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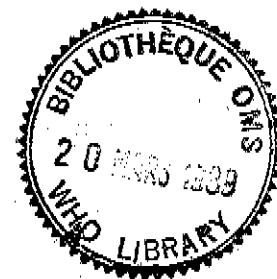
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TARGET 16

Promoting positive health behaviour:

By 1995, in all Member States, there should be significant increases in positive health behaviour, such as balanced nutrition, nonsmoking, appropriate physical activity and good stress management.

Index:

NUTRITION

HEALTH POLICY

FOOD SERVICES

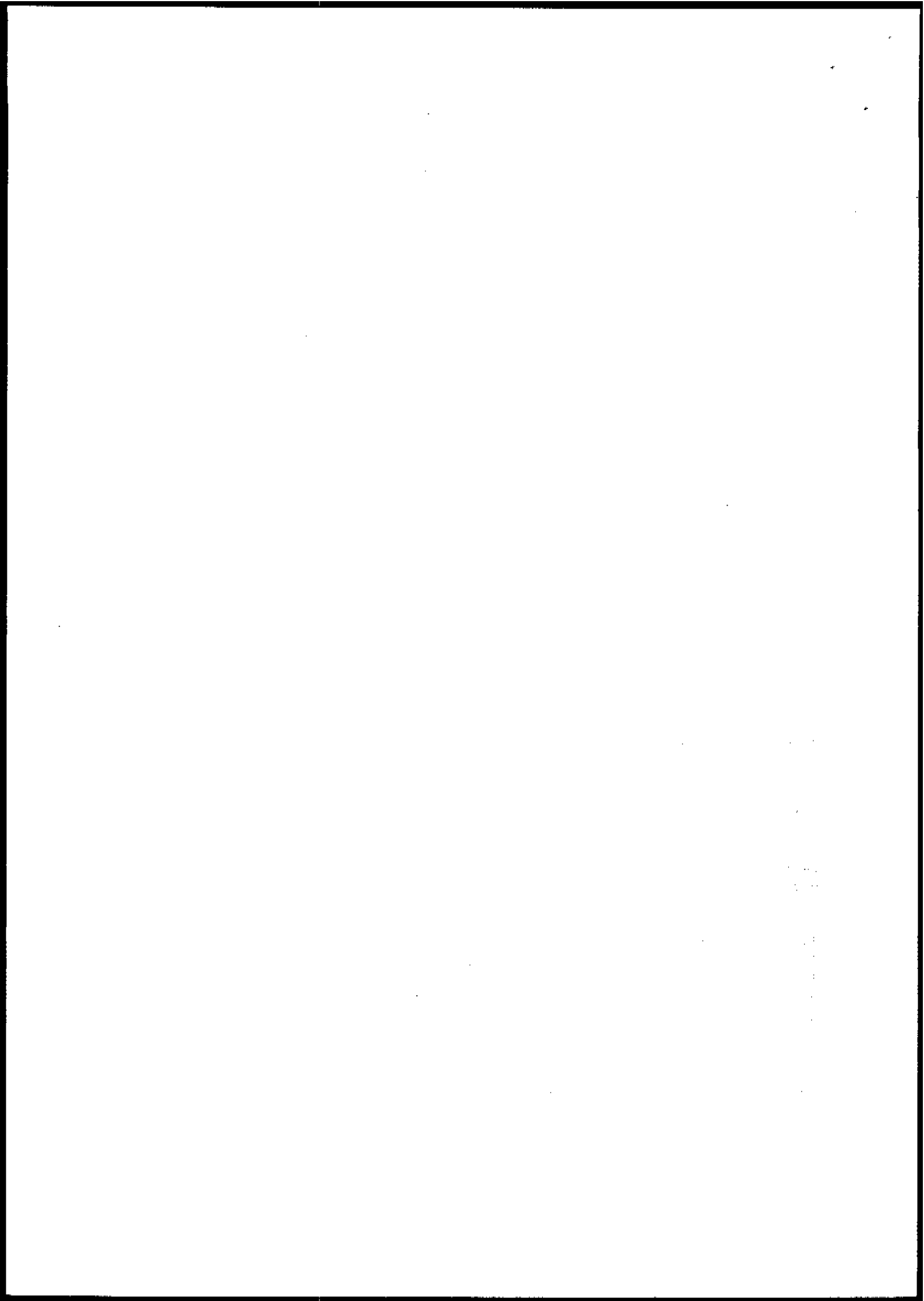
DENMARK

SWEDEN

UNITED KINGDOM

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FOREWORD

In most countries where nutritional improvements are envisaged, mass catering is singled out for attention. WHO has also taken an interest in this subject, and the Organization recently issued two publications dealing particularly with the hygienic and sanitary aspects of catering, which earlier were rightly regarded as priority areas for study (1,2).

Today, however, it may be taken for granted that the need for adequate sanitation is fully recognized, at least in so far as public catering and government food control units are concerned.

An obvious next step is to look into the nutritional aspect of mass catering, especially as it applies to public institutions, e.g. old people's homes, or to home delivery of food for the partially immobilized. Since these groups receive most of their food through catering systems, nutritional considerations must of course be taken into account.

It was in this perspective that the WHO Regional Office for Europe decided to convene a consultation on opportunities for better nutrition through mass catering.

There is more to this matter than what may immediately seem clear.

Improved nutrition as a goal may actually be an oversimplification. For most people, and especially groups such as the old in institutions and the sick in hospitals, meals are not just a means of maintaining good physical health. Many of the people living in such institutions are more in need of encouragement than of almost anything else. In these situations, the food, the meals, the conditions surrounding them may be the most important stimulus to better mental health - and hence better overall health - than almost any other factor. One might say that the goal is improved happiness through mass catering.

In Denmark we have accepted this as a real challenge. It has meant that we have had to make a lot of concessions compared to the more conventional nutritionist point of view.

Where permanent care is concerned, we have started to consider whether it is appropriate to adhere strictly to conventional nutritional advice. For instance: need we restrict sugar in feeding the elderly? If the main problem is overall energy intake, could we not relax with regard to sugar, as long as nutritional density is adequate, and thereby increase food satisfaction? Or should we increase the use of sugar alcohols and artificial sweeteners?

Most of the elderly are under regular medical supervision. Need we then restrict salt intake for those not showing any sign of hypertension? For many, severe salt restriction is highly undesirable.

Currently it is felt in Denmark that even trying to enforce a very low fat diet on the elderly may not be necessary. At least, should we not seek medical advice as to whether or not it is indicated, say for those above 65 years with a low cholesterol level in the blood? It is not that we do not wish to give them a nutritionally appropriate diet, but it may be even more important for them to enjoy their food. A higher fat content in the food than otherwise recommended in most institutional diets may make the food more tasty for those used to a high fat intake.

When it comes to hospitals, we are even more in doubt. Conventional wisdom has it that hospital food should adhere to all the conventional nutritional recommendations. However, with a few exceptions, the duration of a stay in a hospital is so short that the nutritional composition of the food can hardly have any health consequences. In addition, we are dealing with people who are very much in need of encouragement: in fact, doctors maintain that mental health is an important contributor to physical health.

A rationale for hospital feeding is often that it should be nutritionally beyond criticism so that patients may learn about a well composed diet. It is assumed that they will then adopt the diet once they leave the hospital; however, if they do not like the diet, is there any chance that they will do so? The pedagogical value of the experience is not likely to be great. The implication is that patients should also participate in the preparation of the food, which of course is impossible.

