

The report's main points and ideas – a different kind of summary of the Vård ITiden (IT in Health Services of Tomorrow) report

On telemedicine/telecare and its use

Telemedicine/telecare – definitions and concepts

There are a number of definitions of the concept of telemedicine. One of the most common is :

The practice of health and medical care through the use of interactive sound, image and data communication. Not only does this encompass diagnosis, consultation and treatment, but it also includes training education and the transfer of medical data.

A simpler definition or description that is sometimes used is:

Medicine practised at a distance.

Telemedical applications represent part of all the IT applications existing in the health services today, particularly at large hospitals. The question is whether it is possible – or relevant – to distinguish telemedical applications from other IT applications. A disadvantage of the concept of telemedicine involves its area of application. Many people see telemedicine as only referring to the health care undertaken by medically trained persons, particularly physicians and nurses. To include the health and social care-oriented aspects of health services, the concept of telecare should actually be used.

What we are witnessing today is that a number of new concepts and terms are gaining ground, concepts that often include all or most of the IT applications usually referred to as telemedicine. Two of these concepts are e-health and telehealth.

The working group shares the view that the concepts of telemedicine and medicine practised at a distance are not clearly

defined (this is also the case internationally) and that it would be of advantage to find uniform international definitions of these concepts or replace them with better concepts and terms. Sweden should not, however, make up new concepts and terms in this field on its own. With reference to the formulation of the assignment (see Section 1.1) , the working group has chosen to use the term telemedicine/telecare in this report.

Area of application

Telemedicine/telecare can be used in various ways in the all sectors of the health services. The following review aims to give some idea of where, and for what purpose, such applications are used.

In hospitals, telemedicine/telecare may be used to facilitate and rationalise communication and the exchange of information:

- between clinical organisations and medical services (laboratory medicine, radiology, paramedical activities, etc.),
- between clinical organisations, such as between different clinics,
- between actors within the same field, both those operating in clinics and between medical services staff.

Communication between primary health services and hospitals. Using telemedicine and telecare, primary health services and local medical care services are able to communicate with hospital:

- clinical specialists and other staff,
- expertise within the medical and paramedical services, etc.,
- staff working within rehabilitation and the field of technical aids, etc.

Communication between primary local authority care of the elderly services and primary, local and hospital services.

Using telemedicine/telecare, municipal services responsible for the care of the elderly and other social services are able to exchange information with:

- clinical staff within primary and local medical services and other health services,
- expertise within the fields of paramedicine, rehabilitation and technical aids.

Using telemedicine/telecare, communication may take place within different health and social services in the municipalities between:

- management, administrators and local units,
- community welfare officers responsible for granting assistance and staff responsible for contracting/health care producers,
- staff responsible for contracting/health care producers.

For patients and their families/close friends' communication with the health and social services and with each other. Using telemedicine, patients and persons receiving care and their families/close friends may communicate with:

- all medical units and social care institutions throughout the health services,
- each other in networks for patients and their families/close friends,
- data bases with medical and other information on medical care and treatment options.

The above descriptions are far from comprehensive.

Desired effects and advantages of telemedicine/telecare

Somewhat simplified, one can say that there are four interest groups that benefit from telemedicine/telecare applications. These are:

- Patients and their families,
- Principles for health services, i.e., county councils/regions and municipalities,
- Operational/contracting units, i.e. hospitals and units in hospitals, local health care centres and other primary care units, units within municipal health care and social services, private medical institutions, etc.,
- Staff and various professional subgroups.

The desired effects are primarily the following:

- Access to greater expertise and more advanced equipment in different fields than is available in one's own organisation/medical unit,
- More rapid diagnosis and treatment than via referral, etc.,

- Fewer physical transports of persons, both of patients, their families and staff,
- A greater number of more varied options for patients, consumers of medical care and their families/close friends, to communicate with the medical services and with each other,
- More opportunities to organise meetings in which all the parties involved are "present". This includes medical staff in various parts of the health services, administrative staff, patients, families/close friends, etc.,
- Lower costs for staff, emergency standby personnel etc.,
- Improved and faster access to up-to-date medical information on diagnosis, methods of treatment, etc, both for medical staff, patients and the general public,
- Better support for medical staff in basic and in-service training, etc.

