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Perspectives on Health Reporting for the European Community

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The steps towards more integration of the European Community will affect health systems and health care in a number of ways. To support policy development and decision-making, health and health system information is needed on Community level. We discuss the role of the Community in health and health care. We examine the state of health-related information for health policies and the relevant dimensions of a reporting system. At present, wide gaps exist between information needs and availability. Information on ongoing health-related activities is not co-ordinated. Comparative data can only be drawn from differing national sources or non-Community international compilations. For a future reporting system, the political decisions on the role of health in the Community and its administrative implementation are a major determinant. The development of a health reporting system is a comprehensive management task that requires significant input of resources, including research.

Key words: health reporting, information systems, health policy, European Community

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Introduction

The steps towards more integration of the European Community are affecting the political, economic, social, and cultural dimensions of our societies. They will also affect the health systems of the nations of the European Community. What do we know about the present situation with respect to health and health care in the Community? How are health systems organized, what problems do they have to cope with, how are they trying to handle them, and what is their performance? Will the health field be exempt from 'Europeanization' and, if not, what will be the impact of EC integration?

To answer these and other questions, a significant amount of information is required. Health, health care and health system information can be gathered in 'health reporting systems'. Such systems can be found on local, regional, national and international level. Health reporting systems designed for the purpose of monitoring and evaluation include (Brecht et al. 1990):

- demographic and socio-economic data for investigating trends in fertility or migration, or differences in health care by socio-economic factors;
- morbidity and mortality information (which may refer either to need for or to the outcome of health care) e.g. for assessing the effectiveness of health care interventions;
- information on resource availability for analysing the structural components of health care;
- information on utilization of health care services, such as outpatient or hospital services performed or drug prices and quantities consumed; and
- information on health care cost and financing, e.g. by sector of care or by public and private funding.

We discuss the role of the EC in health and health care and the need for an EC health reporting system.

Health and the EC

The EC's legal responsibility with respect to health has been quite restricted until recently. Health care is not referred to in the Treaty of Rome of 1957. Health was just to be considered in areas of direct relevance to economic integration. Similarly, the Single European Act of 1985, another major step towards integration of

the EC, did not make health an EC policy issue. Health and health systems may, however, be and have been affected by a number of directives in the area of:

- medical technology or pharmaceutical products on the market for goods;
- private health insurance on the market for services;
- doctors and nurses on the labour market, or the issue of health risk coverage for migrant workers; and
- financial investments in hospitals on the capital market.

In December 1991 the European Council opened up a new dimension by introducing an EC responsibility in the field of public health. An extension of the Rome Treaty, article 129/1 reads as follows (it still has to be ratified by the national parliaments): "The Community shall contribute towards ensuring a high level of human health protection by encouraging co-operation between the Member States and, if necessary, lending support to their action. Community action shall be directed towards the prevention of diseases, in particular the major health scourges, including drug dependence, by promoting research into their causes and their transmission, as well as health information and education. Health protection requirements shall form a constituent part of the Community's other policies".

This new responsibility does not yet have an administrative basis. Presently, a number of health-related activities are being conducted by several Directorates General in the Commission of the EC, such as those responsible for Employment, Industrial Relations and Social Affairs (V), for Science, Research and Technology (XII), or for Telecommunications, Information and Innovation (XIII). Several health initiatives have been launched by EC authorities, e.g. the campaign "Europe against cancer", the anti-tobacco-program, and the strategy against AIDS, all programs started in the mid-eighties. However, health system issues are neither covered by a specific EC authority nor evaluated systematically.

It is most likely that the role of the EC in health will change. The Single European Market after 1992 is expected to affect the health systems of member states in many ways (Hermans et al. 1992, Leidl 1991). Effects and side effects require exploration from a variety of perspectives and levels of aggregation. This calls for a well-developed EC health reporting data base which is presently missing. The information gap is underlined by the fact that health and health system questions are asked more and more as the single market approaches. Health care managers, doctors (Brearley & Gentleman 1991), producers of medical technology, pharmaceutical companies (Diener 1990), private health insurers (Timmer 1990), health policy makers and researchers in Europe show a growing concern and demand for EC-wide data. Also patients and the general public are likely to develop more interest in health issues in an EC perspective, concerning, for example, care in other member states, the harmonization of taxes on alcohol and cigarettes (Appleby 1988), the issue of a ban on advertising for smoking, or environment-related health issues.