Thus, for hospitals, it seems that food must above all represent an encouragement. If hospital eating is to have any lasting effect on the patients' eating habits, they must like the food and understand how it is composed and why. Few hospitals have studied the pedagogical aspects of their catering, or even its basic psychological effect.

Having considered the aspect of the food itself, we also need to consider other factors. It may be a cliché to state that people eat with their eyes, but the fact is that they do. Thus appearance and neatness of serving may be important considerations. Pleasant surroundings may also mean a great deal. For most people, absence of noise and other disturbances is important. Further, do people like to eat alone, or should we see to it that they eat together? Also, would they like to know the menu in advance, or have a surprise? Can we offer them a choice or are they too feeble to manage a choice?

From all this, it is clear that mass catering is a multidisciplinary field. It requires knowledge not only of good food preparation practices but also a measure of psychology and human understanding. An understanding of both administrative and personnel management is also essential. All one can hope for is that financial decision-makers in these situations will understand the importance of the catering operation and allocate to it the human and financial resources that it deserves and needs.

1. Introduction

Mass catering has been variously defined as techniques of bulk preparation and cooking of food, performed without prior consideration of the consumer (1,2) and all organized eating out of the home (3).

The exact wording of such a definition may not be of much consequence to those who run or use mass catering establishments and who know very well what they are dealing with. In a regulatory context an exact definition may, however, be of importance.

Mass catering is a large and growing part of eating culture in modern society. Roughly, catering establishments belong to either the public or the private catering sectors.

The public catering sector comprises establishments catering for infants, preschool children, schoolchildren, the military, prisoners, old people and hospitalized patients, as well as canteens for people employed in the public sector.

The private sector may also comprise many of the above categories, as well as restaurants and other types of food outlets running for profit. It also includes enterprises that manufacture ready-to-eat food sold through any of the above channels.

While private food processing in the home is more and more a thing of the past, mass catering has become an ever-growing part of modern society. In this rapid development, some important areas have been neglected, and few countries can provide a complete picture of the size and quality of their national mass catering sector.

For example, in Denmark, it is estimated that between 800 000 and 1 200 000 meals are served every day, the actual figure depending on the definition of what constitutes a "meal". Total annual turnover in the private catering sector is DKr 8-9 thousand million and in the public sector around DKr 7 thousand million.

In Sweden, where systematic reporting since 1969 has produced perhaps the best overview of the mass catering sector in any country in Europe, mass catering in 1985 accounted for 17.8% of total food consumption measured in wholesale prices, had a turnover of SKr 24 thousand million and provided 1 162 110 000 meals.

In France, five to six thousand million meals are served each year.

In the Netherlands, turnover in 1983 was f. 4 thousand million (the hotel industry), and f. 2.1 thousand million for hospitals and homes for the elderly.

The development is further illustrated in Table 1, which shows the increase in kindergarten catering in Sweden in the period 1973-1985.

Nutritionists as well as catering managers increasingly recognize that the psychological and social aspects of eating are just as important as hygiene and food composition to a healthy outcome of catering endeavours. This is an area where much remains to be learned and done.

Table 1. Kindergartens in Sweden

Year	Number of units	Number of meals per year (in millions)	Cost in Swedish kroner (in millions)
1973	1714	28	90
1977	3104	30.8	116
1981	5640	57.6	268.5
1983	6590	72.6	397.4
1985	7350	78.5	534.3

Source: Holm, U. 1988 (personal communication).

2. Summary of discussions

All the above considerations have led WHO to take interest in the area of mass catering. In particular, the WHO Regional Office for Europe, through its Nutrition unit, has concentrated on describing and analysing the way in which nutrition policies are made, seeing mass catering as one of the most important tools for the implementation of such policies, in view both of the size of the sector and of its growth and pervasiveness.

On several occasions WHO has considered the hygienic aspects of mass catering (1,2), but the Consultation offered the first opportunity for the Organization to look at the nutritional, social and culinary aspects of food quality in mass catering.

The meeting brought together 22 specialists dealing with different aspects of mass catering, in ten European countries (Annex 3), to discuss how those responsible for catering in various capacities and at different levels can contribute to better nutrition among their clients. Public Services International, which represents organizations with a great number both of users and of producers of mass catering, contributed to the meeting by financing the participation of three experts. Based on background documentation from the Commission of the European Communities, among others, as well as several specially commissioned papers, a number of concrete recommendations for better nutrition through mass catering were drawn up.

The first point on the agenda was, naturally, a discussion of how to describe mass catering. With the exception of Sweden, no European country reports regularly on the various sectors of mass catering. Opportunities and constraints in accounting for this diverse area were discussed.

Psychological and social aspects of mass catering were then brought to the attention of the meeting, and eventually came to pervade the discussions.

The importance of a holistic view of nutritional improvement in mass catering was emphasized. In practice this means applying a systematic approach that takes all parts of the mass catering operation into account when planning for nutritional improvement. This was contrasted with the spotty and often inconsistent "healthy alternative dish of the day" approach, which in practice appeals mostly to the health conscious 20% of the population and has a limited life and even more limited impact.

Three areas had been singled out as having the greatest potential for improvement of nutrition: catering systems for schoolchildren, workplace canteens and catering for the elderly. These were discussed in detail.

Finally, participants proposed a number of actions that could be taken to improve nutrition through mass catering.

3. Estimating the size of mass catering (based on a presentation by Dr Orla Zinck)

Because of its heterogeneous nature, mass catering is difficult to describe and hence to measure. There is, for example, a 250% variation in the assessment of the size of mass catering within the United Kingdom. Estimates in Denmark vary between 800 000 and 1 200 000 meals served daily.

There are areas within the catering sector (such as in amusement parks and the transport sector) where data are exceedingly difficult to obtain and where one will always have to rely on estimates or educated "guesstimates". A certain degree of standardization in the description even of these would be all to the good.

Part of the reason for the problems in obtaining data on catering is probably that the institutions in question are not primarily engaged in serving food - catering is a secondary function, for example, in hospitals, schools, prisons and military establishments.

There are few commonly agreed and well defined terms. Sometimes the same terms may even mean different things. For example, the definition of a "meal" may or may not include snacks. It is not always clear whether or not different courses are counted as separate meals.

Differences in structure of the catering sector may render international comparison difficult. Some countries, such as the Netherlands, do not have school meals at all, while in others they are a tradition.

Expenditure may be difficult to estimate. For instance, how much of the total operation should it encompass, and how should subsidies be accounted for?

The fact that meals are served does not necessarily mean that they are eaten. The level of waste may be large in mass catering, presumably larger in some sectors than in others. It may therefore be possible to assess what nutrients were supposed to be in the meal, but practically impossible to know what proportion of them was actually consumed, although such studies have been made.

In spite of the difficulties in getting the information, it is important to endeavour to do so, not least in order to make policy-makers and the public aware of the size and importance of the catering sector in modern society.

It has been demonstrated that it is possible, and even relatively simple, to monitor the catering sector if there is willingness to do so. In Sweden, a country of eight million inhabitants, biennial reporting is a half-time job for one person every second year. After the first years of experimentation and trial and error, this monitoring now runs smoothly and gives health authorities as well as industry, labour and other authorities an idea of what actually takes place in the catering sector. The data are used both to establish trends and to plan for the future (see Annex 1).

4. User perspectives on mass catering (based on a paper presented by Lotte Holm)

4.1 Eating as a social act

The act of eating is with us from the very beginning of life, and becomes part of our identity pattern. From the start, food and eating are closely linked with love, tenderness and the feeling of togetherness, and with sex. It therefore has a very strong social and emotional component that is expressed in various ways.

