill och kan utföra uppgifter, som kan förefalla alltför svåra, om de bara har vetskapen om att det finns möjlighet att få hjälp om så skulle behövas eller om de skulle råka ut för ett missöde. Denna trygghet har visat sig nödvändig för många handikappade.

Erfarenhetsmässigt kunde man utgå ifrån att de flesta svårt rörelsehindrade i dessa yngre åldrar var ensamstående då de inte som andra haft möjlighet att flytta samman och bilda familj. Man kunde dock förutsätta att tillgången till bostäder med service skulle innebära större möjligheter för de handikappade i detta avseende.

De handikappade för vilka Stiftelsen Fokus verksamhet främst är avsedd har oftast varit handikappade från födelsen eller tidiga barn- och ungdomsår. Detta medför att de i mycket liten utsträckning har kunnat skaffa sig egna inkomster. De allra flesta är hänvisade till förtidspension och eventuella tillägg på grund av invaliditetens svårighetsgrad. Ytterst få har kommit med i ATP-systemet. Trots att man nu infört ett s k pensionstillskott är den ekonomiska situationen för dessa yngre handikappade i regel sådan att de inte har möjligheter att själva svara för kostnader för bostad och personell assistans.

1.5. *Stiftelsens organisation*

Stiftelsen Fokus är en riksomfattande organisation. Riksorganisationen svarar i huvudsak för ekonomi, samarbete med myndigheterna, planering, byggnation och allmän rådgivning. Fokus praktiska verksamhet sker främst genom lokala styrelser med representanter från samhällets organ, handikapporganisationer, stiftelsen och hyresgästerna. Lokalstyrelserna består av representanter för ortens socialvård, sjukvård och arbetsvård, de handikappade och riksstyrelsen. Lokalstyrelsen svarar i samråd med lokala myndigheter för personalfrågor, övervakning av verksamheten samt allmän rådgivning.

Huvudmännen för stiftelsen är uppdelade i tre kategorier vilka vardera har högst tre styrelseledamöter jämte suppleanter. Huvudmän är Svenska Landstingsförbundet, Handikapporganisationernas centralkommitté, Svenska Scoutförbundet, Svenska Röda Korset, Folke Bernadotte Stiftelsen för barn och ungdom med rörelsehinder, Stiftelsen Bräcke Diakonigård, De Handikappades Riksförbund, De Blindas Förening u. p. a., Riksförbundet för rörelsehindrade barn och ungdomar, Riksföreningen mot Reumatism, Riksföreningen för Trafik- och Polioskadade, Sveriges Dövas Riksförbund, Svenska Multipel Skleros-Föreningarnas Riksförbund. Representanter för Svenska Kommunförbundet och Sveriges Lions är adjungerade till riksstiftelsens styrelse.

Riksstiftelsens verksamhet utövas genom ett kansli bestående av verkställande direktör, intendent och sekreterare. Stiftelsen står under tillsyn av länsstyrelsen i Göteborgs och Bohus län. Revisorer utses av huvudmannastämma.

1.6. *Stiftelsens ekonomi*

Stiftelsekapitalet utgöres av medel som tillskjutits av stiftarna. Beloppet uppgår till 50.000 kronor. Som en följd av Röda Fjädernaktionen 1965 fick stiftelsen drygt 11,1 milj. kronor till sin verksamhet. Dessutom har testaments- och andra gåvor tillfallit stiftelsen under årens lopp. Några statliga eller kommunala bidrag har inte utgått. Stiftelsens ekonomiska tillgångar framgår av följande tablå, vilken baserar sig på de i verksamhetsberättelserna angivna förhållandena:

dec 1965	11,1 milj. kronor
dec 1966	11,3 milj. kronor
dec 1967	11,4 milj. kronor
dec 1968	11,4 milj. kronor
dec 1969	11,2 milj. kronor
dec 1970	9,3 milj. kronor

Fram t o m år 1971 har av stiftelsens räntor och kapital sammanlagt cirka 7 milj. kronor använts för att bereda

handikappade bostad och service i stiftelsens lägenheter.

Under 1972 har stiftelsens utgifter för detta ändamål beräknats uppgå till ca 3,2 milj. kronor.

Som framgick av Röda Fjädernaktionen 1965 var avsikten med de insamlade medlen att i samarbete med olika samhällsorgan starta en verksamhet, som sedan kunde inordnas i samhällets mer reguljära former. Stiftelsen skulle sålunda i princip förbruka de insamlade medlen.

Den långtidsplan, som uppgjordes 1965 har visat sig i stort sett hålla. Vad som vid denna tidpunkt inte kunde förutses var de under senare år stegrade kostnader som främst är en följd av lönelyft som personalen inom den aktuella sektorn fått. Den ekonomiska situationen i samhället har också inneburit att stat, landsting och kommuner inte ansett sig kunna bygga ut stödet åt handikappade i den utsträckning som man tidigare kunde förvänta. Båda dessa faktorer har inneburit att Stiftelsen Fokus i högre grad än vad som var planerat har fått stödja hyresgästerna ekonomiskt genom att svara för kostnaderna för hyror och personell assistans.

2. Verksamhetens allmänna uppläggning

2.1. *Grundläggande principer*

Stiftelsen bildades 1964 för att ge svårt rörelsehindrade personer nya möjligheter till normalt boende i egna lägenheter med tillgång till personlig service och möjligheter till ett aktivt liv med studier, arbete och fritidsverksamhet.

Genom de drygt 11 milj. kronor som insamlingen 1965 inbringade har man planerat utvecklingsprojekt på sammanlagt 14 orter med totalt 288 lägenheter. Avsikten är dels att ge samhället efterföljansvärda exempel och erfarenheter på området, dels att konkret ge ca 300 handikappade personer egna lägenheter med service.

Lägenheterna skulle ingå bland andra lägenheter i vanliga bostadshus. De skulle vara så utformade att den handikappade kunde klara sig på egen hand så långt som möjligt. Bostäderna skulle vara avsedda för såväl enpersons- som flerpersonshushåll, även om huvudvikten skulle läggas vid enpersonslägenheter. Till lägenheterna skulle dygnet runt finnas tillgång till personell assistans. I anslutning till lägenheterna skulle finnas tillgång till allmänna utrymmen. Bostäderna skulle stå öppna för handikappade från hela landet.

Fokus skulle fungera som ett komplement till samhället. Hyresgästerna skulle ha tillgång till de hyresbidrag och den övriga sociala service, som kom övriga handikappade till del i respektive kommun. Lägenheterna skulle upplåtas på vanliga hyreskontrakt.

2.2. *Verksamhetens lokalisering*

Verksamheten bedrivs eller är planerad på 14 orter i landet. Lokaliseringen framgår av fig. 1. Avtal om verksamheten i Lund har ännu inte slutits. Antalet handikapplägenheter på varje ort, deras antal, rumsfördelning och tid för färdigställande redovisas i Tabell 1.

2.3. *Utrednings- och försöksverksamhet*

2.3.1. Planeringsgruppens arbete

Redan i slutet av 1964 startade stiftelsen en särskild arbetsgrupp (FUG) som skulle dra upp riktlinjerna för bostadens och den närmaste miljöns utformning. Denna arbetsgrupp bestod av arkitekter, rehabiliteringsexperter, VVS- och elkonsulter samt rörelsehindrade. Arbetsgruppens målsättning var att få fram bostäder avpassade för svårt rörelsehindrade och med anpassbarhet till den enskildes behov. Man skulle också inom arbetsgruppen planera de gemensamma lokaler, som kunde behövas, jourrum, klädvårdsrum, hygienutrymmen m m. I uppgiften ingick också att få fram signal- och säkerhetssystem som kunde utnyttjas av de handikappade.

Arbetsgruppen kunde våren 1967 lägga fram sitt första förslag till principlösning. Detta förslag överarbetades sedan för att definitivt framläggas 1968. Detta arbete har titeln: "Principprogram. Fokusanläggningar för svårt rörelsehindrade." Detta principprogram har legat till grund för planeringen av de olika Fokusenheterna. Arbetet finns, på grund av det intresse Fokustanken väckt utomlands, även i en tysk och en engelsk upplaga.

Det arbete, som startades genom Fokusgruppen har senare varit en utgångspunkt för det forskningsarbete, som bedrivits vid avdelningen för handikappforskning vid Göteborgs Universitet. Denna forskning har främst inriktat sig på handikappades behov och på hur dessa behov skall kunna tillgodoses inom det ordinära bostadsbyggandets ram. Man har därvid även tagit hänsyn till situationer, där de handikappades behov inte kan tillgodoses inom den s k normalbostaden utan där man måste gå till specialbostäder. Fokusgruppens arbete har sålunda givit upphov till en vidare utveckling inom bostadsplaneringen för handikappade.

2.3.2. Socialmedicinsk utredning

I januari 1965 startade på Fokus uppdrag de socialmedicinska institutionerna

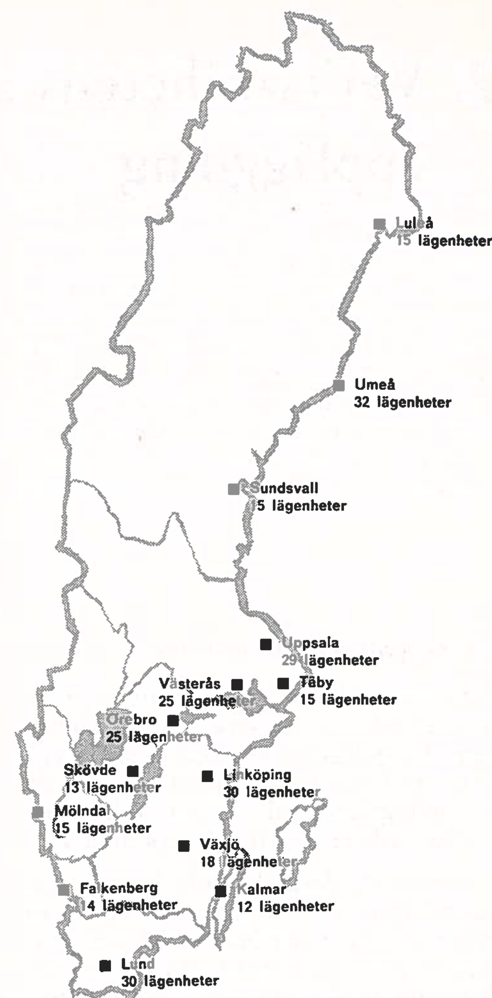

Fig. 1 Fokusenheternas lokalisering.

Tabell 1

Antal lägenheter, deras rumsantal och inflyttningstid

Ort	Antal lägenheter	Därav: 1 r. o. k.	2 r. o. k.	3 r. o. k.	Inflyttning
Falkenberg	14	9	3	2	aug. 1970
Kalmar	12	6	6	—	febr. 1968
Linköping	30	17	9	4	dec. 1972
Luleå	15	7	5	3	mars 1972
Mölndal	15	7	5	3	dec. 1970
Skövde	13	6	4	3	april 1971
Sundsvall	15	8	4	3	aug. 1971
Täby	15	9	4	2	nov. 1971
Umeå	32	18	8	6	maj 1970
Uppsala	29	18	8	3	juni 1970
Västerås	25	5	10	10	juni 1970
Växjö	18	15	2	1	nov. 1969
Örebro	25	16	6	3	nov. 1969
Summa	258	141	74	43	

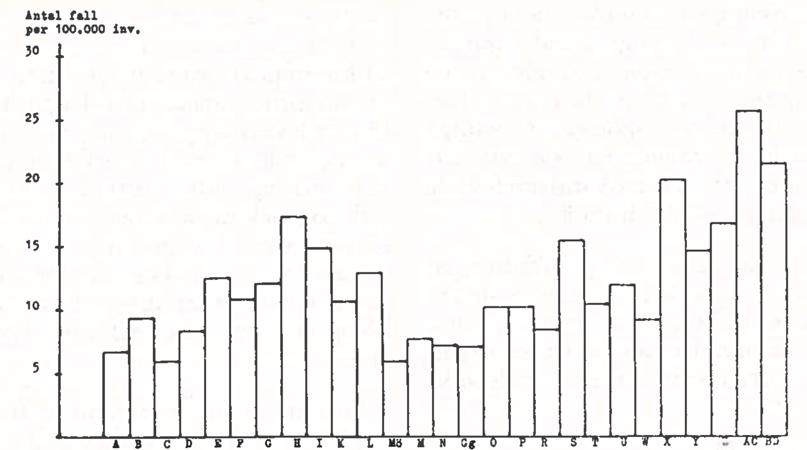

Fig. 2. Fokusgruppens fördelning länsvis

i Stockholm och Uppsala en landsomfattande undersökning över "Bostads- och sysselsättningssvårigheter hos svårt handikappad ungdom". (Inghe-Juhlin: Soc.med. tidskr. nr 6 1968, sid 306—321). Uppdraget gällde att undersöka situationen för och behoven hos svårt rörelsehindrade i åldern 16—40 år, som kunde tänkas vara betjänta av de bostäder med service, som Stiftelsen Fokus planerade.

Genom försäkringskassor, hemsjukvård, vårdhem, handikapporganisationer och andra källor fick man fram 4.204 personer, som kunde tänkas höra till den aktuella gruppen. Från gruppen avfördes handikappade, som hjälpligt klarade sig utan särskilt utrustad bostad eller personlig service. Även sådana handikappade, som var så svårt invalidiserade att de inte kunde klara sig utan omfattande vård oavsett hur man ordnade för dem, lämnades utanför undersökningen. Mentalt utvecklingsstörda och andra psykiskt svårt handikappade bedömdes ha behov av annan service än den som Fokus kunde erbjuda, varför de ej heller togs med. Blinda och synsvaga utan annat handikapp bedömdes också falla utanför ramen för undersökningen.

Till den grupp handikappade som härefter kvarstod, utsändes ett frågeformulär. Med utgångspunkt från de uppgifter man fick in uppdelades materialet i den undersökta gruppen i "egentliga Fokusgruppen", gränsfall och övriga. Fokusgruppen kom att omfatta 880 personer, gränsfallen 600. Om även en del ofullständigt utredda situationer medtogs uppskattade undersökarna Fokusgruppen till "minst 1000" och gränsfallen till ungefär samma antal.

Den egentliga Fokusgruppens geografiska fördelning framgår av fig. 2. Av undersökningen framgår klart att fördelningen över landet är ojämn. De egentliga Fokushyresgästerna var relativt få i storstadsregionerna. Det fanns betydligt flera handikappade av detta slag i vissa smålandslän och angränsande områden. Högst var frekvensen i Norrland. Utredarna påstår att områden av tätortskaraktär och inflyttningskommuner i stort sett hade låg frekvens. Glesbygdsområden och utflyttningskommuner hade hög frekvens. "Detta är rätt naturligt: svårt handikappade och deras familjer torde i stort sett tillhöra de stationära i samhället, de stannar vanligen där de en gång hamnat. Problemet med svårt handikappad ungdom synes därför vara relativt störst i de icke expanderande områden av vårt land, vilket torde innebära vissa praktiska svårigheter beträffande service och sysselsättning".

Undersökningen visade också att ungefär 1/5 av de unga handikappade vårdades på institution. Flertalet av de hemmavarande vistades hos sina föräldrar eller andra anhöriga. Åtskilliga nödgades leva i omoderna och obekväma bostäder. Endast ett fåtal förfogade över moderna invalidbostäder.

Det förelåg också enligt utredningen betydande brister beträffande skolgång och yrkesutbildning för denna grupp. Endast ett mindre antal hade någon form av förvärvsarbete när undersökningen företogs.

Majoriteten i gruppen var rullstolsbundna och de flesta var i behov av personlig hjälp och service till åtskilligt som hör till den dagliga livsföringen. Huvudbördan vid vård och passning fick de anhöriga bära. Hemsamarit förekom endast i undantagsfall.

För den grupp handikappade, som man i undersökningen fann ha mycket bristfällig skolutbildning har senare en speciell undersökning gjorts vid avdelningen för handikappforskning i Göteborg. Denna undersökning sker i samråd med socialstyrelsen, skolöverstyrelsen, arbetsmarknadsstyrelsen samt landstings- och kommunförbunden och med ekonomiskt bidrag från Allmänna arvsfonden. Den beräknas vara avslutad våren 1972.

2.3.3. Försöksverksamhet i Hovås

Det stora ekonomiska stöd som Stiftelsen Fokus fick genom Röda Fjädernaktionen ledde till en mer omfattande och geografiskt utspridd verksamhet. För att snabbt finna formerna för denna verksamhet ansåg man det nödvändigt att starta en begränsad försöksverksamhet. För detta ändamål inköptes 1966 en större villafastighet i Hovås, strax utanför Göteborgs stads område. I denna villa kunde fem svårt rörelsehindrade beredas bostad och service, visserligen inte under exakt samma former som senare planerades i Fokuslägenheterna, men ändå på ett sådant sätt att värdefulla erfarenheter kunde vinnas.

Villans läge valdes med tanke på att man skulle hamna i en liten kommun tillhörande ett vanligt landsting. Sysselsättningsmöjligheterna i denna kommun för de handikappade var små men man kunde räkna med arbetsmöjligheter i den intilliggande storstaden. Detta visade sig också vara realistiskt. Fyra av de fem hyresgästerna kom att arbeta i Göteborg och måste därför dagligen passera kommungränsen. Detta innebar komplikationer beträffande färdtjänst m m.

Genom denna verksamhet fick man inom stiftelsen en mycket god inblick i de handikappades problem när kommun- och landstingsgränser skapar svårigheter i deras tillvaro. Denna erfarenhet har sedan legat till grund för framställningar och åtgärder från Fokus sida när det gällt att ge de handikappade möjlighet att bosätta sig och få arbete och sysselsättning i andra kommuner än hemortskommunen.

I Hovåsvillan prövades olika tekniska lösningar för handikappade. Härigenom fick man, jämsides som Fokus planeringsgrupp arbetade, möjlighet till praktisk bedömning. Detta visade sig vara värdefullt för den fortsatta byggplaneringen.

De svårt rörelsehindrade hyresgästerna fick hjälp med alla de dagliga livets aktiviteter de själva inte kunde klara. Denna form av service var vid detta tillfälle inte i funktion på någon plats i landet. Genom samarbete med hyresgästerna och i samråd med sociala myndigheter kunde man med utgångspunkt från de erfarenheter man fick dra upp riktlinjerna för den fortsatta organisationen av denna verksamhet.

De fem hyresgäster, som från början kom att bo i Hovåsvillan, var alla i åldern 20—25 år och hade under längre tid varit förtidspensionärer. Ingen av dem hade arbete när de flyttade in i villan. De tillfrågades innan de accepterade, om de ville medverka i en försöksverksamhet som för deras del kunde innebära extra belastningar på olika sätt. De kom att i många fler avseenden

än vad som här redogjorts för vara en försöksgrupp för frågeställningar, problem och lösningar som kunde tänkas uppstå för handikappade, när de skulle bo i servicelägenheter av den typ Fokus planerade.

Samtliga fem hyresgäster har idag arbete och sysselsättning. Två är gifta och har flyttat ut till invalidlägenheter insprängda i vanliga bostadsområden. En har flyttat till handikappanpassat radhus med tillgång till viss service. De två återstående bor i Fokuslägenheter på andra orter.

Förutom de värdefulla erfarenheter, som Stiftelsen Fokus har fått genom försöksverksamheten i Hovåsvillan, har denna verksamhet också visat att det finns möjligheter för även svårt rörelsehindrade att kunna klara sig som andra om de får tillgång till bostäder och service i den utsträckning de behöver. Hovåsverksamheten kom för de fem hyresgästerna att betyda en definitiv ändring i deras liv och öppna nya, förut ouppnåbara möjligheter för dem.

I samband med utbyggnaden av Fokusverksamheten, som medförde att man inte längre hade behov av försöksverksamhet, avvecklades Hovåsvillan för stiftelsens del 1969.

2.4. *Bostadsplaneringen*

Stiftelsen Fokus planerade sin aktivitet till städer, spridda över hela landet, där man kunde påräkna god tillgång till fritids- och kulturella verksamheter, arbete och sysselsättning. Samtidigt skulle den handikappade ha möjligheter till den medicinska service han behövde.

De lägenheter som Fokus hyr är placerade i vanliga bostadshus och skall vara blandade med bostäder för icke handikappade. I inledningsskedet har den önskvärda graden av sammansmältning inte kunnat genomföras på två orter då behovet av bostäder med service varit mycket uttalat. Allt eftersom verksamheten med sådana bostäder byggs ut kan man dock påräkna att Fokuslägenheterna i allt högre grad naturligt kommer att smälta in i sin omgivning.

Fokus har strävat efter att få så central placering av lägenheterna som möjligt. Detta underlättar för hyresgästen att ta del i samhällets aktiviteter, få och behålla kontakt med andra och själv göra sina inköp etc.

I anslutning till lägenheterna finns gemensamma utrymmen för hobby, träning, gemenskap och för den personal som behövs.

En grundläggande princip i Fokusplaneringen är att varje hyresgäst skall ha egen lägenhet. Bostadsrum — även med tillgång till kokmöjligheter och liknande — kan ej accepteras som långtidsbostad för handikappade. Alla lägenheterna är från början planerade för svårt rörelsehindrade. Man har där följt de rekommendationer, som Fokus planeringsgrupp tidigare gjort upp.

Fokus har lägenheter såväl för enskilda som för familjer. I fig. 3—5 visas tre lägenhetstyper från Mölndal. I princip är planlösningen av lägenheterna densamma på alla orter även om den detaljanpassats med hänsyn till byggnadstekniska förhållanden. Några lägenhetstyper — särskilt enpersonsbostäderna — är planerade som ett "allaktivitetsrum". (Fig. 3). Detta har gjorts för att få fram en bostad där hyresgästen vid varje tillfälle kan vara i centrum av aktiviteten, kan ta del av allt som händer omkring honom antingen han ligger till sängs, sitter i köket eller vid soffgruppen. Alla inredningsdetaljer är fristående vilket gör det möjligt för hyresgästen att utforma sin bostad efter egna önskemål.

Lägenhetsytan varierar något men håller i regel följande mått:

1 rum och kök	42—48 m²
2 rum och kök	64—75 m²
3 rum och kök	80—95 m²

All inredning är inställbar i höjdled, detta gäller såväl i kök som toalettrum. Härigenom kan man få gynnsammast

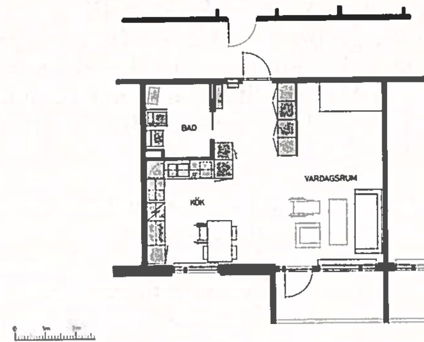

Fig. 3
Fokuslägenhet, 1 rum och kök, 48 m², Mölndal.

Enpersonslägenheten är planerad som ett allaktivitetsrum.

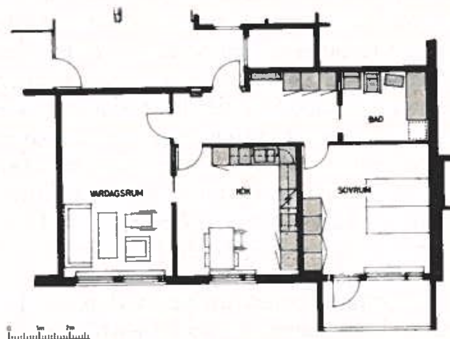

Fig. 4
Fokuslägenhet, 2 rum och kök, 76 m², Mölndal.

Lägenheterna har flexibel inredning. Köks- och badrumsutrustningen kan anpassas efter hyresgästens behov. Skjutdörrarna tar mindre plats och är lätta att manövrera för den rullstolsbundne.

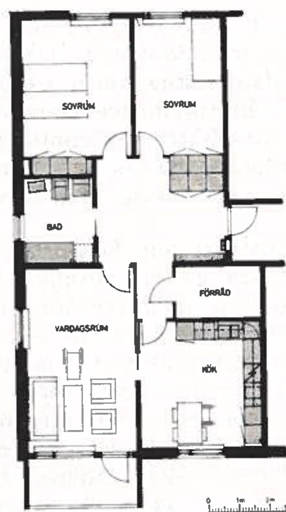

Fig. 5
Fokuslägenhet, 3 rum och kök, 96 m², Mölndal.

Flerpersonslägenheter ger ökade möjligheter till gemenskap och familjebildning.

möjliga förhållanden för den handikappade antingen han är rullstolsbunden eller har kryckkäppar.

I lägenheterna finns flera tekniska arrangemang. De elektriska reglagen är samlade i små, flyttbara boxar, som kan placeras vid sängen, i köket eller i rullstolen. I sistnämnda fallet kan manöverorganen göras radiostyrda så att den handikappade fritt kan röra sig i rummet. Genom den utrustning som finns kan den handikappade från manöverorganet öppna dörrar, kalla på hjälp, tala i porttelefon, tända och släcka ljuset o s v. Alla lägenheter har snabbtelefon till jourpersonalen. I regel har också hyresgästerna egen telefon.

I anslutning till lägenheterna finns gemensamma utrymmen i alla Fokusenheterna. Dessa utrymmen är öppna för alla hyresgäster, handikappade såväl som icke handikappade. Där finns lokaler för gemenskap — med TV-apparat — och matsal med kök för dem som föredrar att äta dagens huvudmål i sällskap med andra. I regel finns det ett särskilt rum för fysisk träning och motion utrustat med olika träningsredskap avpassade för hyresgästernas förutsättningar. Hobbyrum finns, även det utrustat med handikappanpassade redskap.

I de flesta Fokusenheter finns en hygienavdelning, som har badutrustning speciellt anpassad för svårt rörelsehindrade. På många ställen finns också bastubad. I regel finns särskilt klädvårdsrum med för handikappade lämpliga tvätt-, tork- och strykmaskiner. Rullstolsgarage för utomhusrullstolar har planerats. Där så kunnat genomföras finns bilgarageplatser i anslutning till fastigheten. På övriga ställen finns parkeringsplatser med elektrisk bilvärmare.

För servicepersonalen finns personalrum liksom också en expedition eller ett jourrum.

2.5. *Omvårdnadstjänst — omfattning och organisation*

För den handikappade är det av minst lika stor betydelse att ha en personlig service som fungerar som att ha en efter handikappet anpassad bostad. Den handikappade hyresgästen i en Fokusenhet får detta sitt behov tillgodosett från stiftelsens personal, vid sidan om den service han kan få genom den sociala hemhjälpen.

Många handikappade, särskilt svårt rörelsehindrade, kan behöva dygnet runtservice för alla funktioner som hör samman med den dagliga livsföringen. De mest framträdande inslagen gäller av- och påklädning, hjälp med den personliga hygienen, ordnande av matfrågan, inköp m m. För den handikappade som bor i egen bostad tillkommer dessutom behovet av hjälp med städning, bäddning, tvätt o s v. Många av dessa uppgifter kan, om de inte är alltför omfattande, tillgodoses genom samhällets sociala hemhjälp eller annan serviceverksamhet. De svårt rörelsehindrades behov av dygnet runt-service liksom också omfattningen av den personella assistansen gör dock att denna verksamhet skiljer sig från den traditionella hemvårdens. Vi har valt att beteckna den verksamhet det här gäller som *omvårdnadstjänst.*

Handikapputredningen har i sitt betänkande om "Bättre utbildning för handikappade" (SOU 1969: 35) beskrivit den omvårdnadsverksamhet som svårt rörelsehindrade och andra handikappade studerande behöver. Denna av staten helt bekostade sociala service för studerande har givits namnet "vårdartjänst".

När man bedömer behovet av omvårdnadstjänst måste utgångspunkten vara vad den handikappade kan utföra själv och den tid det tar för honom att göra det. Man måste också beakta alla tekniska åtgärder som kan minska behovet av service och göra den handikappade mera oberoende av andra personers hjälp.

Den handikappades service har organiserats på något olika sätt på olika orter. Det sammanhänger med olika synsätt inom skilda landsting och kommuner. Den grundläggande principen har varit att den handikappade skall kunna få hjälp av hemsamarit lika många timmar som om han bott i en s k insprängd invalidbostad. I allmänhet har såväl landsting som kommuner begränsat antalet timmar till högst fyra per dag. För de svårt handikappade det rör sig om i Fokussammanhang räcker dock inte detta. De allra flesta måste ha tillgång till personal som kan hjälpa dem vid olika tillfällen på dygnet. För att kunna klara detta behov finns det vid Fokusenheterna anställd personal i tjänst under hela dygnet. Detta ger den handikappade möjlighet att få hjälp när han så önskar, antingen det gäller toalettbesök, hjälp med avklädning på kvällen eller vändning i säng på natten. Den Fokusanställda personalen biträder också hemvårdens personal när det kan behövas två personer för lyft eller annan åtgärd. Dessutom har det visat sig svårt att genom hemvården täcka det personalbehov som finns under veckosluten. Fokuspersonalen får då ta på sig huvuddelen av arbetsbördan.

Det system med omvårdnadstjänst som valts, d v s med personlig assistans och service under vissa timmar och däremellan tillgång till jourpersonal, har valts av flera skäl. Mest betydelsefullt har varit att hyresgästerna själva funnit denna form särskilt lämplig. Den handikappade har någon som mera direkt tar hand om hans bostad och hans service, någon som känner hans vanor, var han har sina kläder, vad han vill äta o s v. Det blir då inte nödvändigt att inviga varje ny assistent i alla detaljer.

Ett annat skäl är att detta system, med personal som kommer utifrån, motverkar tendenser till "institutionstänkande" d v s att den handikappade skulle känna sig omhändertagen på samma sätt som om han vore intagen på sjukhus, vårdhem eller liknande.

Ett tredje skäl är att detta system leder till att den handikappade måste ta ansvar för sig själv. Han vet det antal servicetimmar han kan få och måste själv disponera dem.

En väsentlig sak när det gäller omvårdnadstjänsten är personalens inställning. Det är mycket viktigt att personalen har en öppen inställning och undviker alla tendenser till att "vårda" den handikappade. Det är också nödvändigt att personalen har respekt för den handikappades självständighet och självbestämmanderätt.

2.6. *Hyresgästsituationen*

Stiftelsen Fokus hyr de handikappanpassade lägenheterna av hyresvärden, som kan vara ett kommunalt bostadsbolag, en bostadsrättsförening eller privat fastighetsägare. Genom detta förfaringssätt kan bostadsfördelningen ske med hänsyn till det samlade behovet i landet. Detta innebär att den som önskar bostad i en Fokusenhet söker den hos riksstiftelsen, som fördelar bostäderna.

Fokuslägenheterna hyrs ut mot sedvanliga hyreskontrakt. Med hänsyn till bostädernas speciella karaktär och belägenhet i en serviceenhet har den bestämmelsen införts i kontraktet att om den handikappade skulle avflytta från bostaden av ett eller annat skäl, skall bostadsrätten återgå till stiftelsen. Bostaden skall sålunda på nytt kunna komma handikappade till godo.

I hyreskostnaderna har inräknats hyreslägenhetens andel av de allmänna utrymmena, liksom andelen för jourrum m m. Garage- eller biluppställningsplatser hyrs ut separat med tanke på att många handikappade inte kan tillgodogöra sig dessa utrymmen.

Hittills har det varit långt fler sökande till lägenheter än vad det funnits lägenheter. Detta har medfört att man har varit tvungen att inrätta en turordning efter angelägenhetsgrad. För detta ändamål har riksstyrelsen tillsatt en särskild uttagningsgrupp, vars förslag skall godkännas av styrelsens arbetsutskott. I denna angelägenhetsbedömning måste

en mängd olika faktorer vägas samman såsom handikappsituationen, de sociala förhållandena, arbets- och utbildningsfrågorna o s v. Ekonomiska hänsyn beaktas icke.

2.7. *Samverkan med samhället*

Stiftelsens strävan att fullgöra sina åligganden i samverkan med olika samhällsorgan har tagit sig uttryck i att man såväl i riksstyrelse som lokalstyrelser har representanter för myndigheterna.

Innan Fokus startar en verksamhet på en ort har man ingående överläggningar med myndigheterna på orten, där man diskuterar lämpliga bostadspropekt, möjligheterna för hyresgästerna att få färdtjänst, arbete- och sysselsättningstillfällen. Även den medicinska servicen beaktas liksom socialvårdens resurser att ge hemhjälp.

Sedan en överenskommelse nåtts bildas en lokalstyrelse i vilken olika myndigheter inom kommun, landsting och arbetsvård erbjudes ingå. Denna lokalstyrelse, i vilken också representanter för riksstiftelsen, handikapporganisationerna och hyresgästerna ingår har huvudansvaret för verksamheten sedan den startats.

Stiftelsen Fokus har inriktat sin verksamhet på en grupp svårt rörelsehindrade personer i yngre åldrar. Denna verksamhet är ett komplement till samhällets övriga insatser för handikappade. Stiftelsen är inget självändamål utan har bara att på bästa sätt och i nära samverkan med olika myndigheter förvalta de medel som svenska folket överlämnat till stiftelsen. Stiftelsens verksamhet kan komma att minska i samma utsträckning som samhällets mera direkta insatser ökar såvida inte samhället istället finner det förenligt med sina syften att stödja stiftelsen i dess verksamhet för denna grupp handikappade.

Samhällsinsatserna inom handikappvården har under senare år ständigt ökat. Många av samhällets åtgärder kommer också stiftelsen och dess hyresgäster till godo. I samband med utbyggnaden av verksamheten och planeringen av bostäderna har sålunda det statliga invalidbostadsbidraget utgått till samtliga Fokuslägenheter med maximalt belopp. Dessutom har visst statligt stöd utgått för hissar och andra lyftanordningar.

Tekniska hjälpmedel i lägenheterna har erhållits genom det av socialstyrelsen förvaltade hjälpmedelsanslaget. Indirekt har staten givit stöd åt verksamheten genom det statsbidrag till kommunernas sociala hemhjälp som utgår med 35 procent. Detta bidrag utgår dock inte till den personal, som varit i Fokus tjänst och som kompletterat den sociala hemtjänsten.

I samtliga kommuner finns ett kommunalt bostadstillägg (KBT). Dess storlek varierar från ort till ort. När stiftelsen startade sin verksamhet fanns inte det särskilda kommunala bidrag till bostad åt handikappad (KBH) som senare införts i några kommuner. Ännu saknas detta bidrag i flera av de kommuner där stiftelsen är verksam. Trots en successiv utbyggnad av KBH kommer svårigheter dock att kvarstå för handikappade, som flyttar från en kommun till en annan.

I alla kommuner finns social hemhjälp. Den ombesörjes av socialvården och har oftast formen av en hemsamaritverksamhet som kommer den handikappade tillgodo efter bedömning av behovet. För kommunens del utgår statsbidrag med 35 procent. Verksamheten är ofta samordnad med den av landstinget bekostade hemsjukvården, vilken senare också utgår efter individuell prövning.

Omfattningen och utformningen av dessa båda serviceformer, som ryms inom omvårdnadstjänsten, varierar från ort till ort. Detta framgår bl a av den redogörelse för landstingens och kommunens kostnader för denna verksamhet som redovisas i senare kapitel.

En viktig funktion för de rörelsehindrade är färdtjänsten. En väl funge-

rande färdtjänst är nödvändig om den handikappade skall kunna tillgodogöra sig samhällets utbud av olika aktiviteter och kunna komma i kontakt med andra. Färdtjänsten är under utbyggnad. Den finns på samtliga orter, där Fokus arbetar, men är på flera platser inte utbyggd i den utsträckning som kan anses önskvärd. Ett problem med färdtjänsten är att denna service på flera platser endast finns tillgänglig under begränsade tider på dygnet.

3. Redovisning av verksamheten på sju orter

3.1. *Valet av orter*

Hösten 1971, när denna redogörelse skrives, har Stiftelsen Fokus verksamhet på elva platser i landet.

På några orter har verksamheten varit igång kortare tid än ett år. Föreliggande redovisning omfattar verksamheten på sju orter.

De sju orter som redovisas här är:

Falkenberg	Västerås
Kalmar	Växjö
Mölndal	Örebro
Umeå	

Redovisningen avser verksamhetsåret 1971. Som underlag för den ekonomiska sammanställningen ligger lokalstyrelsernas redovisning för tiden 1.1—30.9 1971. För sista kvartalet har en beräkning av kostnaderna gjort med utgångspunkt från utfallet för de tre första kvartalen. Kommunernas och landstingens beräknade kostnader baserar sig på uppgifter som inhämtats från dessa.

I den verksamhet stiftelsen bedriver förekommer ofta vissa förändringar. Lägenheter byts, nya hyresgäster kommer och behovet av omvårdnadstjänst varierar från tid till annan. Sådana förändringar kommer i ringa omfattning att påverka totalkostnaderna. Kostnadsfördelningen mellan olika huvudmän kan däremot komma att variera vid förändringarna.

3.2. *Bostadssituationen*

3.2.1. Lägenheterna

På de sju orterna finns sammanlagt 141 lägenheter. De fördelar sig med hänsyn till antalet rum på följande sätt:

1 rum och kök	76 (54 %)
2 rum och kök	40 (28 %)
3 rum och kök	25 (18 %)

Storleken av enrumslägenheterna varierar mellan 43—48 m². I Kalmar är lägenhetsytan 38 m². Tvårumslägenheterna har en yta av 55—79 m², trerumslägenheterna 80—96 m².