The Treaty of Rome, in its section on social policy, in fact does already provide a basis from which the collection of community level health-related data could be started. For example, article 117 of the treaty reads as follows: "The member states agree on the necessity to work towards an improvement of the living and working conditions of the work force and thereby make possible a harmonization" (authors' translation). The analysis of living conditions could hardly exclude information about health issues.

The need for health information is directly stated in the new public health article. The scope and comprehensiveness of the new responsibility will have to be defined politically, and implemented administratively. There is ample space for discretion. Whether and how public health information should be linked with information on health services issues that derive from the single market remains to be settled. Information needs for "health protection as part of other policies" are unclear. There is no designated agent or agency responsible for the collection synthesis and presentation of data, and the context for which EC health reporting is to be produced has yet to be defined.

State and Development of Health Reporting in the EC

At the moment, it is easier to find out the amount of steel consumption per head than to establish the number of acute hospital beds available in the Community. EC level health and health system information is scarce or completely lacking. For the large differences among health systems, health reporting on the national level – such as the data produced by national offices of statistics or health ministries – certainly does not constitute an adequate EC health reporting data base. Up until now, not even health-related data already standardized among member states have been identified, collected and published by EC authorities. Strategies for co-ordinating this in the future are still lacking. Due to the scattered EC-responsibility, a comprehensive EC health report is missing even for those areas where information is already compiled, as for food and drug safety, or for occupational health. The Statistical Office of the European Communities publishes some basic demographic and economic data and a few data on social security. The latter includes, as part of the European System for Integrated Social Protection Statistics, an overall figure for health care expenditures, but these figures are lagging behind four years or more, or are missing completely for some member states.

Another source of health-related EC data is research. The standardizing of information in medical applica-

tions – e.g. coding of diagnoses or variables documented in a medical record – and its processing and use are issues dealt with in the research funding programme Advanced Informatics in Medicine (Roger-France & Santucci 1991). Research projects define minimum basic data sets for different purposes, contribute to technical developments in data handling, help to identify policy issues, set up networks, and produce in-depth information. In some cases even data standardization guidelines have been achieved. As far as the data are not subject to confidentiality restrictions, a market place could be established for those researchers who wish to see better use of their work, and for those who are in search for better information. With respect to general health reporting, however, these activities only create information scattered over issues, regions, and time.

Some international health reporting can be found outside the EC authorities, specifically the health data file of the Organization for Economic Co-operation and Development (OECD 1990) which contains a significant amount of health care information, and the World Health Organization (WHO) indicator presentation system (Leidl et al. 1989) which is more morbidity-oriented. Both systems are available on diskette, yet occasionally there are differences between these sources as to the data reported. Furthermore, compiling data from national sources into international tables is just a starting point. For comparative purposes, data need to be standardized with respect to indicator definition, collection mechanisms, and quality controls – if not with respect to the continuous and purposeful use by the producers, which is one of the most important quality assurance mechanisms.

Clearly, a health reporting system does not thrive on comparable data alone. Much more is required to set up a functioning system (Schwefel 1989); without claiming completeness, the following aspects are of relevance:

- the basic objectives of data collection, for example to make a sector of society publicly more transparent, to provide information for institutional and administrative management, to guide and evaluate a policy, or just to control some special issues;
- the definition of producers, processors and users of the data, including the property rights of access, linkage, analysis and publication;
- the types of data collection, e.g., routine data, surveys, special investigations;
- the quality aspects of data and indicators in the system, including issues such as information on data origin, collection and processing mechanisms and those responsible for it, reliability, validity, completeness, representativity, timeliness, possibility for linkage, usefulness, plausibility, target- and decision-orientation, confidentiality;
- the presentation forms of data, such as tables and graphs in a book, public use files, or public or private data bases.