Individual effects are of different value and significance to respective interest groups.

The use of telemedicine/telecare in Sweden – a description

To date, telemedicine has been tested and/or used in over 100 applications. The first occurred as early as the 1960s, but it was not until the 1980s that developments gained momentum. More than 75 per cent of all hospitals have tested some form of application or are actually using them now. The majority of these applications have taken the form of pilot and development projects. Projects that have been integrated into regular health services are comparatively few in number.

One telemedical area within which there are a relatively large number of applications, both in Sweden and internationally, is radiology, where X-ray, computer tomography and magnetic camera images are transferred for consultation and so-called second opinion. In addition, telemedicine/telecare is used in more permanent forms in a growing number of cases, including the most northern county councils. This is related partly to distance, partly to the difficulty of recruiting and keeping qualified medical staff in small towns in rural and sparsely populated areas. In addition, the use of telemedicine/telecare is rapidly increasing in connection with educational and training activities, etc.

Obstacles and problems

Naturally a number of problems and obstacles have existed and continue to exist that on their own, or in combination with each other have tended to slow down the introduction of telemedicine/telecare applications. Until recently, the technical problems of getting equipment to work without access to special support staff have been considerable. Previous costs of equipment and telecommunications were also far too high to allow large-scale introduction. However, it can be noted that the situation is much better today and that further improvements are continually being made, thanks to the pace of development in the field of IT.

The main obstacle, and this problem has proved to be long-term, is to find ways of introducing telemedicine/telecare applications into health services so that they can be both accepted and understood by the staff involved and result in the improvements that were intended. Among the above-mentioned problems is the fact that the use of telemedicine/telecare affects working methods, cooperation patterns and the division of labour among various groups of staff. Problems often also arise when distributing the costs/ investment of resources and the income/return between the units involved, such as when the income/return falls to one unit, and the majority of the costs on another.

However, the most serious obstacle, according to the working group, is that telemedicine/telecare has not yet been clearly integrated into an operational perspective and used by management to improve and renew relevant sectors of the health services. The working group will return to this aspect below.

Traditional means of introducing new technology do not work

The traditional method of introducing new technology into a sector, via pilot studies, evaluations/assessments and decisions, does not work in relation to telemedicine/telecare applications. A health care unit cannot introduce telemedicine/telecare applications entirely on its own. The whole point of such applications is that the care provider is able rapidly and simply to cooperate with other care providers and support functions that are located elsewhere and often in another organisational unit, or organisation. The major

advantages of telemedicine/telecare arise when such applications are used in a number of different situations and together with a range of other care providers and support functions in the health service.

Not even an average-size county council is able to introduce economically viable telemedicine/telecare on a large scale. In fact, many applications presuppose cooperation with social and health services in the municipalities and with university hospitals where highly specialised medical care is involved. To achieve maximum results, regional and national cooperation is required (see the summary below).

Several countries face a strategic decision

Telemedicine/telecare applications have been tested and used to a limited extent not only in Sweden but also in almost all countries, even in countries with considerably less advanced and multifaceted health services than Sweden. On the other hand, there are few countries, if any, where such applications are used on a large scale and under normal conditions, that is, as integrated parts of the ordinary health service and with functioning forms for financing them.

There are many people in a number of countries who predict that telemedicine/telecare applications will be very common within five to seven years and that results will be very positive. There are, of course, in all countries, and all sectors of the health services, a number of problems attached to the introduction and adaptation of such applications to the rest of the health services. However, after an initial stage, when technical and economic choices have been made and some applications have been introduced as regular routines, introduction may occur rapidly, since normal applications within telemedicine/telecare no longer involve advanced technical problems.

Sweden and a number of other countries with different health service systems thus face the challenge of choosing strategies for widespread use of telemedicine/telecare applications.

An operational perspective of telemedicine/telecare

The challenges and problems facing health services necessitate telemedicine/ telecare

The need for and advantages of introducing telemedicine/telecare applications must be seen in an operational perspective. Can such applications help to solve or alleviate the problems and challenges facing health services now and in the future, in the short- and long-term?

These problems are partly of a general nature for health services as a whole or large sectors throughout the country, and partly specific, focusing on rural and sparsely populated areas.