For example, an invitation to share a meal is actually an invitation to dialogue. Rejection of such an invitation becomes a refusal of dialogue and can be felt by the inviter as a personal rejection.

As in religious food traditions, food marks togetherness, setting one congregation apart from others. Food can also mark distance, and underline social hierarchy, e.g. when staff of different levels in large establishments eat in separate canteens.

Eating is the last of the physical desires that is "openly" fulfilled. Thus eating differs from another important physical function - sex. Also, eating is an emotionally safe way to fulfil a physical desire - "you will never be let down by your hamburger, and your ice-cream will not walk out on you".

4.2 Emotional consequences of institutionalization

In most European countries, institutionalization may be seen as society's way of containing those that are somehow superfluous to the production process: the old, the sick and children.

In institutions these groups are taken care of by professionals, who earn their living by doing so. Feelings of obligation, love or, for that matter, hate are not necessarily the driving forces behind the caretaking, although many professionals are of course deeply committed to and emotionally involved in their work.

Persons who move from independence to institutionalization may feel dependent and helpless, and may be overcome by feelings of meaninglessness and pointlessness, especially if they are without actual productive tasks. In the area of eating, the loss of personal food habits is an element in most transitions from home to institution. The refusal to eat and complaints about food may be a form of protest, a rejection of the institution.

There are of course also people who thrive in their institutionalized state, who prefer not to have to make decisions and choices.

Still, a condescending and overprotective attitude may be found among some professional care-givers, who at most will agree that the institutionalized may "participate" in decision-making on matters concerning their own lives, when people should have the right to make such decisions, whether or not they are in institutions. This is true even if the decisions they make are at odds with conventional wisdom, as in the area of nutrition, where experiments have shown that when elderly people are left to choose their own diet, they eat more than they used to, and consume more fat and sugar than they would otherwise get, but also more fibre.

If the choice is between nutrition or life, caterers may feel that they are in a difficult balancing act.

4.3 Discussion: consumer feedback, or the art of listening

The discussion following the presentation centred on the importance of ensuring people's participation in their own catering, especially in the institutional setting. It was noted that there is a generation gap now appearing in institutions for the elderly: the "war generation" that was grateful for little and did not feel justified in voicing complaints is being replaced by a generation of elderly that has other demands for quality of life. Still, in an institutional situation, many people do not feel free to complain, and may not even be able to formulate their needs or wishes. This fact is often denied by the staff, making it even more difficult to hear the real wishes. Also, the people who actually receive the complaints may not be the ones who have the power to make changes.

There are other groups that are not able or willing to state their needs, migrants into foreign cultures being mentioned as an example. In school feeding, in areas where many different religions are represented, little is done to meet the needs of different religious groups, who may have to put up with foods they would not normally eat.

Powerlessness, it was stated, cannot be removed by decree. The solution must be to educate professional care-givers towards more awareness of the importance of what they are doing and the effect of the way they do it, and to appeal to their creativity and fantasy in care-giving. In this respect, those who provide care may need support and help to become better helpers.

In some public catering situations such as school feeding, the market mechanism is removed. This means that the caterer has power to override the choice of the user. There are ways of remedying this situation: in some military establishments, soldiers are given money to buy their food, thereby being enabled to choose - and reject - in the canteen situation.

Ideally, it might be possible in the public as well as in the private sector to adjust the menu to include what people prefer to eat, for example by removing foods that are seldom chosen by the users. Factory canteens are in many places doing just that, maybe because managements feel they will be better served by a well fed workforce.

Some examples were given of systematic feedback or assessment mechanisms that had been tried out, such as catering committees in school situations, representing all parties with a legitimate interest in what children eat, including of course the pupils. They had generated lots of ideas but implementation was an uphill struggle. A system for nutritional risk assessment in old people's homes has also been worked out (see Annex 2).

It was underlined that different feedback mechanisms are needed for different groups, and that they might include simple observation of how people eat. This type of investigation might be particularly appropriate for catering personnel to carry out.

5. Healthy catering: a proposed strategy (based on a paper by Jack Winkler)

A holistic view of nutritional improvement in mass catering was presented. In practice this means applying a systematic approach that takes

all parts of the mass catering operation into account when planning for nutritional improvement.

In the United Kingdom, recent public concern with nutrition has also reached the catering sector, and more specifically employees' canteens. The response of the sector has been very positive, but to some degree superficial. It has often taken the form of what the speaker termed "the healthy alternative dish of the day" strategy, which seems to imply that the rest of the food is not healthy, and so the measure may consequently backfire. The introduction of the "alternative" is often conducted with some fanfare, signalling that the establishment is "going healthy".

The uptake for this particular type of dish in the United Kingdom has been from 15-30% of the total, but rarely more. This may indicate that it is inherently limited to the part of the population that is concerned with healthy living anyway.

Evidently, these are piecemeal and most probably short-lived solutions. A holistic solution need not be more complicated, but would demand a more determined and thorough initial effort. It would be necessary to analyse the whole catering operation, both its visible and its less obvious parts, to see what can be done to improve nutrition, identifying blockages and constraints.

The result ideally would be "an unobtrusive strategy in catering change" rather than a strategy where "health" is singled out as something special, although the two approaches may also exist side by side. The unobtrusive strategy comprises the following continuum of steps in catering change.

- Procurement. Most of the products used are already preprocessed, i.e. the manufacturer determines the quality, unless detailed specifications of nutritional quality are given. The caterer has the power of choice and may resort to exhortations to manufacturers, but these do have to be consistent.
- Cooking. This is the area where most caterers would start their "healthy alternative dish of the day" strategy, but it must be remembered that in a holistic reorientation, cooking is one step only.
- Cooking techniques. These may also play a part in the reorientation.
- Cook reorientation/retraining. This is one of the most important steps, in that so many of those cooking in catering establishments lack formal training, while those who are trained have very little practical skill in applied nutrition. In-service training in nutrition is almost non-existent. Moreover, even those who train cooks are without specific knowledge of nutrition.
- Menu. This step offers an opportunity for comprehensive revision of the menu - but the "healthy alternative" should be avoided.
- Presentation. The physical appearance of food plays a great role in determining what customers select, as any marketer knows.
- Price. This is an important incentive for food choice. There is room for price manipulation within most existing catering systems. This does, however, presuppose that there is an agreed policy on the use of food subsidies to promote healthy nutrition.

- Other food outlets. Many institutions have alternative food outlets such as vending machines, kiosks in or around the establishment, mobile vans, etc. These also have to be part of the holistic strategy.
- Marketing. So far, marketing efforts have tended to be "big-bang" enterprises connected with the launching of the "healthy alternative". Better - possibly more enduring - ways will have to be found in the unobtrusive strategy.
- Educating consumers into nutrition. This has been proposed as a separate step, but actually overlaps with the marketing step and may be seen as part of it.
- Market research. In many ways this resembles the systems mentioned in the preceding discussion about ways of assessing user needs. Indicators will of course be provided by research on food usage, uptake of different dishes, nutrient content of foods used, etc. Setting and monitoring targets is part of this step.

Finally, reverting to the first step in this chain, the setting of common procurement standards may be one of the best ways of ensuring better nutritional quality in catering. This has been attempted at times, but without apparent success. Food manufacturers in the catering branch have been very supportive of the idea, which gives them clear guidelines to follow. This may be one of the most powerful steps in the future.