For a specific EC health reporting system, these issues have to be tackled. The simple use of data compiled by other organizations is no substitute. Different from other organizations such as WHO or OECD, the EC has far reaching political rights and obligations with respect to her member states; the Council, the Parliament, and the Commission can define and implement policies, set up standards or institutionalize the provision of information. One way an official health reporting on EC level could be initiated is a political outline and target setting. Based on a political commitment, health reporting would be more similar to a national reporting scheme than to those international compilations that are not backed by political powers administrating their production and use.

Following a political decision and the development of a reporting concept, the next issues are those of standardization, implementation and use. EC health reporting may not only aim at the mere comparison of data, but at a standardized data base. Given the differences in the health systems of member states, this means to identify the needs for the harmonization of information production and, possibly, aspects of its use.

Methodologically speaking there is the problem of aggregating indicators which are not defined or available in the same way throughout the Community. When indicators are defined in a standard way there is still the problem of interpretating them vis-á-vis the characteristics of the health systems. For example, hospital care may play different roles in the member states in complementing nursing home care. The aggregation of a meaningful length-of-stay indicator across the EC may thus be hard to achieve.

Other questions concerning EC-level information are raised by health system issues on the regional level. One example would be the migration of pensioners to the Mediterranean zone and the migration of young workers to northern industry regions. Health system related issues like additional capacities needed for care, or problems in local insurance portfolios can only be identified by adequate disaggregation of EC-level information to national or to regional level. In consequence, the basic administrative units have to be defined for which standardized data is to be made available throughout the Community. In general, it has to be explored to which extent the supranational approach of health reporting is of relevance at the more disaggregate levels, and which adjustments are necessary. Questions on the usefulness and applicability of aggregate approaches of health reporting for disaggregate levels also arise when using national reporting at the regional level, or regional reporting at the local level. The basic structures of the health systems underlying these uses are, however, the same – which is not the case for the member states of the EC.

Another aspect is the technical implementation of EC health reporting. The up-to-date co-ordination of data rendered by quite different health systems has to be managed. EC health and health system information should be easily accessible by electronic data communication. Data provided should suit the needs of different user groups. Data should either be standardized or the differences described carefully. Linkage with additional data should be easy. Standard protocols for data transfer to and from a multi-user data base or a network of data bases could ensure on-line data exchange. Interfaces for convenient data analysis should be available as well as presentation features, including, e.g., geographic files. These tasks require sophisticated informatic support, combined with expertise from the health systems in the member states.

The Policy-Oriented Concept of the World Health Organization

To ensure efficiency and to minimize duplication of effort will require close collaboration and co-operation between the European Community and the World Health Organization. WHO has formulated and, with some success, tried to implement a common European health policy, and has established a comprehensive health reporting system. All this is based on a close-meshed network of collaborating individuals and institutions from health care, medicine and health sciences, and health administration and management. Any engagement of the EC in the field of health policy calls for a redefinition and rearrangement of the roles of WHO and the EC in this area and a careful design of the interfaces between the two agencies. It is obvious that this includes arrangements for setting up and maintaining a common European health reporting system.

In 1977, the Member States of the WHO – which, of course, include all EC-members – decided that "the main social target of governments and WHO in the coming decades should be the attainment by all citizens of the world by the year 2000 of a level of health which will permit them to lead a socially and economically productive life" (Resolution WHA 30.43). This was followed in 1978 by the famous Alma-Ata Declaration on Primary Health Care, and in 1979 the Assembly launched a global strategy for health for all by the year 2000 (HFA 2000, Resolution WHA 32.30). It was also decided to monitor progress at regular intervals and to evaluate the effectiveness of the global strategy at a national, regional, and global level. In 1980, the Member States of the WHO European Region had also approved their first common health policy: the European strategy for attaining health for all (EUR/RC/30/8).