General problems throughout health services or in many sectors, consist of:

- Improving quality of services to keep pace with the development of expertise in medicine and care,
- Economising with scarce resources as regards specialists and other qualified medical staff within a number of clinical sectors and within medical services,
- Increasing accessibility and shortening waiting times in a number of areas,
- Improving collaboration between different health care units/care providers and levels of health services,
- Improving service to patients in different contexts,
- Improving the working situation and job satisfaction of medical staff,
- Keeping increases in expenditure to a minimum and improving the use of resources/economic efficiency.

Specific problems, primarily for health services in some parts of rural and sparsely populated areas, consist of:

- Maintaining the desired extent of supply of different health services,
- Providing health care at an acceptable level of service,
- Recruiting and keeping qualified medical staff (exacerbation of general problems).

These problems will not be able to be solved in the traditional manner in the health services, that is, by employing more staff and

by reorganising. These paths are closed for several reasons, due, inter alia, to lack of money for financing solutions of this kind, and to shortages of trained medical staff to man the health services in traditional ways. *The most important reason, however, is that traditional solutions will not work well even in the short term and that they will delay and hamper reorientation towards long-term solutions that are capable of being developed.* It is easy to forget that more staff in an organisation characterised by the need for cooperation between many different operations and health units also increases the need for qualifications, staff and technical aids to ensure efficient management, coordination and administration.

In this perspective, it will be necessary to reorganise working methods in basic work processes and in their interaction with each other. It is here that IT, including telemedicine/telecare applications, is relevant. In a number of detailed examples, the report describes ways in which telemedicine/telecare applications can help solve all the above problems in the health services.

The working group does not mean that increased use of IT will automatically lead to improvements in the health services. On the contrary, increased use of IT requires enormous investments and difficult decisions at all levels of management in the health services. What the group wishes to emphasise is that *only by increasing the use of IT, both quantitatively and qualitatively, can conditions be created for long-term solutions that are capable of being further developed.*

Other challenges – the need for staff in services providing care of the elderly and in more widespread home care

In a longer-term perspective, the use of telemedicine/telecare applications in combination with other IT applications has the potential to deal in different ways with problems and challenges other than those mentioned above. One of these challenges is perhaps the most serious problem in the health services during the coming decades, that is, the difficulty of recruiting and keeping staff in primary municipal health and social services. Another challenge is to extend opportunities to provide different forms of medical care at home in the future, both in special institutions and in people's own homes. The working group presents a number of proposals on both these issues (see below).

Telemedicine/telecare is one aspect of total IT use – an IT infrastructure and strategy is needed

As mentioned before, telemedicine/telecare applications only represent part of the total use of IT in the health services. Such applications are facilitated and have greater positive results if they are coordinated with other IT applications, particularly those within patient administration, registering of medical records and other health documentation and within medical services (radiology, laboratory medicine, etc). Telemedicine/telecare applications must therefore be coordinated and integrated into all operations and IT use of health service management and health units.

Seen from the user's perspective, i.e., that of medical staff, the same equipment used regularly for IT purposes, usually ordinary PCs, must also be used for telemedicine applications. This is because it has proved to be difficult for people to use several IT applications in parallel, especially when there are different administration and user interfaces for different applications. A PC can be equipped with additional functions to facilitate telemedical applications with special requirements, when necessary.

The whole point of telemedicine/telecare is, however, to be able to make use of expertise and information elsewhere, at other health units, in other county councils, municipalities and health care companies and even in other countries. This means that *in some fundamental areas, what is needed are common viewpoints and terms for describing operations in so-called "operational models" together with a common technical and administrative infrastructure – both "hard" and "soft"—for all health services throughout the country.* In purely practical terms, this means deciding at the national level on the solution of a number of key questions collectively. A cohesive description of what is needed or should be aimed for at the national level to facilitate efficient and coordinated use of modern IT should be compiled in one document, a national IT strategy for the health services.