5.1 Discussion: the situation in other countries

As the background paper mostly referred to the situation in the United Kingdom, examples from a few other countries were also given.

In Norway, the importance of catering has been stated in all parliamentary white papers on nutrition policy. However, apart from the production of a report on catering and the establishment of dietary guidelines for the institutional sector, no particular action has been taken.

In the Netherlands, national dietary guidelines were issued by the Ministries of Agriculture and Health in 1986. A national committee was established to promote these guidelines, and a subcommittee is to set guidelines for catering facilities. It is possible that a national strategy will be developed.

In Poland, as opposed to the United Kingdom, commercial caterers are not very interested in the nutritional side of their operation. The attitude to nutrition is only slowly changing in the country. Food procurement may be one of the main problems in school and workplace catering. A former system of "milk-and-vegetable bars", which was very valuable from a nutritional point of view, has been allowed to vanish silently. Recipes for school catering have been printed and distributed in thousands, but little is known about whether or not they have been used or are indeed usable.

5.2 Discussion: training and retraining of catering staff

Most of the subsequent discussion centred on problems of training in nutrition. It was stated that it might be helpful if common local nutritional goals were available in writing for the orientation of all staff.

If staff are to understand what healthy nutrition means in practice, efforts should be made to demonstrate what healthy food is like, and to show that it does not take special efforts to produce. Many find it difficult to understand, for example, that eating according to modern, low-fat and high-fibre principles may actually save as much as 30-40% of the food cost.

One efficient way of reaching all categories of catering staff may be through general programmes about nutrition on national television. It may otherwise be exceedingly difficult to run specific courses, especially for those categories of caterers who may need it most.

Often there may already be a great deal of knowledge on healthy nutrition, but a lack of motivation to make the extra effort to put it into practice.

Some examples were given of educational experiences. The Swedish Catering Institute sells "self-education packets" for in-house education. These consist of courses on 17 different subjects. So far, one third of the total number of people employed in the catering sector in Sweden have taken one or more of the courses.

At the Danish Catering Centre, one-day courses started in 1987 for smaller groups of employees. The courses deal with the problems caterers encounter in their work, with respect to the hygienic, nutritional and emotional aspects of ensuring quality of food, etc.

The Netherlands Bureau for Food and Nutrition Education runs short courses throughout the country on "healthy menu planning", directed to the various target groups such as hotels/restaurants, institutions, factory canteens and roadside cafeterias.

The role of nutritionists in mass catering was the subject of some discussion. It is exceedingly difficult, in a European regional context, to state clearly what kind of professional a "nutritionist" or "dietitian" is, as these titles are not protected and may cover a wide variety of staff in terms of level and length of training.

Some caterers find dietitians a nuisance, since they are usually not educated to understand how budgets work within a catering operation, thinking instead in terms of what nutrients individual patients might need. But if they are taught to think in practical and large-scale operational terms, they can play an important role in menu planning and the provision of individual advice.

5.3 Discussion: mass catering as part of a general nutrition policy

Since few countries have nutrition policies, and even fewer have considered mass catering as a tool for reaching nutritional objectives, examples to be had of the relationship between mass catering and overall nutrition policy-making in the European Region are mostly rather discouraging. Agricultural subsidies frequently tend to be dictated by economic considerations and political pressure from vested interest groups. Subsidies of butterfat and meat are common, and milk prices often make low-fat products the least attractive choice.

Prices are of course decisive in catering procurement. Absence of nutrition objectives in agricultural production is usually reflected in a similar absence of direction in mass catering food provision.

6. Potential and constraints of school feeding programmes (based on a study by France Bequette (4))

Among the ten countries of the European Community (EC) where this study was carried out in 1982-1983, three countries provided extensive school catering, i.e. Belgium, France and the United Kingdom, whereas it was merely a marginal operation in Denmark, the Federal Republic of Germany, Greece, Ireland, Italy, and Luxembourg and was practically nonexistent in the Netherlands.

The investigation started with a screening of hygiene regulations in order to find out whether they were sufficiently comprehensive. Everywhere, they were found to be excellent, although they did not prevent the occurrence of massive food poisoning. Regulations are not known to kitchen personnel because official documents are not widely circulated and are difficult to read for untrained personnel, who sometimes do not even speak the language in which they are written.

Training of personnel is a priority for most governments because deficiencies may have consequences detrimental to children's health, including:

- poor hygiene leading to food poisoning
- bad procurement by the cook
- unsuitable recipes
- little concern for food balance
- poor cooking
- lack of attention to presentation.

Procurement, menu planning and cooking are very often done by unskilled personnel. Cooks working in school kitchens are not readily influenced by posters and leaflets and strongly object to being told how to work. The solution might be in-service training, but this is expensive. When cooks need time off to attend a training course, who will take their place?

School catering personnel, like everybody else except nutritionists, complain that it is difficult to follow the changing messages on what healthy eating is all about. Although nutritionists will maintain that they are in fact not changing their minds, this is not the impression conveyed through the different communication channels. Nutritionists have not been able to convey the message that healthy food tastes good; in fact people's impression is that all that tastes good is unhealthy. Nutritionists are felt to have taken the pleasure out of eating, and have shown little concern for healthy gastronomy.

Thus the attempts to produce a healthy diet are not always combined with making good food. Children will either like or dislike the food they eat. It is no use giving them what they do not like because it will be wasted. Whenever they are given money by their parents to pay for school meals, children run to the nearest fast food outlet and thrive on hamburger, chips and soft drinks. This does not, however, suggest that it would be a good idea to provide the same menu in school canteens.

It seems that we should know more about schoolchildren's food habits and food preferences. We already know that peers have a lasting influence on tastes, likes and dislikes. But who in turn influences peers? Some nutritionists will insist that children are bringing nutrition education back home, but these claims appear to be poorly substantiated. A group of EC

experts once recommended that nutrition should be dealt with in history, geography, or art lessons, for example.

A school dining room should be comfortable, with tables accommodating not more than six. It should have partitions and be as quiet as possible. Even when new schools are built, architects do not necessarily plan together with catering personnel, and gross mistakes in canteen design are still being made. It is also necessary that children have adequate time to eat and are not forced to swallow their food in 15 minutes before going out to play.

At government level, there is little communication between the ministries concerned on the subject of school catering, usually those responsible for education, health, agriculture, the interior, or labour.

Finally, although the subject is both important and in many ways exciting, it is very little discussed in the press (Sweden is an exception here). Journalists need some education on the issue.

6.1 Discussion: nutrition education through the school system

Much of the ensuing discussion was on nutrition education in schools, which has already been the subject of yet another EC study (5).

More questions than answers were brought up in the discussion. How is nutrition education actually carried out in schools? How are teachers trained in nutrition? What priority is given to the subject in competition with other new subjects that are squeezed into the curriculum? Is it taught at the science level or at the home economics level? What is the message given with the food in school catering? Is health a valid argument to use in connection with eating among children, for whom the possibility of myocardial infarction is remote.

It does not seem to matter too much whether or not meals are free, even for parents in difficult economic circumstances. Children in Sweden and the United Kingdom do not necessarily eat the free meals they are entitled to. Meals eaten in mass catering should nevertheless be less costly than home meals, thanks to bulk buys. Furthermore, training in waste avoidance and economy may decrease turnover price.

Nutrition education provided in European schools does not seem to be effective. Children do not pay any attention to the health aspect of meals at an age when they indulge in risky behaviour.