The commitments made by each European Member State go beyond mere acceptance of a common health policy. To ensure that their promises are followed by concrete actions, the WHO-member states have undertaken to follow up their own progress systematically through regular monitoring. They have also undertaken to evaluate progress thoroughly at regular intervals and to report the results to WHO. This co-operative process is intended to provide all countries with information and feedback on the prevailing health and socio-economic situation and to make it easier to make rational decisions on any changes that need to be made in national, regional and international health policies and strategies.

In support of the process of monitoring, evaluation and feedback WHO has developed a list of indicators in order to measure the progress towards achieving the regional targets for HFA 2000. This list was included in the common framework and format for evaluation of the strategy which had to be used by WHO-member states as a guide for reporting to WHO; the first evaluation took place in 1984/85. The proposed list of indicators was the result of a choice among hundreds of possible indicators. Several criteria were used in selection, including: the relevance of the indicator to the target, the availability of data in most countries, and problems that might arise in data collection if special surveys were necessary (Kaprio 1991, p. 96). Reflecting the contents of the targets, the list included different types of measurement related to health status, health behaviour, social and environmental factors, policy decisions, health services coverage and utilization, existence of regulatory mechanisms, etc. There are two groups of indicators, those considered very important, and on which all countries should report (essential indicators), and other suggested indicators (supplementary indicators), on which reporting would be welcome.

The list of indicators included quantitative as well as non-quantitative indicators, the latter ones referred mainly to legislation and policies in various health-related fields. Interestingly, the originally selected essential quantitative indicators covered only 18 of the 38 regional targets, although indicators had been selected with special regard to their current availability. It has frequently been observed that generally, the available statistical data tend to reflect the most important data needs of the past and not necessarily those of the future. As HFA 2000 called for a fundamental re-orientation of most countries' health policies, it is not surprising that at an early stage of implementation of HFA 2000 appropriate statistical data for measuring progress towards the targets were quite scarce.

From the very beginning WHO stressed the need for a continuous review of the indicators. It was recommended that the proposed indicators be considered as preliminary to be used on a trial basis for the first evaluation in 1984/85. Experience confirmed the need for assessing the relevance and adequacy of the initially selected indicators, especially the non-quantitative indicators, for which the questions originally dealt mainly with the existence of legislation and policies, had caused many difficulties. When answering these questions, the

WHO-member states had delivered vast amounts of all-embracing, diffuse and not comparable information which proved to be difficult to analyse and to be of rather limited value for evaluation purposes. Therefore, these indicators have, in a number of instances, been reformulated to obtain a specific type of answer regarding the implementation of programmes and policies, and to enable WHO-member states to indicate ways in which their impact can be assessed. Based on a comprehensive evaluation of the experiences made so far with the initially selected indicators, the original list was thoroughly revised before being applied in the second evaluation 1987/88 (WHO 1986). As the European HFA targets have been updated recently (WHO 1991), a further revision of the indicator system presumably will take place in the near future.

The WHO-member states have made enormous efforts to analyze and collect information; these efforts are a measure of the extent to which they are willing to monitor their own progress towards HFA 2000. However, these efforts were not sufficiently strong to overcome the usual difficulties in establishing an international information system. Much has to be done in order to ensure the comparability of data from different countries by using or, if not yet existing, by developing and implementing common concepts, definitions, and classifications.

In addition, substantial and noticeable information gaps must not be ignored (Schach et al. 1990). Such gaps have been identified, e.g., in the fields of disability, health promotion and lifestyle, environmental risk factors, work-related health factors, ambulatory health care, equity in health, nutrition and community involvement. Additional data collections (mainly population-based health surveys) will probably be unavoidable in most countries.