Work is currently under way within the IT collaboration organisation Carelink on the construction and further development of a common infrastructure for IT that encompasses telemedicine/telecare. An important part of this infrastructure already exists in the form of a collective solution for all types of telecommunication (speech, computers, image/video) in the health services. All county councils and regions, and a number of private health care companies are linked to this. Work is continuing with

support services necessary for telemedicine/telecare, including catalogue services and a security solution

Initial financing – a key issue

The basic problem economically as regards the introduction of telemedicine/telecare can be said, in somewhat simple terms, to consist of finding means of achieving long-term, essential improvements in medical care and service in a sharply decentralised health care system with many actors. In this system, an individual principle for health care services or a health care producer is not able to introduce large-scale, reasonably priced telemedicine/telecare on his/her own. On the other hand, individual actors are able to introduce applications to solve related problems, such as difficulties in recruiting specialists in specific areas. But this is often not done in a manner that creates sustainable and economically acceptable conditions supporting continued expansion of telemedicine/telecare as a matter of course.

Ideally, from the economic point of view, the introduction of telemedicine/telecare should be undertaken in a coordinated manner and in close cooperation with all the parties concerned, even those not expected to be involved for a number of years. Telemedicine/telecare is thus best introduced into a county council or region jointly with representatives of that county council or region, including representatives of hospitals, primary health services, entrepreneurs engaged by them and of all or most of the municipalities. This means coming to an agreement, not only on a number of technical issues, but also on issues involving financing, and the distribution of inquiry, introduction and investment costs, and running costs.

The optimal solution – and that which is most desirable from the socio-economic point of view – is that many technical and economic issues are solved at the national level, by consensus between all the actors. In this way, the benefits of telemedicine/telecare can be fully realised and under as economically favourable conditions as possible. This means that telemedicine/telecare will function over county council and regional boundaries, which is necessary as regards highly specialised medical services and desirable as far as the rest of the health services is concerned.

What is needed to force the pace of this development? -- proposals and views

A cohesive strategy and action programme is necessary

According to the directive the working group should propose strategies to extend the use of telemedicine at the overall national level. The group has interpreted the concept of strategy as meaning a strategy of action, that is, as a course of action to achieve a specific purpose or realise a desired situation. The strategy is realised through one measure, or a range of linked measures taken to achieve the objective decided upon, or to achieve a desired situation.

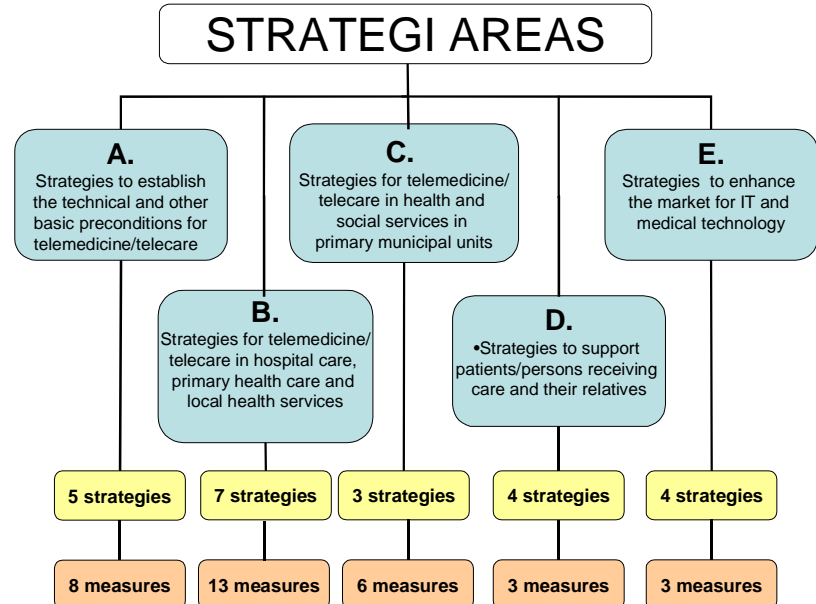
As indicated, telemedicine/telecare is a collective term for several different IT applications that may be used within all areas of health services and in the interplay between these areas. There is therefore no simple formula or universal measure that in one fell swoop will solve all the problems and lead to the broad use of telemedicine/telecare intended. Instead, several measures of different types will be needed which, taken together, can produce results.