Fokuslägenheterna har i stort sett samma kvalitet och utrustning över hela landet. De är utrustade med anpassbar inredning — särskilt i kök och toalettrum — för att hyresgästens speciella behov och önskemål skall kunna tillgodoses. I utrustningen ingår snabbtelefon, nödlarm, porttelefon och där så behövs automatiska dörröppnare och elektriska dörrlås. Överallt där byggnadsförhållandena medgivit har lägenheterna balkonger anpassade för hyresgäster med rullstol. På de ställen där detta ej kunnat genomföras har lägen-

heterna s k franska dörrar. I några fastigheter finns takaltaner.

3.2.2. Gemensamma utrymmen

I anslutning till lägenheterna finns gemensamma utrymmen såsom jour- och personalrum, sällskapsrum, matsal och hobbyrum, rullstolsförråd, specialutrustad tvättstuga, speciellt för rörelsehindrade utrustat bad, i flera fall med såväl karbad som bastu. Dessutom finns lokaler för motion och fysisk träning.

De gemensamma utrymmena har tillkommit av främst tre skäl. Vissa lokaler behövs för den servicepersonal som finns i huset dygnet runt. Till denna grupp hör personalrum, jourrum och liknande. Andra utrymmen är avsedda som allaktivitetsrum för hyresgästerna — handikappade såväl som icke handikappade. Hit kan räknas sällskapsrum med TV, hobbyrum och lokaler för fysisk träning. En tredje grupp utrymmen har tillkommit för att ge de handikappade hyresgästerna ett nödvändigt komplement till den egna lägenheten. Sådana utrymmen är matsalen (med beredningskök) — som också tjänar som sällskapsutrymme — samt bad och tvättstuga med avancerade tekniska hjälpmedel som höj- och sänkbara badkar och speciellt utrustade tvättmaskiner, strykmaskiner m m. Uppställningsplatser för uterullstolar och reservrullstolar hör också till denna grupp utrymmen.

Storleken av de allmänna utrymmena varierar från en ort till en annan med hänsyn till lokala förhållanden. I de flesta fall är ytan för de gemensamma utrymmena mindre än 30 procent av den totala lägenhetsytan. I Växjö är den endast 17,4 procent beroende på att det i anslutning till bostadshuset finns en av landstinget driven dagvårdsavdelning för rehabilitering som kan utnyttjas av hyresgästerna.

I Umeå är de gemensamma utrymmena större än genomsnittet (48,9 procent). Detta sammanhänger med att dessa utrymmen inte endast är avsedda för fastighetens hyresgäster utan även öppna för hyresgäster från angränsande fastigheter. Utrymmena utnyttjas också av gymnastikgrupper, balettavdelningar, yrkesskola och för handikappidrott.

3.2.3. Antalet hyresgäster

I samtliga Fokuslägenheter bor handikappade. I några av dessa bor mer än en handikappad. Sammanlagda antalet hyresgäster är 174. Av dessa är 151 handikappade. Alla hyresgäster som är gifta eller samboende har två- eller trerumslägenheter. 22 ensamstående har lägenhet om två rum och kök. (Tabell 2).

Tabell 2

Antal hyresgäster, lägenheter och total boendeyta

Ort	Antal lägenheter				Antal boende totalt	Antal handi-kappade	Tot. boendeyta i m²		
	1 r o k	2 r o k	3 r o k	Totalt			Lägen-heter	Allm. utr.	Totalt
Falkenberg	9	3	2	14	14	14	750	310	1.060
Kalmar	6	6	—	12	13	12	630	175	805
Mölndal	7	5	3	15	19	15	996	246	1.242
Umeå	18	8	6	32	40	35	1.850	905	2.755
Västerås	5	10	10	25	39	28	1.697	312	2.009
Växjö	15	2	1	18	20	19	852	147	999
Örebro	16	6	3	25	29	28	1.343	316	1.659
Summa	76	40	25	141	174	151	8.118	2.411	10.529

3.2.4. Bostadskostnader

Hyreskostnaden för lägenhetsytan räknat per m² och år varierar från 82:45 till 116:45. Samtliga lägenheter tillhör allmännyttiga bostadsföretag eller bostadsrättsföreningar. De är färdigställda åren 1968—70. (Tabell 3). I några fall är det endast preliminärhyra som debiteras.

Tabell 3

Total hyreskostnad och kostnad per m² och år för lägenheter och gemensamma utrymmen 1971

Ort	Kostnad per m² och år			Totala hyres-kostnader	Insats-kapital
	Lägen-het	Gem. ut-rymmen	Lägenh. m. gem. ut-rymmen		
Falkenberg	93:92	93:92	131:89	98.916	—
Kalmar	101:49	139:73	140:30	88.391	—
Mölndal	82:45	106:58	108:77	108.339	69.000
Umeå	92:22	108:—	122:59	275.747 *)	—
Västerås	101:40	156:54	130:18	220.908	52.000
Växjö	116:45	116:45	136:54	116.333	—
Örebro	111:57	129:28	142:08	190.814	—
	—	—	130:34	1.099.448	

*) vissa gemensamma utrymmen subventioneras f n till dess verksamheten helt byggts ut. Dessa subventioner har medräknats i den totala hyreskostnaden.

I regel är hyreskostnaderna för de gemensamma utrymmena något högre än för lägenheterna.

Redovisningen avser som nämnts hyreskostnaderna. Intressantare hade varit att kunna redovisa de verkliga produktionskostnaderna. Dessa har inte varit möjliga att få fram, då man i vissa fall slagit ut överkostnader på handikapplägenheterna på hela produktionen i de allmännyttiga bostadsföretagen. För samtliga lägenheter har invalidbostadsbidrag utgått med det högsta medgivna beloppet, 15.000:— kronor. Statliga bidrag har också utgått till en del av hisskostnaderna.

I lägenheterna och de allmänna utrymmena finns tekniska hjälpmedel av olika slag. I vissa fall kan kostnaderna för sådana hjälpmedel bestridas genom invalidbostadsbidraget, i andra fall kan hjälpmedlen ordineras till den enskilde och betalas genom socialstyrelsens hjälpmedelsanslag. En del tekniska hjälpmedel kan inte bekostas någon av dessa vägar. Det gäller t ex sådana avancerade hjälpmedel som hydrauliska badkar i gemensamt badrum, nödlarm, brandlarm, snabbtelefonanläggning, stryk- och tvättmaskiner för handikappade i de gemensamma tvättstugorna.

I de fall kostnaderna för handikappbostaden och där inmonterade tekniska hjälpmedel är högre än invalidbostadsbidragets 15.000:— kronor måste kostnaderna täckas på annat sätt. På samtliga orter — utom Västerås — har dessa överkostnader kommit att belasta hyreskostnaderna. I Västerås har dessa kostnader betalats genom ett engångsbidrag vid sidan om lägenhetsinsatserna.

Man kan konstatera att hyreskostnaden per m² och år för handikapplägenheterna inte nämnvärt överstiger kostnaderna för en ordinär lägenhet i den

allmänna produktionen när invalidbostadsbidraget frånräknats. Det som gör att den handikappade hyresgästen får en relativt sett stor hyreskostnad sammanhänger med hans andel av kostnaderna för de gemensamma utrymmena.

Dessa gemensamma utrymmen är emellertid nödvändiga av flera skäl. Hyresgästerna behöver för sin dagliga livsföring tillgång till viss apparatur som kräver så stort utrymme att det vore orimligt att den skulle finnas i varje lägenhet. Detta gäller t ex vid bad där den handikappade har behov av höj- och sänkbart badkar med speciell utrustning för att komma i och ur karet. Särskilt anpassad utrustning behövs också vid tvätt och klädvård. Även hobby- och träningsrummen har fått utrustning som ej kan tillhandahållas i de enskilda lägenheterna.

Ett andra skäl för de gemensamma utrymmena är att man i den ordinära bostadsproduktionen nu allmänt strävar efter olika aktivitets- och gemenskapsutrymmen. Detta gäller t ex sällskapsrum, hobbyrum, motionsrum m fl.

Ett tredje skäl för de gemensamma utrymmena är behov av lokaler för hyresgästernas service, d v s sådana lokaler som jourrum, personalrum, matsal m m.

Den totala hyreskostnaden per lägenhet — inklusive hyresandelen av gemensamma utrymmen — varierar på de olika orterna. Två exempel redovisas i tabell 4. I Mölndal rör det sig om insatslägenheter (HSB-hus), i Falkenberg hyrs lägenheterna av allmännyttigt bostadsföretag.

Tabell 4

Exempel på månadshyra för lägenhet och allmänutrymmen

Ort	Antal rum	Lägenhetsyta m²	Kostnad per månad		Totalt
			Lägenhet	Gemensamutrymmen	
Falkenberg	1	43,4	327:90	139:10	467:—
	2	58,7	446:63	181:37	628:—
	3	86,4	632:40	257:60	890:—
Mölndal (insatslägenheter)	1	48,0	348:15	118:75	466:90
	2	76,0	509:05	187:95	697:—
	3	96,0	675:65	237:42	913:07

3.2.5. Täckning av hyreskostnader

Kommunernas stödformer för att täcka hyreskostnader för handikappade omfattar, som tidigare omnämnts, dels KBT och dels KBH. KBT finns i samtliga kommuner, men utgår med mycket varierande belopp. KBH är en stödform under utbyggnad. Också detta tillägg varierar. Dessa stödformer tillämpas olika från en kommun till en annan.

I de sju orter som här är aktuella gäller följande:

Falkenberg: KBT utgår med högst 2.000:— per år. KBH saknas.

Kalmar: KBT utgår med högst 2.400:— per år. KBH infördes 1/1 1971. I stort sett följs kommunförbundets rekommendationer. För Fokushyresgästerna betalas KBH endast för själva lägenhetsytan, kostnadsandelen

för de gemensamma utrymmena får ej medräknas.

Mölndal: KBT utgår med högst 5.120:— per år för ensamstående. KBH infördes den 1/1 1971. Kommunförbundets rekommendationer följs.

Umeå: KBT utgår med högst 2.800:— per år. KBH utgår till Fokushyresgästerna fr. o. m. 1/7 1971. Kommunförbundets rekommendationer följs.

Västerås: KBT utgår med högst hela hyran per år. KBH har införts och överensstämmer med kommunförbundets rekommendationer.

Växjö: KBT utgår med högst 4.000:— per år. KBH infördes 1/1 1971. För Fokushyresgästernas del tillämpas det från 1/9 1971. Kommunförbundets rekommendationer följs.

Örebro: KBT utgår med högst hela hyran per år. KBH finns med generösare regler än kommunförbundets rekommendationer.

I hyresavtalet mellan Stiftelsen Fokus och hyresgästen sägs att hyresgästen inte skall betala högre hyra än vad som skulle ha utgått om kommunförbundets rekommendationer för KBH följts. Detta har medfört att stiftelsen hittills på de flesta orter fått träda emellan för att täcka hyreskostnaderna. Under 1971 har en förbättring skett genom att fler kommuner infört KBH. Stiftelsen får i vissa fall fortfarande täcka hyreskostnader för hyresgäster som flyttar in från annan ort.

1971 års hyreskostnader har i tabell 5 fördelats på hyresgästerna, kommunerna och stiftelsen. I genomsnitt svarar hyresgästerna för 17,6 % av hyreskostnaderna, kommunerna för 46,6 % och Stiftelsen Fokus för 35,8 %.

Tabell 5

Hyreskostnadernas fördelning 1971

Ort	Hyresgästernas andel	KBT	KBH	Fokus andel	Totala hyreskostnaden
Falkenberg	10.365	17.984	—	70.567	98.916
Kalmar	9.190	14.400	26.882	37.919	88.391
Mölndal	38.377	11.696	10.452	47.814	108.339
Umeå	43.610	54.790	53.290	124.057	275.747
Västerås	60.427	86.700	45.162	28.619	220.908
Växjö	13.232	46.592	20.712	35.797	116.333
Örebro	17.857	107.835	15.980	49.142	190.814
Summa	193.058	512.475		393.915	1.099.448
Fördelning i %	17,6	46,6		35,8	—

En från samhällets synpunkt intressant uppgift är totala hyreskostnaden per handikappad. Hyreskostnaden är beroende av bostadens storlek och hur stor del av de allmänna utrymmena som belastar lägenheten. Att därför ange en genomsnittlig kostnad per lägenhet ger ingen rättvisande bild. Mer korrekt är det att ange hyreskostnaden per boende. Medelkostnaden per boende blir c:a

6.320:— kronor. Hyreskostnaderna på de olika orterna är följande:

Falkenberg	7.065
Kalmar	6.799
Mölndal	5.702
Umeå	6.894
Västerås	5.664
Växjö	5.817
Örebro	6.580

Med hänsyn till att det kommunala bostadsbidraget till handikappade (KBH) på flera orter slagit igenom först under 1971 och bidraget i flera fall endast utgått under en del av år 1971 redovisas i tabell 6 en beräkning av kostnadsfördelningen under 1972. Beräkningen bygger på hittills kända hyreshöjningar och det beräknade utfallet av KBH.

Tabell 6

Hyreskostnadernas beräknade fördelning under 1972

Ort	Hyresgästernas andel	KBT	KBH	Fokus	Totalt
Falkenberg	10.365	17.984	—	72.055	100.404
Kalmar	9.190	14.400	36.410	30.000	90.000
Mölndal	38.377	11.696	49.927	8.339	108.339
Umeå	43.610	54.790	126.600	88.000	313.000
Västerås	60.427	86.700	45.162	28.619	220.908
Växjö	13.232	46.592	25.676	30.833	116.333
Örebro	17.857	120.000	52.143	21.000	211.000
Summa	193.058	352.162 688.080	335.918	278.846	1.159.984
Fördelning i %	16,6	59,3		24,1	—

Som framgår av tabell 6 beräknas en förskjutning av kostnaderna från Fokus till kommunerna, som innebär en minskning av Fokus andel till c:a 24 % och en ökning av kommunernas andel till c:a 59 % av totala hyreskostnaderna.

3.3. *Omvårdnadstjänsten*

3.3.1. Verksamhetens organisation

Samtliga hyresgäster i Fokuslägenheterna, som har behov av service och personell assistans får sådan. Den typ av omvårdnad som ges har närmare beskrivits i kapitel 2, avsnitt 5.

På samtliga orter — utom Växjö — är omvårdnadstjänsten uppbyggd så att den handikappades behov till viss del tillgodoses av hemsamariter eller hemvårdarinnor för vissa timmar och under vissa tider. Denna omvårdnad med hemsamariter/hemvårdarinnor kompletteras av en "basservice" som fungerar dygnet runt genom av Fokus anställd personal. I Västerås svarar kommunens socialvård för all personal i omvårdnadstjänst.

Hemhjälpsverksamheten handhas av kommunerna. Kostnaderna för denna verksamhet bestrides i vissa fall genom hemsjukvårdsbidrag från landstingen. Landstingen ger i några fall hemsjukvårdsbidrag till anhörig som svarar för omvårdnad av handikappad Fokushyresgäst. Stiftelsen Fokus svarar utom i Västerås för administrationen av och kostnaden för den baspersonal som finns dygnet runt.

I Växjö har stiftelsen ansvaret för all service. Bidrag utgår från landstingen (hemsjukvårdsbidrag) för en del av kostnaden. Från kommunen utgår inget bidrag. I Västerås svarar som tidigare redovisats kommunen för hela serviceverksamheten med ekonomiskt bidrag från landstinget.

3.3.2. Kostnader för omvårdnadstjänsten

År 1971 beräknas kostnaden för omvårdnadstjänsten på de sju orterna till 2,4 milj. kronor (Tabell 7). Kostnaderna per handikappad är i medeltal 16.239:— per år. För sex orter är medeltalet 17.243:—, med en variation mellan 15.255:— och 18.356:—. Omvårdnadstjänsten i Örebro kostar c:a 12.000:— per år. Den stora skillnaden är svår att förklara. Några av de faktorer som inverkar är arten och graden av handikapp, att verksamheten stabiliserats, att flera hyresgäster kunnat beredas arbete och sysselsättning utanför bostaden.

Tabell 7

Kostnad och kostnadsfördelning för omvårdnadstjänst

Ort	Landstingens kostn.	Kommunens kostn. därav egen andel	Kommunens kostn. därav statsbidrag	Fokus kostnad	Total kostn.	Kostn. per handikappad
Falkenberg	34.728	14.148	7.608	190.000	246.484	17.606
Kalmar	61.600	1.320	720	132.500	196.140	16.345
Mölndal	32.964	29.460	16.500	190.000	268.924	17.928
Umeå	232.902	43.939	23.663	333.000	633.504	18.100
Västerås	172.276	233.911	20.948	—	427.135	15.255
Växjö	46.200	—	—	302.556	348.756	18.356
Örebro	40.456	45.930	24.731	220.000	331.117	11.826
Summa	621.126	368.708	94.170	1.368.056	2.452.060	16.239
Fördelnig i %	25,3	15,0	3,8	55,9	—	—

3.3.3. Täckning av kostnader för omvårdnadstjänsten

Nästan alla hyresgäster har en sådan ekonomisk situation att de inte betalar för social hemhjälp. Med hänsyn till hyresgästernas ekonomiska situation har inte heller den service som tillhandahålles av Stiftelsen Fokus debiterats hyresgästerna.

För att kunna göra en jämförelse mellan de olika orterna har timkostnaden för omvårdnaden satts till 15:— per timme. Detta belopp inkluderar tillägg för obekväm arbetstid, socialförsäkring, semesterersättning m. m.

Landstingen svarar genom hemsjukvårdsbidragen för i medeltal 25 % av omvårdnadskostnaderna. (Tabell 7). Skillnaden mellan de olika landstingen är stor, högst 40 % och lägst 12 %. Kommunerna svarar för ca 16 %. I denna beräkning har statsbidraget till social hemhjälp inte medräknats. Skillnader mellan kommunerna är stora, från 56,4 % till ingenting. Statens bidrag uppgår till 3,8 % Statsbidraget avser dels total täckning av vårdartjänstkostnaderna för handikappade studerande vid universitet, högskolor och folkhögskolor, dels det statliga bidraget med 35 % till kommunernas sociala hemhjälp.

Stiftelsen Fokus svarar för huvuddelen av kostnaderna för omvårdnadstjänsten eller för 55,9 %. Endast i Västerås har landsting, kommun och stat övertagit hela kostnaden för servicen. På de sex orter där stiftelsen bidrar till kostnaderna svarar den för 67,6 % av totalutgifterna för omvårdnadstjänsten.

3.3.4. Personaltäthet

Att exakt ange personaltätheten på olika orter är mycket svårt. Dels varierar personaltätheten från tid till annan beronde på hyresgästernas skiftande behov, dels fördelas omvårdnaden mellan hemsamariter och fast personal på olika sätt.

Då man i stort sett tillämpar likartade avlöningsförmåner på de olika orterna kan man få en uppfattning om det genomsnittliga personalbehovet per handikappad och år genom att dividera personalkostnaderna med den genomsnittliga timkostnaden (15:—). Det bör då observeras att i denna timkostnad är inräknad semestertid m. m. Det framräknade antalet timmar är sålunda inte identiskt med det antal som ställs till hyresgästernas direkta förfogande. Resultatet blir följande:

Falkenberg	1.174
Kalmar	1.090
Mölndal	1.195
Umeå	1.207
Västerås	1.017
Växjö	1.224
Örebro	799

I medeltal blir detta för de sju orterna 1.083 timmar, vilket i stort sett motsvarar en personaltäthet av en anställd per två handikappade. I Örebro har man, som framgår av redovisningen, en personaltäthet av en per tre handikappade.

Avdelningen för handikappforskningen i Göteborg genomför en detaljerad analys av omvårdnadstjänstens omfattning, organisation och kostnad på skilda orter i landet. I denna undersökning ingår Fokuslägenheterna i Mölndal, Växjö, Örebro och Umeå. En närmare analys av skillnader i personaltäthet får anstå tills denna utredning är färdig.

3.4. *Sammanställning och fördelning av totalkostnaderna*

Kostnaderna för verksamheten är redovisade i tabell 8. Den totala kostnaden per handikappad — oberoende av vem som svarar för densamma — uppgår i genomsnitt till 22.559 kronor per år. Av detta utgör kostnaden för omvårdnadstjänst 72 % eller 16.239:—. Hyreskostnaderna uppgår till 28 % av totalkostnaden.

Tabell 8

Totala kostnaden 1971 och dess fördelning

Ort	Kostnader			Kostnadsfördelning				
	Hyror	Omvårdnad	Totalt	Hyresgäster	Landsting	Kommun	Stat	Fokus
Falkenberg	98.916	246.484	345.400	10.365	34.728	32.132	7.608	260.567
Kalmar	88.391	196.140	284.531	9.190	61.600	42.602	720	170.419
Mölndal	108.339	268.924	377.263	38.377	32.964	51.608	16.500	237.814
Umeå	275.747	633.504	909.251	43.610	232.902	152.019	23.663	457.057
Västerås	220.908	427.135	648.043	60.427	172.276	365.773	20.948	28.619
Växjö	116.333	348.756	465.089	13.232	46.200	67.304	—	338.353
Örebro	190.814	331.117	521.931	17.857	40.456	169.745	24.731	269.142
Summa	1.099.448	2.452.060	3.551.508	193.058	621.126	881.183	94.170	1.761.971
Fördelning i procent	31	69	—	5,4	17,5	24,8	2,7	49,6
Kostnad per handikappad	6.320 *)	16.239	22.559	312 *)	4.113	5.836	624	11.669

*) Obs. att hyreskostnaden drabbar även icke handikappade hyresgäster.

4. Hyresgästgruppen

4.1. *Hyresgästgruppens omfattning*

I samband med den inventering av svårt rörelsehindrade i åldrarna 16—40 år i behov av Fokusbostäder med personlig service som tidigare nämnts gjordes en viss avgränsning av gruppen. Detta skedde genom att beskriva de grupper svårt handikappade som inte skulle tas med i undersökningen. Enligt Inghe-Juhlin "... skulle sålunda inte tagas med handikappade, som klarade sig hjälpligt utan särskild utrustad bostad eller personlig service. För det andra skulle inte heller tagas med handikappade, som var så svårt invalidiserade, att de inte kunde bli annat än vårdfall oavsett hur man ordnade för dem." Ytterligare två kategorier uteslöts ur gruppen, nämligen dels blinda och synsvaga, dels utvecklingsstörda eller psykiskt sjuka.

Inghe-Juhlin fann i undersökningen att gruppen tilltänkta Fokushyresgäster uppgick till minst 1000 personer. Därtill kom ytterligare en grupp s k gränsfall på ca 1000 personer.

Den egentliga Fokusgruppen var ojämnt fördelad över landet. I storstadsregionerna fanns 5 per 100.000 invånare under det att man i Norrlands- och Smålandslänen fann 20 per 100.000 invånare (fig. 2).

Vid tiden för Inghe-Juhlins undersökning vårdades ca en femtedel av den egentliga Fokusgruppen på olika institutioner. Vårdformen skiftade mellan olika landsdelar, sannolikt till följd av tillgången på slutna vårdplatser och växlande ambitioner att ordna för de handikappade i öppen vård.

Av uppgifterna om gruppens utbildnings- och sysselsättningssituation framgick att ca en tredjedel av gruppen hade fått sin utbildning på institution eller genom hemundervisning. För var sjunde förelåg brister i grundutbildningen. Även här fann man skillnader mellan olika områden i landet. Av gruppen hade endast ca 15 procent yrkesarbete i någon form.

4.2. *De nuvarande hyresgästernas situation*

4.2.1. Antal hyresgäster totalt

Fokus har vid årsskiftet 1971/72 verksamhet på elva orter i landet. På ytterligare två byggs hus med Fokuslägenheter. Vidare förs underhandlingar om att bygga Fokuslägenheter i Lunds kommun.

På de elva orterna finns sammanlagt 213 lägenheter med 229 hyresgäster.

Antalet hyresgäster på de 11 orter där verksamhet pågår framgår av följande uppställning

Ort	Antal lägen-heter	Hyresgäster (rörelse-hindrade)
Kalmar	12	12
Växjö	18	20
Falkenberg	14	14
Mölndal	15	15
Skövde	13	13
Örebro	25	28
Västerås	25	28
Täby	15	17
Uppsala	29	30
Sundsvall	15	17
Umeå	32	35
Summa	213	229

Vid redogörelsen för Fokusverksamheten har i tidigare avsnitt endast medtagits sju orter, där verksamheten varit igång minst ett år. I det följande redovisas mer i detalj situationen för hyresgästerna på dessa sju orter.

4.2.2. Hemort före inflyttning

En av de viktigaste principerna i Fokusverksamheten är att handikappade skall ha möjlighet att bli Fokushyresgäst oavsett var de bor i landet. Inte minst de som bor i glesbygder och på mindre orter behöver flytta till ett samhälle med utbyggd service och bättre arbets- och framtidsmöjligheter. Då stiftelsen i samråd med de lokala Fokusstyrelserna beslutar om uttagning av hyresgäster har det varit möjligt att i betydande omfattning låta svårt handikappade personer flytta över kommun- och länsgränser.

Fokushyresgästernas fördelning på hemort före inflyttning framgår av följande sammanställning

Ort	Bosatt i kommunen	Inom länet	Utom länet	Totalt
Falkenberg	1	4	9	14
Kalmar	2	2	8	12
Mölndal	4	7	4	15
Västerås	14	4	9	27
Växjö	3	10	7	20
Umeå	15	14	6	35
Örebro	12	5	11	28
Summa	51	46	54	151
Procent	33,8	30,5	35,7	100

4.2.3. Boendeform före inflyttning

De rörelsehindrade som Fokus vill ge ett ändamålsenligt boende är de som är beroende av personlig hjälp med den dagliga livsföringen. Dessa rörelsehindrade var tidigare uteslutande hänvisade till anhörigas — ofta föräldrarnas — hjälp eller också vistades de på långvårdskliniker eller andra vårdinstitutioner. Men även många svårt rörelsehindrade som bodde i egna lägenheter — vare sig speciellt anpassade eller ej — hade mycket begränsade möjligheter att leva ett aktivt liv till följd av att behovet av personlig service inte var tillgodosett.

Tabell 9 ger en uppfattning om hur hyresgästerna bodde och fick personlig service före inflyttningen i Fokuslägenhet.

Tabell 9
Hyresgästernas boendesituation före inflyttningen i Fokuslägenhet

Ort	Föräldrar eller andra anhöriga	Egen bostad eller inneboende	Institution, långvård, skolinternat, ålderdomshem m m.	Totalt
Falkenberg	7	2	5	14
Kalmar	8	1	3	12
Mölndal	9	2	4	15
Västerås	9	14	4	27
Växjö	13	5	2	20
Umeå	12	14	9	35
Örebro	14	5	9	28
Summa	72	43	36	151
Procent	47,7	28,5	23,8	100,0

Som synes dominerar de som bodde i föräldrahemmet eller hos anhöriga. Av de 24 % som kom från institution m m utgjordes 15 % av personer som vistades på långvårdskliniker.

4.2.4. Arbets- och utbildningssituation

Av Inghe-Juhlins undersökning framgick att många svårt rörelsehindrade hade en bristfällig utbildning som en följd av att skolmöjligheter saknats på hemorten eller att det varit omöjligt att gå i ortens skola med hänsyn till att resurser saknats för personlig assistans, färdtjänst m m.

Av de 151 Fokushyresgästerna på de här redovisade sju orterna hade 24 yrkesarbete före inflyttningen. Ett år därefter hade antalet ökat till 32. Samtidigt fick 35 utbildning. Sammanlagt var sålunda 67 av hyresgästerna ett år efter inflyttningen i arbete eller utbildning.

Ort	Antal yrkesverksamma	Antal studerande
Falkenberg	2	4
Kalmar	5	2
Mölndal	7	5
Umeå	5	7
Västerås	6	3
Växjö	2	5
Örebro	5	9
Summa	32	35

Även om fler hyresgäster än tidigare kunnat få arbete, sysselsättning och studier måste man dock konstatera att mycket återstår att göra inom detta område. En av orsakerna till att man inte i större omfattning kunnat anskaffa arbete eller studiemöjligheter är att de handikappade bott på den nya orten under så kort tid. Hyresgästen måste få tid för att anpassa sig till ett självständigt boende. Ortens socialvård, arbetsvård m fl måste också få tid på sig för att sätta sig in i hyresgästens situation och finna lämpliga lösningar. Deras personella resurser har varit otillräckliga för att tillhandahålla de svårt rörelsehindrade det omfattande utredningsarbete m m som krävs.

Många hyresgäster har också haft behov av medicinsk rehabilitering.

Sammanfattningsvis kan dock konstateras att en boendemiljö som fungerar väl ger hyresgästen goda förutsättningar att ha ett arbete eller bedriva studier i normal omfattning.

4.2.5. Ålder, kön och civilstånd

Fokus har med sina begränsade resurser främst inriktat sig på gruppen yngre svårt rörelsehindrade personer. Någon absolut övre åldersgräns har emellertid inte dragit som framgår av följande tabell 10.

Tabell 10
Hyresgästernas åldersfördelning

Ort	≤ 19 år	20—29 år	30—39 år	≥ 40 år	Totalt
Falkenberg	—	4	4	6	14
Kalmar	—	4	4	4	12
Mölndal	1	10	3	1	15
Umeå	1	8	14	12	35
Västerås	3	5	6	13	27
Växjö	—	8	7	4	19
Örebro	1	12	8	8	29
Summa	6	51	46	48	151
Procent	4	34	30	32	100

En egen bostad ger den rörelsehindrade väsentligt ökade möjligheter till gemenskap och familjebildning. Det kan också konstateras att dessa möjligheter utnyttjats i samband med Fokus-boendet. Fördelningen mellan könen och frekvensen samboende redovisas i tabell 11.

Tabell 11

Hyresgästerna fördelade efter kön, samboende och antal barn

Ort	Kvinnor	Män	Samboende eller gifta par	Antal barn
Falkenberg	7	8	1	—
Kalmar	9	3	2	—
Mölndal	5	11	2	1
Umeå	13	18	6	1
Västerås	12	15	8	8
Växjö	8	13	3	1
Örebro	16	13	5	—
Summa	70	81	27	11
Procent	46	54	36	

4.3 Behov av omvårdnadstjänst

Att i siffror gradera en persons totala handikapp är omöjligt. Psykologiska, sociala och ekonomiska faktorer spelar här en lika viktig roll som rörelsehinder. Ett handikapp — fysiskt eller psykiskt — för ofta med sig andra handikapp, som i sin tur ytterligare försvårar situationen. Därför kan inte den handikappades totala situation enbart bedömas utifrån graden av rörelsehinder.

Tryggheten i att bo i en servicelägenhet är inte minst väsentlig och kan vara av lika stor betydelse som den handräckning man får. Följande uppgifter om hyresgästerna i Fokus-lägenheterna ger ingen fullständig bild av de handikappades situation, men kan ändå vara av visst värde.

Av hyresgästerna behöver:

77 % rullstol
14 % gånghjälpmedel
52 % hjälp vid av- och påklädning
36 % hjälp med daglig hygien m m
18 % hjälp med vändning i sängen

4.4. *Hyresgästvillkor*

Stiftelsen Fokus målsättning är att ge den handikappade frihet att välja bostad och bostadsort, rätt att disponera sin bostad på samma villkor som andra, garanterad omvårdnadstjänst samt behövligt stöd för att få utbildning, arbete och annan sysselsättning.

Den svårt rörelsehindrade behöver mer än andra handikappade tillgång till en utbyggd social, medicinsk, kulturell och kommersiell service. Sådan utbyggd service finns endast på de större orterna. Tillgång till exempelvis rehabilitering, utbildning och arbetsvård förutsätter också att man bor på en centralort. En absolut förutsättning för att den svårt rörelsehindrade skall kunna utnyttja dessa resurser är därtill en väl fungerande färdtjänst. Fokuslägenheterna är i de allra flesta fall placerade på regionala centralorter eller i närheten av sådana.

Stiftelsen Fokus har hyresrätten till samtliga lägenheter och hyr i sin tur ut dem mot sedvanliga hyreskontrakt. Stiftelsen garanterar den handikappade hyresgästen att hyreskostnaden skall beräknas på samma villkor som Svenska Kommunförbundet rekommenderat när det gäller kommunalt bostadsbidrag till handikappade (KBH). Enligt dessa villkor skall hyresgästen erlägga en hyra som endast uppgår till 18—22 % av hans inkomster, basbeloppet (förtidspensionen), invaliditetsersättning och -tillägg oräknade. I praktiken innebär detta att de svårt rörelsehindrade hyresgästernas vilkas inkomst endast är förtidspension med invaliditetstillägg inte behöver betala någon hyra alls.

Många hyresgäster som behöver omvårdnadstjänst — vare sig den ges i form av social hemhjälp eller av Fokus anställd personal — har i regel så små inkomster att de enligt avgiftsvillkoren för social hemhjälp inte behöver betala för den.

4.5. *Hyresgäst i Fokus — speciella fördelar*

Stiftelsen Fokus erbjuder sina hyresgäster en permanent bostad. För många kommer den också att vara det. För andra blir den kanske en genomgångsbostad. Detta har också märkts under de år som verksamheten varit i gång. Några hyresgäster, som en tid har bott i Fokuslägenhet, har senare kunnat hyra en insprängd handikapplägenhet utan tillgång till den omfattande service Fokussystemet erbjuder.

Genom tillkomsten av nya Fokuslägenheter har det också varit möjligt för Fokushyresgäster att flytta från en Fokusort till en annan. Man har härigenom kommit närmare anhöriga och vänner eller kommit till en ort där utbildnings- och arbetsmöjligheterna tett sig mer lockande. Detta har hittills gällt fyra hyresgäster.

Fokushyresgästerna har också en möjlighet att under semestern eller vid andra tillfällen byta lägenhet med hyresgäster på andra orter. För många svårt rörelsehindrade är det besvärligt eller rent av omöjligt att bo på annan ort om där inte finns tillgång till lämplig bostad med omvårdnadstjänst. Ett byte Fokushyresgäster emellan garanterar tillgång till både en bostad och en service som man är van vid. Ett sådant byte innebär inte heller några merkostnader för hyresgästen.

Hyresgästen har också möjlighet att ta emot annan rörelsehindrad som tillfällig gäst under t ex en helg. Även denne får då tillgång till servicen, om man på förhand gjort upp detta med personalen.

5. Samhället och de svårt rörelsehindrade

5.1. *De svårt rörelsehindrade — en åsidosatt grupp*

Stiftelsen Fokus, som bildades 1964, har inriktat sin verksamhet på att bistå yngre personer med svåra rörelsehinder. Dessa har behov av dels särskilt anpassade bostäder, dels också personlig hjälp med sin dagliga livsföring (omvårdnadstjänst). Deras handikapp har medfört att de varit intagna på olika vårdinstitutioner — vårdhem, sjukhem, ålderdomshem eller långvårdskliniker — eller bundna till sina föräldrahem. Deras bostadssituation och beroendet av service skapar ofta isolering. Arbets- och sysselsättningsmöjligheter saknas ofta på de orter där de bor.

De allra flesta är handikappade från födseln eller sedan tidiga barn- och ungdomsår. De har därför haft svårt att knyta kontakter som andra, få kamrater och bilda familj. Deras skolutbildning är i många fall bristfällig trots att läsintresse och förmåga att följa undervisningen fanns.

De betraktades ofta som "sjuka" även om de inte behövde vårdas på sjukhus, vårdhem eller liknande.

En av Stiftelsen Fokus första åtgärder var att söka kartlägga denna handikappgrupp. Gunnar Inghe och Inga-Maj Juhlin gjorde en riksomfattande inventering av personer mellan 16 och 40 år som kunde tänkas tillhöra den aktuella gruppen. De kom fram till att det rörde sig om ca 1.000 personer, men också att det fanns fler handikappade som kunde ha samma behov. Man fann vidare att de svårt rörelsehindrade fanns över hela landet med ojämn spridning. Det var i främsta hand behov av bostad, omvårdnadstjänst, färdmöjligheter, arbets- och sysselsättningsmöjligheter samt sociala kontakter som var mest uttalade. Dessa behov var mer påtagliga på landsbygden än i de större städerna. Ofta förvärrades den rörelsehindrades situation genom att flera faktorer samverkade ogynnsamt. Ängslan, otrygghet och ekonomiska bekymmer var vanliga. Brister i samhället tillsammans med de anhörigas oro och tvivel ökade ytterligare anpassningssvårigheterna.

Den sammansatta bild som mötte utredarna visade klart att särskilda åtgärder måste sättas in. Den tekniska lösningen av bostadsproblemen blev därmed endast en del av helheten.

Avdelningen för handikappforskning i Göteborg satte 1967 igång en undersökning av situationen för svårt rörelsehindrade med ofullständig skolgång. Där framstod ännu starkare det svåra läge som råder för dessa handikappade när bostads- och servicefrågan inte är löst.

I direktiven för handikapputredningen 1965 ingick bl a frågor som berörde de svårt rörelsehindrade. Det gällde bl a behovet av speciella åtgärder för att hjälpa dessa och andra handikappade att kunna tillgodogöra sig sådan utbildning på gymnasie- och därefter följande nivåer som förutsätter tillgång till bostäder, vårdartjänst och särskilda lärar- och hjälpmedelsinsatser. Handikapputredningen kom fram till att årligen ca 40 elever behöver sådana särskilda stödinsatser för att kunna fortsätta studera.