Although there are practically no school meals served in the Netherlands, a lot of effort is put into nutrition education for schoolchildren in primary schools.

It was suggested that officials who plan school meals should be invited to eat them in the school canteen for a week: decision-makers should practise what they preach.

6.2 Discussion: training of personnel in mass catering

Once again, personnel training was discussed. This is being tried in Uddevalla, Sweden. Of the 250 catering staff employed full-time in the military services, hospitals and schools in the region, 50 have been trained so far. In addition, personnel have been trained in mass catering, in a

recurrent series of courses involving one month's training and three months' practice, or alternatively, training throughout a period of 30 weeks. During the training period the trainee's job is filled by unemployed people who are interested in training in mass catering. This model will be evaluated by the Swedish Catering Institute, which is following this experiment very closely.

In the Netherlands, new documentation and courses are developed every year for catering staff and decision-makers by the Netherlands Bureau for Food and Nutrition Education. Some of the courses are run in close cooperation with other organizations, such as the Netherlands Heart Foundation, the Hotel/Restaurant Catering Education Centre or the Ministry of Welfare, Health and Cultural Affairs. Topics may vary and include, for example, nutritional quality, hygiene, chilled food bottlenecks.

Training staff on location in their own establishments is very effective. For example, one system for quality control consists in letting a team of catering and ward staff discuss quality aspects while eating a served meal.

Study circles have also been arranged for in-service training.

School holidays may be a good time for training school catering staff. However, not all countries pay catering staff during this period and therefore cannot expect them to volunteer for training. It would then be necessary to motivate people to educate themselves outside working hours.

If courses are designed that provide people with creditable qualifications in catering, they are often subsequently "lost" to the low-paying school catering system. Some countries, for example Australia and Belgium, have used the goodwill of volunteer parents for the job.

The effect of training on the quality of meals has not been assessed directly, but it has been estimated that training (which results in less waste) can increase turnover by 2%.

7. Experiences in changing to healthy catering - twelve worksite canteens in the United Kingdom (based on a paper by Jack Winkler)

A postal survey of 100 companies designed to identify worksite canteens that had attempted to introduce healthy catering found eight companies and twelve employee canteens that had done so for at least one year. The aim of the research was to find out what problems had been encountered in the effort to change. One week was spent per worksite, and several methods were used to find what obstacles there might be on four levels: company, senior management, middle-level management and operative (the latter consisting of several levels, as it turned out).

The findings can be summarized as follows.

- There was initial goodwill on the part of the caterers with regard to nutrition and the changes they attempted.
- The caterers were under pressure both to keep their customers in the establishment and to keep costs down.
- The caterers had very limited information on nutrition, at least information relevant to them, available or within reach.

- No extra resources were foreseen for the change.
- There was little support for the change by the companies' managements, except in one case where the entire company was going through a process of quality improvement at all levels.

Certain contradictions - or conflicting attitudes - were encountered in most of the establishments.

- The wish for a "healthy workforce, which would be more productive" conflicted with the "freedom of choice" philosophy, i.e. the individual's right to eat unhealthy food.
- The attitude that food should be healthy in its own right conflicted with the need to make it clear that healthy food was being served.
- On-the-job training was in one respect seen as a natural procedure, although it was also felt to be completely ineffective and without special status. Simultaneously, off-the-job training was considered impossible in practice, but effective and providing high status.
- The subject of nutrition was thought to be very important, but simultaneously as cranky, and an area of inconsistency, without a solid scientific basis.

The result was that the caterers resorted to the "healthy alternative dish of the day" strategy - as described in section 5.

The following observations were made in the course of the investigation.

- The approach was ad hoc, i.e. individual action was taken without consistent application of nutritional principles. Examples included serving vegetable soup rather than looking at what goes into soup making, and using high-quality margarine on the tables and low-quality fat in the kitchen.
- The approach to the change was pragmatic rather than systematic or planned. There was a lack of objectives, strategies, etc.; retrieval of information was opportunistic and haphazard; there was no systematic search for knowledge about well suited products or procedures.
- A common problem was that of finding a healthy sweet, revealing a certain conservatism and helplessness with regard to what was to be done.
- The "healthy alternative dish of the day" was often something that was bought in rather than made on the spot, possibly also demonstrating uncertainty about what actually goes into such a product.
- The involvement of the medical staff of the company varied.
- Although suppliers of healthy food were seen as central, they were not consciously or systematically selected.
- Cost was not an issue.
- Training of serving staff was not perceived as relevant in this context. They might at best be given ten minutes of explanation before serving the food.

Certain actions that might seem obvious in this context were not put into effect.

There was, for instance, no attempt to mobilize support for the change among the top management of the company, in order to ensure political support. It was not seen as an area where "politicking" was called for.

General principles on what was about to be done were lacking, as well as targets or overall plans. The action was not taken beyond the dining room, e.g. to vending machines, kiosks on the worksite or tea trolleys. The labelling of foods in catering was not discussed (but this is a subject that will be taken up anyway in the near future in the United Kingdom).

Pricing was not seen as an issue, although there is a possibility for a 6-8% saving on healthy food. There was no attempt to influence suppliers or procurement in general.

Serving staff were, as already mentioned, not used. Unions were never mentioned as interested parties in the endeavour.

There was no monitoring of the change.

The result of the "healthy alternative dish of the day" strategy was a 15-20% uptake for the healthy food. This is, however, a figure that can be obtained without effort, since there already exists a customer group of about this size which is motivated for change.

There was no follow-through and no re-invigoration, when the activity ran out of steam. It was therefore only a partial success, with no progression. In that sense, the whole "change" could be seen as a dead end. This gave rise to a slight disappointment that was projected on to the customers, who were seen as traditional or resistant to change. This was in fact not the case; when customers themselves were asked, there was not really any resistance to the idea.

The caterers commonly expressed the need for a "start-up kit", to help them in their attempt to bring about the change. This can in itself be seen as a request for a more systematic approach to the enterprise. A generalized kit is of course impossible to provide, as the systematic planning has to take place in situ in each catering operation.

7.1 Discussion

Trade journals were not seen as a good source of information on healthy catering. Their attitude varies between articles humorously exposing the crankiness of nutrition, to seeing healthy nutrition as offering money opportunities, and to suggesting awards for good nutrition.

Experienced participants underlined the importance of integrating change into the existing menu, rather than changing radically. In this way, nobody notices that they are eating healthier food. Dietitians and many other professionals involved in catering do not necessarily prove their usefulness in formulating or planning such unobtrusive change, but they can provide answers as to what is preferable when faced with alternatives. A good example of a practical checklist and guideline has been prepared by dietitians of the Netherlands Heart Foundation.

There was some discussion as to whether there is a moral obligation to tell customers that they are being subjected to healthy nutrition. It was pointed out that no one felt such a moral obligation when subjecting people to unhealthy nutrition.

Much of the success of the change depends on the involvement of the chef in the endeavour. As a matter of fact, there is a lot of experimentation going on among chefs already. The problem is to preserve the good and successful recipes thus generated.

Electronic data equipment can be very useful, both in menu planning and in training and demonstration. Often, however, catering managers do not have access to computers, but this situation may be changing. Software packages are few and usually homemade so far, though several excellent programmes, some of which are for sale, are being developed by university hospitals and other groups. Enthusiasm was expressed for a programme demonstrated at the Danish Catering Centre (DANKOST), which incorporated nutrient calculation and the possibility of price monitoring. Regrettably, it is so far only available in Danish, but an English translation is under way. Similar programmes have been discussed in Sweden and elsewhere.