Based on this approach, the working group has identified and described a set of interacting strategies and measures that will lead to broader use of telemedicine/telecare. The proposals for strategies and measures have been arranged in five strategy and investment areas as follows:

- *Strategy area A – Strategies to establish the technical and other basic preconditions for telemedicine/telecare*
- Strategy area B – Strategies for telemedicine/telecare in hospital care, primary health care and local health services
- Strategy area C – Strategies for telemedicine/telecare in health and social services in primary municipal units
- Strategy area D – Strategies to support patients/persons receiving care and their relatives
- Strategy area E – Strategies to enhance the market for IT and medical technology

The proposed strategies within the five strategy and investment areas as well as the proposed measures within each area may be seen in figure 1:1. Over 30 measures are proposed.

The proposed strategies and accompanying measures make up a cohesive programme for joint introduction and use of telemedicine/telecare in all parts of the health services from a holistic national perspective. ‘



A fundamental measure

If we are to set in motion a speedier introduction of telemedicine/telecare applications, a first requirement is that the principles, that is to say the county councils/regions and municipalities and all organisations and units providing care services, actively analyse the purposes for which such applications are needed and in what parts of their operations they should be introduced. These surveys should be carried out both in order to develop operations and improve efficiency as well as from the point of view of reappraisal and renewal. Examples that may be mentioned of purposes within primary, local and hospital care for which telemedicine/telecare is comparatively well tested include

consultations and different elements of training and skills development. Developments in the form of functioning applications may be expected to be rapid in the next few years.

Six essential measures - proposals

As indicated, proposals for strategies and measures are numerous. The measures are relatively well-defined and described (see chapter 17 and section 18.3). They can often be included in larger measures or “packages of measures”. They may be grouped in different ways, both on the basis of the contents and nature of the measures and on the basis of interested parties and financiers. In this survey, the working group does not report all the measures proposed separately, instead they are organised into six major areas. These have been selected on the basis of their importance to health services from an operational point of view. Additional proposals for measures focusing on economic policy are subsequently presented.

1. Investment in the further development of support services in the joint telecommunication solution for the health services - Sjunet.

Today there is a joint telecommunication system – Sjunet - in the health services to which all county councils and regions, pharmacists and several health care enterprises, etc. have connected their respective networks. Sjunet is administered and further developed by the IT collaborating body, Carelink. Work is in progress to technically update and strengthen the capacity of Sjunet. Likewise, work is in progress to develop the support services, inter alia catalogue services and an Internet security solution needed for telecare and telemedicine. From the point of view of a speedier introduction of telemedicine/telecare and a broadening of municipal health services and private care service providers, the pace and dimension of efforts to develop and test support services for a communications solution need to increase.

2. Initiation of and support for the linking up of specialists and other qualified staff in clinical operations and medical services in professional networks.

In the decades ahead, the Swedish health services will face the threat of a major shortage of specialist physicians, qualified doctors

and other qualified staff in many clinical areas and areas within medical services (radiology, laboratory medicine, etc.). One way of managing these scarce resources is to link up specialists and other qualified nursing staff in professional networks. This will facilitate communication between the staff concerned in the respective area. Furthermore, these networks can be provided with functions enabling those needing to communicate with a specialist to connect to the network instead of to particular people in it. In this way, inter alia accessibility at peak load time can be improved, emergency duty and standby duty coordinated for large areas, the whole country coordinated into highly specialised fields, and staffing problems due to illness and holidays, etc. solved more flexibly.

3. Initiation of and support for the linking of medico-technical equipment at hospitals and the transfer of medico-technical functions to primary and local health services and special service homes in municipalities.

Traditional IT applications and IT support equipment and functions in medical technology are in the process of being linked together through more and enhanced opportunities for communication and exchange of information, for example in medical services. Developments now under way make it fully possible to link together the staff and the medico-technical equipment available chiefly at major hospitals in regional and national networks. In laboratory medicine this can be done by jointly specifying platforms for laboratory medicine with the same basic characteristics and functions. This enables economic savings both in the form of more effective use of capacity and joint use of qualified staff. Medico-technical functions can also be taken out and moved to primary and local health care and special service homes in the municipalities, with supervision and technical support from medico-technical units at hospitals. These measures are also of interest to Swedish companies in the IT and medico-technology sectors.