Alla de undersökningar som nämnts här avser den grupp handikappade som Stiftelsen Fokus främst verkar för. Det går inte att exakt ange hur många människor det är fråga om. Om man ser på handikapputredningen ovan nämnda beräkningar i utbildningsfrågan rör det sig om ca 40 personer i varje årskull. Trafikskador, andra olycksfall och sjukdom ökar dock antalet handikappade i gruppen. Å andra sidan minskar samtidigt siffran dels genom dödsfall, dels genom olika återanpassningsåtgärder. Inghe-Juhlins undersökning visar att de svårt rörelsehindrade med nämnda särskilda behov är ca 1.000 i åldrarna 16—40 år, vilket motsvarar ca 40 personer per årsgrupp. Dessa utgör alltså en "restgrupp" vars problem inte tidigare beaktats. Deras behov måste nu tillgodoses samtidigt med att nya årsgrupper successivt genomgår och avslutar sin utbildning.

Det som praktiskt sett skiljer denna grupp rörelsehindrade från andra är deras behov av speciella bostäder och av personlig hjälp med den dagliga livsföringen. Några timmars daglig hemsamaritservice är inte tillräcklig för deras behov.

De rörelsehindrade det här gäller har på grund av sitt handikapp svårt att få kontakt med andra och att kunna delta i vad som sker i samhället. Detta är särskilt påtagligt för dem som bor utanför de stora tätorternas centrala områden. Isoleringen som den handikappade upplever — såväl i glesbygd som i olämplig tätortsmiljö — försvårar möjligheterna att utnyttja vad samhället bjuder i fråga om utbildning, arbete, kultur- och fritidsverksamhet.

Att under hela livet vara beroende av andras hjälp för också med sig problem på det psykologiska planet. Bindningar och spänningar mellan den handikappade och hans närmaste försämrar hans möjligheter att leva ett fritt och självständigt liv. Den ständiga belastningen med tung omvårdnad på anhöriga kan lätt skapa skuldkänslor hos den handikappade.

I de flesta fall blir dessa handikappade förtidspensionerade eller får sjukbidrag när de lämnar skolan. Eftersom de aldrig kunnat få ett vanligt arbete kommer de inte heller in i ATP-systemet. Det betyder att de svårt rörelsehindrades ekonomiska situation undan för undan försämrats jämfört med andras. Detta bestyrks av låginkomstutredningen som visar att denna grupp handikappade hör till samhällets lägsta inkomstskikt. Till de övriga handikappen läggs också det ekonomiska.

1965 tillkom den s k elevhemslagen som ålägger landstingen att svara för svårt rörelsehindrade och andra handikappade elevers omvårdnad under den obligatoriska skoltiden. Genom ändring av socialhjälpslagen 1968 blev kommunerna ålagda att se till att handikappade och andra som behövde samhällets stöd också fick detta. Sjukhuslagen ålägger sjukvårdshuvudmännen att ansvara för omsorg om och vård av sjuka. Omvårdnaden av mentalt utvecklingsstörda ligger på landstingen.

För de i den här aktuella gruppen svårt rörelsehindrade som vill fortsätta att studera efter gymnasieskolan eller vid folkhögskolan har 1970 ansvaret och kostnaderna för vårdartjänsten övertagits av staten.

Trots att de ovan nämnda ansvarsområdena således övertagits av olika samhällsorgan har det hittills varit svårt att hjälpa dem som inte fått sin bostads- och omvårdnadsfråga löst genom medverkan av anhöriga och/eller hemsamariter. Det har varit svårt att hitta

riktiga och rationella lösningar eftersom det i varje kommun och landsting rör sig om mycket få handikappade. Det har därför legat nära till hands att inpassa dessa i omvårdnadssystem som byggts upp för andra grupper med andra behov. Främst har man då anlitat sjukvårdens och åldringsvårdens resurser.

Av ovanstående och vad som tidigare sagts framgår:

att det rör sig om en liten grupp svårt rörelsehindrade som behöver speciella resurser som klart kan beskrivas och avgränsas;

att man kan räkna med ett årligt nytillskott av 40 personer;

att det dessutom finns en "restgrupp" i yngre åldrar som omfattar ca 1.000 personer;

att samhället sörjt för speciella åtgärder för de handikappade som är i grundskoleålder och för dem som bedriver högre studier;

att de handikappade därefter nästan helt och hållet varit beroende av anhörigas insatser eller hänvisade att tas om hand av vårdorgan som främst avsetts för andra.

5.2. *Ett alternativ på verklighetsgrund: att bo med service i samordnad lösning.*

Stiftelsen Fokus har till mål att ordna möjligheter för svårt handikappade att bo med tillgång till dygnet runt-service. Det har gällt att finna lämpliga orter där såväl arbets- och fritidssysselsättningar som kommunal färdtjänst finns.

Genom stiftelsens verksamhet har de handikappade fått en möjlighet till ett fritt och så långt möjligt oberoende liv. Arbets- och studiemöjligheterna har ökat, man har kunnat flytta samman och bilda ett eget hem och man har inte längre behövt vara beroende av anhörigas tjänster.

Välplanerade och tekniskt väl utrustade bostäder och en dygnet runtservice ger några av de grundläggande förutsättningarna. Men det fordras mer för att den svårt rörelsehindrade skall få en tillvaro likvärdig med andras.

Först och främst behövs en ekonomisk trygghet. Vidare krävs transportmöjligheter, i de flesta fall färdtjänst. Utbildning och arbetsmöjligheter måste ordnas. För att denna samordnade verksamhet skall fungera får ingen länk i kedjan fattas.

Fokusverksamheten har visat sig vara en lösning med verklighetsförankring för de svårt rörelsehindrade. Den har hittills endast varit igång några år, men ytterst uppmuntrande resultat kan redan redovisas. Detta trots att bl a frågan om att få fram arbets- och sysselsättningstillfällen i inledningsskedet givit svårigheter.

Fokuslösningen har också mötts av uppskattning och stöd av de svårt rörelsehindrade. I dag är Fokus för den grupp som nödvändigtvis behöver omvårdnadstjänst det enda alternativet till vistelse på vårdhem, långvårdsklinik e d i de fall där inte föräldrar eller andra anhöriga kan svara för omvårdnaden av en ung eller medelålders handikappad.

Av redovisningen över kostnaderna för Fokusverksamheten 1971 på sju orter framgår att omvårdnadstjänsten kostar ca 16.200 kr per handikappad och år medan bostäderna i medeltal kostar ca 6.300 kr per år, sammanlagt ca 22.600 kr. Det är dessa kostnader som skall jämföras dels med vad den handikappade får ut, dels med kostnaderna för andra, alternativa omvårdnadsformer som samhället erbjuder.

De handikappade som inte kan bo i föräldrahemmet, hos anhöriga eller i egna bostäder har samhället enligt tradition erbjudit olika former av vård på institutioner. Fokussystemet erbjuder egna lägenheter insprängda bland andra bostäder med den frihet och den psykologiska stimulans som detta medför. Att vara omhändertagen inom en vårdinsti-

tutions allomfattande överinsyn har i Fokussystemet ersatts med att den handikappade själv aktivt medverkar och tar ansvar för sin situation. Möjligheterna till deltagande i samhällslivet vidgas och gemenskap underlättas.

Den ändrade livsform för de svårt rörelsehindrade som ett Fokussystem innebär är sålunda i och för sig värd stora ekonomiska satsningar. Det måste bli samhällets sak att svara för kostnaderna eftersom de handikappade själva inte har de ekonomiska möjligheterna.

Styrelsen för vårdartjänst övertog 1970 verksamheten med personell assistans för handikappade studenter vid bl a studenthemmet Domus i Stockholm. Vårdartjänsten för dessa studerande, som omfattade 9—10 mån. av året kostade per studerande i medeltal 22.500 kronor.

Av hyresgästerna i Fokus kom ca en tredjedel från olika former av vårdhem, långvårds- och rehabiliteringskliniker. Det är svårt att finna en genomsnittskostnad för omvårdnaden vid dessa institutioner, varför varje jämförelse får sina brister. Det kan trots detta vara av intresse att se på kostnaderna vid några institutioner av detta slag som blev färdiga ungefär samtidigt som Fokuslägenheterna. En sammanställning återges i tabell 12. Här framgår att årskostnaderna per plats på ålderdomshem låg mellan c:a 19.000 och c:a 30.000 kr och på långvårdsklinik mellan c:a 42.000 och c:a 60.000 kr.

Tabell 12

Sjukvårdshuvudmännens respektive kommunernas kostnader för driften av långvårdskliniker resp. ålderdomshem på vissa orter år 1970

Ort	Långvårdsklinik			Ålderdomshem		
	Driftkostnad	Antal platser	Årskostn. per vårdplats	Driftkostnad	Antal platser	Årskostnad per vårdplats
Halmstad	6.850.355	163	42.026:72	..	..	..
Falkenberg	—	—	—	872.000	45	19.377:78
Kalmar	4.911.300 *)	112	43.850:89	839.667	38	22.096:50
Mölndal	7.000.750	164	42.687:50	460.700	15	30.713:33
Umeå	8.084.300	135	59.883:70	1.153.700	48	24.035:41
Västerås	2.970.321	64	46.411:26	..	..	..
Växjö	..	..	..	937.453	40	23.436:33
Örebro	8.702.134	180	48.345:19	1.668.173	84	19.859:20

*) Kostnad enligt 1972 års stat, lönerna i 1970 års löneläge.

Även om man reserverar sig för de skillnader som alltid finns då man jämför olika verksamheter torde man dock kunna slå fast att Fokusverksamheten är en för samhället från ekonomisk synpunkt fördelaktig lösning av de svårt rörelsehindrades boende och serviceproblem.

Av vad som här och tidigare sagts kan man sålunda konstatera:

att en samordnad lösning enligt Fokusmodellen av boende- och servicefrågan ger de svårt rörelsehindrade möjlighet att leva ett självständigt liv;

att Fokusverksamheten från samhällets synpunkt är ekonomiskt fördelaktig.

5.3. *Samhällets ansvar och insatser*

5.3.1. Samhällets ansvar

I handikapputredningens betänkande "Bättre utbildning för handikappade" (SOU 1969: 35) görs inledningsvis en summering av samhällets ansvar. Man konstaterar där att "socialpolitiken i

Sverige under 1960-talet markerar ett genombrott för rätten till jämlikhet. Den materiellt och organisatoriskt sammanhållna socialförsäkringen garanterar den enskilde ekonomiskt skydd i situationer som för inte länge sedan för stora grupper betydde beroende av understöd, välgörenhet och fattigdom. Denna utveckling har haft till förutsättning hela befolkningens solidariska engagement i kostnaderna för det ekonomiska trygghetssystemet. Samhället har också iklätt sig ansvar för den enskildes personliga trygghet. Detta har fått sin lagtekniska bekräftelse i tillägg till lagen om socialhjälp". "De konkreta anordningar varmed människornas individuella behov skall tillgodoses är i allt högre grad samhällets angelägenheter." "Handikappvårdens ändamål är att så långt det går göra de handikappade oberoende av sitt handikapp genom att tillgodose de särskilda behov som detta medför och göra det möjligt för de handikappade att leva som alla andra. Detta är också ett uttryck för 1960-talets jämlikhetssträvanden."

De grundtankar som formulerats i dessa yttranden torde idag vara allmänt accepterade — samhället skall solidariskt hjälpa dem som av olika skäl råkar i svårigheter. Till detta kommer att samhället genom många av sina åtgärder — i regel avpassade för de stora konsumentgruppernas behov — skapar svårigheter för personer med speciella eller uttalade handikapp. Av ekonomiska och andra skäl har hittills bostäder, miljöplanering, arbetsplatser, kommunikationer m m huvudsakligen utformats så att de passar för personer som inte är handikappade.

Det finns numera en markerad strävan att styra den fortsatta utvecklingen så att även handikappade skall kunna få tillgång till och utnyttja samhällets utbud av olika verksamheter. I de fall detta inte går att göra genom mer generella åtgärder försöker man genom speciella insatser underlätta för de handikappade att fungera i samhället. Genom privata initiativ har man också försökt täcka behov som olika handikappsgrupper haft och har, men som hittills inte tillgodosetts av samhället. Många av de nu helt accepterade stödformerna — vanförevården, hemhjälpen, färdtjänsten, barntillsynen m fl — har startat på detta sätt för att sedan undan för undan byggas in i samhällets organisation.

Samhällets ansvar för handikappade har tagit sig uttryck i lagar, förordningar och anvisningar som försöker fördela uppgifterna på olika samhällsorgan; staten, landstingen och kommunerna. Sjukvårdsansvaret är främst anförtrott landstingen, ansvaret för socialvården åvilar i första hand kommunerna. När det gäller åtgärder för handikappade inom utbildnings- och arbetsmarknadssektorn är ansvaret delat mellan stat, landsting och kommun. Statens ansvar är att se till att samhällets åtgärder fungerar för samtliga medborgare, vidare att genom lagstiftning, råd och anvisningar ge riktlinjer för verksamheten samt att genom ekonomiskt stöd eller på annat sätt stimulera landsting och kommuner till lämpliga åtgärder. Genom försäkringsorganisationen har staten en direkt möjlighet och ett förstahandsansvar att påverka den enskilde handikappades situation.

Samhällets ansvar omfattar alla — även de svårt rörelsehindrade. De lagar och förordningar som utfärdats har framför allt tagit hänsyn till de stora gruppernas hjälpbehov. I samhället finns det enstaka individer — ibland begränsade grupper — vilka har speciella svårigheter. Det kan vara svårt att tillgodose dessa behov genom generella åtgärder. En sådan grupp är de svårt rörelsehindrade som behöver speciella bostads- och serviceåtgärder. Hittills har dessa handikappades behov i stort sett tillgodosetts genom uppoffrande insatser från föräldrar och anhöriga eller genom att man utnyttjat samhällets vårdformer som byggts upp för andra ändamål och andra grupper.

Den traditionella åldringsvården är inte avpassad för yngre svårt rörelsehindrades behov. Detta gäller såväl den slutna som öppna vården. Inte heller är långvårdsklinikerna och sjukhemmen de lämpligaste möjligheterna att ge denna grupp handikappade den bostad och den service de behöver. Man har hittills saknat ett planerat system av åtgärder som tagit hänsyn till och byggts upp med tanke på de svårt rörelsehindrades behov.

Man kan sålunda av vad som sagts konstatera

att **samhället har förstahandsansvaret för alla medborgares välfärd**

att **samhällets handikappvård siktar till att genom särskilda resurser tillgodose de handikappades speciella behov**

att **privata initiativ kompletterar samhällets insatser**

att **svårt rörelsehindrade med behov av speciella bostäder och omvårdnadstjänst först genom Fokusverksamheten fått en möjlighet att leva som andra.**

5.3.2. Samhällets ekonomiska stöd till handikappade

Den enskildes inkomst är basen för att han skall kunna fungera i samhället och tillgodogöra sig de aktiviteter samhället erbjuder. Många människor kan p g a sjukdom, handikapp eller andra orsaker inte skaffa sig en inkomst så att de kan svara för de nödvändiga utgifterna. Detta gäller i särskilt hög grad de svårt handikappade. Samhället har därför sett det som sin uppgift att tillförsäkra alla som råkar i svårigheter de nödvändiga ekonomiska förutsättningarna.

Det ekonomiska stödet — vid sidan om det som ges indirekt genom subventioner av bostäder, service, färdtjänst m. m. — sker främst genom den allmänna försäkringen.

De svårt rörelsehindrade, som här är aktuella, har i regel haft sitt handikapp från födelsen eller tidigare barn- och ungdomsår. Detta har medfört att de inte som andra kunnat komma ut i förvärvsarbete. De har därför inte heller haft möjlighet att få tillgång till ATP-systemets förmåner. I regel har de förtidspensionerats vid skolans slut eller vid 16 års ålder. Redan från unga år får de därför en ekonomisk standard som är klart lägre än andras. Även om förtidspensionen i kronor räknad är lika stor som ålderspensionen innebär det dock att de unga förtidspensionärerna får en sämre ekonomisk standard än ålderspensionärerna. De har inte som dessa haft möjlighet att sätta bo, skaffa utrustning o s v. De unga handikappades behov av aktiviteter och kontakter är sannolikt också mer kostnadskrävande än de äldres. Till svårt handikappade där handikappet medför avsevärda merkostnader kan invaliditetstillägg eller invaliditetsersättning utgå. Dessa bidrag uppgår till 30 resp. 60 procent av basbeloppet.

1971 utgick förtidspension till ensamstående med högst 6.688 kronor inklusive pensionstillskott. I december 1971 fanns c:a 225.000 förtidspensionärer i landet.

Hela utgiften för förtidspensioner uppgick budgetåret 1970/71 till minst 1.175 milj. kronor inklusive pensionstillskott. Utgiften för invaliditetstillägg och invaliditetsersättning uppgick under samma period till sammanlagt c:a 75 milj. kronor.

Av vad som ovan och tidigare sagts kan sålunda konstateras

att **samhället genom den allmänna försäkringen tillförsäkrar alla medborgare en ekonomisk grundtrygghet**

att **samhället genom speciella tillägg täcker vissa merkostnader för svårt handikappade**

att **de som är handikappade från födelsen eller tidiga barn- och ungdomsår oftast går miste om tilläggspensionssystemets fördelar**

att **dessa handikappade utgör en klar låginkomstgrupp**

att **det ekonomiska stödet till svårt handikappade inte ger dem möjlig-**

het att själva helt svara för sina boende- och servicekostnader

att **de svårt handikappades situation kan förbättras endast genom en genomgripande förändring av pensionsförmånerna och/eller ökade bidrag till bostad, omvårdnadstjänst, färdtjänst m m.**

5.3.3. Samhällsstödet till bostäder

En egen bostad framstår i vårt samhälle som en självklar rättighet. De bostäder som finns har inte och kommer inte under lång tid att på ett tillfredsställande sätt fungera för personer med mer uttalade rörelsehinder. Genom den nya byggnadsstadgan har staten försökt att styra den framtida bostadsproduktionen så att det skall bli möjligt även för handikappade att kunna få en godtagbar bostad. Denna i princip riktiga strävan kommer dock bl a på grund av ekonomiska orsaker inte att fullt ut kunna tillgodose de svårt rörelsehindrades problem. För denna och andra grupper måste man därför även i framtiden räkna med att speciella åtgärder kan behöva vidtagas.

Redan 1959 infördes det statliga s k invalidbostadsbidraget, som f n kan utgå med högst 15.000 kr per lägenhet. Under budgetåret 1970/71 beviljades bidrag till 2.369 lägenheter med 21,6 milj. kronor. Denna satsning har haft sitt stora värde främst för de handikappade som kunnat fungera i den typ av insprängda invalidlägenheter det i regel varit fråga om. Bidraget har verkat i stimulerande riktning men har också inneburit att hyreskostnaderna för den handikappade minskat. Trots att en invalidbostad drar större kostnader än andra lägenheter får hyreskostnaderna när invalidbostadsbidraget utgår, inte överstiga de som betalas för likvärdiga, icke handikappanpassade bostäder.

De höga hyrorna i nyproducerade fastigheter gör det svårt eller omöjligt för personer i svag ekonomisk ställning att hyra lämpliga bostäder. För att avhjälpa detta går samhället in med olika stödformer. Sådana stöd är bostadstillägg åt barnfamiljer, kommunalt bostadstillägg för pensionärer (KBT) och under senare år i vissa kommuner ett särskilt kommunalt bostadstillägg för handikappade (KBH).

Arbetsmarknadsstyrelsen har också möjlighet att ge hyresbidrag i samband med arbetsvårdande åtgärder och utbildning. Detta sista stöd är helt statligt. Kostnaderna för bostadstilläggen åt barnfamiljer delas av stat och kommun. KBT och KBH är rent kommunala stödformer. KBT finns i samtliga kommuner. Den 1/1 1971 hade KBH införts i över 100 kommuner. Det kommunala bostadsstödet i form av KBT och KBH kan beräknas uppgå till drygt 1 miljard kronor. Dessutom tillkommer bostadsstöd för barnfamiljer.

Enligt 1968 års socialhjälpslag skall kommunerna hålla sig underrättade om handikappades behov. De skall också medverka till att dessa behov blir tillgodosedda på ett för individen tillfredsställande sätt. När det gäller att lösa bostadsfrågan för de svårt rörelsehindrade kan den tidigare i många fall olämpade praxisen att hänvisa dem till vård på institutioner inte accepteras. Det är också från de handikappades synpunkt viktigt att deras bostadsfråga löses på ett sådant sätt att de kan tillgodogöra sig samhällets utbud av utbildning, arbets- och sysselsättningsmöjligheter, kultur- och fritidsverksamhet. Detta kan endast ske om bostäderna får en god placering och utformning.

Av vad som ovan och tidigare sagts angående stödet till bostäderna kan konstateras

att **samhällets kostnader för bostadsstöd delas mellan stat och kommun**

att **bostäder för svårt rörelsehindrade kräver omsorgsfull planering såväl för placering och utformning som utrustning samt tillgång till gemensamma utrymmen för service, gemenskap och andra aktiviteter,**

att **gruppen svårt rörelsehindrade med behov av vårdartjänst är så liten att bostadsplaneringen bör ske på riksplanet, främst med tanke på tillgången till service, utbildning, arbete och annan sysselsättning**

att **riksplaneringen är nödvändig också för att ge de svårt rörelsehindrade möjlighet att flytta från en kommun till en annan**

att **Fokusbostäderna med sin tillgång till service och gemensamma utrymmen visat sig fungera bra för svårt handikappade samtidigt som kostnaden för samhället varit låg.**

5.3.4. Samhällsstödet till omvårdnadstjänst

Tidigare var det främst de handikappades och sjukas anhöriga och vänner som fick svara för deras omvårdnad. När dessa inte kunde hjälpa längre var man hänvisad till institutionell vård. Från såväl handikappades, anhörigas som samhällets synpunkt var det angeläget att man byggde ut en service med hemvård, så att den handikappade kunde få bo kvar i sin miljö. För att stimulera utbyggnaden av den sociala hemhjälpen beslutade statsmakterna att ett 35-procentigt statsbidrag skulle utgå fr o m 1/7 1964 för den sociala hemhjälp som lämnas av kommunerna. Det statliga stödet till kommunernas sociala hemhjälp uppgick 1970/71 till 186 milj. kronor. Däremot utgår inte statsbidrag till hemsjukvården och endast under vissa förutsättningar till sådan hemhjälp som lämnas av privat organisation. Stiftelsen Fokus har sålunda inte fått statsbidrag till den omvårdnadstjänst som stiftelsen lämnat handikappade.

För studerande i vissa specialskolor för handikappade har staten iklätt sig ansvaret och kostnaderna för elevernas omvårdnad. För svårt handikappade studerande i eftergymnasial utbildning och vid folkhögskolor finns numera vårdartjänst att tillgå. Denna verksamhet sköts dels av de olika skolorna, dels av socialvården på studieorterna. I sistnämnda fallet ersättes kommunens kostnader helt genom statsbidrag från styrelsen för vårdartjänst. Kostnaden för vårdartjänsten för eleven vid universitet- högskolor och på folkhögskolor uppgick 1970/71 till 1,1 milj. kronor.

Till följd av det ständigt ökade sjukvårdsbehovet har landstingen — i väntan på att vårdmöjligheter skulle beredas sjuka och handikappade — givit bidrag, s k hemsjukvårdsbidrag, till kommuner och anhöriga som vårdade vederbörande i hemmet. Denna vårdform har visat sig både användbar och värdefull och har successivt byggts ut. Man har också eftersträvat att samordna landstingens hemsjukvård och kommunens sociala hemhjälp. I båda fallen har man på de flesta håll tillämpat en praxis att begränsa vårdbidraget till att omfatta högst kostnaden för 4 timmar per dag. Landstingens kostnad för hemsjukvårdsbidrag 1970 uppgick till 116 milj. kronor. Handikappade som inte kan klara sig med den erbjudna hemsjukvården erbjuds institutionsvård. För landstingens del blir det främst fråga om långvårdskliniker och sjukhem.

Kommunerna har en omfattande verksamhet med social hemhjälp. Denna stödform har varit i stark tillväxt inte minst beroende på det ökade antalet åldringar i landet. Som tidigare påpekats tillämpas i de flesta kommuner en övre gräns för antalet hemhjälpstimmar som kan utgå till den enskilde. I regel har gränsen satts till 4 timmar per dag. Detta medför att handikappade som behöver tillsyn eller handräckning för det dagliga livets aktiviteter, matning, toalettbesök o s v — inte får sitt behov tillgodosett genom denna stödform. För handikappade, där den sociala hemhjälpen inte är tillräcklig, försöker kommunerna ordna boende- och servicesituationen inom eller i anslutning till de resurser man byggt upp för åldringsvården. I andra fall hänvisar man till sjukvårdens resurser. Kommunernas nettokostnader för den sociala hemhjälpen uppgick budgetåret 1970/71 till c:a 360 milj. kronor sedan det 35-procentiga statsbidraget avräknats.

Den omvårdnadstjänst som finns i Fokusenheterna för de svårt rörelsehindrade är en kombination av dygnet-runt-service genom fast anställd personal och personlig hjälp genom hemsamariter. Denna typ av service har visat sig

vara lämplig såväl praktiskt som ekonomiskt. Organisationen ger trygghet samtidigt som den ökar de handikappades möjligheter till ett fritt och oberoende liv. Kostnaderna för denna verksamhet i Fokusenheter är c:a 16.200 per handikappad och år, vilket är avsevärt lägre än genomsnittskostnaderna för motsvarande service vid vårdhem, långvårdskliniker och liknande.

Av vad som här sagts kan sålunda konstateras

att stat, landsting och kommuner gemensamt har ansvar för att bygga upp och bekosta olika former av hemvård

att handikappade inte behöver vårdas på institutioner i den utsträckning man tidigare beräknat om det finns tillgång till en väl fungerande omvårdnadstjänst

att en väl planerad omvårdnadstjänst ger även svårt rörelsehindrade möjlighet att bo i egen bostad och känna oberoende

att den omvårdnadstjänst som ges Fokushyresgästerna genom samarbete mellan stiftelsen, landstingen och kommunerna fungerar tillfredsställande även för mycket svårt rörelsehindrade. Den ger en hög grad av trygghet samtidigt som den kan anpassas individuellt

att den omvårdnadstjänst som ges åt Fokushyresgäster kostar mindre än om den handikappade hade vistats på institution.

5.3.5. Samhällets stöd till färdtjänst m m

För att handikappade skall kunna tillgodogöra sig samhällets möjligheter till utbildning, arbete, kultur- och fritidsverksamhet fordras en fungerande transportmöjlighet. Genom arbetsmarknadsverket kan handikappade få bidrag till att skaffa och utrusta invalidbil om den behövs för studier eller arbete. Budgetåret 1970/71 beviljades statsbidrag till invalidbilar med 14,3 milj. kronor.

Handikappade kan också få befrielse från accis och vägskatt samt återbäring av drivmedelsskatt.

Ett hundratal kommuner har färdtjänst för handikappade. Handikapputredningen har närmare analyserat dessa frågor i betänkandet "Bättre socialtjänst för handikappade" (SOU 1970: 64) och funnit att verksamheten skiftar mycket i innehåll och omfattning.

Utredningen fann att ett särskilt, ändamålsbestämt stöd måste sättas in för att uppnå en över hela landet enhetlig uppbyggnad, funktion och effektivitet av färdtjänsten. Detta stöd borde — i likhet med statsbidraget till den sociala hemhjälpen — utgå med 35 procent av kommunens nettokostnader för färdtjänst. Dessutom föreslog utredningen statsbidrag till kommuner som bekostade invalidbilar till handikappade. Statens kostnader för nämnda verksamheter beräknades av utredningen uppgå till ca 40 milj. kronor vid en fullt utbyggd organisation.

Av vad som ovan sagts kan sålunda konstateras

att bättre färdmöjligheter är nödvändiga för att svårt rörelsehindrade skall fungera i arbete och utbildning och få tillgång till samhällets utbud av kultur och fritidsaktiviteter

att samhället genom staten, landstingen och kommunerna bör svara för den del av de handikappades färdkostnader som överstiger gängse resekostnader med allmänna färdmedel.

5.3.6. Samhällets stöd till utbildning och arbete

Genom tillkomsten av den s k elevhemslagen 1965 har de svårt handikappade tillförsäkrats grundskoleutbildning i nivå med andra elever. Genom olika specialskolor har staten påtagit sig ansvaret och kostnaderna för svårt handikappades utbildning i de fall den inte kan tillgodoses inom det reguljära skolväsendet. Genom styrelsen för vårdartjänst har staten underlättat för svårt rörelsehindrade och andra svårt handikappade att fullfölja sin utbildning vid universitet, högskolor och på folkhögskolor. Genom särskilda stödåtgärder på det pedagogiska området underlättas också de handikappades utbildningsmöjligheter. Alla dessa åtgärder leder till att även de svårast handikappade kan få utbildning och sedan påräkna att i arbetslivet eller på annat sätt få dra nytta av de förvärvade kunskaperna.

För personer som till följd av handikapp eller av andra skäl inte kan placeras i arbetslivet har samhället bl a genom arbetsmarknadsverkets arbetsvård byggt upp särskilda stödåtgärder. När det gäller de svårast rörelsehindrade har behovet av särskilda bostäder, omvårdnadstjänst, transportmöjligheter och för dem lämpligt arbete varit svårt att tillgodose på deras egna hemorter.

Erfarenheten visar emellertid att effekten av såväl utbildning som arbetsvårdens insatser begränsas om inte förutsättningar för lämpliga bostäder och service finns.

Av vad som här sagts kan konstateras

att samhällets omfattande satsning på utbildning och arbetsvård för svårt handikappade ofta får ringa effekt om det inte samtidigt finns tillgång till lämpliga bostäder, omvårdnadstjänst och annan service

att en samordning är nödvändig för att lösa den svårt handikappades utbildnings-, arbets- och servicefrågor

att de handikappade det här är fråga om är en så liten grupp att en sådan samordning måste ske på riksplanet.

6. Stiftelsen Fokus — ett initiativ att bygga vidare på

6.1. Stiftelsen Fokus verksamhet gäller svårt rörelsehindrade

Stiftelsen Fokus verksamhet gäller svårt rörelsehindrade. Dessa svårt handikappade är i många avseenden en speciell grupp. Den är förhållandevis liten. Inghe-Juhlin beräknade i sin inventering 1965 att gruppen i sin helhet omfattade ca 1.000 personer. Man kan beräkna att ca 40 tillkommer årligen. Flertalet är unga och har haft sitt handikapp från födelsen eller tidiga barnaår. Som en följd av handikappet har de ofta levt isolerade med begränsade möjligheter till utbildning och meningsfull sysselsättning. Endast ett fåtal har haft anställning. De flesta har således inte heller fått del av den ekonomiska trygghet ATP ger.

Flertalet behöver förutom en individuellt anpassad och utrustad bostad tillgång till omvårdnadstjänst med dygnet runt-service. Vid färd till och från utbildning, arbete, fritidsaktiviteter m m måste många av dem anlita färdtjänst med specialutrustade fordon.

6.2. Stiftelsen Fokus är en riksplanering

Den aktuella gruppen svårt rörelsehindrade har speciella problem. Bostad och omvårdnadstjänst måste utformas utifrån den enskildes förutsättningar så att de egna resurserna kan tas till vara. För meningsfull sysselsättning krävs tillgång till lämpliga utbildningsvägar, arbete och fritidsaktiviteter.

De enskilda kommunerna saknar oftast resurser för en fullständig satsning på samhällelig service för de svårt rörelsehindrade det här gäller. Endast i undantagsfall kan kommunerna erbjuda för svårt rörelsehindrade anpassade, egna bostäder och omvårdnadstjänst. Av inventeringar framgår därtill att dessa svårt rörelsehindrade sällan kan få önskad utbildning eller lämpligt arbete på hemorten. Finns utbildningsmöjligheter eller arbete saknas annan nödvändig service. Byte av bostadsort försvåras genom att reglerna för bidrag till och annan hjälp åt handikappade varierar starkt kommunerna emellan och att i vissa fall mantalsskrivning krävs för att förmånen skall utgå.

De erfarenheter Stiftelsen Fokus givit visar att den centrala planeringen och den riksomfattande verksamheten medfört väsentliga fördelar. Genom riksplaneringen har det varit möjligt att för verksamheten välja orter med tillgång till utbildning och arbete, väl utbyggd social och medicinsk service, köpcentra och rikt varierad kulturförsörjning.

De erfarenheter som undan för undan vunnits från de orter där verksamheten tidigt kom igång, har snabbt kunnat nyttiggöras i den fortsatta planeringen. Den riksomfattande verksamheten har medfört stora fördelar för hyresgästerna när det gällt att välja bostadsort med tanke på utbildnings- och arbetsval m m. Synpunkter på omvårdnadstjänstens innehåll och organisation har snabbt kunnat föras vidare orterna emellan.

Genom den samordnade lösning Stiftelsen Fokus presenterat har det varit möjligt att skapa förutsättningar för en grupp handikappade med svåra rörelsehinder att med något av den frihet andra har välja bostad och bostadsort, utbildning och arbete, umgänge m m.

6.3. Stiftelsen Fokus arbete är en grund att bygga vidare på

Stiftelsen Fokus har som målsättning att i samarbete med olika myndigheter genom samordnade åtgärder ifråga om bostad och omvårdnadstjänst ge svårt rörelsehindrade möjligheter till ett oberoende liv med tillgång till arbete, sysselsättning, gemenskap och fritidsaktiviteter. Dessa möjligheter skall stå öppna för alla oberoende av födelseort, hemort, rörelsehindrets art och grad, ekonomisk situation o s v. Verksamheten skall utformas så att den så långt det är möjligt ansluter sig till de boendeförhållanden som personer utan handikapp har.

Den verksamhet som stiftelsen med allmänhetens stöd genomfört har visat sig vara en god lösning för många svårt rörelsehindrade. Många har genom tillkomsten av Fokus kunnat lämna vårdhem och liknande omvårdnadsformer, andra har kunnat flytta från sitt föräldrahem och skapa sig en egen framtid. De har också fått möjligheter till utbildning, arbete, sysselsättning och gemenskap i en utsträckning som tidigare var omöjligt. Flera handikappade har tack vare de erbjudna boende- och servicemöjligheterna kunnat flytta samman och bilda eget hem.

Till grund för Stiftelsen Fokus verksamhet ligger en omfattande planering av bostäder och gemensamma utrymmen. Den omvårdnadstjänst som byggts upp har visat sig ge den handikappade trygghet samtidigt som den tillföräkrar honom den personliga omvårdnadens fördelar.

Verksamheten har visat sig vara ett värdefullt komplement till samhällets redan befintliga resurser och har utformats så, att den är lätt att inordna i den samhällsservice som redan finns.

6.4. Stiftelsen Fokus verksamhet är en ekonomisk lösning

Kostnaderna för den boendeform och omvårdnadstjänst som erbjuds hyresgästen i Fokuslägenheten uppgår till ca 22.600 kronor per år. Denna kostnad är jämfört med samhällets kostnad för personer som behöver mer eller mindre daglig omvårdnad, relativt låg. Det ligger i öppen dag att handikappade föredrar att bo på detta sätt framför att vårdas på institutioner av olika slag.

De svårt handikappade har ofta svag ekonomi. De allra flesta är förtidspensionärer och har varit det allt sedan ungdomsåren. De har därför begränsade möjligheter att själva bidra till sin försörjning. Eftersom samhällets försäkringsformer f n ej ger den enskilde ekonomiska möjligheter att själv svara för de kostnader som är förenade med handikappet måste andra lösningar tillgripas.

Genom de 11 miljoner som allmänheten med Röda Fjäderninsamlingen 1965 ställde till Stiftelsen Fokus förfogande gavs möjligheter att planera för och starta verksamhet på 14 orter. Hittills har stiftelsen under en begränsad tid kunnat medverka till att tillgodose behoven av boende och personlig service för vid fullt utbyggd verksamhet ca 300 svårt rörelsehindrade genom att med de insamlade medlen svara för mer än 50 procent av driftkostnaderna till denna verksamhet.

Målsättningen, sådan den också framkom under insamlingsaktionen, var att snabbt få fram resurser för den grupp handikappade det gällde. Det skulle sedan vara samhällets sak att föra verksamheten vidare, organisera den i fastare former och bygga ut den så att den kom att omfatta alla svårt rörelsehindrade.

Verksamheten har hittills bedrivits i nära samarbete mellan stiftelsen och olika samhällsorgan. Stiftelsen har i huvudsak svarat för planering och organisering av verksamheten. Den har dessutom som nämnts i betydande omfattning svarat för driftkostnaderna under inledningsskedet.

6.5. *Stiftelsen Fokus är en samhällsangelägenhet*

Den verksamhet som Stiftelsen Fokus bedriver är en samhällsangelägenhet. Genom bl a de ständigt stegrade byggnads- och personalkostnaderna tas nu stiftelsens medel i anspråk i en sådan takt att de kan beräknas vara helt förbrukade under senare delen av 1973. Att skaffa nödvändiga medel för den fortsatta verksamheten genom nya insamlingsaktioner måste i dagens läge vara såväl principiellt felaktigt.