8. Opportunities for better health for the elderly through various forms of mass catering (based on a paper by Louise S. Davies)

Mass catering has an important potential for improving the health and the happiness of the elderly, even though relatively few elderly men and women are in hospitals, old people's homes and similar establishments. In Great Britain, where the definition of elderly is "persons of pensionable age" (i.e. women aged 60 plus and men aged 65 plus), fewer than 11% receive food through mass catering, including those in the community who have meals-on-wheels or luncheon club meals.

However, one should not underestimate the importance of these services: in England alone over 26 000 000 meals-on-wheels are delivered each year. Moreover, it is forecast that the greatest population increases by the year 2000 will be in the older age groups, 75-84 and 85-plus, i.e. those most likely to be needing the already overstretched services of this type of mass catering.

Fortunately, this increase in numbers means big business. The resultant competition amongst food suppliers gives an opportunity to specify exactly what is needed in terms of food variety, taste panel assessment, nutritional analysis and quality control. There is, therefore, a real potential for raising the often poor standard of mass produced meals.

There are many reports - including those from WHO - which relate good food to better health. But whereas in the elderly the connection, say, between high-fibre foods and alleviation of constipation is relevant, the relation of high sugar consumption to dental caries is not significant for this generation of elderly men and women. Thus, "healthy eating" has a different meaning for the 75 plus group and its primary aim must be to maintain appetite and keep up enjoyment of food. There is little benefit in mass catering which aims to produce highly nutritious food, free from the risk of food poisoning, and within the budget, if the recipient does not enjoy it.

8.1 Community setting

There is no typical catering meal provided for the elderly consumer living in the community. Meals-on-wheels vary in terms of those eligible to receive them, delivery problems, frequency of receipt, source of supply, cost, recipes, portion size and therefore nutritional value. However, in considering nutritional value, one must remember that food which is not eaten is not nourishing and the recipient may waste food which does not offer qualities of good colour, flavour, aroma and texture, correct temperature and timely delivery.

To overcome some of the acknowledged problems of large-scale catering, an interesting range of alternative projects is being piloted in the United Kingdom - for instance a week's supply of frozen meals delivered to a small freezers stored in the kitchens of selected clients, who are then free to choose when, where and what they will eat.

Another pilot scheme involves the addition of vitamins C and D to the custard provided by the manufacturer; this has the advantage of increasing vitamin intake but gives none of the nutrition education in which elderly men and women can be imaginatively involved.

Mass catering for those living in the community generally provides only one hot meal a day or even less. These meals aim at contributing approximately one third of the recommended daily allowances although for the elderly the latter are notoriously unreliable. Moreover, the meal has to be assessed in the context of the total diet for each day and week.

It is also essential to assess whether there might be a more suitable and acceptable alternative to a meal delivered to the home or eaten at a club. Assessment techniques exist that can uncover individual problems (nutritional, social, economic, medical or psychological) so that an appropriate solution could then be sought (See Annex 2).

8.2 Residential homes

Catering for the elderly in residential homes is another big growth industry with potential profits for the supplier and therefore potential hazards for the residents. Where food is to be supplied by contract it is absolutely necessary to specify every item which the supplier must provide; this can include items for psychological and social as well as nutritional benefit, for example organizing flexible mealtimes and making drinks available at any time.

It is necessary to identify risk factors which might lead to poor nutrition in its broadest sense (including lack of appetite caused by seeming lack of affection, care or concern in the home). Once the potential risk factors are identified, the causes can be found and solutions suggested and implemented. Those planning the menu in old people's residential homes often have little or no nutritional experience and need all the help they can get to provide nourishing and enjoyable food. Booklets, leaflets and day seminars can give them some of this help.

8.3 Hospitals

We have to expect a great deal from hospital food even though acceptability is generally limited by a strict budget. The menu needs to improve the health of elderly patients already nutritionally compromised

through illness or poor social or environmental conditions, to build up their strength after surgery, and to cater for therapeutic diets and for ethnic or religious needs. All these needs are unlikely to be met on a low cost contract unless every item of food and drink required is specified and the provision of it is checked. Ideally, the caterer needs to share the caring attitude to elderly patients so that even some special requests for food treats can be met on such a contract.

The removal of crown immunity in Great Britain (making hospital kitchens subject to prosecution if they are unhygienic) caused the closure of many old and unsuitable hospital kitchens. This helped to introduce the "cook-chill system", whereby kitchens outside the hospital can be used. However, if such a system is to be safe and successful there must be ongoing staff training. The need for such training is apparent throughout the mass catering system, and in all countries.

The training of nurses who are responsible for feeding the elderly is also essential and - like all others concerned with bringing food to old people - they need to be made aware of the importance of such work in terms of health and happiness as well as nutritional status.

One important message is listen to grumbles and complaints about the food. They may well be deserved and call for improvements in the recipes and menus, but they may also give a clue that something is basically wrong with the lifestyle of the recipients. The aim of mass catering is not only to improve nutrition but also to keep our elderly men and women as happy as possible for as long as they live.

8.4 Discussion

The importance of flexibility was again underlined. "Meals-on-legs" are an interesting development. Minifreezers and microwave ovens may in the long run be cost-cutting investments.

There is a distinct problem with some short-term patients in geriatric wards, who are not used to being in institutions and do not thrive.

The normal distribution of feeding in an institution is that 25% of the food comes from outside the institution and 40% from its own kitchen, while 35% is issued directly in the ward. In a study recently undertaken by the Netherlands health ministry and the Netherlands Bureau for Food and Nutrition Education, the nutritional value of the food that was served in 50 homes for the elderly was calculated (6).

The way the food is served is quite as important as the food itself. Nursing staff may need some ideas on how to make the food look inviting when it is issued directly in the ward, and on how their attitudes may influence the patients' appetites. The temperature of the food is a very important point (7).

In addition, a substantive part of what patients eat is that which is brought by visitors, which are usually precisely the wrong things - low-fibre, low-nutrient-density foods. Why not instruct visitors about what to bring with them to the patients. After all, visitors to zoos are instructed about proper feeding of those who are captive eaters there. Several institutions do in fact already provide such advice.

Good nutrition may actually save a lot on the medicines account, especially in laxatives, but regrettably this saving does not accrue to the account of the caterers.

9. Other issues in mass catering

The participants were aware that there are many areas of mass catering not taken up by this short Consultation. One of the most important subjects not touched on here is catering in kindergartens and nursery schools. It is one that in fact merits its own meeting.

Several subjects thought to be of more marginal importance were brought up briefly. The use of additives in foods - also in mass catering - did not spark great enthusiasm among the nutritionists and food technologists at the meeting, who considered the question to be of relatively low importance for the health of mass catering clients. There was agreement, however, that chemicals in the food must not be used to mask low-quality raw materials or improper handling. A first bulletin on nitrate and menu planning was issued in the Netherlands in 1988. It said, for example: "Don't choose fresh vegetables like spinach in winter because of its high content of nitrate". Practical guidelines like this may have a great impact. The nutritionists also acknowledged that the additives question is of much concern among most clients.

Fast food - food that takes less than ten minutes to serve or consume - was not considered to be much of a health problem either. Where it is of low quality and actually tastes bad, such food may be on the way out of the market, as the market's first fascination with this type of feeding seems to be over. However, some participants doubted that this was yet the case in their countries.

10. Recommendations

The participants in the Consultation drew up recommendations on the following issues: policies; psychological and social aspects of mass catering; training; research; rules and regulations.