4. Creation of development programmes in support of "broad" development and experimental work in primary and local health care, at small hospitals and in primary municipal health care and social services

Telemedicine/telecare applications have proved to function in developmental and pilot schemes and in defined applications in

regular operations. However, more developmental and experimental work is needed with a broader focus, both regarding the form of the operations involved and the people participating in them, and as operations carried out under normal conditions. This applies as much to “traditional” applications such as consultations with specialists in primary health care as to applications in municipal health care and social services when communicating with medical staff in primary and local health care and at hospitals. Other applications that need to be developed and tested are those that allow patients to make telemedical routine visits to their doctor or nurse and patients with chronic or long-term conditions to be in constant contact with a care provider with the aid of stationary or mobile equipment. Likewise, applications satisfying the needs of patients and relatives/close friends to communicate with and support each other need to be developed and tested. In order to encourage projects with these aims, the creation of a development program (ITHS 3) is proposed from which interested principles, health care units, private health care companies, universities and colleges can apply for grants. These grants should be applied for and assessed in competition.

5. Initiation of and support for research, development and experimental activities for the purpose of alleviating problems relating to recruitment of staff and keeping staff in care of the elderly and other health care and social services in the municipalities

Telemedicine/telecare applications have almost always been discussed and tested in medical and nursing terms and from those perspectives. This applies even when the purpose of the applications is to manage scarce health care resources more efficiently and keep costs at a minimum. However, it is essential to introduce other aspects of such applications and the purposes for which they are introduced. A major problem for Sweden and many other comparable countries in the years ahead will be recruiting and keeping staff in care of the elderly and other health care and social services. If this problem is to be managed, telecare and other IT applications need to be used to a far greater extent than is the case today in order to improve the efficiency of care-centred work, simplify administrative routines and to make the job more attractive to young people, not least to men. It is therefore important to allocate labour market resources in the form both of qualified staff and economic means, to investigate, develop and test different ways of improving the efficiency of and renewing

working methods, technical support and forms of work in municipal health and social services.

6. Initiation of and support for efforts to facilitate and use telemedicine/telecare applications more efficiently for training and skills development in health care and social services.

One of the foremost areas of application for telemedicine/telecare is training and skills development/in-service training. From the perspective of increased and broader use of telemedicine/telecare and other IT applications, it is essential that IT components in all health care and preparatory health care training programmes be increased. Typical telemedicine/telecare elements such as different forms of videoconferencing should be included. This calls for cooperation both within county councils/regions and municipalities and with the Government in its capacity as the principle responsible for most advanced training. Large parts of these training programmes should be based on common approaches, textbooks and other aids in order to improve the preconditions in health care for communication across professional, administrative and geographic boundaries.

In the same way, each principle, that is to say county council/region and municipality must take well-reasoned and coordinated measures to give staff already employed in the health services effective forms and aids for in-service training and skills development. This will be one of the major fields of application for telemedicine/telecare in the future.

Economic aspects

A major problem connected with the introduction of IT into Swedish health services has been the small selection of good IT products and services offered on the market. Among other things, this is due to the fact that the Swedish principles for health services and health care departments have had difficulties in cooperating and coordinating their requirements when procuring IT support for basically the same tasks. Suppliers often found their product investments unprofitable and consequently there was no incentive to invest in improvements and new products and services. The

Swedish health services need therefore to cooperate so that together they can gradually improve market supply.

One aspect of these problems is that defined IT support must function together with already existing IT support and any that may be added in the future. This presupposes a well-defined infrastructure for IT in health services, preferably included in a national IT strategy for the health care sector. This is a crucial area of work for the IT coordinating body, Carelink (see above). Several activities in this sphere, in which IT suppliers are also participating are already in progress.

A number of measures discussed in the previous section, including measures 2 and 3, imply sophisticated technical solutions that are of considerable interest to Swedish companies specialising in IT and medical technology. It is therefore essential that Swedish agencies and other bodies aiming to support technical development, company development and the like, commit themselves to these issues. Furthermore, it is essential that technical and other university institutions are involved in the areas mentioned.