Trots samhällets ökade satsning på bostadsbidrag och omvårdnadstjänst åt handikappade finns ingen form i vilken samhället utan vidare kan svara för stiftelsens verksamhet. Skall de vid fullt utbyggd verksamhet ca 300 Fokushyresgästernas och de varje år tillkommande svårt rörelsehindrades situation kunna tryggas, krävs sålunda att samhället skapar sådana verksamhetsformer. Ansvaret härför bör delas mellan stat, landsting och kommuner. Härigenom kan verksamheten behålla sin landsomfattande organisation samtidigt som den förankras i samhällets omvårdnadsformer på den ort där verksamheten bedrivs.

Samhället har tidigare genom punktvisa stödåtgärder åt olika minoritetsgrupper försökt tillgodose behov som varit svåra att täcka på annat sätt. Man har sedan, när man vunnit tillräcklig erfarenhet, kunnat inordna stödet i mera regelmässiga former. Verksamheten vid vanföreanstalterna, vårdartjänsten åt studerande, statsbidrag till hushållsmaskiner åt handikappade är exempel på detta. Stiftelsen Fokus är givetvis beredd att fortsättningsvis driva verksamheten på sådana villkor om driftkostnaderna täcks genom statliga bidrag och genom tillförande av resurser från sjukvårdens och socialvårdens sida.

Genom statsmakternas beslut inrättades 1 juli 1970 styrelsen för vårdartjänst med uppgift att bl a tillhandahålla vårdartjänst åt svårt handikappade studerande vid universitet, högskolor och folkhögskolor. Denna omvårdnad är av samma slag som den som Stiftelsen Fokus tillhandahåller sina hyresgäster. Flera handikappade universitetsstuderande bor för övrigt i Fokuslägenheter och erhåller sin personliga service genom stiftelsens försorg. Det statliga stödet är förbehållet nyss nämnda grupp av studerande och utgår endast under studietiden.

Det bör vara rimligt att staten i samverkan med landsting och kommuner fortsätter att även efter avslutade studier tillhandahålla omvårdnadstjänst åt de svårt rörelsehindrade. Det är också rimligt att denna förmån även kan komma dem till del som av olika skäl aldrig bedrivit studier. Oavsett vilka möjligheter den svårt rörelsehindrade har till sysselsättning (studier, yrkesverksamhet etc.) är hans behov av personlig service lika stort. Den enda möjligheten som idag föreligger att tillgodose detta behov är den verksamhet som Stiftelsen Fokus bedriver. Genom att samhället engagerar sig i Stiftelsen Fokus verksamhet skulle ett stort antal svårt rörelsehindrade som behöver den omvårdnad som här beskrivits kunna få denna trygghet garanterad.

En lämplig form för ett sådant engagemang vore att inordna Stiftelsen Fokus i den verksamhet som bedrivs av styrelsen för vårdartjänst.

7. Sammanfattning

7.1. *Stiftelsen Fokus, dess målsättning och verksamhet*

Stiftelsen Fokus bildades 1964 med målsättningen att skaffa svårt rörelsehindrade lämpliga bostäder insprängda i vanliga bostadsområden och med tillgång till dygnet runt-service och möjligheter till arbete och sysselsättning. Genom de drygt 11 miljoner som Röda Fjädern-aktionen 1965 inbringade blev det möjligt för stiftelsen att planera och starta verksamhet på f. n. 13 orter i landet. Stiftelsen Fokus är en riksstiftelse vars verksamhet ute på de olika orterna leds av lokalstyrelser där de handikappade hyresgästerna och handikapprörelsen är representerad och där samhällets myndigheter har majoriteten.

En grundläggande princip i stiftelsens planläggning har varit att bostäderna för handikappade skulle vara integrerade i den ordinära bostadsbebyggelsen. I anslutning till bostäderna har planerats allmänna utrymmen som står öppna för såväl handikappade som andra hyresgäster. Dygnet runt finns det tillgång till personell assistans. Stiftelsens lägenheter står öppna för handikappade från hela landet. Den handikappade skall själv kunna välja sin bostadsort med hänsyn till sina intressen. Han skall kunna flytta över kommungränserna utan de hinder som nu finns. Sammanlagt finns vid årsskiftet 1971/72 — 258 lägenheter i bruk eller under uppförande.

7.2. *Svårt rörelsehindrade — en liten och eftersatt grupp*

Den hyresgästgrupp som bostäderna är avsedda för är de svårt rörelsehindrade som förutom särskilt anpassade lägenheter också måste ha tillgång till personell service i sådan utsträckning att de inte kan få den i s. k. insprängda invalidlägenheter. Genom en undersökning som på Stiftelsen Fokus uppdrag utfördes av Inghe-Juhlin framkom att det fanns c:a 1000 handikappade i åldern 16—40 år, som var i behov av lägenheter av Fokustyp. Därtill kom ytterligare en grupp på c:a 1000 "gränsfall". Undersökningen visade att det fanns en markant övervikt av svårt rörelsehindrade i s. k. glesbygdslän och en underrepresentation i storstadsområdena. Detta förklaras av att handikappade ungdomar inte i samma utsträckning som andra kan flytta till de mer attraktiva orterna. De svårt rörelsehindrade var i högre grad tvingade att vistas i sina föräldrahem eller hos anhöriga där de kunde få omvårdnad eller också att bo på vårdinstitution. C:a 20 procent av ungdomarna som bedömdes kunna bo i Fokuslägenheter vårdades på institution.

Av dem som bodde i föräldrahemmen nödgades många bo i omoderna och obekväma lägenheter.

7.3. *Verksamhetens uppläggning och omfattning*

Genom Stiftelsen Fokus medverkan har på 13 orter — Kalmar, Växjö, Falkenberg, Mölndal, Skövde, Örebro, Linköping, Västerås, Täby, Uppsala, Sundsvall, Umeå och Luleå — byggts eller planerats flexibla, handikappanpassade bostäder. Lägenheterna, som omfattar såväl en-, två- som trerumsbostäder, hyrs ut till handikappade hyresgäster mot sedvanliga hyreskontrakt. Hyresgästen garanteras att han inte behöver betala mer än c:a 20 procent av sin inkomst — basbeloppet oräknat — i hyra. Detta är i enlighet med kommunförbundets rekommendationer och innebär t ex att förtidspensionärer i regel icke betalar någon hyra.

Den dygnet runt-service i form av personell assistans som svårt rörelsehindrade behöver innebär hjälp med alla funktioner som hör samman med den dagliga livsföringen. Denna verksamhet, som här benämns omvårdnadstjänst, har som mest framträdande inslag hjälp med av- och påklädning, personlig hygien, ordnande av matfrågan, inköp, städning, tvätt, bäddning m m. För Fokushyresgästerna tillgodoses behovet av omvårdnad dels genom kommunernas sociala hemhjälp och dels genog av Stiftelsen Fokus anställd baspersonal som finns tillgänglig dygnet runt. Därigenom garanteras att hyresgästen får den hjälp han behöver även då den inte täcks av den hemhjälp kommuner och landsting tillhandahåller.

7.4. *Redovisning av verksamheten och dess kostnad på sju orter*

Under år 1971 har stiftelsens verksamhet på sju orter varit i gång mer än ett år. Redovisningen av omfattningen och kostnaderna för dessa orter görs i särskilt avsnitt. I de 141 lägenheterna bor 174 personer, varav 151 är handikappade. C:a hälften av bostäderna är 1-rumslägenheter om 43—48 m². De 40 2-rumslägenheterna har en yta av 55—79 m², de 25 3-rumslägenheterna har ytan 80—96 m². På samtliga orter finns det i anslutning till lägenheterna gemensamma utrymmen som sällskapsrum, hobbyrum, specialutrustade tvättstugor och bad, träningsrum, jour- och personalrum. Kvadratmeterpriset per år för lägenhetsytan varierar mellan 82 och 116 kronor. Den billigare hyran finns i insatslägenheter. Kostnaderna för de allmänna utrymmena, vilka uppgår till c:a 30 procent, läggs på lägenhetshyran. Undersökningen visar sålunda att hyreskostnaden per m² för de välutrustade och kvalificerade handikapplägenheterna inte nämnvärt överstiger kostnaderna för en ordinär bostad i den allmänna produktionen.

På samtliga sju orter finns kommunalt bostadstillägg (KBT), på sex dessutom särskilt bostadstillägg för handikappade (KBH). Trots de kommunala bidragen och hyresgästernas andel täcks inte den verkliga hyreskostnaden. Stiftelsen Fokus svarar 1971 för c:a 36 procent av hyreskostnaderna, kommunerna för 46 procent och hyresgästerna för 18 procent.

Omvårdnadstjänsten är i regel organiserad så att den handikappade hyresgästen får social hemhjälp ett visst antal timmar per dag eller vecka genom kommunens försorg. Antalet timmar är begränsat och täcker inte de svårt rörelsehindrades behov. Verksamheten med hemsamariter/hemvårdarinnor kompletteras med en basservice som fungerar dygnet runt genom av Fokus anställd och bekostad personal. (I Västerås svarar kommunen för hela omvårdnadsverksamheten.) Kostnaden för den totala omvårdnadsverksamheten — antingen den ges av kommunens eller Fokus personal — varierar från 12.000 till 18.200 kronor per handikappad och år. Medeltalet för 1971 ligger vid 16.200 kronor. Då de handikappade i nästan alla fall har en sådan ekonomisk situation att avgift normalt inte uttas för social hemhjälp, blir det samhället och Stiftelsen Fokus som får svara för omvårdnadskostnaderna. Kostnadsfördelningen är följande:

Stiftelsen Fokus	56 %
Kommunerna	15 %
Landstingen	25 %
Staten	4 %

Landstingens bidrag avser hemsjukvård, statens bidrag gäller det ordinära statsbidraget till kommunernas sociala hemhjälp och till vårdartjänst åt studerande.

Totalkostnaden för boende och service i en Fokuslägenhet är per handikappad och år i genomsnitt 22.600 kronor. Denna kostnad kan jämföras med samhällets kostnader för handikappade och andra som omhändertas på långvårdsklinik eller ålderdomshem. I utredningen görs en jämförelse för de aktuella orterna. Kostnaderna per vårdplats är för långvårdsklinik 42.000—60.000, ålderdomshem 19.400—30.700. Det bör påpekas att jämförelser av detta slag alltid är bristfälliga. Den omvårdnad som ges på de olika ställena och den boendemiljö man erbjuder är högst varierande.

7.5. *Hyresgästernas tidigare situation*

Vid en analys av de handikappades situation innan de flyttade till Fokuslägenheterna visas att c:a 34 % kom från orten, 66 % var från andra orter. Av dessa kom hälften från länet. De flesta handikappade, 48 %, hade tidigare bott i föräldrahem, 24 % på institution, vårdhem, långvårdsklinik eller liknande. Efter inflyttningen till Fokuslägenheterna ökade de handikappades deltagande i arbete och studier. Här fanns dock en viss eftersläpning då det visade sig svårt att ordna arbetsmöjligheter på den korta tid verksamheten varit igång. Ett år efter inflyttningen var dock 45 % i arbete eller utbildning. Fokusbostäderna möjliggjorde för flera handikappade att flytta samman och bilda familj med handikappad eller icke handikappad. 36 % av hyresgästerna var samboende eller gifta.

Av de handikappade hyresgästerna var 77 % rullstolsbundna. Drygt hälften behövde hjälp med av- och påklädning, en tredjedel med den dagliga hygienen. Nästan var femte (18 %) behövde hjälp med vändning i sängen under natten.

De handikappade hyresgästerna i Fokuslägenheterna tillhör sålunda en grupp svårt rörelsehindrade som är i absolut behov av en dygnet runt fungerande omvårdnadstjänst. Genom Stiftelsen Fokus verksamhet har de fått möjligheter att leva ett mer aktivt och oberoende liv under trygga förhållanden. Den handikappade får också genom Fokusverksamheten möjlighet att själv välja bosättningsort. Han är inte längre instängd inom kommun- eller landstingsgränserna. Han får disponera sin bostad på samma villkor som andra och garanteras den personliga servicen. Härigenom får han också nya möjligheter till arbete, sysselsättning, utbildning och fritidsaktiviteter.

Som hyresgäst i Fokus har den handikappade också speciella fördelar. För en del hyresgäster blir lägenheten i Fokus ett steg i rehabiliteringsprocessen på väg till en bostad av mer ordinär typ. Det har också, genom Fokus riksomfattande verksamhet, blivit möjligt för en hyresgäst att flytta från en Fokusort till en annan och därigenom komma närmare vänner och anhöriga eller komma till platser med bättre arbetsmöjligheter. Under semestertid kan en Fokushyresgäst också tillfälligt byta våning med en handikappad på annan ort. Båda får då tillgång till omvårdnadstjänsten på den nya "semesterorten". Hyresgästerna har också möjlighet att ta emot annan handikappad som tillfällig gäst under ett veckoslut eller så. Även denne får då tillgång till service.

7.6. De svårt rörelsehindrades problem en samhällsangelägenhet

Fokusverksamheten och de utredningar som Fokus låtit göra visar att de svårt rörelsehindrade i behov av omvårdnadstjänst är en liten och eftersatt grupp. De flesta har varit handikappade från födelsen och därför fått brister i sin utbildning och har efter skolgången i stor utsträckning varit hänvisade till förtidspensionering. De kommer därför inte in i ATP-systemet med dess bättre ekonomiska villkor. Årligen kan man räkna med att ett 40-tal handikappade i landet kommer i den situationen att de skulle ha behov av en bostad med service enligt Fokussystemet. Hittills har deras problem inte uppmärksammats i samhället utan man har försökt lösa de mest brännande situationerna genom omhändertagande på vårdinstitutioner eller långvårdskliniker. Stiftelsen Fokus verksamhet visar dock att det går att för mycket rimliga kostnader ordna med bostäder och omvårdnadsverksamhet även åt svårt rörelsehindrade. De behöver inte längre vara hänvisade till att förbli i föräldrahemmen eller bli intagna på vårdinrättningar. Även dessa handikappade har rätt och möjligheter till en egen bostad. Fokuslösningen betyder nya möjligheter för de svårt rörelsehindrade men är också ur samhällets synpunkt en fördelaktig lösning.

7.7. Verksamheten en samhällsangelägenhet

Samhället har att ta ansvar för att även den grupp svårt rörelsehindrade det här är fråga om får sina berättigade krav på egen bostad och garanterad service tillgodosedda. Det initiativ som tagits av Stiftelsen Fokus och som stöddes av svenska folket genom 1965 års aktion är ett komplement till samhällets tidigare verksamheter. De resultat som framkommit av verksamheten visar att Fokusprincipen är något att bygga vidare på. Samhällets olika organ — stat, landsting och kommun — bör gemensamt överta ansvaret för den av Fokus startade verksamheten och inordna den i samhällets mer reguljära former. Det är av allra största betydelse att verksamheten fortfarande behåller sin riksomfattande karaktär. Endast därigenom kan den handikappade påräkna att som andra få möjligheten att flytta utanför kommun- och landstingsgränserna och komma i åtnjutande av samhällets utbud av arbete, utbildning och fritidsaktiviteter. Det får ses som ett jämlikhetskrav att även de svårt rörelsehindrade som inte går i eftergymnasial utbildning eller folkhögskolor får sin bostads- och omvårdnadsfråga löst genom samhällets försorg. I redogörelsen framläggs också förslaget att Stiftelsen Fokus verksamhet borde inordnas i den verksamhet som bedrivs av styrelsen för vårdartjänst.

Team Tryck AB, Sthlm

Services for the Handicapped

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Services for the Handicapped in Sweden

By RICHARD STERNER

The principles of activation, normalization and integration

One of the declared objectives of Swedish internal policy is to promote, as far as possible, the activation of the handicapped, giving them every chance to develop their potentialities; to enable them to lead a life as close to normal conditions as possible; and to work for their integration in the general community, to the extent that this is possible and reasonable.

Naturally, we are far from having achieved these objectives. They describe, however, the general direction of our policy. We have come to use them, increasingly, as a yardstick by which to measure our achievements and shortcomings. Intensive discussion is taking place with a view to making these principles concrete and, hence, meaningful. Such discussion is based on experience, sometimes research, and it is always carried on with the very active participation of the organizations of the handicapped themselves.

Naturally there are differences of opinion. Some, for instance, are against day centers for the handicapped, pointing out that they mean segregation. Others favor them, claiming that, for many persons with handicaps, they at least provide an escape from more serious isolation. Most parents of deaf children are against the teaching of the sign language, fearing that it will make deaf children less eager to learn the lip reading and speech necessary for integration and normalization. The National Association of the Deaf, on the other hand, representing those who have been deaf from childhood, maintains that the teaching and development of the sign language, as a supplementary tool, is equally necessary, if all deaf children are to learn enough words and concepts to have a full share in the spoken and written language; and this, in the Association's view, should be a first priority in integration and normalization. In the case of children with no usable hearing potential, it has recently been decided to make teaching of the sign language compulsory during the last three years of elementary school.

Just now we are having an integrational drive in special education, substituting, whenever feasible, supporting services in ordinary classes for special

classes, or letting special classes in ordinary schools take the place of special schools. Many of the blind and the deaf are reluctant about this, fearing that children with these handicaps may feel even more isolated when together with normal children, and insisting that they at least be duly prepared before being placed in ordinary schools; on the other hand there has been little or no opposition, and quite a lot of encouragement, from those representing other groups of handicapped. It is emphasized that integrated education can be organized in more schools, which will reduce the distance from the home; and that handicapped children, to prepare themselves for life, must learn to be together with normal children, just as normal children must learn about the existence of handicaps as part of the human condition. It is hoped that integration will reduce prejudice, whereas segregation and ignorance certainly reinforce it. The risk of severely handicapped children being "mobbed" or persecuted is less, in our experience, than most of us used to believe, and it can be further reduced by suitable information to other children and their parents. Such a risk exists on the other hand, in the case of children with certain light handicaps, as it does for other groups (e.g. immigrant children), and action is here indicated; however, these children are in ordinary schools anyway.

Let me take another example of our current thinking. So far even we of the National Association for Retarded Children have accepted that some of the severely and profoundly retarded have to spend much or all of their lives in residential institutions or special hospitals. We have concentrated on pressing for an alleviation of the effects of this segregation, emphasizing, for instance, that institutions should not be too large (for more than 200) as some of them are (up to about 600); nor situated in remote areas, as happens in several cases. It is essential, too, that at least the departments within an institution be based on the small unit principle, which is becoming the dominant pattern with an average of 12 per department, although many are larger (about 45 in exceptional cases); and that there should be no more than 4, and preferably 1 or 2 beds per bedroom, which is usual (actual average below 2, but with variations up to 12).

Some of us, however, are now beginning to wonder whether we should content ourselves with making such standards more general. Would it not be possible to change these institutions in an even more fundamental manner? It has been established, particularly by the Ala Research Foundation (for which our organization is co-sponsor), that even many severely retarded from institutions can be trained to live much more independently in hostels or group homes integrated in ordinary residential areas, doing their own rooms and participating in the preparation of some of their meals. A modern institution, after all, consists of several buildings for different purposes, namely centers

An example of sports for handicapped persons. Blind youngsters receive training in underwater swimming.

for medical care, for daily activities, recreation etc., with separate buildings for residential needs. Why then not let small group homes and hostels of different kinds, integrated in ordinary surrounding residential areas, take their place, with the centers situated near by? These centers alone would require far less space than traditional institutions which would facilitate the integration in residential areas. This idea is now being tested by further experiments and research.

"Collective" approach

There are limits, of course, set by the potential of the individual and many other circumstances, to how far it is possible to implement these ideas of activation, normalization and integration. These limits, however, can and must be stretched and that is what rehabilitation is about.

The question is not only to adapt the individual to the environment, but also to adapt the environment to human needs. In Sweden, perhaps more than in many other countries, a "collective" approach is being increasingly emphasized in the debate, and even in public policy. Our labor market, for instance, discriminates against the handicapped in a number of ways. This is the consequence of prejudice and a tendency to concentrate the attention on the handicap, disregarding any qualities that the person may have. It is a consequence, too, of unnecessary steps, narrow passage, narrow elevators (or a lack of them) and unsuitable toilets of restricted accessability to persons with locomotor handicaps. And of the fact that many working places are not friendly to humans at all, with back-breaking work, in spite of mechanization; with excessive stress; with noise that causes hearing impairments; and air pollution and materials that cause allergy and other illnesses. These are just examples of factors that create new handicaps and curtail the labor market for those who are handicapped already. A tremendous amount of research and development work has been devoted to work processes and the organization of working places. Too little of it has been devoted to the human angle. Prompted by the trade unions, and by organizations of the handicapped, the Swedish Government is now taking an increasing interest in matters of this kind. It is a huge task, and the picture cannot be changed overnight. Yet we believe more in this approach than in fixing any legal quota for the employment of handicapped persons.

The problem, however, is greater even than this. At long last we are becoming aware of the fact that physical pollution of various kinds is threatening our civilization, and that we have created an environment based mainly on the fallacious idea that all people are able adults of working age, resistent to all health and accident hazards, and that there are no children, elderly persons and handicapped people. Although our results, so far, are modest in relation to the size of this problem, we are at least beginning to do something about it. Most important, perhaps, is the following clause in our *Building Code* which came into effect in 1966 and was amended in 1971:

"In all buildings those parts to which the general public is admitted or that constitute working places shall be designed, as far as reasonable, in a manner making them accessible and usable for persons whose motor ability or ability of orientation is restricted by age, disability or sickness."

This clause applies only to new buildings and to buildings under re-construction requiring a new building permit. An executive order explains the concrete meaning of these requirements. A shortcoming is that the needs of other groups of handicapped people have been overlooked. As regards the interior design

of new dwelling units, which is not covered by this clause, corresponding standards are being worked out by the National Housing Board which gives financial support to most residential construction.

From charity to rights

As in all non-communist countries, there is fund raising in Sweden for most groups of handicapped people, but it is not encouraged in tax laws, and any major campaign is criticized by many of the handicapped themselves and frowned upon in the mass media, which keep telling us how disgraceful it is to be begging for the handicapped, who should have all they need as a right and not as a charity. On this principle there is general agreement in Sweden. Everyone wants all the handicapped to receive such rehabilitative and other services they need, which means that they must have a right to them. The only trouble is that organizations working with the handicapped find that, in spite of our relatively advanced social welfare legislation and a rapid improvement in many services for the handicapped, there are still so many serious gaps and shortcomings on all fronts that they have to fight for more rights, and a better implementation of rights. The money these organizations raise, together with the support several of them obtain from central and local governments and authorities, is used mainly to finance such information and pressure activities as can promote the development of public policy, and for demonstration projects showing the way for still more public efforts.

Space does not permit me to give more than an idea, and one or two examples, of the legislative structure pertinent in the context. An *Act on Provisions for Certain Mentally Retarded Persons,* that came into effect in 1968, occupies a unique position, in that it summarizes many of the rights of one particular group of handicapped people, often in a more mandatory form than with the corresponding rights of other groups. It provides for a right to preschool education, often together with normal children, and to compulsory special education for all retarded aged 7—21, including "trainables", with at least a few hours of educational or training work a week for those who cannot attend classes and have to be taught individually or in small groups. Such compulsory special education includes a secondary school, featuring vocational education or training and further training in activities for daily living. Other clauses cover medical care; services in institutions, special hospitals and small hostels for those who need them; occupational centers for those who cannot obtain employment on the open market or in sheltered work; rehabilitative services for those living in their homes etc. Almost all these services are free and financed mainly out of local taxes by the County Councils who are the

sponsors. The latter receive State aid and the disability and old-age pensions of those living in institutions — except that these persons have a right to retain some pocket money, if they can use it, or to receive corresponding extra benefits in kind. The National Board of Health and Welfare and the National Board of Education render supervisory services, emphasizing the rehabilitative aspects. Implementation, on the whole, has been rapid, particularly in the special education of the retarded, which has doubled in number of pupils in four years; but it is not yet complete. It suffers from shortages of trained staff and specialists, such as physicians, physiotherapists, speech therapists, and training teachers. Retarded persons with physical handicaps often receive less satisfactory services for these additional handicaps than do corresponding persons of normal intelligence — which is just one among many examples of how we have not yet succeeded in the difficult task of providing adequately for all those with multiple handicaps.

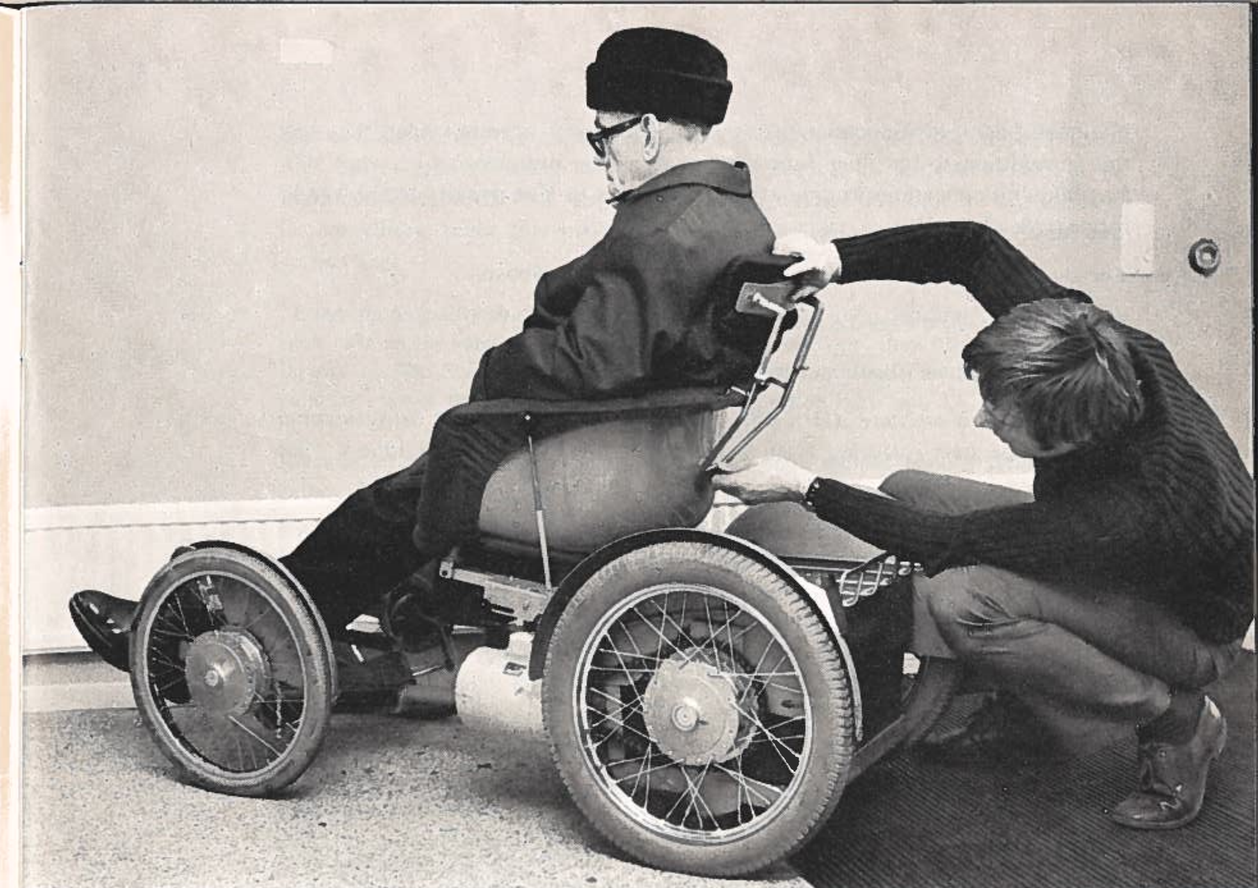
There is no similar comprehensive law text summarizing most of the special rights of other groups of handicapped people, perhaps because these have never asked for it. Many of them do not wish to be set apart and would rather have their rights stated in general legislation covering different sectors, or in regulations based on special programs adopted by Government and Parliament. Some of the more important of these law texts and regulations (most of which give additional rights to the mentally retarded) should be mentioned:

The Act on Medical Care which makes the County Councils responsible for almost all medical and related services, with the exception of private practice which is of limited volume in Sweden. The National Board of Health and Welfare acts as a supervisory agency. (See below.)

The National Insurance Act providing for old-age and disability pensions, and similar benefits, daily sickness benefits and certain contributions to medical care, particularly ambulant care, including private practice and certain services from physiotherapists. (See below.)

The Industrial Injuries Insurance Act providing for higher or additional benefits in certain cases.

The Regulations on Unemployment Insurance providing for heavy State subsidies to the Unemployment Insurance Societies organized by most trade unions. Those who have had little or no gainful employment are excluded, as are those who have received benefits during a very long period, but the conditions are especially liberal for persons over 60, and cash benefits, although



An electrical wheelchair for outdoor use being adjusted to the needs of a handicapped person at the Institute for the Handicapped.

on a lower level, are provided also for unemployed persons outside the insurance system. There is no doubt, however, that particularly the handicapped could have gained more from a general compulsory unemployment insurance.

The Social Welfare Act regulates the responsibility of the municipalities for residual needs not covered by social insurance and other major provisions, and contains a general clause intended to improve services for the handicapped. (See below.)

The Education Act makes the municipalities responsible for almost all educational services below university level, including most special education. The

National Board of Education acts as a supervisory agency under the Act; this in addition to its other functions, such as the promotion of a very substantial adult education program, in which it tries to give priority to the handicapped. (See below.)

The Building Code which contains a clause referred to above.

The Regulations on Free Technical Aids. (See below.)

The Regulations on Vocational Rehabilitation. (See below.)

The Regulations on State Aid for Special Design and Equipment in Residential Units for persons suffering from severe motor handicaps or blindness. (See below.)

Most of these and other laws and regulations involve the municipalities or the County Councils as sponsors, and many of the latter have adopted local programs and regulations of their own to improve and supplement various services for the handicapped; in this they have often been prompted by recommendations from Government and Parliament, and in some cases, encouraged by State aid.

The problem of coordination

It is generally agreed that rehabilitation is a multidisciplinary task requiring close team-work between experts of different kinds: medical, social, vocational, pedagogical, technical etc. The many problems of a severely handicapped person must be dealt with from all relevant angles. Serious economic worries, or even a lack of adequate provision for leisure time activities, can lead to the failure of a rehabilitative effort, however good the effort may be in other respects.

On the other hand, it is not usually possible to vest the responsibility for different rehabilitative functions in a single agency. This raises a difficult problem. How are we to organize a close collaboration crossing the administrative border-lines, and sometimes also involving agencies at different governmental levels?

We have certainly not done enough about this need for integrated comprehensive rehabilitation. To take just one example: it frequently happens that vocational resettlement officers have to cope the best they can with persons who have received insufficient medical rehabilitation. Or that a person who has received such rehabilitation and been referred to the vocational service, has to wait in line for months or for over half a year. The main reason for this, however, is probably just insufficient resources in both services. Yet the administrative border-line may add to the difficulties. At least we are trying to do something about this problem. The Social Welfare Act, since 1968, prescribes that

> "Every municipality shall see to it that those who reside in the municipality receive such care as, in view of their need and other conditions, may be considered satisfactory. . . The Social Welfare Board shall familiarize itself, thoroughly, with the need for care of the individual person and see to it that it be met."

Because of the philosophy that the handicapped should benefit from general rather than from specific rights, they are not even mentioned in this text; it was written, however, with particular reference to their situation. In spite of their very abstract formulation, these clauses have already, in several municipalities, speeded up the development of transportation services, home help, special housing provisions, child nurseries and preschools admitting handicapped children on an integrated basis, and many other municipal services for the handicapped. In addition, however, they mean that the local Welfare Board must help the handicapped person in obtaining service from whatever agency may be responsible, and that it must undertake case-finding work. Although, so far, few if any local Welfare Boards have the manpower and the expertise required for these difficult tasks, this could have an effect in the long run. The ambition to bring about greater coordination in rehabilitation is reflected also in another decision, currently (1971/72) being implemented, to create new joint *Councils for the Handicapped* at the national, county and municipal levels. These Councils, representing, on the one hand, the authorities responsible for different services for the handicapped, and, on the other, organizations of the handicapped themselves or their parents and friends, have only advisory powers, but the intention is that they should facilitate communication both between different public services and between these and the handicapped.

Medical care and rehabilitation

Relatively speaking, Swedish medical services are well developed, at least as regards the free treatment of hospital in-patients with acute somatic illnesses. This could be one of the reasons why Sweden, together with Norway and the Netherlands, has the highest life expectancy in the world. Yet many serious

shortcomings exist. Although the County Councils carry most of the financial burden, with the assistance of the State and the social insurance system, the minor share of the cost often charged to customers may nevertheless add up in a manner which makes things difficult for many persons with low income and long-term illnesses or handicaps. A special Low-Income Commission has established that the incidence of most long-term illnesses and handicaps (with diabetes as a notable exception) is far higher in the working class than in the middle class, with the upper class showing the lowest figures. Part of the causation thus has the character of a vicious circle: Poverty breeds handicap and handicap breeds poverty.

Even more serious are the shortages of medical and paramedical staff, e.g. speech therapists and physiotherapists. This shortage persists in spite of remedial action, for instance that nowadays almost 1% of an age-cohort of young people enter medical school every year. The number of beds for long-stay cases is insufficient, although high by international comparison (4 or 5 per 1000 population) and rapidly growing, as rapid expansion is being noted in homes for the aged and in supplementary services from assistant home nurses and home helpers. There are insufficient specialized resources for those suffering from rheumatism, multiple sclerosis, eye defects, allergy, serious injury from motor accidents etc. The few psychiatrists cannot always cope adequately even with their hospital in-patients, which means that few resources are left for preventive care, aftercare and rehabilitation. Several psychiatric experts, together with the National Association for Mental Health, representing those who are or have been mentally ill, find it urgent to favor an incipient trend towards the re-organization of hospital treatment along more "democratic" lines, i.e. on the therapeutic community principle, and with the substitution of day hospital and night hospital service, as well as ambulant care, for much of the 24-hour care.

In 1954 it was officially proposed that there should be at least one hospital department for rehabilitation in every county. So far, however, we have such departments in only about one-third of the counties. These departments provide valuable services, not only for the fairly limited number of hard-core patients with physical handicaps, and often with mental complications, admitted to them, but also by introducing the rehabilitative aspects of medical treatment to doctors in other departments or outside of hospitals who, being pressed by hard "acute" work, often have had little opportunity to develop an interest in this. The difficulties in the path of further development are not only financial; the shortage of adequately trained doctors, paramedical staff, technicians etc. is another formidable obstacle, but at least we are on our way towards improvement.

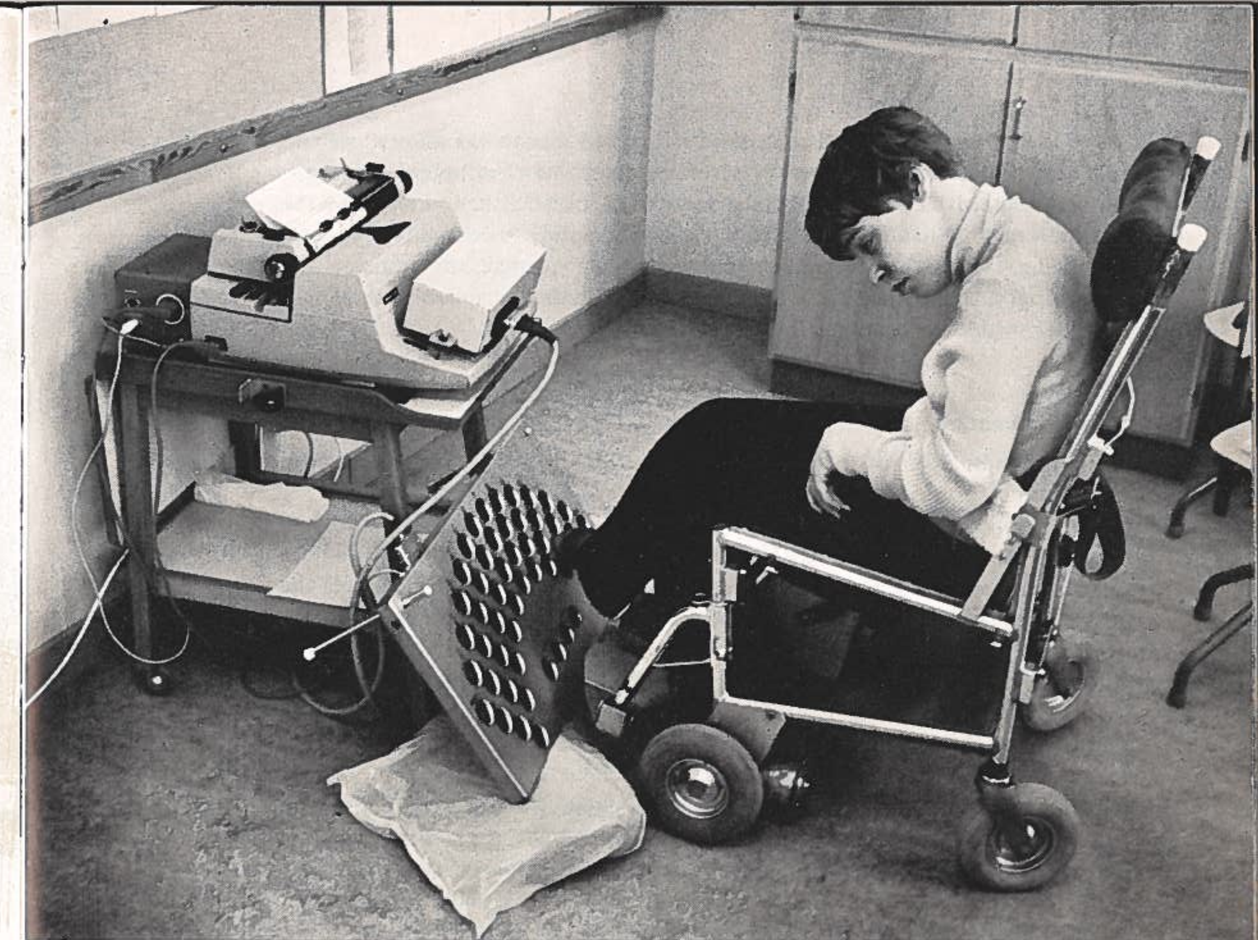
A nursery for retarded children. Such facilities, according to law, are to be provided for all retarded children who need them. Also, all retarded children are entitled, if their parents so request, to pre-school training; this is sometimes provided on an integrated basis, with normal and handicapped children being taught together.