Despite the noticeable lack of relevant data for assessing progress towards HFA 2000 there are now indications that the present indicator-based information system is placing too great a burden of work on the health administrators of the WHO-member states. In addition, the Regional Office is receiving large amounts of new information, and these are constantly increasing as countries improve their data collecting and processing capabilities. Handling these data causes many problems, and therefore WHO looks for alternative and more efficient ways of continuing the regional monitoring and evaluation process. The following options have been taken under consideration (WHO 1988, p. 97):

- The number of indicators, both essential and supplementary, is too large, and some have become less relevant to the target to which they relate. In some fields, therefore, fewer and simpler indicators could produce more valid information which would be easier to provide and analyse.
- There is some repetition and overlapping of the indicators relating to the targets, e.g., to those dealing with the elderly, the disabled and the chronically ill, and to those on intersectoral collaboration for health education, health promotion and primary health care. Eliminating these redundancies would also reduce the efforts needed for the collection of the data.
- The Regional Office has started to establish a network of collaborating centres to monitor developments in various target areas by means of on-line data transfer from national institutes of statistics and similar institutions. This offers great possibilities for reducing the burden on ministries of health and for consolidating the European HFA data base. Therefore, WHO-member states should in the future not be asked to provide those data which are already routinely available to WHO.

What are the lessons to be learned from WHO's efforts to establish a health policy oriented information system? First, it is clear that enormous political management, administration, consultation, research, and other resources were necessary to set up a common European health policy and a reporting system for its monitoring. Second, the more a policy is new in terms of the problems to be solved, of its objectives and targets as well as in terms of its strategies, actions, and measures, the less it can be expected that policy formulation can draw upon established routine information systems. Even the monitoring and evaluation process of a policy in its early stages of implementation cannot primarily be based on routine information systems, as designing and implementing such systems at an international level will take long time. Third, the implementation of an information system for monitoring policy should be regarded as part of the strategy to implement the policy itself. Success or failure in providing relevant information are factors strongly influencing the acceptance of a policy by the public and the allocation of resources. Establishing an information system might well be the most sensitive and delicate element in the strategy to implement the policy.

Conclusion

We have explored information needs, the present state of reporting systems, and some issues in the development of health reporting on EC level. Given the past legal basis and its administrative implementation, EC-health reporting does not yet exist. Information on ongoing health-related activities on Community level is rare and not co-ordinated. Health system data that could be used for comparisons among member states can only be drawn from different national sources or from non-EC international compilations. In each of these cases, data may not be standardized, and the comprehensive information needed for comparative use, such as indicator definition, data origin, quality, and others is typically lacking. Future co-ordination strategies for the different sources of national informa-

tion in the field of health are also missing. In sum, the present state of health and health system information on EC level is, by no means, satisfactory.

The role of health in the EC is just being newly defined. This definition process, and the relevance of the effects of the economic integration in the health field outline starting points for health reporting. A new EC information culture has to be developed in the health field. A future EC reporting system requires a political definition and commitment. From an EC perspective, a number of dimensions were listed that would have to be tackled for an integral supranational reporting system – such as objectives, property rights, standardization and collection, processing and presentation.

Any effort to develop an EC health reporting system has to take into account that WHO has implemented a rather comprehensive and differentiated reporting system for the European region covering, above all, information on health and the ways to health, i.e., lifestyles conductive to health, healthy environment, and appropriate care. The Community could and should take this as a valuable asset for her own activities in this field. In any case, a careful co-ordination of health reporting activities is necessary in order to avoid waste of resources, but also the production of inconsistent data on health and health care in Europe.

For a possible future EC health reporting system, the political framework set by EC authorities seems the major determinant. The objectives of such a reporting system could either be to function as a policy-oriented instrument or only to co-ordinate existing national data collection in an standardized manner for EC level or to provide a broad, publicly accessible reporting system. Political strategies could also focus on specific fields of public relevance and EC responsibility, such as certain diseases, or health issues involved in environmental problems. At the moment, even the information available to consider alternative reporting concepts is scarce. All implementation issues still have to be developed. At least for some reporting concepts, it is not sufficient just to use existing national or international data collections. Furthermore, since disaggregation is a necessary element in such an attempt, the role not only of member states, but also of the regions have to be defined. In any case, due to the lack of an existing policy or even co-ordinated attitude towards the health field, and due to the large differences in the health systems, the development of an EC health reporting system is a comprehensive management task requiring significant political, administrative and research resources.