10.1 New policies for mass catering

10.1.1 Introduction

Because more people are eating outside their homes more often, mass catering is gaining importance in the total national diet. Eating is also an important part of life - socially and psychologically as well as nutritionally - and therefore mass catering may also be of considerable relevance for nutrition education.

10.1.2 Recommendations

Politics. National governments should be urged to:

- assess and affirm the positive value of mass catering for the nutritional health of the nation;
- conduct an analysis of the nutritional adequacy of current mass catering operations;

- clarify the nutritional expectations of mass catering, by issuing guidelines/minimum standards for healthy catering;
- compile a national-level data base on mass catering by assembling in one place existing information which is presently scattered and supplementing it with new information where necessary;
- establish a coordinating committee of senior civil servants responsible for catering from all relevant ministries, to consider a general policy for mass catering.

Legislation. Governments should evaluate existing food standards and labelling regulations which apply to food manufacturing industries, and then:

- if necessary extend coverage of food standards to products sold by the catering industry;
- extend nutritional labelling obligations to products sold to and by the catering industry.

Hygiene. Governments should recognize that despite the full development of food hygiene legislation there are serious problems in its implementation in mass catering which require rectification, particularly through:

- dissemination of hygiene regulations and good practices to mass catering staff in an attractive, accessible style and format;
- improved hygiene training for mass catering staff;
- improved monitoring of mass catering establishments, leading to fuller enforcement of the regulations.

Holistic view. Governments should recognize that quality and nutritional improvement in mass catering depend on managers taking a holistic view of their operations.

To promote this broader perspective, governments should develop the concept of the quality/nutrition audit, i.e. a comprehensive and systematic review of the catering process, with an assessment of its adequacy in terms of quality/nutrition.

The aim is to encourage catering staff and other professionals involved in the serving/distribution of food, and decision-makers outside the kitchen, to:

- identify quality/nutritional problems;
- expand their understanding and skills in quality/nutrition through solving them;
- develop a sense of pride of achievement and ownership in respect of these solutions;
- maintain an interest in quality/nutrition through regular auditing of their own operations.

10.1.3 Checklist/Guidelines

To promote the quality/nutrition auditing of mass catering operations, governments should develop a checklist, or guidelines, to suggest what areas and topics should be included in a quality/nutrition audit and how their adequacy should be assessed. This should be followed up with the relevant authorities to ensure that they urge the catering managers they employ to adopt the quality/nutrition audit.

10.1.4 Awards

Governments should convene a committee of organizations with an interest in the nutritional quality of mass catering to establish a system of regular national and local awards for healthy catering. Such a committee could represent, for example:

- government ministries;
- professional caterers' associations;
- catering trade associations;
- catering training and accreditation bodies;
- associations of health professionals (nutritionists, dietitians, physicians, etc).

These awards, which should be based on systems of continuous accrual of credits over a period of time, and not only a one-time assessment, could be given for different types of mass catering (e.g. schools, hospitals, workplace canteens, meals-on-wheels), and at both national and regional levels, to ensure widespread local involvement and interest.

10.2 Psychological and social aspects of mass catering

Recognizing that good nutrition is more than the meal, the potential of mass catering for improving the social and psychological as well as the nutritional wellbeing of the institutionalized should be emphasized. Ensuring care and concern for the individual would help to overcome a sense of loss of identity, independence and family support. This implies:

- consulting the consumer;
- incorporating a system of consultation into the organization of the catering activity;
- implementing the findings of the consultations;
- having a structured dialogue (i.e. regular and systematic) between the medical, nursing and food catering staff.

The situation of the client/patient should be the focus of the organization system, and mechanisms for user feedback should be developed.

All guidelines, regulations, rules and standards concerning mass catering should include social and psychological objectives; these would, for example, be concerned with maintaining personal identity, self-esteem and self-determination.

A realization of the importance of mass catering in nutritional improvement and better health could lead to a change of attitude towards food preparation, raising it from a low-status to a high-status area. Changing this attitude will also influence the situation of the client/patient, especially in hospitals where food should be seen as a part of the treatment.

Especially for the home-bound elderly, more flexible meals-on-wheels services should be developed.

For the more mobile, a range of alternative services to meals-on-wheels should be available to encourage exercise and social contact, as a means of improving nutrition and wellbeing (i.e. health).

This calls for continuous assessment and reassessment for suitability etc., in the constantly changing needs of the clients.

10.3 Approaches to training for healthy eating in mass catering

10.3.1 General

The meeting drew attention to the inadequate quantity and quality of training in nutrition for all groups associated with mass catering.

Ideally, governments ought to review and assess the nutritional component of existing training systems, and convene an expert group to consider training needs and outline ways of meeting them, with particular attention to:

- programmes for the completely untrained, leading to a recognized qualification and possibly based on distance learning/correspondence;
- initial and in-service (updating/refresher) courses for trained staff;
- programmes on awareness and general nutritional principles for those who are not directly involved in mass catering, such as health professionals, the media, schools and kindergarten professionals.

Makers of nutrition policies should liaise with existing training institutions and accreditation bodies, to encourage the development and operation of new courses and linkage to existing systems of professional qualifications.

10.3.2 Involvement of staff and management

Training should ensure that all staff and management achieve a sense of importance in their role as part of the nutritional care team.

Training should further seek to give all those involved in mass catering common goals regarding better nutrition for their clients/patients. Programmes should ensure that these goals apply at all levels, so that those involved in mass catering, including the decision-makers (chefs/directors), put food and nutrition policies and dietary guidelines into practice.

10.3.3 Consideration of the user

Training must provide the skills and abilities to handle and evaluate user feedback, and take social and psychological factors into account.

10.3.4 Long-term perspective

Training for better nutrition in mass catering should be regarded as a long-term investment that will reduce health care expenditure. The reality of this must be demonstrated.

10.3.5 Training as an ongoing activity

Training should be ongoing and should incorporate all relevant tools and technologies. It should be part of normal work practice (1,2).

10.4 Research in catering - a way forward

10.4.1 Background

We need more data on the catering industry to demonstrate to decision-makers the nature of the problems of the industry and the importance of mass catering in modern society, e.g. to the economy, to the wellbeing of various consumer groups (nutritionally, socially, psychologically, etc.) and to employment - including such aspects as the status and problems of the catering workforce.

The extent of avoidable wastage and underuse of resources should be demonstrated, such as wastage in hospitals and underuse of equipment and staff in school meals.

The growing importance of mass catering to various consumer groups in social, nutritional and hygienic terms should be demonstrated. Issues to be considered include the growth in the proportion of the elderly in the population, and hence an increased need to cater for them, and the growth in the number of meals eaten outside the home and their contribution to diet.

10.4.2 Proposals

The following proposals were therefore made for research:

Collection of data. Basic data could be collected on catering and regular monitoring procedures be set up for the various sectors of the catering industry with regard to:

- number of meals provided by caterers to various groups of people;
- money spent by consumers on meals served by the caterer;
- types and financial value of food bought by caterers in the various sectors;
- number of employees in the catering industry and average wages.

For this, a careful definition of statistics is needed so that meaningful comparisons can be made between various sectors of the catering industry within a country, and between countries in Europe. As a starting point, the statistical methods drawn up by the Swedish Catering Institute could be used (see Annex 1).