A greater or lesser amount of rehabilitative work is being performed also in other departments. One of the most notable examples is represented by about 50 "hearing centers", connected with ear-nose-throat departments and, sometimes, with audiological departments. These have been organized on the initiative of the National Association for the Promotion of Hearing, which is the handicap organization for the hard-of-hearing, and their function is to provide technical and social counselling and teaching to help the customer find the best hearing aid, teach him how to use it, help him to learn

lip reading and sometimes the sign language, and advise him about adaptation courses of varying length (up to 9 months) etc. Some hearing centers do this job well enough, but most of them have insufficient resources. This has several negative effects — for instance, that many of the customers never learn how to use their hearing aids properly, and simply keep them in drawers. — There is a need for corresponding "sight centers" connected with hospital departments of medical eye specialists, but so far little has been done about it, and this makes the extreme shortage of eye specialists, with their long waiting lists, still more acute.

Free technical aids

The State reimburses the total cost (now about 135 million Swedish crowns or 28 million U.S. dollars annually) of technical aids for the handicapped, which are dispensed without charge, and without any means test, by the sponsors of medical care, and enumerated on a list published by the National Board of Health and Welfare in collaboration with the Institute for the Handicapped. It contains not only such obvious items as hearing aids, wheelchairs, prostheses, orthoses, and optical aids (not ordinary glasses) etc., but also with some restriction cosmetic aids and aids for daily living that are not designed specifically for the handicapped, e.g. typewriters, tape recorders, and dish-washing machines. The cost of any aid must be "reasonable", but even aids costing as much as 25,000 crowns (5,000 dollars) or more have been dispensed free of charge. Usually the only condition is a prescription given by certain doctors or, in some cases, by district nurses, physiotherapists or work therapists. In spite of the easing of restrictions, however, it is complained that the procedure is cumbersome and time-consuming. Although the program is large in relation to the size of the total population (8.1 million) and expanding very rapidly, there are still many physically handicapped, particularly among the aged, the retarded and the mentally sick with inadequate or no aids, although they are entitled to suitable aids. A plan has been devised to raise the efficiency of the system by providing every County Council with a specialized technical aid organization, preferably connected with a rehabilitation department; so far, however, only a few County Councils have started to implement this or any similar program. At the national level, on the other hand, there is the semi-State *Institute for the Handicapped,* which has many functions in this and related spheres, testing and assessing technical aids, performing research, development and information work and serving as a catalyzer for further research and development work financed by others. This Institute makes valuable contributions and is one of the leading institutions of its kind in the world, but its resources (about 6.5 million



Girl unable to use her arms and hands can write with her feet on an electrical typewriter especially equipped for the purpose.

crowns or 1.4 million dollars in 1972/73) are hardly commensurate with the scale of the program.

As part of the vocational rehabilitation program, State subsidies for the purchase of motor cars, with or without special equipment, can be obtained by handicapped persons needing them for gainful employment or vocational training. However, as these subsidies are subject to a means test and certain price ceilings (15,000 crowns or 3,000 dollars, plus 4,000 crowns or 800 dollars for special equipment), many handicapped persons have to pay part of the price

out of their own pockets, although all handicapped receive tax allowances and usually get a discount of 10 or 20% from motor firms. The organizations for the handicapped have asked that the means test be abolished along with the condition relating to employment or vocational training. A committee proposal is pending, which, if accepted, would give State support to municipalities subsidizing such purchases on the part of certain handicapped persons not engaged in work or vocational training.

Special education

In 1970 almost 20% of the pupils of the Swedish *basic school* (9 years) received some form of special education. About 15% were in normal classes receiving supporting services, less than 4% in special classes and less than 1% in special schools. The total has almost trebled in 4 years, whereas the number of those in special classes or in special schools is decreasing; this reflects the integrational policies touched upon above.

Most of these pupils, however, are not handicapped in the usual sense. Almost half of them have reading and writing difficulties, but are not believed to suffer from any general intellectual impairment. Another group are the "slow learners", usually with an IQ of 70—85 but including some who are really retarded. They constitute about 4%. About 0.7% of those of basic school age are in schools and classes for the mentally retarded (normally with 10-year courses). This figure is growing and it should become somewhat higher (about 1%). Over 1% of children are receiving supporting services for behavioural or other mental problems, or are in corresponding special classes or schools. This figure, too, is increasing, as it certainly should in view of the high incidence of mental and nervous disorders, the growth of juvenile delinquency, and the difficulties with discipline experienced in many Swedish schools.

About 2 per 1000 of children in basic schools are receiving some form of special education for hearing impairments. One-quarter of them are in special schools or classes (with 10-year courses) for those without usable hearing potential. Special education for sight impairments is given to 1 per 2000 of children in basic schools, and about one-half of these are in special schools (or classes) for the blind (with 10-year courses). These data include a special school for blind or near-blind children with additional handicaps (particularly retarded but also deaf-blind children) and another school for retarded children with severe hearing impairments. Unfortunately, however, these two schools have hardly any capacity for severely and profoundly retarded children with these additional handicaps.

There are few intellectually normal children with motor handicaps in special education, as the overwhelming majority of these children can attend normal classes without any special educational support. Such integration has been promoted by adapting the design of at least some of the schools and class rooms to this purpose, and by the provision of technical aids and personal attendants whenever necessary. A recent study of Scandinavia by an English research team ("Making ordinary schools special") seems to confirm that this policy has been successful.

More and more is being done to provide *secondary education* for adolescents with sight impairments (totally integrated) and with hearing and motor handicaps, as well as for the mentally retarded, for whom secondary education, in the form of vocational school, is compulsory, if they are able to benefit from vocational training. We have done far less about the needs of "slow learners", and for young people with behavioural or similar problems, in secondary education. *College and university education* is in principle open to handicapped students, and promoted by "translations" of text books into Braille, or on records or tape, by providing readers for the blind, personal attendants for the physically disabled etc. Even so, handicapped students encounter many obstacles.

Sweden has a very ambitious program in *adult education* to compensate those who have had inferior educational opportunities as children. We find it difficult, however, to reach those most in need of such a program, particularly the handicapped. For this reason, a substantial effort is being made to facilitate the provision of adult education to the handicapped, including those mentally retarded who are at the "training level", and to support their cultural activities in general. This is done by study circles organized by adult education associations, which receive large-scale support from the State and from many municipalities and County Councils; by an increasing number of "folk high schools" (boarding schools for adult education) which are supported by the State and sponsored or subsidized by County Councils; and by various municipal schools and courses for adult education. These efforts are supplemented by State support to a Library for the Blind, which provides literature in Braille or as "talking books" and collaborates with local libraries; by the provision of books in large type or in simplified language ("easy readers"); by active "case-finding" library services among the handicapped; by training and providing interpreters for the deaf; by special consultants working with adult education associations and organizations of the handicapped etc. Although these programs are on a large and steadily growing scale, there is a need for a much greater effort.

Vocational rehabilitation

The National Labor Market Board, working in collaboration with local authorities and other national agencies, and using its network of regional offices and local employment services, has developed a number of methods, often on a large scale, for providing and creating jobs. Its efforts on behalf of the general labor force, including work projects in depressed areas and vocational training, helps many handicapped persons, too. In addition, it has a special vocational rehabilitation service for the handicapped. In 1970 it had 96,000 applicants, or 40% more than in 1965 and three times as many as in 1960; in 1971 there were 100,000 applicants, which is a substantial figure for a country with a population of 8.1 million. The increase was particularly pronounced in respect of the mentally sick and the socially handicapped, including persons with alcohol and drug problems; and, generally, in respect of persons with severe and complicated handicaps (perhaps because it has proved possible, with increasing frequency, to do something even for difficult cases).

While the resources of this service have increased, they are obviously insufficient, which is the main reason for the long waits that usually occur, both before anything at all happens in the individual case, and then very often again, after the preliminary work has been done. This work involves the checking and supplementing of medical data by medical officers of the service, the procurement of new medical tests, and additional treatment, whenever this is required and obtainable, plus psychological aptitude tests in some cases, and working capacity assessments in a few cases — in fact, too few.

In 1970 almost 5,000 handicapped persons were in systematic work training — a figure that ought to be higher — and 19,000 started vocational training, all with compensation for income losses. At the end of the year there were 28,000, most of them working for union wages, in various forms of protected work, mainly in sheltered workshops, office work and on open air projects, e.g. road construction, forest conservation etc. All these figures have been growing, some of them rapidly. Only 11,000, however, were placed on the open labor market, and this figure was somewhat lower than that for 1965. Yet 1970 was a year with a shortage of manpower on the labor market.

It may sound paradoxical, but part of the explanation could be the very fact that we have had so-called full employment most of the time since World War II, and that many handicapped people have been helped by other large-scale measures taken by the National Labor Market Board; all of which may have helped to raise the proportion of hard-core cases among applicants for vocational rehabilitation. It should not, in any case, be forgotten that a great number of handicapped workers are in regular employment. Even so, we are worrying. Are we to raise the number of jobs for the handicapped in protected

From a sheltered workshop in Jönköping County. In the spring of 1972 there were 31,000 handicapped persons in sheltered employment, including sheltered workshops. The number is rapidly increasing.

work to 100,000, thereby creating a huge separate labor market for these people, and giving private and public employers even more excuse for not hiring more of them? Such prospects have accentuated the need for reform on the general labor market that was touched upon previously in this paper. Meanwhile, the National Labor Market Board, having formulated this question squarely, is trying less spectacular methods, for instance by offering the employer subsidies (up to 15,000 crowns or almost 3,000 dollars) for such alterations of working place facilities as may be required to render a handicapped person capable of functioning on the premises, plus running sudsidies of various kinds of 5,000 or 6,000 (more than 1,000 or 1,200 dollars) a year for every handicapped person placed in his employment — often with an

additional subsidy of the same size for a handicapped person who is already on his payroll. There has been some increase in the response to such offers but, so far, at a very low level, which leaves us still looking for an answer. From July, 1972, however, the running State subsidy for "semiprotected work" will take the form of 40% compensation for the actual costs of wages and salaries to handicapped workers, which it is hoped will stimulate the interest of employers and reduce the need for public sheltered work. In spite of all problems, it is obvious that this rehabilitation service is doing valuable work. There is no doubt as to the ambition and willingness of the Labor Market Board to consider the needs of the handicapped — and to listen to their spokesmen on the special advisory councils it has organized at both national and county level.

Some other social provisions

About 215,000 persons, aged 16—66, constituting 4% of the population in this age bracket, are recipients of disability pensions. About 60% have a somatic primary diagnosis, and more than half of these are suffering from a locomotor handicap. Among the remaining 40%, mental illnesses and disorders account for more than one-half and mental retardation for less than one-half. All persons receive an old-age pension from the age of 67.

The minimum for a full annual pension amounts (February 1972) to 7,029 crowns or almost 1,500 dollars for a single person and 11,218 crowns or more than 2,300 dollars for man and wife. The pension is subject to automatic cost-of-living adjustments, as are all similar benefits, and to an annual 3% increase in real value. More than 45% of the recipients of disability pensions enjoy "supplementary pensions" proportional to the real income they have had as gainful workers. Thus, the total pension for some handicapped persons may be fairly good; the majority, however, have no supplementary pension, or only a small one. Most of these persons, on the other hand, receive special housing allowances, which are subject to a means test and vary in size from one municipality to another, with half of the persons or families receiving at least 3,000 crowns (600 dollars). Yet some handicapped people will have to manage throughout their life-time on a basic pension, with only a small housing allowance. No disability pension at all is paid to persons with more than 50% normal working capacity, and there are some who receive only two-thirds or one-half of the full amount. If these persons fail to obtain work, many of them may have to turn to the local Welfare Office.

Having a handicap is expensive. About 5% of the recipients of disability pensions receive an extra increment of 2,070 crowns (415 dollars) annually

to compensate for certain extra costs and care arising from their handicap. A very small number of handicapped workers (less than 1% of all handicapped nonrecipients of pensions) receive a similar benefit of 4,140 crowns (830 dollars) for certain extra costs connected both with their handicap and their work. This benefit cannot be obtained by persons with mental illness or retardation as primary diagnosis and, in practice, not by deaf persons either. This means discrimination. The organizations of the handicapped have protested, repeatedly, against these restrictive rules and have also voiced complaints about certain restrictions pertaining to the children's disability allowances (also 4,140 crowns or 830 dollars annually) paid to almost 7,000 families living with severely handicapped children, who cause a great deal of extra work in the home. It should be added, however, that similar allowances, both for handicapped children and adults, are paid also by the County Councils. These matters are now under official study.

Handicapped people, more often than others, suffer from poor housing conditions, for the simple reason that their average income is lower. Also, they often have special needs in housing. Several steps have been taken to meet this need, although not yet on a scale related to the size of the problem. To take just one example: State subsidies of up to 15,000 crowns (3,000 dollars) and sometimes more are available for converting and equipping individual homes or flats to meet the needs of persons suffering from severe motor handicaps or blindness. Other groups of handicapped people, however, such as persons suffering from allergy, mental illness or retardation, often have their special needs, too; this matter has been taken up for study and is already being considered in other national and local housing programs.

Most urban municipalities, but few of the rural communities, have organized transportation services for the handicapped, usually in taxi cars, supplemented by cars and buses with special equipment, with the handicapped paying the price of a bus ticket. Mostly, however there are restrictions, more or less stringent, on travel not connected with work, or with medical care or rehabilitation; many municipalities, however, have at least the ambition to develop this service further. The main problem is how to reach more of the rural municipalities with a sparse population, long distances, a high proportion of isolated handicapped persons, and a dwindling local tax base. A committee proposal on State aid to municipalities for transportation services has not yet led to any concrete measures.

I cannot find the space even for a simple enumeration of achievements and shortcomings in other spheres of service for the handicapped. Suffice it to say that there is a wide array of different services growing up which I have failed to mention — for leisure time and cultural activities for the aged and the

handicapped; for enabling handicapped and sick people to travel and enjoy a vacation (even abroad); for the development of "handicap sports", with a growing number of participants, particularly among those with motor handicaps, the blind, the deaf, and the mentally ill or retarded. These activities are supported both nationally, through the Association for Handicap Sports (which is affiliated to the National Federation of Sports), and locally.

Organizations of and for the handicapped

Although the general atmosphere in Sweden is relatively favorable to giving equal rights and opportunities to the handicapped, it is still a major job to focus the attention of the general public and the authorities on the concrete needs that exist. These needs are not only urgent but also numerous, for the simple reason that there are many different kinds of handicap, and that every serious handicap raises a number of problems relating to all or most aspects of the handicapped person's life.

To an increasing extent, this job is being done by the handicapped themselves, and by their parents and friends, working through their own organizations. In fact, a great deal of the progress achieved has been due to the initiative of such organizations, to their fight against prejudice and for a continuing development from charity to more and better rights, to their assertion of the principles of normalization and integration, and to their practical activities in many fields. Most of them regard themselves as the "trade unions" of the handicapped, organizing pressure to improve the lot of the groups they represent.

More and more consistently they have also come to regard most of their practical activities as means of inducing public agencies to take more and better action on behalf of the handicapped. Usually they are sufficiently sophisticated to know that they cannot hope to meet more than a small fraction of the total need simply by raising money from the general public to finance direct work of their own for the handicapped. Yet fund raising and practical work can have a considerable dynamic effect if it enables organizations to speak with more authority and to demonstrate what can be done by new methods, and how truly essential needs can be met through such methods. Sooner or later public agencies will give financial support to their demonstration projects, in many cases taking them over in order to develop them further with larger resources. Much of the public effort in most fields has a background of this kind. This is true, for instance, of the hearing centers connected with hospital out-patient departments, which we mentioned above; of the "talking

From a national sporting event for blind athletes. Sports for the handicapped, which are supported by State, local and voluntary grants, are organized by local associations of the handicapped.

book" library service, which is still in the hands of the National Association of the Blind but receives large-scale support from the State and collaborates with municipal local libraries; and of many preschools, training schools, occupational centers etc., organized by parents' associations for the retarded, thereby helping to pave the way for new rights for the intellectually handicapped etc.

Discounting organizations for the socially handicapped (alcoholics, drug addicts or persons who have been caught in the vicious circle affecting those

with repeated jail commitments), there are some 20-odd organizations of and for the physically and mentally handicapped, with a total membership of over 250,000. A few of them have mainly contributing members, but most of them are dominated by the handicapped themselves or their parents, and these organizations represent a direct experience of "where the shoe hurts". Increasingly, they are being recognized as the official spokesmen of the handicapped, e.g. by offering them representation on the new mixed Councils for the Handicapped at the national, county and local levels, and on other similar bodies; by inviting them to present their views on new draft legislation or new plans affecting the handicapped; or by subsidizing some of their general expenses for information and pressure work activities.

Some of these organizations should be mentioned. *The National Association of the Blind* is small in membership (less than 6,000) but one of the most able pressure groups, with important practical activities, including a publicly supported counselling service in all counties. It does a lot to promote the use of adequate technical aids, and adaptation courses. It has shown the way to new social security benefits for the handicapped, and has organized well-run business undertakings serving blind craftsmen etc. It is now calling attention to the serious plight of the multihandicapped, and to deficiencies in the services provided for the large group of non-blind persons with severe sight impairments. Its leader, Dr. Med. honoris causa Charles Hedkvist is President of the World Council for the Welfare of the Blind.

The National Association for the Promotion of Hearing (about 25,000 members) has, by its own activities, shown the way for the development of hearing centers and adjustment training for those with hearing impairments; it has also been successful in securing rights to free hearing aids, and as a promotor of adequate special education, adult education and social activities among the hard-of-hearing. *The National Association of the Deaf* (about 5,000) serves those who have been deaf from childhood and, consequently, often suffer from speech and/or language impairments. Recently it has succeeded in securing compulsory teaching of the sign language to deaf children during the last three years of basic school, and in promoting adult education for certain adult deaf persons.

The National Association of the Handicapped (about 40,000 members of whom about 32,000 are persons with handicaps, mostly locomotor impairments) is the largest of the organizations dominated by handicapped persons. It provides much of the driving force behind work on technical aids, subsidies for motor cars, special transportation services, social security rights, vocational rehabilitation, dwelling units with special equipment, improved public planning of housing and other facilities etc., and is a sponsor of recreational

and other facilities and services for persons with locomotor impairments. *The National Association for Children and Youth with Locomotor Handicaps* is a parents' organization (about 5,000 members) sponsoring vocational adjustment training for young handicapped people. It took the initiative for the provision of better facilities for health tests for children at the age of 4. *The National Association against Rheumatism* (30,000 members) and *The National Association for Victims of Traffic Accidents and Polio* (55,000) have mainly contributing members. They sponsor supplementary medical care facilities and services. *The Multiple Sclerosis Association* (7,000 handicapped and contributing members) is another sponsor of supplementary medical care, and of research.

The National Association for Heart and Lung Patients (13,000 members) was one of the pioneers in the struggle for rights for the handicapped, and continues to press for better social security benefits, medical care resources and more jobs for the handicapped. *The National Association against Allergy* (12,000), one of the youngest and fastest growing organizations, is concerned with the occupational allergies and other growing environmental hazards, with the need for more specialized medical care resources, and with the tendency to forget those with serious allergic ailments in various provisions for the handicapped. *The National Psoriasis Association,* too, is comparatively young and rapidly growing (12,000 members); it collaborates intimately with groups of psoriasis patients (psoriasis is a skin disease) in other Northern countries. It sponsors or promotes curative trips to Southern countries. *The National Diabetes Association* (18,000 members) fights discrimination on the labor market and elsewhere, and devotes much work to the promotion of research.

The National Association for Retarded Children (12,000 members, most of them parents) has provided much of the driving force behind the new Act on Provisions for the Mentally Retarded, and collaborates intimately with the authorities on the implementation of this legislation and of other rights of the retarded. It organizes family counselling, educational "toy libraries", youth activities, summer camps etc. and participates in the sponsoring of research through the Ala Research Foundation, which has established that many of those mentally retarded who used to be regarded as fit only for institutional care can be trained to live much more independently in hostels and group homes, or even in dwelling units of their own. *The National Association for Mental Health* (4,000 members) is building up an organization for the mentally ill and their friends. It claims that the disadvantageous position of the mentally sick is due, to a great extent, to the fact that, until now, they have had no organization of their own. In spite of weak resources, it has already had an influence on public discussion.

There is also a joint organization, *the Central Committee of the Organizations of the Handicapped,* serving 17 of the national associations for the physically and mentally handicapped, with a total membership of close to 200,000. Corresponding joint bodies exist in all the counties and in many cities, a total of almost 50. These collaborating bodies serve all represented groups of handicapped persons in areas of common interest, organize joint meetings and take joint action when circumstances make this feasible. While it is usually recognized that different groups of handicapped persons (e.g. the blind, the deaf, the mentally sick etc.) have technically different problems for which they must have specialized organizations, they also have much in common, such as their need for better social security rights, more efficient work in vocational rehabilitation etc., and their objectives, e.g. normalization and integration, are in principle fairly similar. For this reason many of the handicapped see a need for joint action in many instances, although they often have difficulty in agreeing over methods; the general public and the authorities, too, would like the organizations to collaborate more closely. Actually, in spite of all the difficulties, such collaboration is progressing. Although most of the joint bodies are unnecessarily weak, and are receiving insufficient financial assistance from the authorities, more has been done to meet this need than in other countries.

Conclusions

Sweden is one of the richest countries in the world and has not been directly involved in a war since the time of Napoleon I. It is thus not particularly remarkable that the country should have some achievements to report in rehabilitative and other services for the handicapped. It is natural, in a country with fewer serious problems than most others, that the needs of the handicapped should stand out as one of the great remaining issues, and attract a good deal of attention.

More remarkable, perhaps, is that even in a socially advanced country, there should still, as I have been trying to show in this paper, exist so many gaps and shortcomings. We have made rapid progress, particularly since 1960, with a mainfold increase in public outlays for the handicapped, but it must continue. It is possible, however, that we shall have to work even harder for progress during the 1970's than we did during the 1960's. Tax rates in Sweden are high, and they are tending to increase much more — particularly the local taxes, which have no surtax element and hence hit even people with limited income very hard. Many municipalities have serious financial worries, and,

as a consequence, we have actually seen a few examples of haphazard curtailments in services to the handicapped.

We shall, of course, maintain that financial stability must be achieved by other means than by sacrificing the interests of the weakest members of the community. In this situation, however, it can be asked whether we have done wrong by not securing, to an even greater extent than we have, the concrete rights of the handicapped in mandatory Acts of Law. I know, at any rate, that our special Act on Provisions for the Mentally Retarded has helped one group of handicapped people very much indeed, and that it makes those of us who are particularly interested in this group feel less pessimistic than we otherwise would.

In this context, I should like to call attention to the *Declaration of General and Special Rights of the Mentally Retarded* that was adopted by the 1968 Congress of the International League of Societies for the Mentally Handicapped, and, in somewhat amended form, by the General Assembly of the United Nations in 1971. It is to be hoped that this document may serve as inspiration to the legislators of many countries, and that these legislators will consider the needs not only of one group but of all groups of handicapped people.

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Social Rights in Sweden

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Accessible towns — workable homes

National Swedish Building Research

Tillgänglig stad – brukbar bostad

Byggforskningen har utgivit ett antal skrifter, som behandlar nödvändigheten att ta hänsyn till de handikappade vid planering av byggnader och utemiljö. Två av dessa, informationsbladen "Gör staden tillgänglig för alla" och "Normalbostadens utformning med hänsyn till rörelsehindrade" utges på engelska i detta dokument. Båda har som utgångspunkt, att handikapp är en kombination av funktionsnedsättning hos personen och brister i miljön. Planeringen måste därför inriktas på att göra ute- och innemiljön tillgängliga för alla, även "handikappade". En hög grad av standardisering av vissa detaljer är nödvändig för att möjliggöra mötet mellan miljö och personliga hjälpmedel. Skriften ger förslag till hur denna standardisering kan åstadkommas.

Stadsbygden

Statsmakterna har under senare år krävt ökad hänsyn till handikappade. Konsekvenserna för den fysiska planeringen kan sammanfattas i ett krav på tillgänglighet, som ger de handikappade möjligheter att använda staden och ökar deras frihet att välja arbete, bostad och fritidsverksamheter.

Tillgänglighet för de handikappade måste åstadkommas genom en kombination av tre typer av åtgärder. Den första är den personliga service, som samhället kan ge varje enskild handikappad. Den andra är en fortsatt och accelererad utveckling av tekniska hjälpmedel för handikappade. Den tredje är anpassning av stadsbygd och byggnader. För den stora gruppen handikappade skall tillgänglighetskravet uppfyllas med hjälp av individuella hjälpmedel och en *anpassning av den fysiska miljön.*

Kraven på anpassning av stadsbygd och byggnader till de handikappades förutsättningar bör drivas så långt som de också innebär en bättre anpassning till andra människors behov. De individuella tekniska hjälpmedlen bör möjliggöra för de handikappade att röra sig och verka i den resulterande miljön.

Framställningen i skriften är ett försök att bygga ett sammanhängande system av regler, som beskriver gränsen mellan anpassningsåtgärder och tekniska hjälpmedel. För att beskriva vad den handikappade förutsätts kunna prestera med hjälp av personliga tekniska hjälpmedel har ett antal *dimensionerande handikapp definierats:*

1. Synskada – ledsyn
2. Synskada – svag läsförmåga
3. Dövhet
4. Hörselskada
5. Gångsvårigheter
6. Rörelsenedsättning i händer och armar
7. Rullstolsbundenhet

Tillgänglighetskravet kan nu formuleras på följande sätt: I stadsbygden skall finnas ett handikappanpassat förflyttningssystem. Det skall förbinda alla utrymmen utom dem som avses för verksamhet av sådan natur att den inte kan bedrivas av handikappade. Alla personer, som har minst samma prestationsförmåga som de sju "dimensionerande handikappen", skall utan hjälp av andra människor kunna använda alla delar av systemet.

Tillgänglighetskravet konkretiseras i en kravkatalog avseende gångvägnätet och de kollektiva trafikmedlen. Den anger samtidigt till vilken nivå personliga tekniska hjälpmedel skall höja den handikappades prestationsförmåga. Figur 1 visar ett exempel ur kravkatalogen.

Utbyggnaden av det handikappanpassade förflyttningssystemet måste styras av regler inom den kommunala översiktsplaneringen och införlivas i general-, dispositions- och saneringsplaner. Då gångvägnätet väl är utbyggt, måste dessutom kraven på tillsyn – underhåll, renhållning och bevakning – ställas högre än i dag för att inte tillgängligheten skall gå förlorad.

Normalbostaden

Det måste vara en strävan i modernt bostadsbyggande, att bostäderna skall vara tillgängliga för alla. Den person som är eller tillfälligt blir rörelsehindrad och t.ex. måste sitta i rullstol, skall inte av denna orsak behöva bli handikappad i sitt boende. De krav, som måste uppfyllas för att de flesta rörelsehindrade skall kunna fungera tillfredsställande i en bostad, är inte större än att de bör kunna tillgodoses i alla bostäder (normalbostäder).

De skäl, som kan anföras för en sådan målsättning är bl.a.

- ☐ Ett bostadsbestånd som tillåter den handikappade att välja lämplig lägenhet inom ett lämpligt område medför reducerat behov av personell service.
- ☐ Möjligheten att bo kvar i den gamla lägenheten efter det att man drabbats av handikapp underlättar rehabilite-

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ringen och förkortar sjukhusvistelsen.

- Den handikappades integrering i samhället möjliggörs endast om hans boendesituation får en sådan lösning, att han kan utnyttja bostaden trots sitt handikapp.
- Tillfälligt handikapp – till följd av olycksfall, skador eller akuta sjukdomar – förekommer i stor utsträckning bland befolkningen.
- Varje lägenhet bör vara så planerad att man kan ta emot en rörelsehindrad person som tillfällig gäst.

Samhällskravet på en god bostad bör därför vara, att den planeras så att det ges möjlighet för en rörelsehindrad (rullstolsbunden) att vistas i lägenheten. Dessutom skall bostaden utformas så att inredningen kan anpassas till den rörelsehindrades behov, för att han skall kunna utnyttja lägenheten som sin permanenta bostad.

En riktig utformning av normalbostaden med hänsyn till de rörelsehindrades behov måste avse att reducera den enskildes förflyttning, arbetsinsats m.m. Detta leder i regel till att bostaden, när den anpassas på sådant sätt, kan bli bättre för alla.

I skriften ges en sammanställning av de resultat som framkommit vid undersökningar över vilka krav som bör ställas på en normalbostad för att den skall vara tillgänglig för rörelsehindrade och anpassbar för dem. I undersökningen har man utgått från de behov beträffande yta och utformning som personer med de vanligast förekommande inomhusrullstolarna och gånghjälpmedlen har.

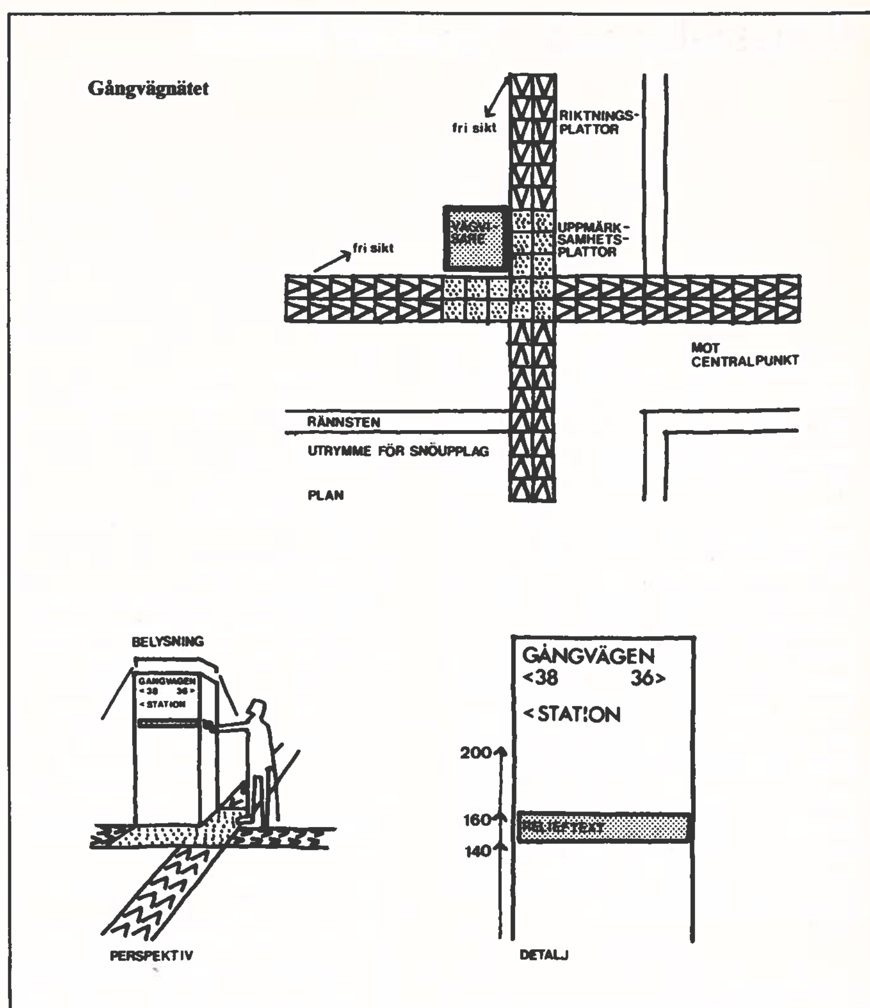

Fig. 1. I korsningen mellan två huvudgångvägar i gångvägnätet skall finnas vägvisare. Vägvisaren skall ange de korsande vägarnas namn och husnumren på husen vid vägarna samt beskriva vägen till närmaste centralpunkt och närliggande hällplatser och parkeringsanläggningar.

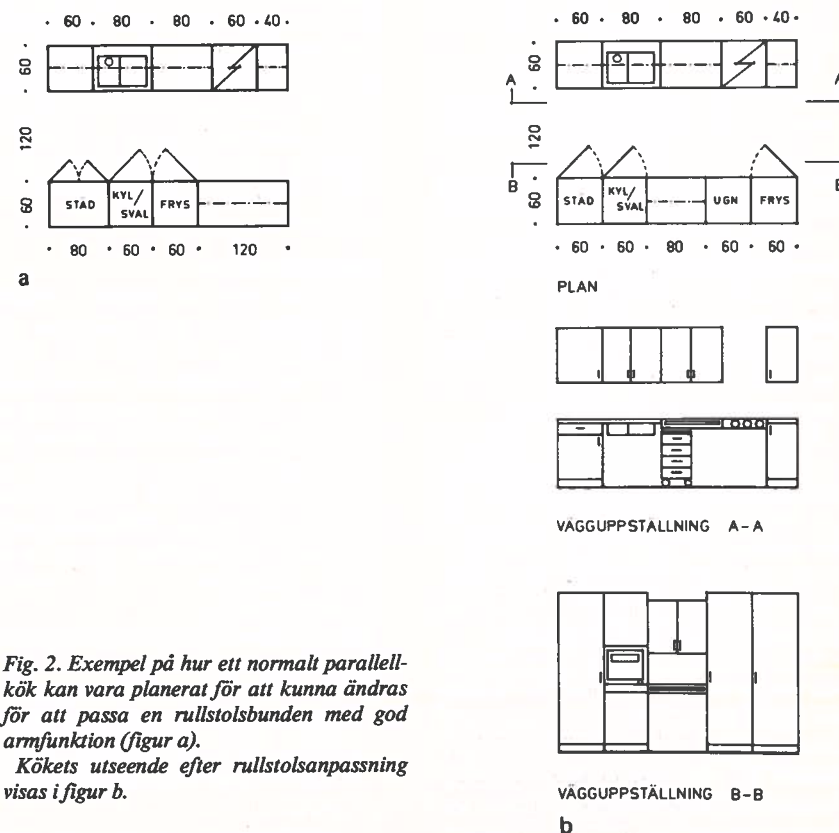

Fig. 2. Exempel på hur ett normalt parallellkök kan vara planerat för att kunna ändras för att passa en rullstolsbunden med god armfunktion (figur a).
Kökets utseende efter rullstolsanpassning visas i figur b.

UTGIVARE: STATENS INSTITUT FÖR BYGGNADSFORSKNING

Accessible towns – workable homes

A number of publications, issued by the National Swedish Building Research, have been dealing with the necessity of taking the needs of the handicapped into account when planning buildings and outdoor environments. Two of these will be published jointly in this Document. Both bear in mind that handicap is a combination of physical disability and deficiencies of the environment. Planners must therefore concentrate on providing both indoor and outdoor environments that are accessible to all groups of the population, including the "handicapped". A high degree of standardization of details is necessary to facilitate the transition between environment and personal aids. The publication contains proposals regarding introduction of this type of standardization.

Urban areas

In recent years the authorities have been calling for greater attention to be paid to the needs of the handicapped. The consequences this entails for physical planning have been summarized in the form of a requirement of accessibility, which would enable handicapped persons to use the facilities of the town and increase their freedom of choice with regard to work, housing and leisure-time activities.

The environment must be rendered accessible to the handicapped by means of a combination of three types of measures. The first is the personal service that society can provide for every handicapped person. The second is a continued and accelerated development of technical aids for handicapped persons. The third is an adaptation of the urban environment and its buildings. For the majority of handicapped persons the need for accessibility should be met by providing individual aids and by *adapting the physical environment.*

Demands for the adaptation of the urban environment and its buildings should be pursued insafar as they also entail adaptation to the needs of other members of the community. Individual technical aids should make it possible for handicapped persons to move around and to lead an active life in the resulting environment.

This publication is an attempt to construct a coherent system of rules defining the boundary between adaptation measures and technical aids. In this survey it was decided to define certain *degrees of handicap* which show what a handicapped person is assumed to be capable of with the aid of personal technical aids:

1. Defective vision – virtually blind
2. Defective vision – limited reading ability
3. Deafness
4. Defective hearing
5. Difficulty in walking
6. Reduced mobility of hands and arms
7. Confinement to wheelchairs.

The concept of accessibility can now be expressed as follows: The urban environment should have a system of communication adapted to the needs of handicapped persons and connecting all parts of the environment except those parts intended for activities in which a handicapped person cannot participate. All members of the community having at least the performance capacity described for the seven "degrees of handicap", should be able to use all parts of the system without the help of other persons.