Besides these considerations there are, of course, other future perspectives – even besides the option that nothing would happen. In one scenario, for example, public provision could be lacking in the EC, but private initiative, e.g. by consultants, pharmaceutical companies or health insurers, could take over the task to collect some resource, expenditure and other data relevant for health reporting – and possibly sell it, in case of later need, to the Commission. In another scenario, one could speculate on the role of the EC in the context of the internationalization of health issues which might require health-oriented information for political measures far beyond the EC, concerning, e.g., the living conditions in Eastern Europe. Another hypothesis could claim a rise in the overall political relevance of health issues in the EC. For all these alternatives (except the do nothing one), the EC is at its very beginning of having decision-relevant health and health system information.

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References

Appleby J (1989). Why 1992 may be disastrous for health. BMJ 296: 1620.

Brearley S, Gentleman D (1991). Doctors and the European Community. The agenda lengthens. BMJ 302: 1221–2.

Brecht JG, Pfaff M et al. (1990). Aufbau einer Gesundheitsberichterstattung Bestandsaufnahme und Konzeptvorschlag. Sankt Augustin: Asgard.

Diener F (1990). Arzneimittelpreise in der EG. Pharmazeutische Zeitung 135–40: 9–16

Hermans HEGM, Caspari AF, Paelinck JHP (eds) (1992) Health care in Europe after 1992. Aldershot: Academic Publishing Group (in press)

Kaprio L (1991). Forty years of WHO in Europe. The development of a common health policy Copenhagen: World Health Organization, Regional Office for Europe (WHO Regional Publications, European Series, No. 40).

Leidl R (1991). How will the single European market affect health care? BMJ 303: 1081–2

Leidl R, John J, Schwefel D (eds) (1989) Performance Indicators in Health Care. GSF-Bericht 8/89, Neuherberg: GSF-Forschungszentrum für Umwelt und Gesundheit.

OECD (1990). Health care systems in transition. The search for efficiency. Organization for Economic Co-operation and Development, Paris: OECD Social Policy Studies No. 7.

Roger-France FH, Santucci G (eds) (1991). Perspectives of information processing in medical applications. Strategic issues, requirements and options for the European Community. Berlin: Springer.

Schach E, Schach S, John J (1990). Nutzungsbedarf internationaler Organisationen – Weltgesundheitsorganization (WHO). In: Brecht JG, Pfaff M et al. (eds.). Aufbau einer Gesundheitsberichterstattung – Bestandsaufnahme und Konzeptvorschlag. Sankt Augustin: Asgard, Band II: 369–80.

Schwefel D (1989). Zur Bedeutung der Gesundheitsberichterstattung im Gesundheitswesen. In: Vogel HR, Hässner K (eds). Die Bedeutung der Planungs- und Orientierungsdaten im Gesundheitswesen Stuttgart: Gustav Fischer, 121–35.

Timmer HG (ed.) (1990). Technische Methoden der privaten Krankenversicherung in Europa Marktverhältnisse und Wesensmerkmale der Versicherungstechnik. Schriftenreihe Angewandte Versicherungsmathematik, Heft 23, Karlsruhe. Verlag Versicherungswirtschaft.

WHO (1986). Revision of the regional indicators and plan of action for the implementation of the regional strategy for attaining health for all by the year 2000. World Health Organization, Regional Office for Europe, Document EUR/RC 36/10, 16 June

WHO (1988) Monitoring of the strategy for health for all by the year 2000. World Health Organization, Regional Office for Europe, Document EUR/RC 38/11, 26 July.
WHO (1991) Updating the European HFA targets. World Health Organization, Regional Office for Europe, Document EUR/RA 41/Inf. Doc./1 Rev. 1, 21 November.

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