The greatest number of IT support applications used in health services refer to tasks and functions that are available in a few places and are small-scale. Very small companies may also be in a leading position within limited areas (niches). It is therefore essential for Swedish IT companies specialising in telemedicine/telecare, other IT applications and medical technology to sell their products and services abroad in order to increase volumes and reduce prices. The working group proposes therefore inter alia a form of financial support for small companies, meaning that these can apply for funds to buy services from medico-technical departments at hospitals and other experts in the health services. This support should cover improvement and concrete realisation of ideas and plans for products and services in the IT and medical technology sphere in a broad sense, including telemedicine/telecare.

The tasks and role of the government

The fundamental principle is that the principles for health care services, that is to say county councils and municipalities have full responsibility for their operations, including priorities in these

operations, their development and finances. In the difficult economic situation for county councils and municipalities in the 1990s and first years of the 21st century, the Government in varying degrees made general contributions in support of municipalities and county councils. In addition, the Government provided targeted grants to stimulate a development in the health care sector in the direction desired.

The ongoing and anticipated development of technology means that telemedicine/telecare applications are being rapidly introduced as a result of their considerable operational advantages at the same time as thresholds in the form of technical and financial obstacles are continually lowered. The problem is that a partly uncontrolled development of this kind will take too long and hamper utilisation of coordination and collaboration advantages. Thus, it will be an unnecessarily expensive, slow and ineffective process.

The main benefits for patients and society will not appear until all parts of the health services in both county councils/regions and municipalities can utilise telemedicine/telecare applications for the exchange of information and in interaction between the various sectors and actors. This requires a common and reasonably simultaneous introduction. For this reason *active Government initiatives and economic support for increased and broader use of telemedicine/telecare are necessary*. Active Government initiative, to put it simply, is a precondition if we are to be able to realise rapidly enough the necessary cooperation and coordination between the principles for health care services and the producers for rational utilisation of telemedicine/telecare potential.

Since the Government has instructed the working group to "propose strategies for broadening use of telemedicine on a holistic national basis", the group has assumed that there will be Government contributions, on the one hand in the form of commissions to Government agencies to carry out measures to this effect, and on the other, in the form of targeted financial incentives.

Financing

The total cost of the programme of measures proposed by the working group is difficult to estimate since so many different measures are involved. A rough assessment suggests that it will be

in the region of SEK 400-500 million over a three to five year period.

The largest share of the costs will be borne by the principles for health services and health care producers. For their part, in the first instance it will involve reallocations as current methods of treatment, working methods and forms of cooperation will be gradually supplemented with or replaced by methods based on greater use of telemedicine/telecare applications.

Government financing may also largely be managed through reallocations of existing resources within the agencies and other public bodies responsible for health services, institutes of education and agencies and college institutions in the fields of research and development, company and business development, the labour market, etc. Equally, the proposed development programme may hopefully be financed from wage earner funds.

However, it is the view of the working group that not all support measures can be financed in this way. There will also be a need for new targeted funds if the introduction of telemedicine/telecare is to progress at a pace that is desirable and in fact necessary in several areas of the health services.

Implementation and follow-up

In the view of the working group, the proposals are so many and so varying in content and nature that it would not be possible or meaningful to appoint a special management team, for example a steering and coordinating group, to see to it that the proposals are carried out, in some cases following further analysis work and efforts to win support. Instead, most of the measures proposed, which in several cases can be combined into larger packages of measures, should be implemented in the form of special analysis and implementation projects with a project management. In several cases, the measures can be implemented by commissioning agencies and other public bodies, for example the IT collaboration organisation, Carelink.

As stressed previously, the proposed strategies and measures constitute a cohesive programme to broaden the use of telemedicine/telecare. Naturally, these measures are considerably interrelated. All the actors involved – principles, their operations, management and staff bodies and entrepreneurs engaged by them,

Government and Government agencies, patients and their organisations, etc. – should be given real opportunities of continually following what is being done and what is happening, and also what is not being done and what is not happening, in the area. The working group therefore proposes that a special group be appointed to follow this work and spread information about it and about the results of measures. This group should be appointed by and linked to the Ministry of Health and Social Affairs, bearing in mind the great strategic significance that will be given to telemedicine/telecare issues in a few years' time and the decentralised structure of the Swedish health care system with many principles and health care producers.