The concept of accessibility has been developed to form a catalogue of requirements referring to pedestrian networks and public transportation. At the same time it indicates to what extent individual technical aids should increase the performance capacity of the handicapped. An example from the catalogue of requirements is shown in Figure 1.

The extension of the system of communications adapted to the needs of the handicapped should be controlled by regulations incorporated in the local comprehensive development planning. This should also be made an integral part of master plans, action area plans and redevelopment plans. Once the pedestrian network is complete, stricter requirements must be introduced regarding maintenance, cleansing and supervision than those in force at present so as to ensure that the quality of accessibility is preserved.

Standard dwellings

Dwellings which are accessible to all categories of the population should be one of the goals of modern housing construction. A person suffering from a physical disability, whether temporary or permanent, and thus confined to a wheelchair, should not need to find himself handicapped by the nature of his living accommodation. The requirements which must be fulfilled in order to permit the majority of physically disabled persons to manage satisfactorily in their homes are sufficiently moderate to be provided for in all dwellings (standard dwellings).

Some of the reasons which can be given for establishing this goal are:

- A housing stock which is such that handicapped persons can choose a suitable dwelling in a suitable area will naturally reduce the need for personal service.

National Swedish Building Research Summaries

D9:1972

Key words:
physical planning, handicapped persons, pedestrian ways (indoors and outdoors), public transport, municipal planning model

planning of housing, physically disabled, functional requirements, spatial requirements, equipment, fittings

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B13:1971: Avdelningen för handikappforskning vid Göteborgs universitet (Department of Handicap Research University of Göteborg), Normalbostadens utformning med hänsyn till rörelsehindrade (Design of the standard dwelling taking into account the needs of the physically disabled), (refers to Grant Bb 373).

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- If persons are able to continue to occupy their homes after being afflicted by a handicap simplifies the process of rehabilitation and shortens the stay in hospital.
- A handicapped person can only be integrated into the community if his dwelling is so designed as to permit him to use it satisfactorily despite his handicap.
- Many people suffer from temporary handicaps resulting from accidents, injury or serious illness.
- All dwellings should at least be planned so as to permit visits by physically disabled persons.

The official requirement as regards a good dwelling should therefore be that it be planned so as to afford access to a physically disabled person (i.e. confined to a wheelchair) and that fittings be designed to adapt to the needs of the physically disabled, thus permitting him to use the dwelling as a permanent home.

Suitably designed standard dwellings in respect of the needs of handicapped persons must aim to reduce the need for movement, physical effort and so on. As a rule this means that the dwelling, provided it has been adapted in the correct way, is more satisfactory for all concerned.

The publication contains a short account of the results of studies carried out on the requirements which should be made of a standard dwelling in order to make it accessible to and suitable for a physically disabled person. The study was concerned with the needs regarding space and design of persons equipped with the most common types of indoor wheelchairs and walking aids.

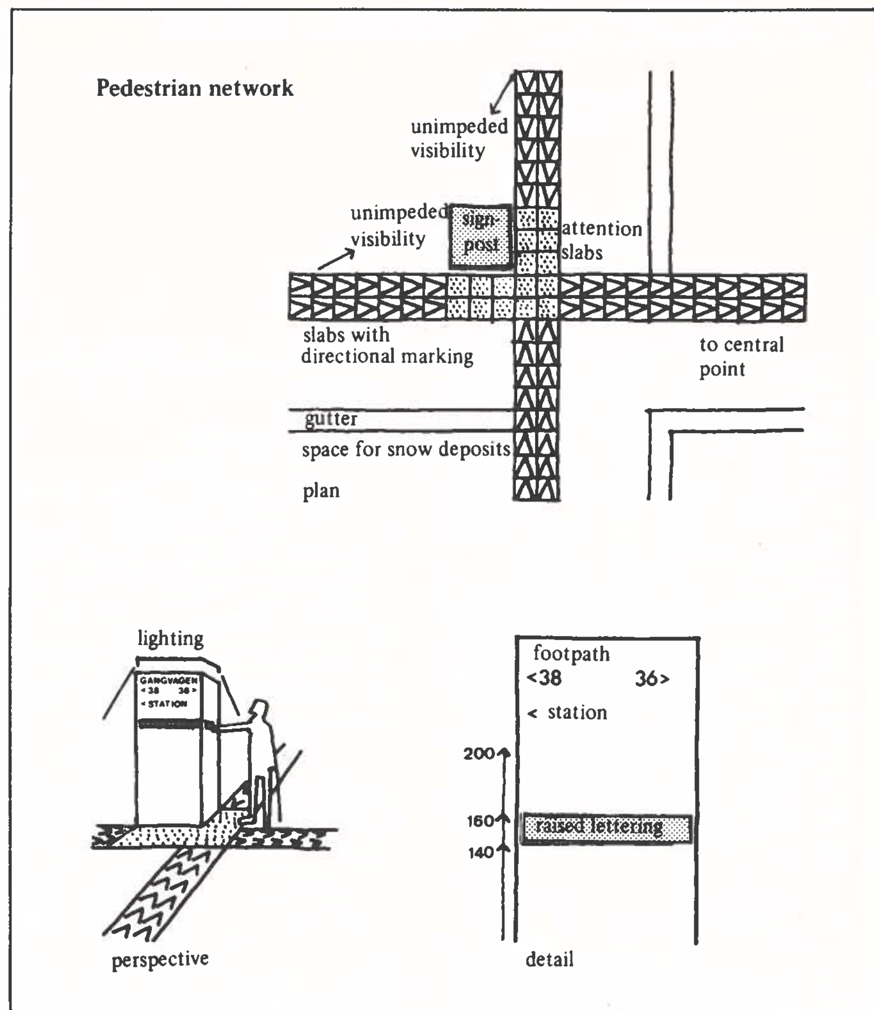

Fig. 1. Intersections of main footpaths in the pedestrian network should be signposted. The signpost should indicate the names of footpaths and the numbers of the houses along the roads, as well as describe the way to the nearest central point and nearby bus stops and stations and car parks.

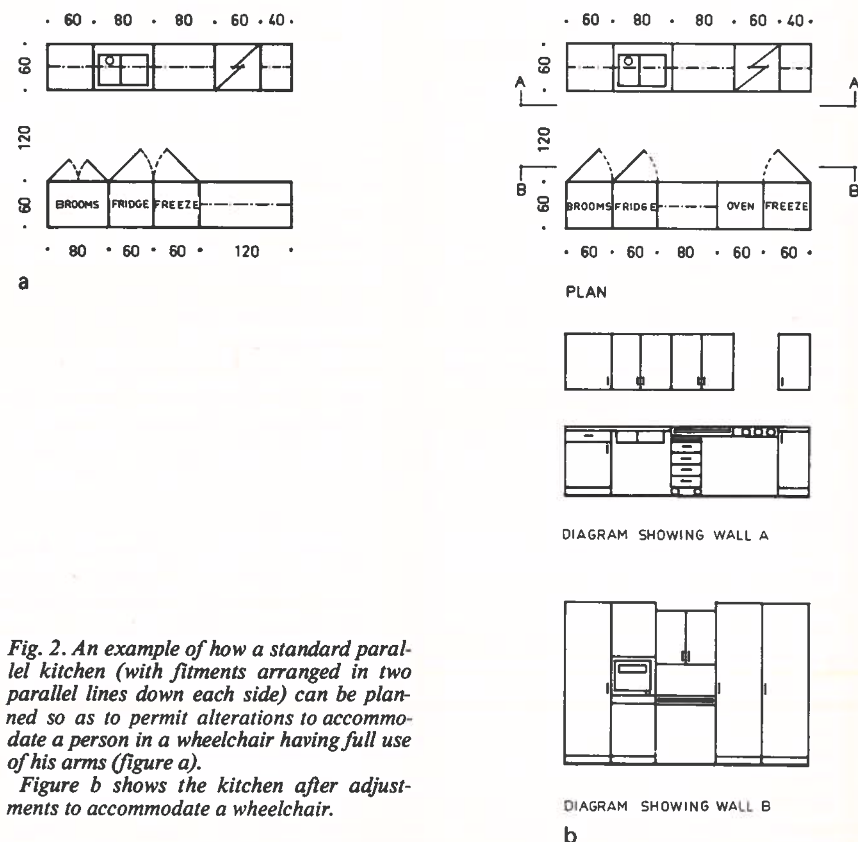

Fig. 2. An example of how a standard parallel kitchen (with fitments arranged in two parallel lines down each side) can be planned so as to permit alterations to accommodate a person in a wheelchair having full use of his arms (figure a).
Figure b shows the kitchen after adjustments to accommodate a wheelchair.

UTGIVARE: STATENS INSTITUT FÖR BYGGNADSFORSKNING

Document D9: 1972

Accessible towns – workable homes

Planning with consideration for the handicapped

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Part 1 Accessible towns

by Folke Carlsson, Alf Nilsson & Sten Söderström

Original title:
Gör staden tillgänglig för alla. Förslag till anvisningar för planering av gångvägnät och kollektiva trafikmedel med hänsyn till handikappade. (Make urban centres accessible to all. Draft recommendations for planning of pedestrian networks and public transport systems to fulfil the needs of the handicapped.) Building Research Bulletin B12:1970.

Preface

Well-worn expressions such as »planning for human beings» and »building on a human scale» have been given a new lease of life since we began to ponder the question of what human being really is in his capacity of a general yardstick. In his role as a yardstick the human being represents a series of statistical distributions ranging from short to tall, from light to heavy, from weak to strong, from mobile to immobile, and with wide variations in the mental reactions and orientational capacity. The human factor which we want to establish as a criterion for planning and construction is no longer sought in the medium of these distributions, but instead on the fringe where we know that problems are greatest on the meeting of man and environment. The actual knowledge about what this meeting looks like, which the practical difficulties are for individuals with reduced mobility or orientational capacity, has rapidly increased through research and the active participation of pressure groups. With this factual documentation it has been easy to find a political response for the elementary problems of justice which these deficiencies in the environment constitute and we have obtained gradual changes in legislation, financing terms, administrative and technical practice, towards a humane environmental structure in a statistical sense as well. However, great obstacles remain. The existing urban areas are slow to change and the tresholds that can be omitted at practically no cost at all in new buildings, involve great expense if they must be dealt with when they already exist. The program for making the facilities of the town accessible to everyone must accordingly have a certain perspective as regards time for the gradual transformation of existing parts, parts that we from other points of view are unwilling to lose. The length of this perspective depends on the ambition and the financial resources, the willingness of the authorities and the pressure that changes in legislation and social conditions exert. We have good reason for being impatient about seeing these changes, especially as they often are well in line with the measures required for making the town accessible to everyone both from a social and economic point of view.

Lennart Holm

Accessibility

Laws and regulations

The general effort of the society to improve the possibilities for the handicapped to participate in and make use of the activities of the society are shown in, among other things, legislation in various fields. The following extracts from current laws and regulations are of interest to this document.

The Social Welfare Act, SFS 1956:2 – 1968:219

1§ It is the responsibility of each municipality to see that every resident receives the care appropriate to his needs and general situation.

6§ It is the responsibility of the Social Welfare Committee[1] to make itself familiar with the needs of each person as regards care and to ensure that such needs are provided for.

[1] The Social Welfare Committee is a body elected by the local council, one such committee existing in each municipality. It is assisted by a secretariat which, among other things, has access to the services of specialists in social medicine. (Translator's note.)

The Building By-laws

42a§ The parts of buildings to which the general public has the right of access or which are used as work premises should, to a reasonable extent, be designed so as to render them accessible and usable to persons whose mobility or orientational capacity is handicapped by age, invalidity or sickness.

The Interest Loan Ordinance 1967:553 – 1969:131

22§ A rent subsidy for disabled persons is granted to the owner of a dwelling or a person possessing a cooperative building society flat, for special fittings and equipment and to the extent decided by the National Swedish Board of Housing, and for such additional space to a dwelling as needed by an ambulant disabled person, provided that the size, design and equipment of the dwelling meet with reasonable requirements of good housing standard.

The Education Act, SFS 1962:319 – 1969:167

2§ It is the responsibility of each municipality to provide for the education of all children in the comprehensive school . . .

Act relating to hostels for certain physically disabled children and others, SFS 1965:136

1§ It is the responsibility of the county councils to provide special hostels for children who, because they are physically disabled in one way or another, are in need of boarding-and-lodging accommodation in order to participate in the education in the comprehensive school.

Subsidies for equipment for physically disabled pupils, SÖ 20.9.1967

To cover the extra costs incurred in the planning of school buildings adapted to the needs of physically disabled pupils, subsidies are given by

a) adding a standardized amount, for the installation of an elevator, to the loan value for construction works

b) increasing the proportion of the subsidies for other measures by 0.7 % for comprehensive schools and 1.4 % for secondary schools.

Ordinance relating to the Labour Market, SFS 1966:368 – 1968:246

58§ Subsidies are granted to handicapped persons for the covering of costs for equipment or tools that may be needed for carrying on an employment.

60§ When employing a handicapped person, subsidies are given to the employer for such arrangements at the working place that are necessary in order to allow the handicapped to perform his work.

Ordinance relating to government subsidies for certain technical aids for handicapped persons, SFS 1968:238

1§ Subsidies may be granted to county councils and towns not belonging to such districts, for aids that have been prescribed for handicapped persons.
Government subsidies may be granted to private hospitals and other institutions at the decision of the National Swedish Social Welfare Board.
Public hospitals may make use of state funds for purposes which would be subsidized according to this ordinance.

5§ The National Swedish Social Welfare Board is to prepare an inventory of aids for which government subsidies can be obtained (list of aids).

The request for accessibility

On the basis of these facts an effort has been made to formulate a requirement governing accessibility which would enable handicapped persons to use the facilities of the town and increase their freedom of choice with regard to work, housing and leisure-time activities.

Accessibility means that a handicapped person should be able to find his way about and move from his home and place of employment to premises to which, according to the Building By-laws, the general public has the right of access. Since the handicapped population neither can nor should be concentrated in special areas as regards both housing and employment, the entire urban environment must be rendered accessible to them. Handicapped persons would thereby find it easier to visit other persons in their homes than is now the case.

Accessibility consists of a number of different elements; information, orientation, physical accessibility and safety. *Information*, provided in the urban environment in the form of signals, signs, loudspeaker announcements, etc. *Orientation* refers to the ability to assemble direct experiences to form a picture of the urban environment, to remember this pattern so as to judge one's position in relation to it, and to find one's way with the aid of maps and signs. *Physical accessibility* is an expression of the need for space, room for passage, provision of essential fittings and ancillary space along routes, provision for overcoming changes in level, etc. *Safety* means protection against accidents, but also functional and operational safety of facilities in the urban environment: the provisions made for guaranteeing information, orientation and physical accessibility must always function. Accessibility only remains a fact as long as handicapped persons can feel sure that all parts of the communications system are operating fully.

A general adaptation of the environment or individual aids?

The environment must be rendered accessible to the handicapped by means of a combination of three types of measures. The first is the personal service that society can provide for every handicapped person. It is sometimes called ADL-service (ADL = Activity of Daily Living) and has been taken up by the Government Commission on Handicap in its report Better Education for the Handicapped (SOU 1969: 35). The second is a continued and accelerated development of technical aids for handicapped persons. The third is an adaptation of the urban environment and its buildings, which is taken up in this document.

Naturally the ADL service should not be used to solve problems which could be solved equally well or even better by introducing measures belonging to the other two categories. The most severely handicapped cannot manage without a nurse, but for the majority of the handicapped the need for accessibility should be met by providing individual aids and by adaptation of the physical environment.

Assumptions regarding the possibilities of improving the capacity of handicapped persons by means of individual technical aids must steer the adaptation of the urban environment and its buildings. If these possibilities are assumed to be great, the measures of adaptation are less extensive, but a larger number of persons have to be provided with technical aids and their dependence upon the aids will be greater. If, however, the measures are concentrated on adaptation of the physical environment, the total dependence upon individual aids will decrease, but such a development takes more time – compare with the development of the use of the motor car and that of road construction during the post-war period.

To a certain degree adaptation to the needs of the handicapped also means an improvement in the urban environment for the rest of the population. Where a handicapped person is able to steer his electric wheelchair, it is easy to push a pram. Marking of the edges of, for instance, platforms for persons with poor eyesight also provides persons with normal eyesight with useful information.

Excessively specific requirements on behalf of the handicapped can, however, entail a deterioration of other basic qualities in the urban environment. It is, for instance, not possible to take it for granted that an invalid car can be driven to all points in the town, as this would complicate the separation of pedestrians and vehicles that is necessary in order to reduce the number of traffic accidents. Such solutions would furthermore aggravate the situation for handicapped persons who are unable to drive a car, for instance the blind and persons with defective vision.

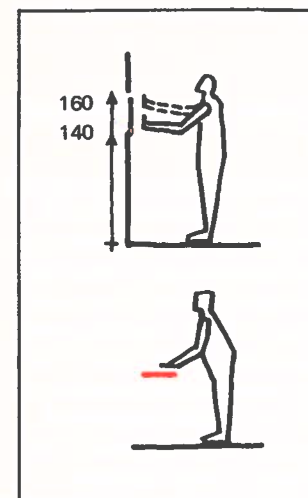
Demands for the adaptation of the urban environment and its buildings should, therefore, be pursued inasfar as they also entail adaptation to the needs of other members of the community. Individual technical aids should make it possible for handicapped persons to move around and to lead an active life in the resulting environment.

Details and consequences

Each journey or movement from one part of the urban environment to another consists of a large number of different steps which the person involved must take in order to begin, carry out and complete the move. Take as an example the daily movement from the bed at home to the writing desk or machine at the place of work! This can be divided up into a series of shorter movements between points for different activities; from the bed to the bathroom (morning toilet), from bathroom to bedroom (dressing), from bedroom to kitchen (breakfast), from kitchen to entrance hall (outdoor clothes), from the entrance hall via the staircase, lift, main entrance, footpath and the entrance of the working place to the cloak-room or changing-room (taking off the overcoat or changing of clothes), from there to the work premises, etc. Each individual stage, for example moving from the level of the staircase outside the flat via the lift to the main entrance of the house, can in its turn be divided up into smaller elements; i.e. finding the lift control button, pressing the button, finding out that the lift has arrived, finding the handle, gripping it and opening the door, entering the lift without stumbling on the difference of level between the staircase floor and the floor of the lift, finding the control panel and the right button on it, pressing the button, maintaining balance when the lift starts and stops, finding out whether the lift has stopped on the right floor, finding the door and the side from which it is opened, leaving the lift without stumbling on the difference of level and without getting in the way of the closing lift door. Every measure and every step has its purpose and must be based on correct information about the immediate physical environment in order to be successful – it is essential to know of the existence of a lift, its location, the location of the button – and to have sufficient physical capacity for reaching the button and pressing it.

One wrong step, or insufficient ability by the person undertaking the move, or the unsatisfactory working of a single detail in the physical environment, involves extra effort and loss of time and may mean that the move must be broken; a person who cannot open the lift door is forced to remain in the lift-cage.

Two types of rules for the adaptation of the urban environment to the needs of the handicapped must, therefore, be established; one category consists of requirements regarding details of the physical environment, and the other of rules stipulating consistency in adjacent planning areas.



[1] A person with normal eyesight is capable of counting fingers at a distance of 60 m in normal lighting and against a dark background. A person capable of counting fingers at a distance of only 1 m has thus a visual acuity of 1/60, etc. (SOU 1964: 43).

This shows good agreement with the conditions for planning and building. Rules for adaptation to the needs of the handicapped must be specified in exact terms if they are to be applicable in planning and building. Each rule must refer to a definite feature, for example the free passage through doorways between rooms. It must be possible to measure the feature in a unit of measurement usable in planning and construction work. Rules must be specified as representing a maximum or minimum value of the measure, such as that the minimum free passage through doorways between rooms is to be 75 cm. Such rules can form the basis for standards as well as be used in planning and production routines and they are easy to check. On the other hand, rational planning demands that planners be informed at an early stage of the client's and the planning authorities' requirements. This desire is compatible with the demand for consistent application of the requirements for handicapped persons within defined fields of planning. The obvious solution is to ensure consistent application by inserting regulations in local outline planning. Points of view related to problems of this nature are documented in the section on application.

This method should also be beneficial in the development of technical aids. The detailed planning requirements are at the same time requirements relating to the performance of aids. Consistent fulfilment of the requirements, especially in newly constructed areas, guarantees a market.

This document is an attempt to construct a coherent system of rules defining the boundary between adaptation measures and technical aids. This system will contain a large number of rules governing details of the work. The numerical facts which are included in the detailed rules, have as far as possible been taken from other works or applied practice. In some cases the values can be questioned. Co-ordination of measures of adaptation in the field of physical planning and the development of technical aids for the handicapped requires, however, accurate definition of the boundary between these two categories. Further, it is more important that this boundary is fixed by the authorities responsible than that it is »correct» in every detail.

Degrees of handicap

In this survey it was decided to define certain *degrees of handicap* which show what a handicapped person is assumed to be capable of with the aid of personal technical aids, the purpose in this being to guarantee as far as possible an internal consistency in the system of rules. It seems convenient to work with seven such degrees of handicap.

1. Defective vision – virtually blind

The handicapped person suffers from a serious defect of vision and has with the help of spectacles a visual acuity of less than 6/60[1], enabling him to distinguish between dark and light and to discern areas of strong colour on the ground. He cannot, however, read signs and carries a white stick or has a guide dog. He can read Braille and relief script in positions marked in the adjoining figure. He is assumed to have good hearing and sense of touch.

Blindness is not included in these seven degrees of handicap. The blind can benefit from the measures required by the virtually blind. When those orientational aids now being developed are generally available, blindness may, however, become a degree of handicap which should be taken into account by planners. (Cf. footnote under section 2 in the list of requirements.)

2. Defective vision – limited reading ability

This category suffers from a poor level of visual acuity, though greater than 6/60 after correction. This enables him to read large print.

3. Deafness

The handicapped person cannot hear and can only inform himself of the happenings around him by the use of other senses. He is assumed to have normal eyesight.

4. Defective hearing

This type of handicapped person has defective hearing but can as a rule follow conversation reasonably well when equipped with a hearing aid which also enables him to receive sound transmitted from electronic circuits. An electronic circuit around the area in which sounds are to be received, with the aid of the amplifier, forms a magnetic field which makes it possible for sounds transmitted from a microphone to be heard by a person equipped with a hearing aid or a portable hand receiver without the use of wires. (All hearing aids entitled to Swedish government subsidies are equipped with a coil for receiving in magnetic fields.)

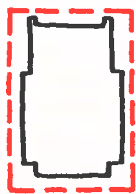
5. Difficulty in walking

A person in this category has difficulty in walking or problems of balance but is never the less able to walk 100 m without resting. He is able to rise from a sitting position without help, provided the seat in question is at a height of approx. 50 cm above the floor and has an arm-rest on that side on which the handicapped has most strength. He can negotiate minor changes in level by using a ramp or staircase with handrail. The maximum slope of the floor may be 1:50 and there should be no unexpected differences in level (steps), and gaps in the floor (e.g. shoe scrapers) should be no wider than 1 cm. Automatically closing door are dangerous since they

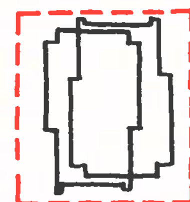
can knock a handicapped person over when hit with sufficient force. Persons with more difficulty in walking are assumed to use a wheelchair.

6. Reduced mobility of hands and arms
The handicapped person lacks hands *or* suffers from reduced mobility of the hands and arms, *or* has difficulty in controlling the movements of his limbs. He is incapable of using knobs or taps operated by turning (e.g. on doors or washbasins), nor can he grip a pull-type handle. He is, however, capable of opening a door if the tractive force required does not exceed 2.5 kgf. In pressing a button, he is capable of exerting a force of at least 0.25 kgf with his fingertip. Push-buttons must be placed at 4 cm centres at least to ensure that he hits the correct target.

7. Confinement to wheelchairs
A person in this category suffers from such ambulant deficiency that he is confined to a wheelchair. Wheelchairs may be equipped with additional apparatus, for example fittings designed to compensate for reduced mobility of the arms. The handicapped person can steer and propel his wheelchair himself, either manually or by means of an electric motor and controls specially designed for his personal needs.
Existing wheelchairs can be divided into two groups, indoor and outdoor wheelchairs. It is scarcely possible to use indoor wheelchairs outdoors as the nature of the urban environment is wrongly designed. Outdoor wheelchairs, on the other hand, demand as a rule far too much space to be suitable for use indoors. A solution now being developed is a system consisting of a wheelchair, outdoor carriage and car. The wheelchair would be suitable for use both indoors and on footpaths in the urban environment, may be propelled manually or be powered by an electric motor, must be capable of negotiating short slopes with gradients not exceeding 1:12 and changes in level (steps) not exceeding 2 cm, and should not require more space than that shown in the adjoining figure.
The wheelchair is designed for use on pedestrian ways and should therefore not be capable of speeds exceeding 5 km/h. It should not have sharp protruding details nor generate a disturbing noise or exhaust fumes.
The carriage would be an addition to the basic wheelchair and might take the form of a low electrically powered chassis. It should be possible for the chairbound person to drive up and fasten the chair on the chassis. The carriage is assumed to be equipped with a more powerful engine and be capable of negotiating greater changes in level than the wheelchair. The whole vehicle should measure a maximum of 90 x 160 cm and be designed for driving on cycle and moped tracks, even under winter conditions.
If the handicapped person owns a car, it should be possible for him to convey himself and the chair in and out of the vehicle without other aids than those which can be built into the chair or the car.



75 x 120
Functional measurements



130 x 130
Functional measurements for 180° turn

A communications system adapted to the needs of the handicapped

The concept of accessibility can now be expressed as follows: The urban environment should have a system of communication adapted to the needs of handicapped persons and connecting all parts of the environment except those parts intended for activities in which a handicapped person cannot participate. All members of the community having at least the performance capacity described for the different degrees of handicap, should be able to use all parts of the system without the help of other persons.
A communications system adapted to the needs of the handicapped must be constructed by means of improvements in the communications systems already in existence, the most important among these being the system of footpaths connecting up with indoor communications networks and with public transport systems. The road network is not affected otherwise than by the fact that it must be possible for handicapped persons to get in and out of motor vehicles designed for passenger traffic from a footpath.
Consideration for the comfort and safety of pedestrians has lead to a large number of requirements regarding pedestrian ways. Briefly the requirements are the following: The footpaths should form a network that connects all starting points and points of destination in an urban environment – homes, work places, shops, parks, etc. As vehicles are usually to some extent used for longer journeys the network should also connect with those points, terminals, where the mode of transport is changed; i.e. bus stops, railway stations, car parks. The layout of a pedestrian network should provide for as easy and comfortable movement from place to place as possible. Footpaths should be even, not have too great changes in level, be of adequate width, etc. A number of rules exist concerning the design of steps, ramps, lifts and other individual parts of the pedestrian network. Nowadays it is also a widespread aim in planning to see to it that footpaths are protected from cars and other heavy and fast-moving vehicles, i.e. the pedestrian network should be completely segregated from the routes provided for motor vehicles, trains and trams.
The requirement of accessibility for handicapped persons means that a more accurate specification of the pedestrian network must be given and that the requirements regarding the different details must be worded more precisely. Proposals are given in the following catalogue of requirements.

Building standards for the handicapped in «God Bostad» (Good Housing)

The publication »God Bostad» (Good Housing) lists the conditions governing the granting of state loans for housing and is published by the National Board of Housing. A draft of a new issue presented in April 15th, 1970, proposes a number of requirements aiming at adapting the private and collective housing better to the needs of the disabled. The requirements for collective housing are reported here through a number of quotations.

»More people»

Dwellings and residential areas should be made accessible for all groups of the population. The normal types of accommodation currently in production should be capable of providing old people, handicapped and unmarried young people with a home appropriate to their needs. Certain measures enabling an adaptation to these various needs have to be taken. A person confined to a wheelchair should be able to visit and temporarily inhabit standard dwellings, and after only slight alterations even be able to live in it permanently.

Requirements for the supply of attributes

Concerning other attributes common to the household, namely kitchen, bathroom, toilet, washroom etc., the design of the individual dwelling unit cannot be independent of the design of building as a whole.
In this draft of requirements an attempt has been made to define various states of balance of equal value between the private dwelling and the building of which it forms a part. Practical experience of this weighing are virtually non-existent and have up to now only to a very small extent been a matter for research.
The qualities of the collective part of the housing that influence the design of the private dwelling are:

1. quantity of equipment and space
2. number of households per building
3. opening and closing hours and regulations for the use of the building
4. distance from the private dwelling
5. design of the means of communication.

Apart from the fact that the collective part of housing should fulfil requirements in these respects so that the number of attributes in the private dwelling could be reduced, the dwellers must be guaranteed a continued existence of the collective housing scheme.
The system of communications must in all cases be safe as regards traffic and lack steps or other obstacles which cause difficulties for the handicapped (kerb stones, steep slopes). In determining the accessibility of the collective housing the distance between the private dwelling and the collective part of the building and its degree of shelter from bad weather are the most important factors. The same degree of accessibility has in this case been assumed to be possible through different combinations of these two factors. The following figure shows the levels concerning distance and protection against bad weather that occur in the draft. The combinations of distance and protection that are on the same line in the figure are assumed to be equivalent.

LENGTH OF PASSAGE
SHELTER

25	50	100	200	300	500
☐	▭	◘			
	☐	▭	◘		
		☐	▭	◘	
			☐	▭	◘

Key:
☐ Unprotected passage
▭ Protected against rain by a roof or similar
◘ Completely protected against bad weather

Finally in this section certain requirements are made regarding the communal part of the housing which are completely independent of the qualities of the private dwelling. In some cases requirements have been laid down regarding size and number of households to be served (local public facilities, parts of the outdoor area, etc.), in other cases only the maximum distance has been indicated (day nursery, playgrounds, car parks, etc.). The accessibility of the arrangements for communal use are given according to the same system as described above. Here too the passage is presupposed to be protected from traffic and to lack obstacles that are difficult for a handicapped person to overcome.

Sitting accommodation outdoors

Old people only venture out for longer walks if sitting accommodation is provided at regular distances along footpaths. A reasonable requirement from the point of view of the elderly would be never to have more than 50 m to a seat in areas that old people might visit. The difficulties old people experience in rising from sitting position should be considered when choosing outdoor furniture.

LENGTH OF PASSAGE – SHELTER						THE COMMUNAL PART OF HOUSING – the continued function of installations and services must guarantee tenants as long as they so wish
25	50	100	200	300	500	
	□	□	□			RESTAURANT
□	□					SAUNA
□	□					LAUNDRY WITHOUT COMPLEMENT
	□	□	□			LAUNDRY WITH COMPLEMENT
						(communal premises and play amenities for small children, service facilities and playgrounds, or similar)
		□				COMMUNAL ASSEMBLY PREMISES for 1–2-storey buildings
	□					COMMUNAL ASSEMBLY PREMISES for buildings of more than 3 storeys
			□			PLAYGROUNDS FOR CHILDREN AND ADULTS
	□					PLAYGROUNDS FOR SMALL CHILDREN
				□		SMALL PLAYGROUND
					□	LARGE PLAYGROUND
				□		PRE-SCHOOL FACILITIES
				□		RECREATIONAL PREMISES
				□		PREMISES FOR PURCHASE OF CONVENIENCE GOODS
				□		CANTEEN
				□		GUEST ROOMS, guiding index 1/50 flats
				□		BANQUETING HALL OR RECEPTION FACILITIES
				□		STOPPING PLACE FOR PUBLIC TRANSPORT
	□					BICYCLE RACK
	□	□				ACCESS FOR CARS
	□	□	□			CAR PARK FOR HANDICAPPED PERSONS
				□		CAR PARK
□						ENTRANCE STORAGE
			□			SEASONAL STORAGE
□						CLEANING CUPBOARD WITH SINK
□						REFUSE CHUTE, accessible without difference of level
				□		LAUNDRY
				□		SAUNA
			□			AIR-RAID SHELTER

Adjustment of certain technical details to the needs of the handicapped

The requirements regarding adjustment of the dwelling to people confined to wheelchairs from the technical aspects of planning has been discussed in Chapter 2. Additional detailed requirements regarding adjustment to the needs of the handicapped are listed below. They have been taken from »Normalbostaden och de rörelsehindrade» (Standard housing and the handicapped[1] – the Department of Handicap Research at the University of Gothenburg, stencil dated 10th January 1970), publication C1 1–1 1968 of the SVCR (the Swedish Central Committee for Rehabilitation) and Report No. 1/February 1970 of the Swedish Institute for the Handicapped.

Floor covering should be made of non-slip material.

Differences in level between floors in different rooms in dwellings, balcony included, constitute an obstacle to persons confined to wheelchairs and should therefore be avoided. Refuse chutes should be placed so that no difference in level occurs between the refuse chute and the dwelling.

Doors within the dwelling should be preferably without thresholds or at least have easily removable thresholds. In cases where thresholds are necessary for technical reasons they should be constructed in a way adapted to persons confined to wheelchairs: pneumatic threshold to bathroom, low thresholds (not higher than 2 cm) with chamfered edges under entrance door and balcony door.

The door handle should be placed 90 cm above floor level and the lock at the entrance door not higher than 100 cm above floor level. The letter slit should not be lower than 70 cm from the floor; this position being most suitable for a basket placed under the slit.

Side hung windows of a reasonable size are easier to handle than pivot-hinged. Windows with sidelights at one end are appropriate. Such sidelights should be equipped with an espagnolette fastening system that can lock the window at an open position. If a special ventilation window is lacking, one of the windows in the dwelling should have a maximum width of 60 cm.

Windows above counters should be placed at least 100 cm above the floor. Windows difficult to reach – in kitchens or above bathtubs – should be provided with a side-hung or top-hung sash that can be opened with the help of a special device (sidesash or topsash opener).

Glass surfaces should not be found lower than 30 cm above floor level.

Controls for windows and venetian blinds should not be placed higher than 100 cm above the floor. The controls should be easy to reach and not be placed, for instance, in a corner.

Electric switches and socket outlets should be placed following the same principles as for window controls. The switches should be of rocker type with a large square push plate. Lighting fittings under wall cupboards should be placed about 15 cm from the front edge.

Mixer taps in kitchen and bathroom should be easy to manoeuvre. Lever-operated taps with a lengthened arm are preferable for certain handicapped persons.

The coat rack could be put on channels and brackets in order to be vertically adjustable (the clothes rail should be situated approximately 120 cm above the floor) and will preferably be made with a protecting end panel so that persons with defective eyesight will not be injured by protruding edges.

Draft of catalogue of requirements

1. General

In the urban environment there should be a system of communications adapted to the needs of the handicapped. All areas in the urban environment, except such areas that are designed for activities in which handicapped persons are unable to participate, should be connected via this system. The system of communications should fulfil the requirements laid down in this and the following sections of the catalogue of requirements.

The term urban environment covers all land and structures thereupon within areas classified as urban localities, plus the traffic systems connecting these urban areas.

The skeleton of the communications system is the pedestrian network with connecting indoor passages and the public transport system. The pedestrian network should be connected to the road network at car parks, access ways for cars, and at stations and termini for public transport.

As to the separation of motor and pedestrian traffic the direction in »SCAFT 1968» (the Dept. of Urban Planning, Chalmers University of Technology) are valid: »Riktlinjer för stadsplanering med hänsyn till trafiksäkerhet» (Directions for urban planning with consideration to traffic safety), Publication No. 5 of the National Swedish Board of Urban Planning.

In rural districts which are used for rambles or which are otherwise used by the urban population for recreation and open air activities, there

[1] This work has subsequently been revised and published as National Swedish Building Research Bulletin B13: 1971, a translation of which is included in this Document.

should be footpaths trafficable by wheelchairs with an outer carriage. Such roads should be at least 180 cm wide, have a hard paving and a gradient of not more than 1: 12. Long slopes should be broken by horizontal resting platforms at no more than 50 m intervals. Lay-bys, car parks, cafeterias, etc. in such excursion areas should, however, fulfil the requirements valid for urban environments.