Nutritional quality. An assessment could be made of the importance of meals served by the caterer in the overall nutrition of various groups of people, e.g. age groups and occupational groups, including:

- identification of at-risk groups (children, unemployed, immigrants, homeless, housebound elderly) and determination of how they may be at risk nutritionally;
- collection of reliable analytical information on the composition of meals served by the caterer;
- establishment of minimum standards of feeding (hygienic and nutritional) in various types of catering - particularly for captive and semi-captive consumers such as hospital patients, people in homes for the elderly, children in homes, schoolchildren, etc.

Catering staff. Research could be done on ways of raising the status of catering staff so as to address the general problem of mismatch between the technological knowledge possibilities in catering on the one hand and the employment of untrained, unskilled, low-paid catering staff on the other.

Learning from experience. Research could be done into healthy eating initiatives, both successful and unsuccessful, to answer questions such as: what can we learn from them, and what is their importance in the total diet of consumers?

Regulations. A comparison, both within and between countries, could be made of the different rules, regulations and guidelines on hygiene in various types of catering, for instance cook-chill guidelines (their use, effectiveness, monitoring of use/abuse not only in hospitals but also with regard to school meals).

Catering systems. Research could be done on the whole question of the need for flexibility of catering systems for providing good quality food to various user groups.

Equipment. Research could be done on catering equipment, with regard to:

- use and limitations;
- flexibility;
- accuracy and reliability of manufacturers' claims;
- "menu-led" purchase and use of catering equipment and systems, including reference to the need for central sources of reliable and objective technical data on catering equipment that are accessible to the caterer.

Consumer feedback. Research could be done on ways of getting consumer feedback on all aspects of catering: from health and eating satisfaction to the atmosphere of the eating/serving place.

10.5 Rules and regulations

Rules and regulations should be established on the practical application of accepted principles of nutrition. In particular:

- to ensure flexibility, guidelines and recommendations should be used rather than legally binding rules;

- dialogue between different categories of staff is essential, and a holistic system of feedback of information and knowledge should be established;
- cooperation at all levels between responsible authorities, the food industry, research and education bodies and catering personnel should be actively encouraged;
- a minimum of training of staff at all levels should be compulsory.

Only when the guidelines have been tried out in practice and changed and amended as necessary should they be issued as binding rules. Such rules should be sufficiently detailed, few in number, clear and simple.

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Annex 1

STATISTICS ON SWEDISH CATERING

The Swedish Catering Institute (ISR), presents statistics on Swedish catering in a 50-page report every two years. The first was published in 1967 and the latest (with the figures for 1985) in 1986.

The report provides statistics on the different categories of catering units in Sweden, both institutional and private: schools, hospitals, children's care, the armed forces, at sea, restaurants, etc. Information is also given about how many meals each category serves per day and the food costs in wholesale prices. For example, in 1985 there were 5140 Swedish schools serving 1.2 million meals at a food cost of SKr 1.5 thousand million.

In addition to statistics concerning the actual year, the report gives a historical survey of catering in Sweden and a prognosis for its development.

Immediately after the end of each year ISR starts collecting information. Much of it is collected from Statistics Sweden (SCB), e.g. on how many children attend Swedish schools. That figure and the figure for eating frequency give the number of meals served in schools.

The Association of County Councils supplies information about hospitals; the National Prisoners' Board is contacted for the category of criminal care and so on.

It is more difficult to obtain information about private restaurants than institutional ones. Necessary information is obtained from bodies such as the Association of Consumer Goods Industry (DLF), the Price and Cartel Office (SPK) and the professional journal *Restaurang & Storkushall-NYTT*. However, the data from the above sources do not always correspond as this category changes from one day to another, and the total is therefore an estimate.

The report has become very popular among companies selling all types of products to catering units, and their marketing plans are often based on these statistics.

When a new report is published, the press is always very interested and articles are written on the subject.

There was an 0.3% increase in the number of meals served in 1985 compared with 1983.

In 1985 catering establishments employed 125 000 persons, 65 000 of whom were within the public sector.

The catering sector's share of total food consumption measured in wholesale prices is 17.8% - an increase of 0.3% units since 1983.

Sweden: Facts on catering establishments, 1985

Category	Units	Meals/day	Serving days/year	Meals	Food costs
Schools	5 140	1 175 000	179	211 480	1 238 500
Care of the elderly:					
- old people's homes	820	160 100	365	58 450	485 900
- homes with residential nursing staff	380	37 000	365	13 500	139 500
Children's day-care institutions	7 350	324 200	242	78 460	534 300
Child and adolescent care	370	5 400	365	1 960	25 000
Medical and primary health care:					
- hospitals	860	326 700	365	119 250	942 000
- primary health care	450	40 900	365	14 930	118 200
Armed forces	210	134 000	365	32 500	311 500
Criminal detention centres	80	8 300	365	3 960	39 100
Centres for drug and alcohol abusers	250	12 000	365	4 380	48 500
Schools for the unemployed	340	11 500	220	2 530	26 800
Private restaurants	6 300	750 000	320	240 000	4 200 000
Employee canteens:					
- in private companies	2 600	502 000	240	120 480	1 325 300
- others	-	326 000	-	78 300	675 300
Shipping:					
- merchant marine	190	18 600	360	6 700	56 700
- ferries	90	19 700	350	6 900	103 000
Air traffic	10	13 500	365	4 930	98 600
Street vending	2 100	490 000	320	160 000	690 000
Other	250	11 300	-	3 400	39 200
TOTAL	27 790	4 366 900	356 451	1 162 110	11 097 400

Annex 2

THE A-Z OF POSSIBLE NUTRITIONAL RISK FACTORS IN OLD PEOPLE'S HOMES

(Each factor to be assessed in terms of degree of risk to residents, i.e. high, moderate or low risk).

- A. Weekly cyclic menu or monotony of menu.
- B. Difficulties with supper meal menus.
- C. Supper meal at or before 5 p.m..
- D. Lack of rapport between matron and cook or cook resists and resents suggestions.
- E. Residents' suggestions (e.g. for recipes) unheeded. Residents' needs for special diets ignored. Inadequate committee contact.
- F. Residents not allowed choice of portion size or poor portion control, or no second helpings available.
- G. No heed taken of food wastage.
- H. Very little home-style cooking.
- I. No special occasion for food treats from the local community or from the home, with the exception of Christmas dinner.
- J. For active residents: poor or no facilities for independence in providing food and drink, e.g. tea-making.
- K. Hot foods served lukewarm or poor flavouring.
- L. Poor presentation of food - also with regard to table setting and appearance of dining room.
- M. Unfriendly or undignified waitress service. Meals too rushed.
- N. No observation of weight changes of residents.
- O. No help in feeding very frail residents. No measures taken to protect other residents from offensive eating habits.
- P. Matron and cook lacking basic nutritional or catering knowledge. Isolation from possible help.
- Q. Lengthy period between food preparation, cooking and serving. Time-lag between staff meals and resident meals, especially affecting vegetables.
- R. Lack of vitamin C foods or risk of unnecessary destruction of vitamin C.
- S. Few vitamin D foods used, combined with lack of exposure to sunlight.
- T. Low-fibre diet and complaints of constipation.

- U. Possible low intake of other nutrients, e.g. iron, folate, B₁₂.
- V. Preponderance of convenience foods of poor nutritional content.
- W. Disproportionate costs between:
 - (a) animal protein
 - (b) fruit and vegetables
 - (c) energy foods.
- X. Obvious food perks to staff to detriment of residents' meals. High proportion of food served to others.
- Y. Conditions conducive to food poisoning. Lack of cleanliness.
- Z. Recommendations may not be implemented.

Source: Davies, L., London, 1988

Annex 3

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