2. The pedestrian network

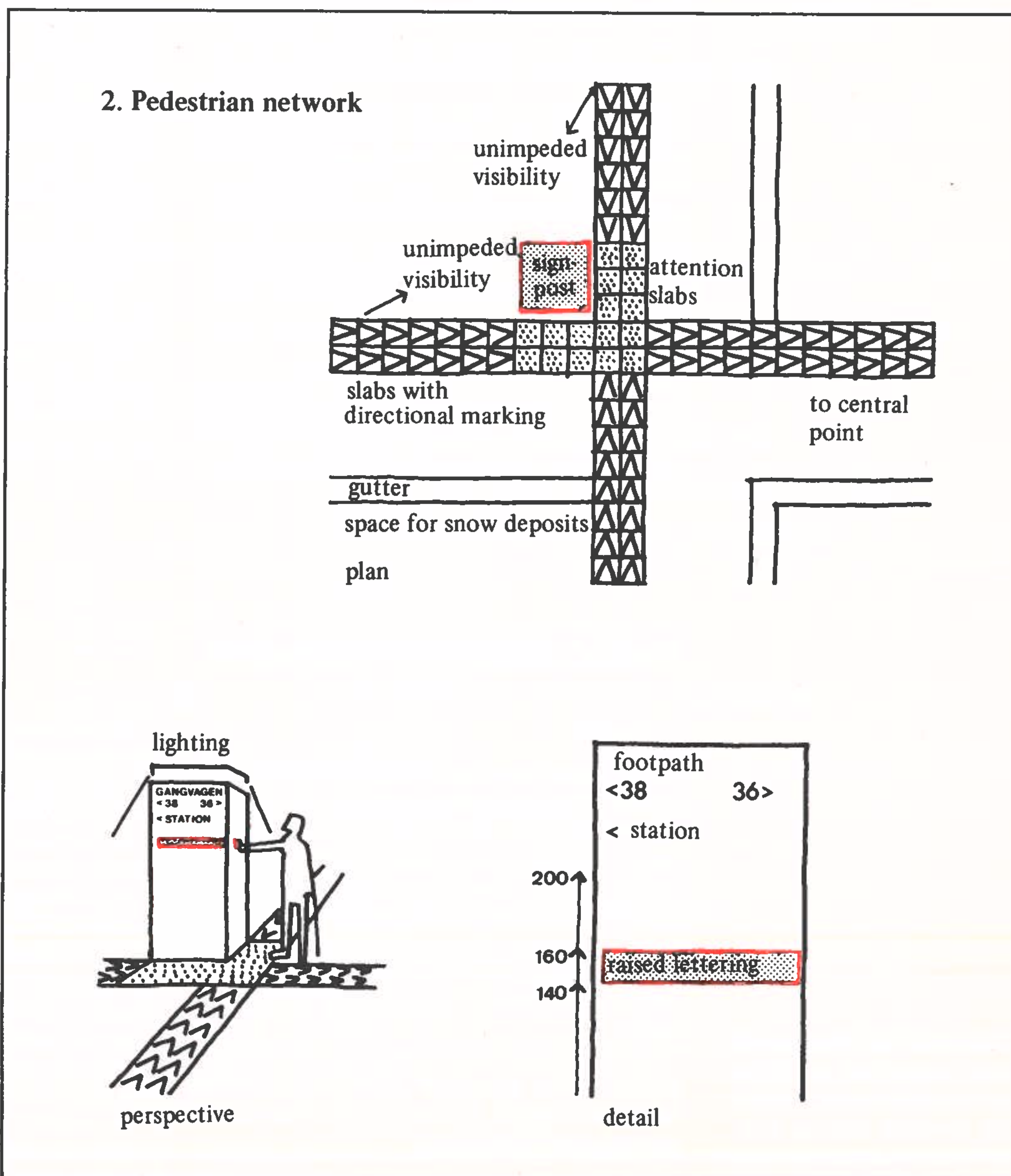
From here on all pedestrian areas, both indoors and outdoors, that are required for connecting the areas mentioned under point 1, paragraph 1, will be considered as footpaths.

The pedestrian network should consist of surfaces for walking that form levels connected by lifts or both steps and ramps. Only ramps, steps, escalators or conveyors are not sufficient for ensuring the practicability for handicapped persons. Toilets adapted to the needs of the handicapped and resting facilities protected against bad weather should be provided alongside pedestrian network. Telephones, cloak-rooms, control panels and alarm systems should be designed so as to be usable by handicapped persons.

A pedestrian network should comprise at least two kinds of roads, main footpaths and secondary connecting footpaths. The main footpaths are the central footpaths in the suburbs and residential areas and the footpaths connecting these with schools, parks, larger car parks and bus stops and stations served by the public transport system. Other footpaths are secondary.

All footpaths should permit the passage of a wheelchair *without* an outer carriage. All main footpaths and secondary footpaths leading to parking facilities for carriages should also permit the passage of wheelchairs *with* an outer carriage.

Each individual area of building development must have at least one central point. It should be in the centre of the area adjacent to the main pedestrian route and if possible in the immediate vicinity of a bus stop or station served by the public transport system. The central point should be sheltered from wind and rain and be provided with at least one public telephone, letterbox, bench, street map and relief map. Horizontal maps should be orientated in accordance with the points of the compass. Vertical maps should be placed so that North is at the upper edge and so that the observer faces north when reading the map. The maps should contain information about public toilets in the neighbourhood, terminals and loading and parking facilities. The central point could be combined with a waiting-room, service centre or other public amenities. The part with the telephone, maps and bench should be kept open and lit throughout the twenty-four hours.



Intersections of main footpaths should be signposted. The signpost should indicate the names of footpaths and the numbers of the houses along the roads, as well as describe the way to the nearest central point and nearby bus stops and stations and car parks. It should take the form of a square pillar standing on the ground[1]. The signs should be placed so that their lower edges are 2 m above the ground and the text in 3 cm tall capital letters. The same information should be given in relief writing (for example relief tape with 15 mm tall capital letters) at a height of between 140 and 160 cm above the ground level. Lighting fittings should be mounted at the top of the pillar to provide illumination for the pillar itself and its immediate surroundings. The signpost should be clearly visible with the aid of colour and illumination but should not be used for commercial advertising.

On the main footpaths there should be two rows of special pavement slabs with directional markings. Every slab should have clear marks of a different texture. The markings should indicate the direction to the nearest signpost or central point.

Secondary footpaths should have one line of the same type of slabs. The markings should show the direction to the nearest main footpath.

The main footpaths should not be allowed to be closed for roadworks or reparations. Mains and cables should be located so that they can be reached for repairs without the pavement being dug up or soiled. Necessary manholes should be placed beside the footpath.

If the footpaths are constructed with a slope towards one side only the directional slabs should be placed near to the highest point.

Footpaths outdoors should be kept free from snow. This will be best solved by heating the footpath or by roofing it over. If such measures are not possible, there should be space for snow deposits beside the footpath and placed so that melting snow does not run over the footpath. The space for snow deposits should be indicated on the land-use plans when applying for a building permit.

Central points and main footpaths should have names and these should be indicated on the local touring maps and street directories.

3. Level footpaths

Footpaths outdoors should be at least 180 cm wide. The surface should have a hard and non-slip paving.

Level footpaths should not have a gradient exceeding 1: 50. Cracks in the surface must not be wider than 1 cm. Differences in level should not be permitted in cases other than at doors and other arrangements that might cause the supposition of a step. Here differences in level may not exceed 2 cm.

Edges, abrupt inclines, steps or ramps should be indicated according to the figures below.

At abrupt inclines there should be a 15 cm high barrier, a special barrier for wheels at a height of 30 cm above ground and a hand rail at a height of 90 cm above the ground. In front of steps and ramps there should be markings on the ground surface in contrasting colours and grain (warning slabs). The handrail should be tubular with a diameter of 3.5 cm and be placed at least 3.5 cm away from a wall. The handrail should end with a post, basket or bevelled plate that is at least 20 cm wide and perpendicular to the direction of the handrail.

In older parts of towns pedestrian crossings over roads used by motor traffic cannot always be avoided. Such crossings should be controlled by optic and acoustic signals. No difference in level (kerbstone) should be allowed in the footpath. Areas for pedestrian and motor traffic should be separated by railings. The width of the carriageway between pavements or traffic islands may not exceed 8 m.

4. Passages

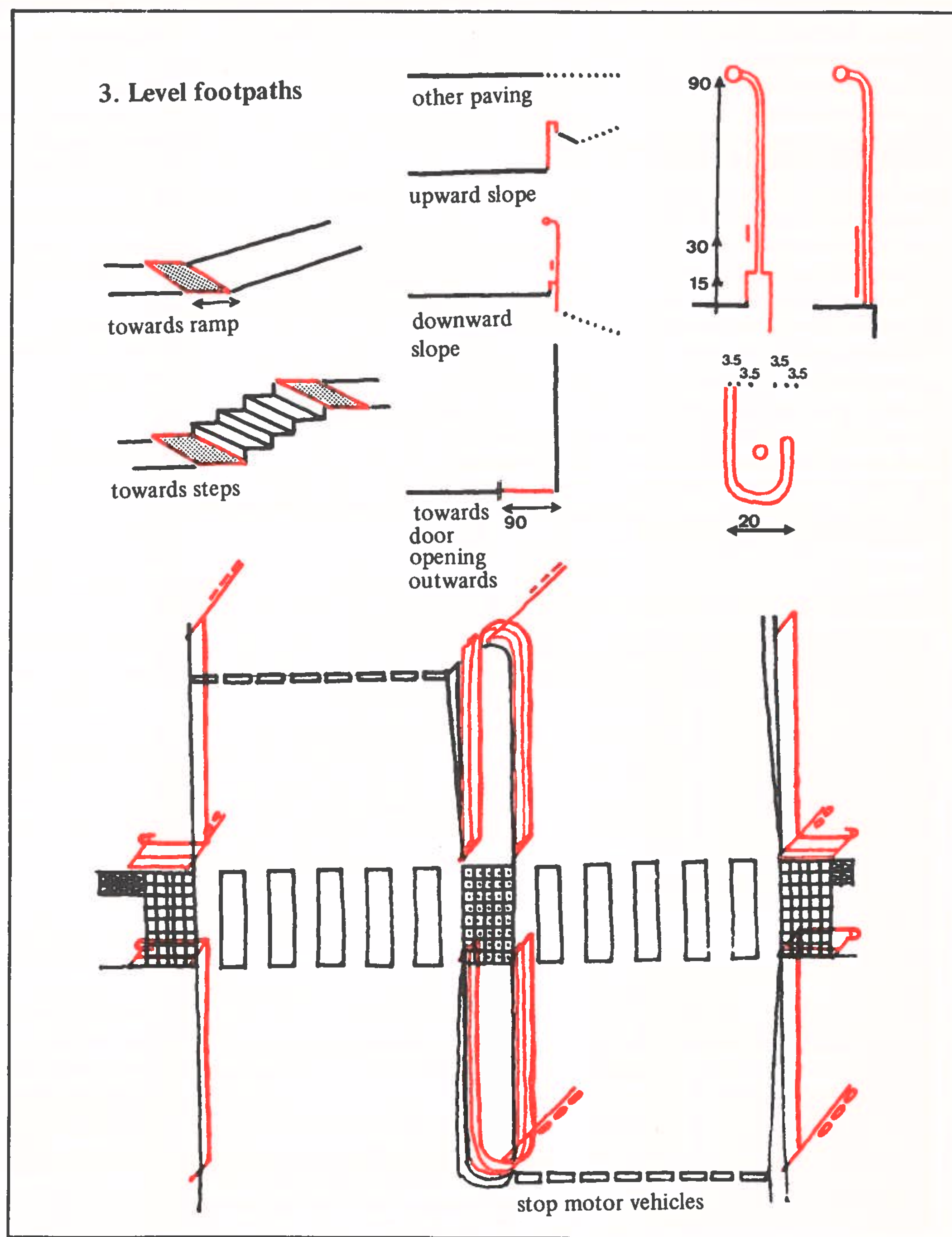
Indoor passages forming part of the pedestrian network should have a minimum clear opening of 130 cm. Doors, information signs, cupboards, etc. may not encroach on the clearance. Meeting places with a minimum width of 195 cm should be provided at least every ten metres.

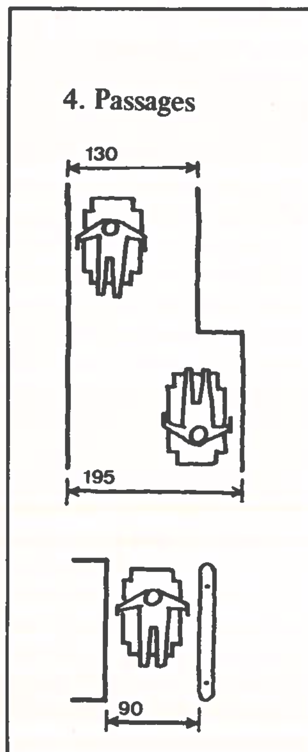
At supermarket checkouts, gates to public transport facilities, etc. the clearance may be reduced to 90 cm.

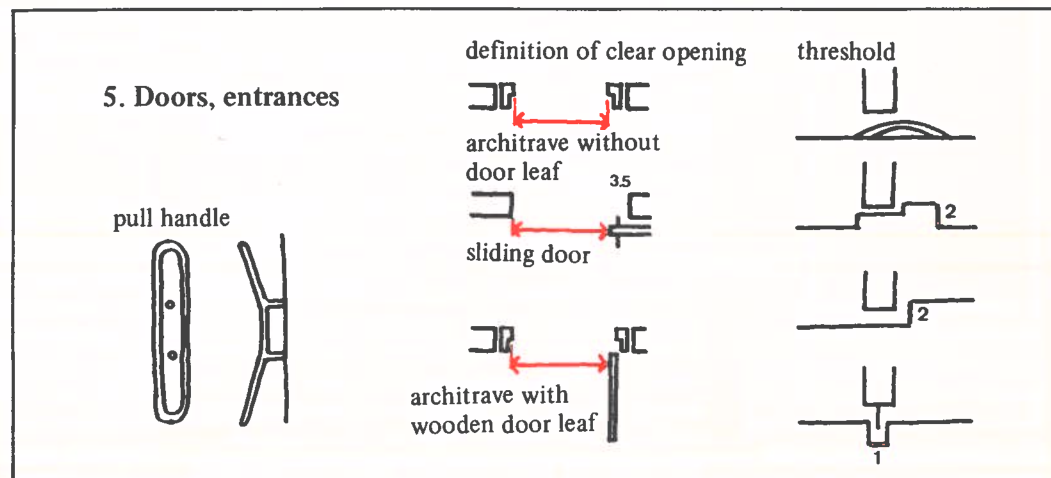
5. Doors, entrances

Doors in the main pedestrian network and entrance doors to dwellings (more than two), hotels, restaurants, work places (with more than ten people employed), schools, assembly halls, offices for public services or larger shops, should be glazed, however, not lower than 30 cm above the floor, and have a clear opening of 90 cm. The lock must not be of a hook type and the pull handle should be designed as in the figure.

[1] A possible development would be to give persons with orientational problems special wireless receiving sets that would take the bearings of a transmitting set in the signpost.







Doors in the main pedestrian network must not be locked unless they are guarded at the same time. In connection with the entrances mentioned, facilities sheltered from bad weather should be provided for parking invalid carriages.

In other doors the clear opening should be at least 75 cm.

Hinged doors should give a clearance of at least 50 cm on the opening side between the frame and the nearest wall.

The power needed for opening the door through pulling or pushing may not exceed 2.5 kgf. The closing pressure, that is the power of an automatically closing door on the opening side, may not exceed 3.5 kgf.

Time for passing is the time counted from the moment when the door is in such a position that it provides the requisite clear opening, until the door is closed.

The time allowed for passing automatically closing doors without a photocell should be at least 6 seconds.

Thresholds should be avoided but may be designed according to the figure. They should be in a contrasting colour to that of the floor.

6. Ramps and steps

The following directions are only meant for ramps and steps included in the pedestrian network and taking up level differences in cases where there are no lifts.

The gradient of a ramp must be less than 1: 12. Every single ramp may cover a level difference of not more than 50 cm.

A flight of steps may consist of at least 3 and the most 8 steps, 12–14 cm high. Between two ramps or flights of steps there should be a platform for resting of at least 130 cm and equipped with a bench.

Ramps and steps should be at least 130 cm wide. There should always be handrails on both sides.

Concerning the treatment of the ground, markings, rails and fenders, the same as is said under point 3 is valid.

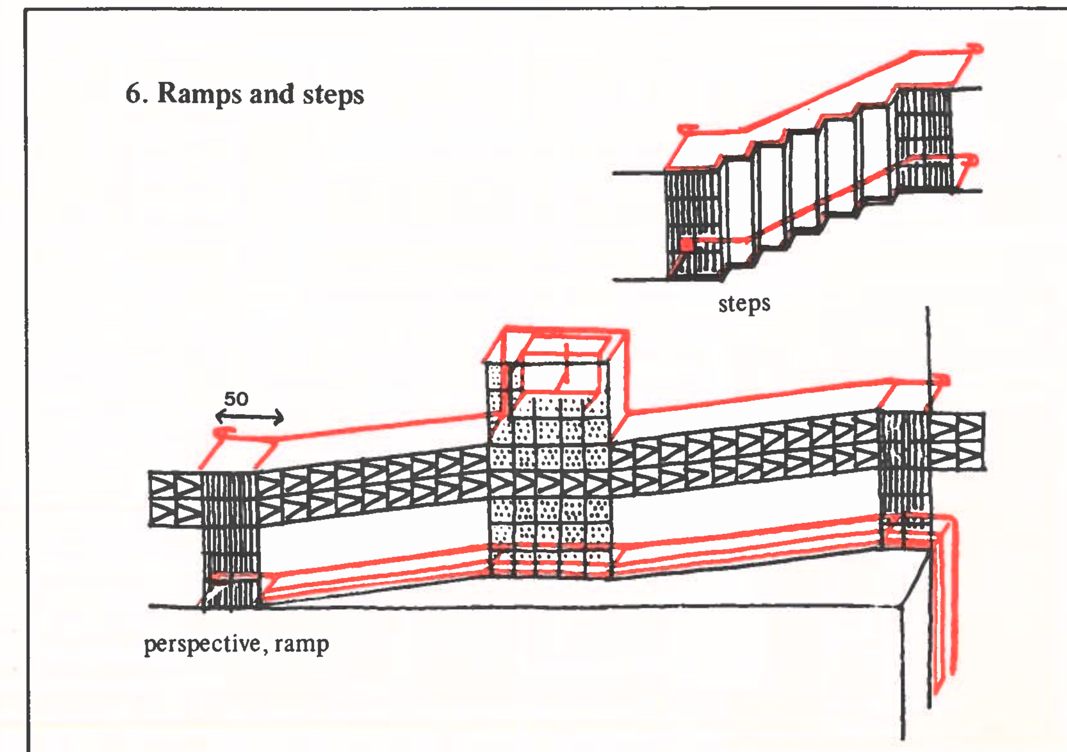
7. Lifts

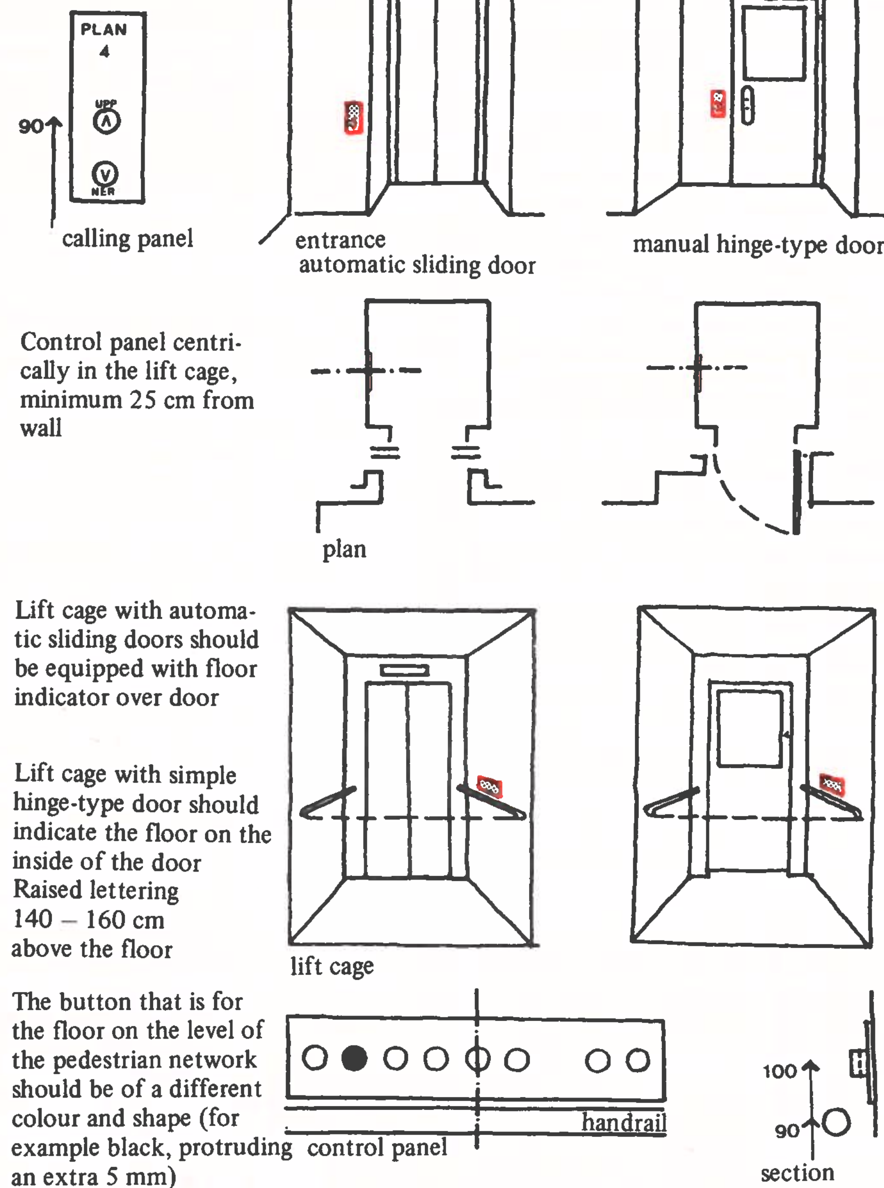
Movement between different levels of the pedestrian network should as a rule be undertaken by a vertical or inclined lift. Lifts that are parts of the main footpaths should be open and lighted day and night.

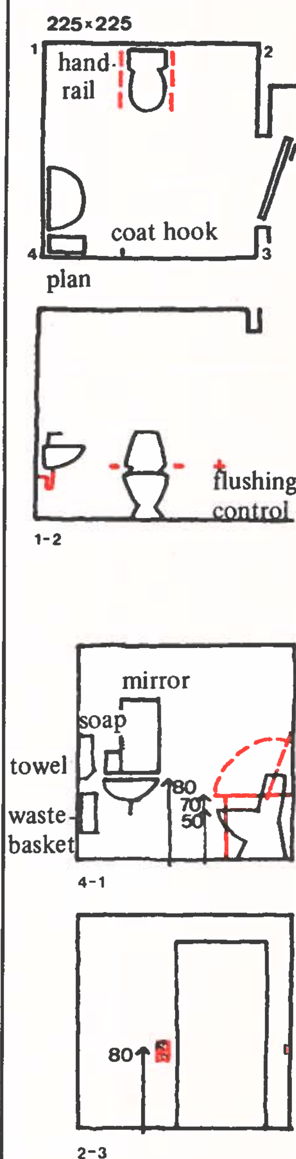
The lift door should be on the same wall of the shaft and have the same opening side on all floors. It should be glazed and further follow the rules listed under point 5. In lifts with a single hinge-type door the floor number should be given in raised lettering (e.g. raised lettering tape with 15 mm tall figures and capital letters) on the door to the lift shaft.

The calling and control panel should be designed in accordance with points 10 and 12. Immediately above the calling panel there should be a sign indicating the floor in question. Each floor indicated on the control panel should be marked by an acoustic signal when passed. In lifts with double doors there should moreover be a sign indicating on which floor the lift has stopped.

The alarm signal should be connected to a police station or fire station or another alarm central that is manned throughout the twenty-four hours.







Lifts in the main pedestrian network should have a lift cage measuring at least 130 x 160 cm (width x depth). In other lifts the cage should be at least 130 x 130 cm. If the lift has fully automatic doors the measurements can be reduced to 80 x 130 (width x depth).

The accuracy of fit should be at least ± 2 cm in lifts that allow for a wheelchair to turn (plan measure 130 x 130 or larger) and at least ± 0.5 cm for smaller lifts. In the lift cage there ought to be handrails on all walls and a permanent or folding seat.

8. Public lavatories

Public lavatories should be provided at intervals along pedestrian networks and at filling stations. Each group of toilets should include at least one adapted to the needs of the handicapped and open and lighted day and night. There should be at least one lavatory near every central point and the maps at the central point should indicate how to get to it.

Beside the toilet door on the opening side there should be a text or symbol in raised lettering 140–160 cm above the floor.

The toilet adapted to the needs of the handicapped should have interior measurements of 225 x 225 cm and be equipped as shown in the figures. The door should open outwards, have a pull handle on the outside and a push plate on the inside. It should be locked by an electric lock that is controlled by a press-button panel on the wall at the opening side of the door, 80 cm above the floor. The electric lock should be connected to a 24-hour alarm bureau. The alarm should be released when the door has been locked for more than 30 min.

Outside the toilet there should be a place protected against bad weather for an invalid carriage.

9. Resting facilities

In connection with the pedestrian network there should be sheltered resting facilities at least at the central points and at bus stops and stations served by the local public transport system. Each set of resting facilities should include at least one bench designed as shown in the adjoining figure. Such benches should be placed along the main footpaths every 100 metres at least. The positions of the benches should be indicated in the footpath paving by attention slabs that can be felt with the foot.

10. Control equipment

The area of reach common for a standing and a sitting person is decisive for the placing of control equipment and fittings.

Control equipment should not be placed closer than 50 cm from any corner.

Control equipment on walls and other vertical surfaces should be placed within the zone 80–100 cm above the floor with the most essential elements placed with their centre 90 cm above the floor. However, see points 7 and 8.

Control equipment on horizontal working surfaces (washbasins, counters) must not be placed further than 50 cm from the free edge of the counter. The free space below the counter must be at least 60 cm high and 50 cm deep.

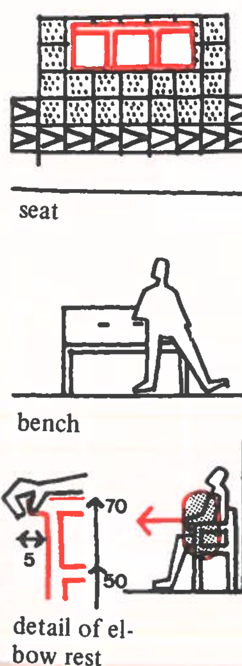
It should be possible to operate control equipment with one finger (required force max. 0.25 kgf) or with the elbow. Knobs are unsuitable.

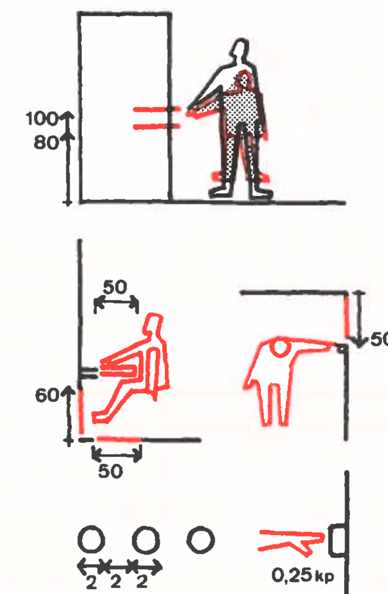
11. Coat rack, telephone, post box, stamp machine

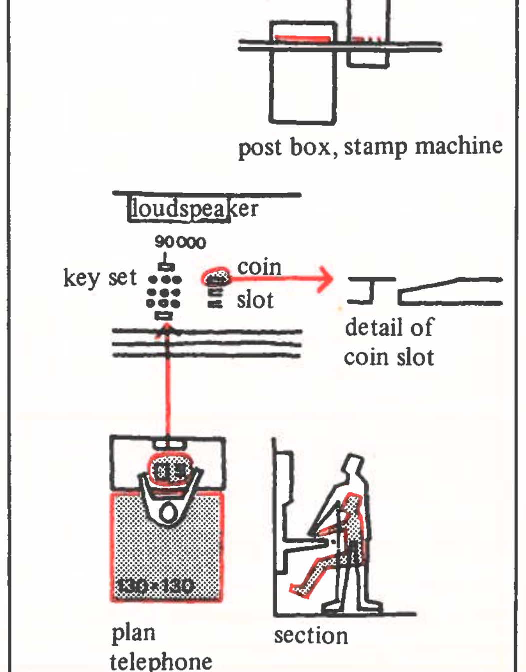
Coat racks should be placed in niches or be provided with end panels. Where coat racks are provided there should also be a coat rack for persons confined to wheelchairs, with a rod 120 cm above the floor. In front of such a rack there should be a clearance of at least 130 x 130 cm.

Telephones for the handicapped should be placed so that noise from surrounding areas does not disturb the speaker. Instead of a dial there should be a set of keys placed on a 70 cm wide counter 75 cm above the floor. The slot for inserting coins should be placed beside the keys, designed so that coins placed on the surface of the counter can be passed into the slots. The depth under the counter may be reduced to 60 cm. The outer part of the counter should be designed as a handrail. The telephone receiver should be replaced by an omnidirectional loudspeaker and a microphone placed in the wall over the counter 125 cm above the floor. There should be a hole in the counter over a waste basket. In front of the counter there should be a floor clearance not smaller than 130 x 130 cm.

Post boxes should have the letter slot 90 cm above the floor. The letter slot must not have any cover and should be placed with the lower edge







at the same level as a 10 cm wide rack for resting the hand. The same rack should be used for inserting horizontal coins in stamp machines. The bought stamp books should be pushed out so that they are put on the rack.

12. Signals, signposts, signboards

Signals should always be both optical and acoustic.

Loudspeaker installations, for example on railway stations, should be supplemented by an electromagnetic circuit around the premises, as well as a TV screen for messages. This should be placed with its lower edge 210 cm above the floor. The text should be at least 3 cm tall.

Signboards should have a text of such dimensions that people with a visual acuity of more than 6/60 should be able to read it at the intended distance. The size of capital letters as a function of the reading distance is shown in the diagram below.

The vertical parts of the letters have a thickness that is 1/5 of the height of the letters.

A rectangular signboard should give information. A triangular signboard will mean warning and a circular will mean prohibition.

Green colour on a signboard will mean »clear», red »not clear» and yellow will mean »risk».

Black will be used as a contrast to yellow, white and green, while white will be used as a contrast to red and green.

Doorplates should be placed on the wall at the opening side of the door. Necessary information should be given in raised lettering, 15 mm tall letters between 140 and 160 cm above floor level.

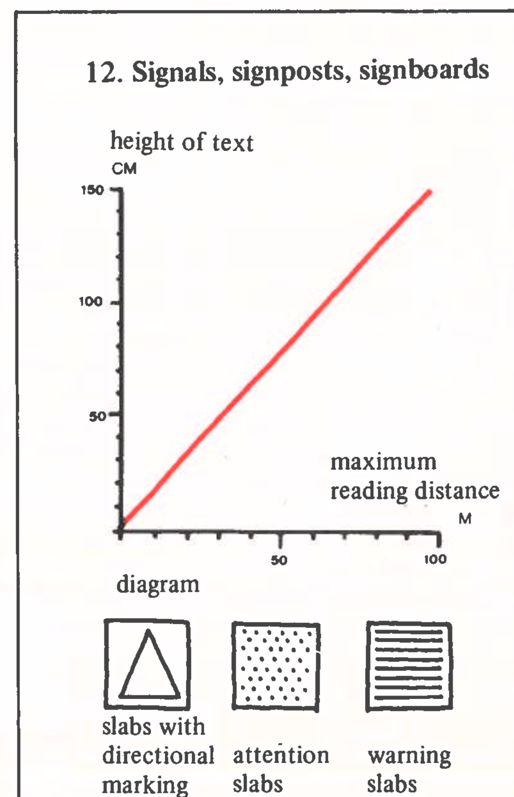
In this catalogue of requirements, directions in the form of slabs on the ground are prescribed. Three kinds of such slabs are presupposed to be necessary. They are shown in figure below.

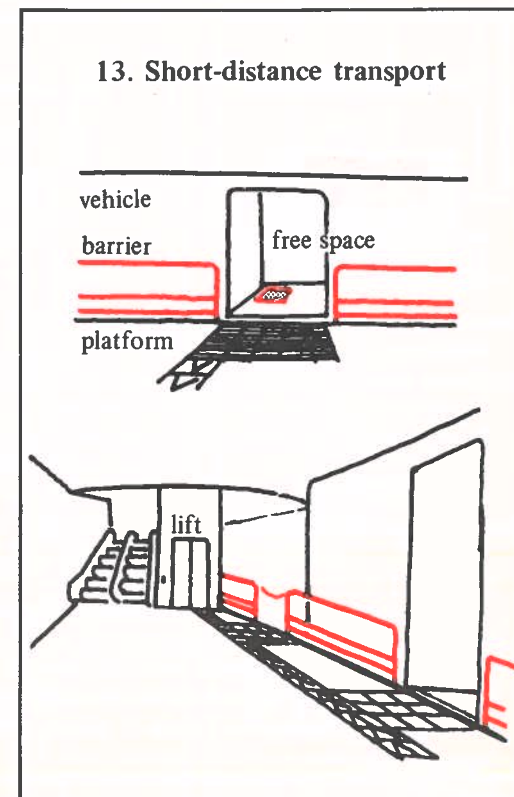
13. Short-distance public transport

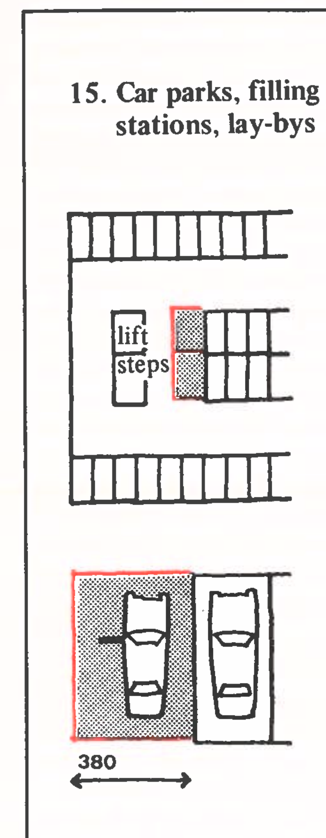
The term short-distance public transport covers taxis, buses, underground railways, tramways and other types of public transportation in the urban area and its surroundings. They should be designed so as to permit their use by handicapped persons (with individual aids) on the same conditions as other travellers. For other means of transportation than taxi, the following should be valid:

The handicapped person should be able to get in and out of the vehicle without help. The platform should be considered as part of the pedestrian network and be designed as stipulated in point 3. It should be on the same level as the floor of the vehicle. An alternative would be to equip the vehicle with a hoisting platform but only if the flow of travellers is small and the platform can be operated by the driver of the vehicle.

The position of the door of the vehicle should be marked with, for example, a stop post or a special marking on the surface of the platform which can be felt with the feet. The space between the platform and the vehicle must not exceed 10 cm. The vehicle should have room for at least one wheelchair (130 x 160 cm) imme-







diately inside the door, and at least one seat designed as stipulated in point 9. The platform should have a roof and walls as protection against wind and sitting accomodations as described in point 9.

At every station the driver or the station staff should announce the destination of the vehicle over a loudspeaker audible for persons on the platform.

Taxis should be obliged to come for and deliver handicapped persons at all points of car access as well as at work places and residential quarters that can be reached by car. There should be a shelter for waiting with the bench stipulated under point 9 and a telephone for calling taxis.

Remarks: At present a number of alternatives to conventional systems of public transport are under discussion. A catalogue is found in Richards: New Movement in Cities. Some of these alternatives mean that the traveller should get on and leave the vehicle while it is moving. Examples are escalators and moving pavements. Moving pavements are accessible for chairbound persons if the gradient does not exceed 1: 12 and if it is possible to drive on and off the moving pavement in the same direction as it moves. Other persons with walking difficulties may find it impossible to get on and off a moving pavement or to stand on it when it moves; the movement is not always entirely smooth. This problem could be solved if wheelchairs were to be made available at the ends of the pavement. Some of the more unconventional means of transport have fixed seats on a conveyor belt or in carriages that are constantly moving. In such cases getting on and off has to be done from the side, at an angle to the direction of movement. It is uncertain whether the corresponding manoeuvre could be done with a wheelchair. *New and unconventional means of transport have to be tried with consideration to handicapped persons before they will be taken into use.*

14. Long-distance public transport

In connection with long distance public transport (planes, long distance trains and ships) the pedestrian network that is adapted to the needs of the handicapped, should be extended up to and if possible into some kind of ante-room of the means of transport. The transport company should be responsible for the service provided for handicapped persons during the journey and the comfort corresponding to that received by other passengers plus supplying necessary aids.

15. Car parks, filling stations, lay-bys

At car parks there should be reserved spaces for invalid carriages close to the pedestrian entrance or lift. Each such space should be at least 380 cm wide and be equipped with a sign of »No parking» and an additional sign »Invalid carriages excepted». The road from this place to the pedestrian entrance should be regarded as part of the pedestrian network.

Street-level car parks should be surrounded by a fence. A public car park should be signposted (full name and address) at the pedestrian network. The situation of the pedestrian entrance should be indicated on the local tourist maps and in street directories. Control and paying systems at car park entrances may not require the driver to leave his vehicle.

At filling stations and lay-bys with public lavatories there should be a parking space precinct for invalid carriages designed as in car parks and a toilet as specified in point 8. Between the lavatory, parking space for invalid carriages, check-out and possible shop, cafeteria or observation point there should be footpaths adapted to the needs of the handicapped.

16. Access facilities for cars

Access facilities and/or parking spaces should be located at a distance of the destination complying with that stipulated in »God Bostad», proposal of 15th April 1970. Parking space for at least one invalid carriage, designed according to point 15, should be provided. »No parking» signs should be erected at these spaces (see point 15). Handicapped persons are naturally exempt from such prohibitions.

17. Lighting

The footpaths should be well lighted with white light. Lighting of motor roads and car parks should be given another clearly differing colour.

Application

The responsibility of the municipalities

The local authorities in Sweden should draw up and approve the necessary detailed and comprehensive development plans required for suitable use of all land within the municipal boundaries. The local authorities are also able to control the individual land owners' use of their land via their land policy.

The local authorities are responsible for both the building and administration of a large part of the road network and several kinds of buildings that are of special interest in this connec-

tion, for example schools and certain assembly halls. Moreover, the local authorities are often in charge of the running of the local public transport services.

It is the duty of the local authorities, through the local housing committee, to examine and approve all proposals regarding construction and modernization of buildings in the municipality and thereby to ensure that the proposals are in keeping with the current building standards and planning regulations.

Moreover, the local authorities are responsible for maintenance, cleaning and supervision of the main footpaths. If any part or parts of these happen to be on private land, the local authorities must guarantee access with aid of agreements and town planning regulations.

The pedestrian network in the local comprehensive development planning

The development of a pedestrian network adapted to the needs of handicapped persons is more a matter of coordinating work that is already done, than of economic efforts. It must be steered by the rules laid down for local comprehensive development planning.

Comprehensive development plans may refer to the whole municipality or the whole urban area with the surrounding land for the extension of the built up areas, and are then called master plans. It is also common nowadays to draw up comprehensive development plans for parts of the municipality. They may refer to continuous areas of mainly virgin soil that are intended for development within the next few years and are then often called action area plans. They may also refer to older parts of towns that have to be rebuilt or improved and are then called urban renewal plans.

All these plans can be drawn up, adopted by the local authorities and ratified by the King in Council following the rules referring to master plans in the Building and Planning Act. A ratified plan has certain legal consequences but ratification has only been used in very few cases. A plan that is not ratified may be regarded as a program for the municipality and its importance depends on the willingness of the local authorities to fulfil the intentions of the plan through later decisions. Master plans usually cover a period of 15 – 30 years, the action area plans about 5 years. For the urban renewal plans the period may vary for various districts within the same plan from 5 to 30 years. Master and urban renewal plans should be revised at least every 5 years.

A comprehensive development plan consists of one or several maps with accompanying descriptions. A normal scale for master plans is 1:10,000 and for the action area plans and the urban renewal plans 1:4000. The maps show areas and lines, the meaning of which are given in the key. A space may for example indicate areas subject to regulations with certain rules governing their development, for example two-storey terraced houses, while lines may indicate the road network on a plan. Local authorities are thus given ample scope for steering building development and land use.

Comprehensive development plans regarding the pedestrian network should be presented in the same way. On *master plans referring to the pedestrian network*, main footpaths connecting the various parts of a town and forming the basis of the pedestrian network, should be indicated as well as the boundaries of areas subject to regulations that exist in the plan for the pedestrian network. On places where the footpaths are crossing the boundaries for the regulations areas, the altitude of the footpath should be indicated.

At the master plan level it should as a rule be sufficient to have three types of areas subject to regulations on the pedestrian network plan:

1. areas to be regulated in the action area plan(s);
2. areas to be regulated in urban renewal plan(s); and
3. areas not to be equipped with a pedestrian network adapted to the needs of handicapped persons, for example areas not scheduled for development and large work places for work that cannot be done by handicapped (for instance marshalling yards).

It should, however, be noted that in this context an urban renewal plan should cover all land developed in one way or another, also parks, public beaches and recreation areas, filling stations, airport buildings etc. and that the action area plan in a corresponding way should cover all areas that may conceivably be developed in any way in order to complete the development.

On a *pedestrian network plan belonging to the section area plan* all main footpaths with lifts and ramps, central points, stops for public transport, parking places and drives should be indicated as well as the boundaries of the areas for certain purposes included in the pedestrian network plan. Where the footpaths are exceeding the boundaries the altitude of the footpath should be indicated.

In the pedestrian network plan within the action area plan three types of areas for different purposes may appear:

1. areas where all dwellings, premises and other space must be accessible to handicapped persons, with the exception of rooms meant for activities in which they are unable to take part (for example fan room or lift room);
2. areas with multi-family houses without lifts; in such areas all other premises and areas than the upper floors of the houses should be accessible for the handicapped (with the exceptions mentioned in point 1); and
3. recreation areas with a pedestrian network adapted for use by invalid carriages.

Pedestrian network plans belonging to an urban renewal plan should be based on an inventory of the areas currently used by pedestrians. The greatest emphasis must be placed on those passages that are used or may be used as main footpaths. The inventory should include classification of the pedestrian areas according to traffic situation and right of way, contact with sites and houses, occurrence of kerbstones, steps and similar, paving, gradients, etc.

The pedestrian network plan within the framework of the urban renewal plan should be based on a policy plan covering a period of not more than 20 years. In the policy plan all main footpaths with lifts, ramps, central points, stops for public transport, access points and parking places for invalid cars should be indicated and all be designed according to the requirement catalogue. The elevations should be indicated for the crossings between main footpaths. Urban renewal plans should be governed by a regulation stipulating that the pedestrian network on newly constructed premises in a planning area should be built and connected to the pedestrian network specified in the policy plan according to the rules of the requirement catalogue. For properties subjected to repairs or modernization, the corresponding regulation should be formulated so that circulation areas within the properties themselves and their connections to the main footpath network as far as possible comply with the rules listed in the catalogue of requirements and that the premises are also planned and equipped taking into consideration the preferences and needs of the people who live or work there.

The pedestrian network plan itself should cover a shorter period of time and be renewed approximately every five years. It should indicate the measures that are planned for the period in question. During the first period the measures should be concentrated on such conditions where simple and low cost measures could bring about great improvements. It should also envisage an inspection and improvement of signs, signals and tourist maps as well as an increase in the number of toilets and telephone booths for the handicapped.

Rebuilding

The urban environment is slow to be renewed. If accessibility for the handicapped could be achieved only through demolition and new construction, improvements would take a very long time. In the previous sections it has been assumed that renewal of the pedestrian network would be carried out before 1990. In the coming twenty years almost all existing premises (other than dwellings) will be rebuilt for other reasons. Local building committees will then demand that the premises be adapted to meet the needs of the handicapped, following the amendment to § 42a of the Building By-Laws.

The conditions are somewhat different for the housing. Most residential accommodation dates from after the Second World War, and as a rule will be standing far into the next century. In many cases the structure will last almost indefinitely. Only a very small proportion of these buildings are today designed in accordance with the rules in the catalogue of requirements. A somewhat larger number can be made accessible by simple measures, for instance, slight alterations to entrances. Many multistorey buildings have lifts which are too small but are otherwise easily adaptable. The group that might appear to be the most difficult to adjust to comply with the catalogue of requirements would be the slab blocks of flats from the 40's and 50's in which the ground floor is usually half a flight of stairs higher than the entrance level and bathrooms, toilets etc. are small.

But for many handicapped persons, for instance those with defective vision or hearing, all these houses would be fully serviceable. Persons with walking difficulties can live on the ground floor in most blocks and on the upper floors in almost all blocks with lifts. Persons confined to wheelchairs can as a rule visit tenants in multistorey buildings if they are helped in and out of lifts and if the conditions round the entrance are such that they can reach it. Small changes can often mean great improvements and it is therefore important that local authorities should pay attention to such aspects when renovating properties and also that they should try to reach voluntary agreements with the owners in other connections.

According to the Social Welfare Act every local authority should »see that every resident receives the care appropriate to his needs and general situation» (§ 1). This paragraph will become of interest in the next few years to a growing number of pensioners who live in buildings dating from the 40's and 50's. These people usually wish to remain in their flats as long as possible and it is often possible if they can get in and out of the flat on their own and if they can get the necessary domestic help. In these cases it is also important to stimulate development of technical aids that can easily be installed, for example inclined lifts for one person that are installed so that they can go along the wall of the flight of stairs or climb the flight of stairs, and lift shafts that can be placed outside the house.

But above all it is necessary to improve the pedestrian network so that the old people are not isolated in their homes. Most existing housing can by simple means be made serviceable for most handicapped persons. In order to make these measures seem motivated, a concerted effort to improve the local traffic situation is needed.

Supervision of the pedestrian network

We have stressed the fact that accessibility is a fact only if handicapped persons can feel sure that the pedestrian network and all its parts will function. Maintenance, cleaning and supervision of the pedestrian network must therefore be of higher standard than is the case today. The local authorities are responsible for roads on land owned by the municipality. It may occur that main footpaths and lifts that are counted as part of the main footpaths, are located on land and in buildings that have another owner than the municipality. In such cases the municipality has to guarantee a satisfactory standard through planning regulations, easements and agreements.

Safe operation also demands a continuous supervision. This can be achieved, for example by contributions by various groups – cleansing department, caretakers – and the need for supervision can, in certain respects, be reduced through a careful planning. The responsibility for co-ordination between the authorities themselves and the physical planning falls to the local authorities. It might possibly be more advantageous to place all such functions in the hands of one municipal body. It is difficult to recommend comprehensive solutions as, for a long period of time, very little attention has been paid to these questions. Problems that must be solved are easier to list:

The standard of the pedestrian network and its various parts must be regularly examined and be compared with what was intended at the time of planning. Feedback of findings must be organized to the planners, designers and suppliers to enable them to improve plans and components gradually.

Cleansing of the pedestrian network and clearing it from snow must achieve at least the same standard as that of the motor roads. Machines must be developed that can work at a free height of 2.1 m and the widths of the roads (down to 1.3 m) which can occur in the pedestrian network.

A repair service must be developed that can work without setting aside the function of the pedestrian network.

Footpaths, central points, toilets, lifts, stops, etc. have to be kept clean, neat, congenial and serviceable.

Part 2 Workable homes

by the Department of Handicap Research, University of Göteborg

Original title:
Normalbostadens utformning med hänsyn till rörelsehindrade. (Design of the standard dwelling taking into account the needs of the physically disabled.)
Building Research Bulletin B13: 1971.

Standard dwellings and the physically disabled

Goals

A good dwelling is one which leaves the tenant free to live and work in it in a simple though practical way, which offers scope for stimuli and which renders it easy to meet and mix with other people. Dwellings must be designed to meet the varying needs of different people. All too often dwellings and their immediate outdoor environment are so designed as to make certain people handicapped (compared to others) or to altogether exclude some of them from the possibility of visiting or inhabiting such dwellings. This applies in particular to the physically disabled.

Paragraph 42, Clause a, of the Building By-laws states that all buildings which are open to the general public must be planned taking into consideration the needs of the physically disabled. Unfortunately, there are no similar regulations regarding housing. We must nevertheless aim at ensuring that as many handicapped persons as possible may be able to use dwellings forming part of our standard range of housing – hereafter referred to as standard dwellings.

The main reasons for adopting this goal are the following:

- A little more than 20 % of Sweden's households contain persons with some serious physical handicap.
- A housing stock which is such that handicapped persons can choose a suitable dwelling in a suitable area will naturally reduce the need for personal service. The life of handicapped persons will be made easier if relatives and friends live in the vicinity and also if they can continue to benefit from contacts already established with shops etc. This also reduces their need for help from the community.
- If persons are able to continue to occupy their home after being afflicted by a handicap simplifies the process of rehabilitation and shortens the stay in hospital. Old, familiar routines and patterns can be retained.
- A handicapped person can only be integrated into the community if his dwelling is so designed as to permit him to use it satisfactorily despite his handicap.
- Many people suffer from temporary handicaps resulting from accidents, injury or serious illness.
- All dwellings should at least be planned so as to permit visits by physically disabled persons.

The official requirements as regards a good dwelling should therefore be that all dwellings be planned so as to afford access to a physically disabled person (i.e. confined to a wheelchair) and that fittings be designed to adapt to the needs of the physically disabled, thus permitting him to use the dwelling as a permanent home.

For whom should standard dwellings be planned?

The term »handicapped» as a rule refers to a person who requires special provisions in order to be able to manage. This definition thus classifies as handicapped all persons who require special consideration as regards the planning, design and fittings of their living accommodation. It also means that a dwelling and outdoor environment of unsuitable design can cause unnecessary problems for a person – that is, he may become handicapped. More careful planning of standard dwellings would make home life much easier for many persons suffering from physical handicaps and other difficulties; that is, their handicap would be diminished.

Suitably designed dwellings in respect of the needs of handicapped persons must aim to reduce the need for movement, physical effort and so on. As a rule this means that the dwelling, provided it has been adapted in the correct way, is more satisfactory for all concerned.

The housing problems of the physically disabled are largely connected with the aids they need to use. In many cases, it is the aids that determine the design of the dwelling.

The performance requirements mentioned in this publication are based on the assumption that standard dwellings must also be suitable for or adaptable for all handicapped persons not in need of technical aids or other devices which require more space than a normal wheelchair.[1] The types of electric wheelchairs commonly found in indoor use in some respects fail to comply with this requirement. (We may assume, however, that new developments will make even these less space-consuming and difficult to manoeuvre and thus for the most part suitable for use even in dwellings of standard design.)

Some handicapped persons need special lifting devices which may require a large amount of space. These persons suffer from such serious handicaps that we may assume that they will need specially designed dwellings.

General requirements

A successful solution to the accommodation problems of the physically disabled requires the provision of dwellings with sufficient floor area distributed in the correct way. Decisions regarding the amount of space needed must take into account the movement patterns of the potential tenant and the aids which he needs to use. A point of particular importance is the design of the sanitary facilities as these have proved to constitute the most critical aspects of the dwelling.

The special requirements which may be made, primarily as regards fittings, can as a rule be met by replacement of existing units. A standard dwelling should then be suitable for use as a permanent home by a physically disabled tenant. In addition to space, height is also in certain cases of special importance when planning such dwellings. We refer, for instance, to the height of door handles, windows, window catches and electric controls.

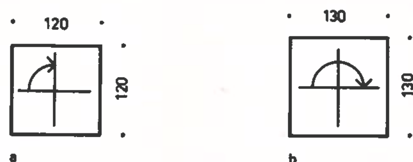
All dwellings should be designed to permit visits and short-term stays by physically disabled persons without the need for more drastic changes than slight rearrangement of furniture.[2]

If the adaptation of a dwelling to the needs of the handicapped is to serve its purpose the building in which the dwelling is situated and its surroundings, must be planned so as to be accessible to physically disabled persons. Standards stating how entrances, lifts, staircases, roads and so on should be designed are to be found in the section on building standards for the handicapped, SBN-S, chap. 691 (published by the National Swedish Board of Urban Planning). Part I of this Document contains a more detailed description and submits proposals for more far-reaching measures designed to increase the mobility of handicapped persons.

[1] Cf. the first part of this Document, Accessible Towns. Here it is assumed that the pedestrian network can be used by all persons who have at least the same performance capacity as seven defined degrees of handicap. Design work on standard dwellings entails no major alterations to plans for Groups 1–4. It is as a rule possible to provide for their needs by modifying the design of certain items of equipment and some installations either from the beginning or later if required. The requirements specified in the following primarily concern Groups 5 and 7 plus certain members of Group 6.

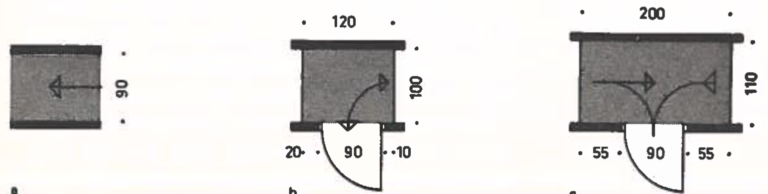
[2] According to the new draft version of »God Bostad» (Good Housing) published on 15th April 1970, this means that the dining area plus one bedroom must be designed to accommodate a person in a wheelchair. The WC must also be of a type accessible to a person in a wheelchair and the washbasin to some extent so. Kitchens and living areas should also be accessible to persons confined to a wheelchair if they are helped with opening doors.

Performance requirements



1 Turning space

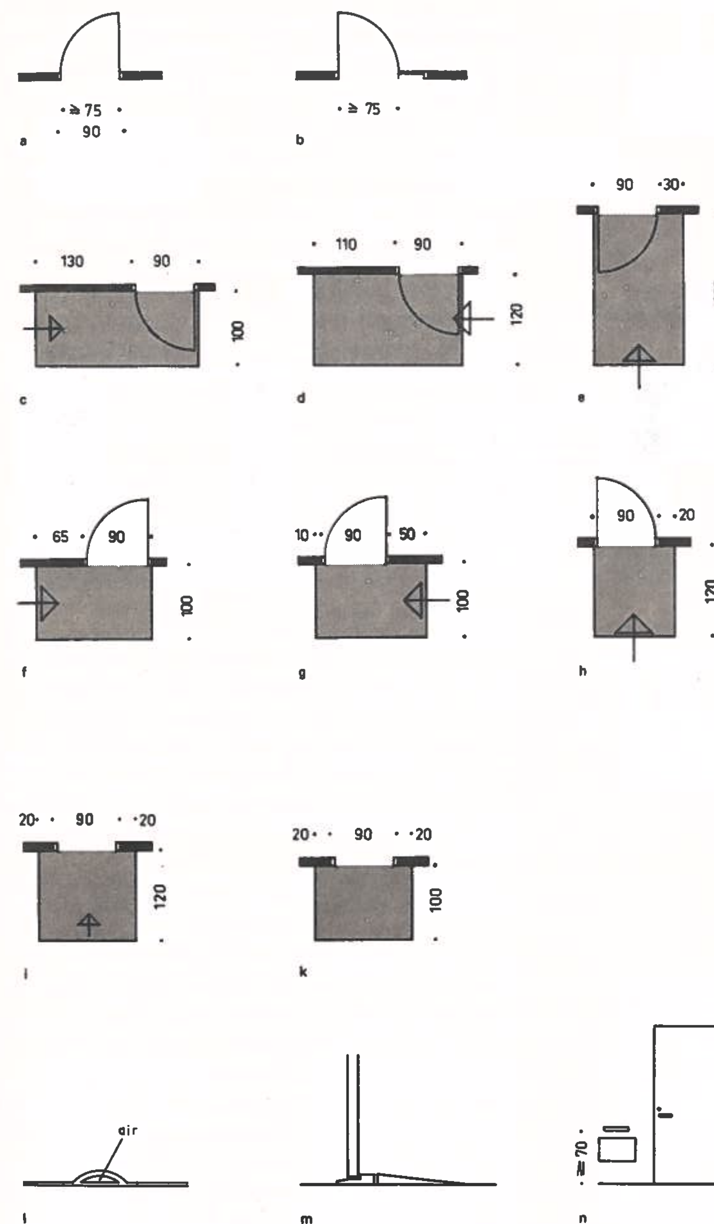
Space for a 90° turn. See FIG. *a.*
Space for a 180° turn. See FIG. *b.*



2 Passage widths

Straight passages. See FIG. *a.*

Passages used for turns. The space needed to accommodate a 90° turn through a door is shown in FIG. *b.* The space needed to permit a 180° turn also using the extra space offered by the doorway is shown in FIG. *c.*



3 Doors

Opening. There must be a clear opening of at least 75 cm on each side of a door. This corresponds to a 90 cm wide doorway in the case of a single-leaf, hinged door.

In the case of double doors, one of the leaves must leave a clear opening of at least 75 cm.

Type. The disadvantages of hinged doors for physically disabled persons are mainly felt in narrow passages and when the door opens outwards into the passage. A carefully mounted sliding door often requires less strength in order to open it. The act of opening requires no more than a pulling movement, while a hinged door requires both pulling and turning.

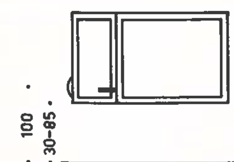
Position. The space necessary for a person confined to a wheelchair to be able to open a door with ease depends on the side on which it is hung and on the direction from which it is approached. (FIGS. *c-h*).

The space requirements in the case of a sliding door are determined by the direction from which it is approached. (FIGS. *i* and *k.*)

Details. All doors in a standard dwelling should be without sills or be designed so as to permit easy removal of their sills. Should a sill be inevitable for technical reasons (e.g. to prevent water from running out) the ordinary sill should be replaced by a penumatic one as shown in FIG. *ℓ*.

The sills of internal, entrance and balcony doors should be replaceable and also as low as possible (not more than 2 cm high). Sills with chamfered edges should be fitted where required (see FIG. *m*).

Door handles should be 90 cm above floor level to permit easy manoeuvring from both sitting (wheelchair) and standing position. Locks on entrance doors should not be more than 100 cm above floor level. Letter boxes should be fitted at least 70 cm above floor level and should preferably be backed by a basket to catch post.



4 Windows

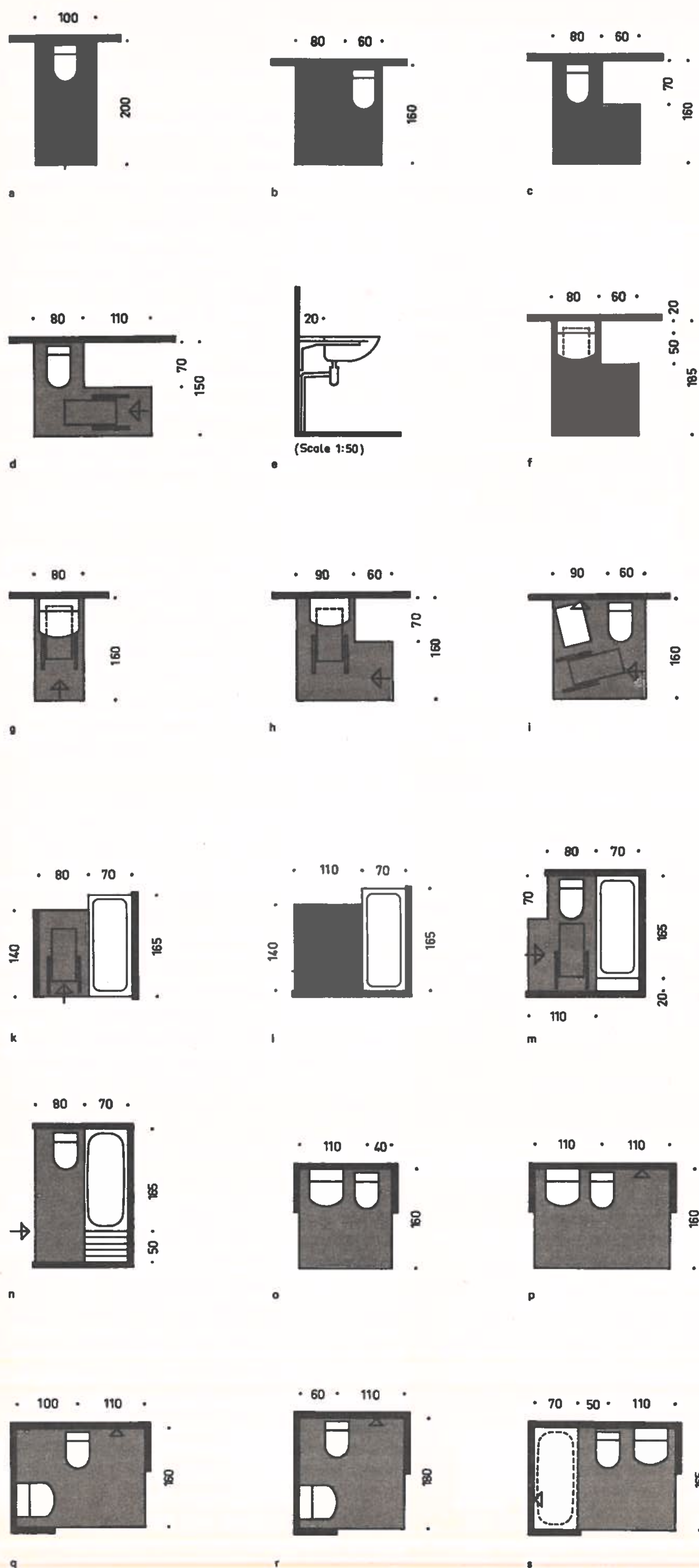
Opening. Windows should be of normal size (too large or too wide windows are difficult for persons confined to wheelchairs to manoeuvre). Windows should have a special vent fitted with a catch of espagnolette type which will lock the casement in open position. If no special ventilation casement is provided, one window should have a maximum width of 60 cm.

Type. Side-hung sashes of moderate size are easier to manoeuvre than pivot-hung.

Position. The lower edge of windows may not be more than 80-85 cm above floor level if a person confined to a wheelchair is to see any part of the ground outside the building. (Windows over counters, however, must be at least 100 cm above the floor.) The bottom 30 cm of windows and other glazed areas should be of unbreakable glass to avoid the risk of splinters should a wheelchair happen to run into it.

Window furniture. Handles and control knobs for any venetian blinds should be situated no more than 100 cm above the floor in order to be accessible to persons in wheelchairs. They should not be placed in corners or at other points to which access is difficult.

Windows which are difficult to reach should be fitted with side-hung or top-hung sashes which can be opened with the aid of a special device.



5 Sanitary facilities

Water closets. The amount of space which must be provided around a WC depends upon the way in which it is approached and the way in which it is vacated. (FIGS. *a-d.*)

The manoeuvres illustrated in FIGS. *a, c* and *d* are difficult to perform and not all disabled persons can manage them.

The arrangement shown in FIG. *b* offers the handicapped person the simplest alternative and is therefore preferable.

If necessary it should be possible for the ordinary WC to be replaced by one of the Clos-o-mat type incorporating a built-in spray device and warm air drier. The WC must be of floor-mounted design if this change is to be feasible. Even if the WC is wall-mounted the space behind and at the sides of the wheelchair must be sufficiently deep to permit the occupant of the wheelchair to move himself sideways. If necessary, armrests should be fitted on each side of the WC at approximately 60 cm centres.

Washbasins. A washbasin should be installed adjacent to each WC so that hands can be washed while still seated before touching clothing. For a washbasin to be properly accessible to a person in a wheelchair it should project 20 cm from the wall and have its waste pipe situated so as to leave room for knees and wheelchair footrests. (FIGS *e-h.*)

Even if the washbasin is mounted directly on to the wall, the same amount of space is still required since the floor area is primarily determined by the wheelchair's turning manoeuvres.

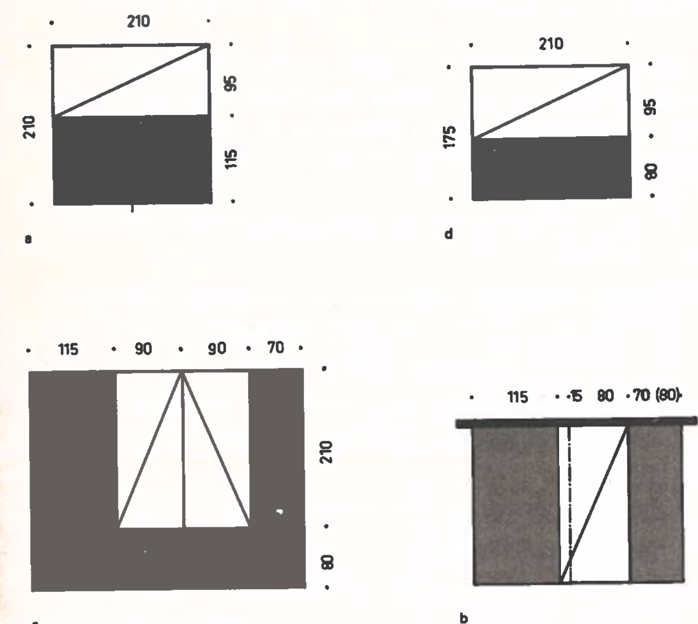
Showers. A handicapped person can take a shower seated on a stool or chair mounted on wheels. A space 90 cm wide is needed if the shower is situated beside the WC as in FIG. *i* (this arrangement is an advantage since it at the same time creates a clear space at the side of the WC which can be used for sideward deplacement) or beside a washbasin, which allows for a certain amount of clear floor space. If the shower is bounded by a wall, bath, washing machine or similar object, its width must be increased to 100 cm. It should also be possible to fix the shower head at different heights.

Bidets present problems for a handicapped person. A bidet spray fitting mounted alongside the WC is preferable.

Baths. The space needed around baths depends upon the position of the bath in relation to walls and other appliances, e.g. the WC. See FIGS *k-n.*

Planning of sanitary facilities. FIGS *o-s* give a number of examples of how sanitary appliances may be arranged in relation to each other in order to provide the necessary space in bathrooms etc. for a person confined to a wheelchair.

Rooms *p, q* and *r* function satisfactorily. WC *o*, on the other hand, is only accessible to some handicapped persons. Room *s* can be made to work satisfactorily if the bath is omitted and its place filled by a shower.



6 Sleeping accommodation

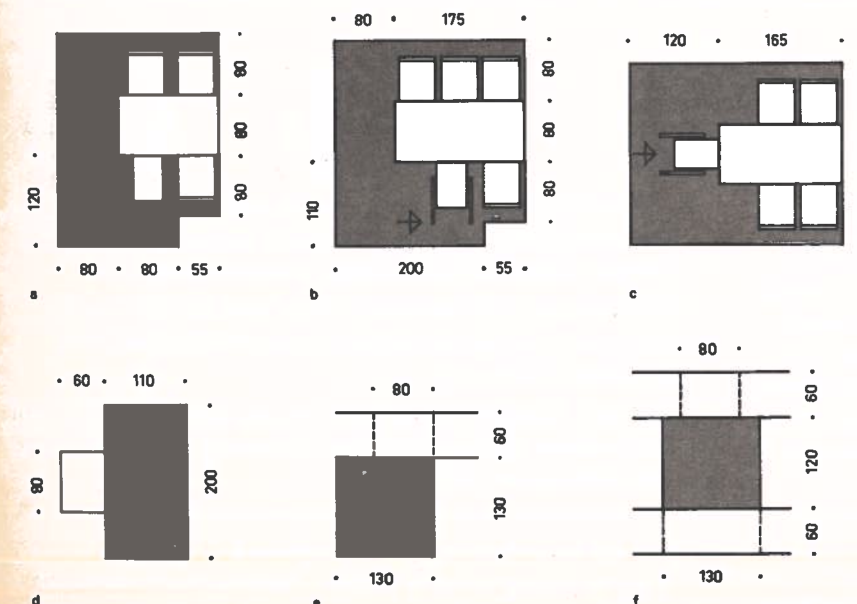
Position. The position of the bed should be such that it may be reached from either right or left. At the side of the bed a space must be provided to permit a wheelchair to turn. As a rule, 15 cm under the bed can also be used as turning space, if there is a clear space under the bed with a height of at least 30 cm. (FIG. *a.*)

In certain cases, the care of a handicapped person requires that the bed be placed with the head at right angles to the wall. In addition to a space on one side of the bed to permit turning manoeuvres in a wheelchair, a further space with a width of at least 70 cm is needed for attendance. If the handicapped person is to be able to convey himself to this side of the bed sitting in a wheelchair, a space of 80 cm is needed. (FIG. *b.*)

Bedrooms. In dwellings designed to house more than one person, at least one of the bedrooms must be accessible to a person in a wheelchair. This bedroom should permit the bed arrangement shown in FIG. *c.* It should not, however, exclude the possibility of other arrangements.

As for the other bedrooms, a wheelchair should be able to enter and be propelled alongside the bed and over to the window. A space 115 cm wide should be left alongside one bed (FIG. *a*) and alongside other beds a space of 80 cm (FIG. *d*).

In dwellings designed for one person, the arrangement shown in FIG. *b* should be possible.



7 Meals

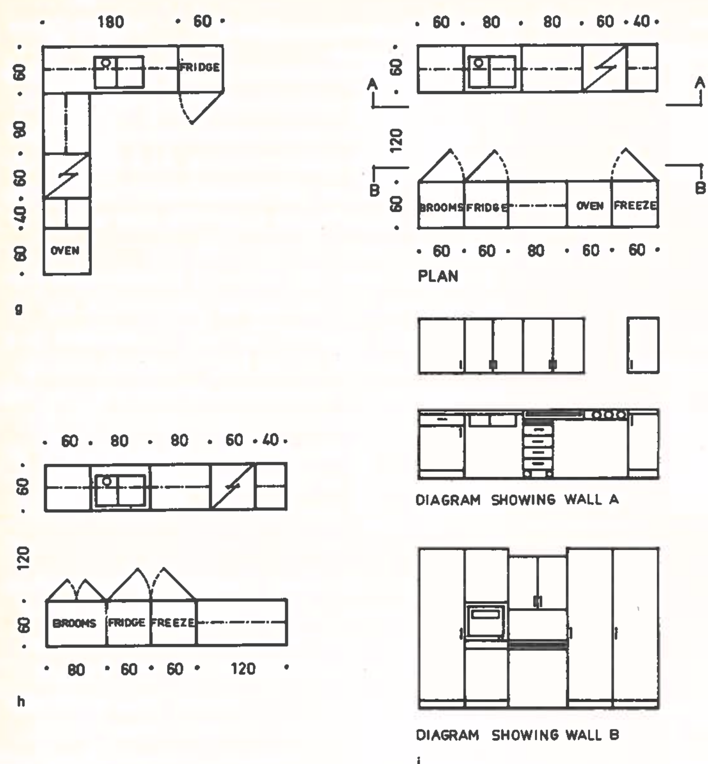
Dining area. A wheelchair requires a clear space at least 75 cm wide at a dining table and a clear space at least 50 cm deep under it.

Worktops. A clear space should be left under worktops. The dimensions of worktops should be 80 x 60 cm with a height of 75–85 cm depending upon the type of wheelchair to be accommodated. (FIG. *d.*)

A minimum requirement, if a standard dwelling is to be suitable for use, at least temporarily, as accommodation for a person confined to a wheelchair, is that a worktop of the above type can be arranged without undue difficulty between the cooker and the water supply. If the kitchen is to be suitable for regular use by a person in a wheelchair, carrying out general household tasks, a clear space must be provided to permit a 360° turn in front of worktops (i.e. cooker, sink unit, cupboards, counter) as shown in FIG. *e.*

Furthermore, the space under all worktops should be left clear. If a clear space is left under worktops on both sides of the turning point, the width may be decreased to 120 cm (FIG. *f*).

Storage. The amount of free space needed in front of refrigerators, deep freeze units and food cupboards depends upon the direction of approach. See FIG. 10 a and b.



g

h

PLAN

DIAGRAM SHOWING WALL A

DIAGRAM SHOWING WALL B

i

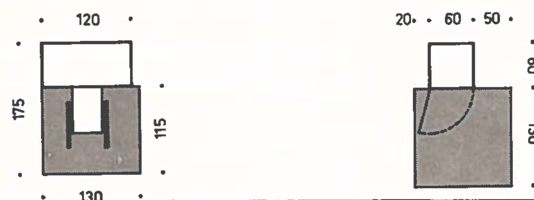
Kitchen layouts. An L-shaped arrangement of kitchen fitments is often successful from the point of view of handicap. (FIG. *g*.)

For example of how a standard parallel kitchen (with fitments arranged in two parallel lines down each side) should be planned so as to permit alterations to accommodate a person in a wheelchair having full use of his arms are given in FIG. *h*.

The necessary measures for accommodation of a wheelchair are illustrated in FIG. *i*:

- Remove cupboards under sink and worktops. Worktops should instead be supported by wall brackets and by base units on each side of the sink.
- Remove cooker and replace with set of hot-plates. A separate oven should be built into a floor-to-ceiling cupboard unit.
- Adjust the height of all worktops by altering the height of the floor unit skirtings.
- Fit a pull-out board under a worktop.
- Provide a worktop unencumbered by floor cupboards etc. between oven and refrigerator unit.
- Add a movable set of drawers on wheels, a trolley or similar item.

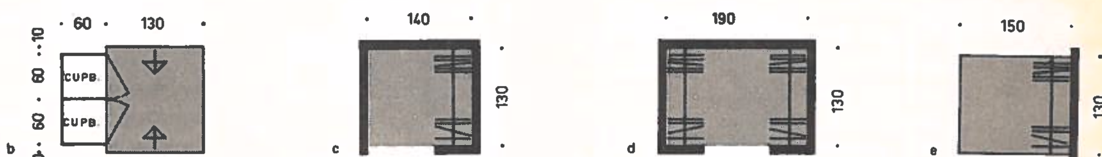
8 Desk



9 Washing, drying, ironing, mending etc.

The washing machine, drier and other household appliances should be installed so as to be easily accessible to a person in a wheelchair.

a



b c d e

10 Storage

Wardrobes and cupboards. It is as a rule easier to provide for satisfactory clothes storage in wardrobes than in walk-in closets due to the amount of space needed for manoeuvring a wheelchair in front of the clothes. In some cases, it may even be necessary to hang clothes on pull-out racks on wheels, thus removing the possibility of having a cupboard with raised floor. If the handicapped person needs approach from only one direction, a space 120 cm wide is required (see FIG. *a*).

Where it is a question of two or more adjacent cupboards these should be placed so as to permit a person to review their contents without having to change position (see FIG. *b*).

Walk-in closets. Any shelves near floor level should be removable so as to provide the necessary manoeuvring space for a wheelchair (FIGS *c–d*).

Coat rack. It should be possible to fit coat racks at heights from 120 cm above the floor and above. Projecting corners should be fitted with guards. (FIG. *e*.)

11 Switches, taps etc.

Switches should be situated not more than 100 cm above floor level and never in corners. They should be of the rocker type. Power sockets for vacuum cleaner and similar appliances should be provided at a height of around 100 cm above floor level. At least one should be provided in the entrance hall or vestibule.

Electricity and gas meters should be at a height of about 110 cm above the floor.

Strip lighting under wall cupboards should be fitted 15 cm from the lower front edge of the cupboard.

Taps for mixing valves in kitchens, bathrooms etc. should be simple to manoeuvre.

12 Floors

Floor coverings should be of non-slip material. Differences in level between different parts of the dwelling should be avoided. Refuse chutes should be installed at the same level as the dwellings.