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**REPORT
OF
THE WHO
WORKING GROUP ON
QUALITY ASSURANCE**

Geneva, 18-20 May 1994



World Health Organization
District Health Systems
Division of Strengthening of Health Services

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EXECUTIVE SUMMARY

Introduction

A WHO Working Group on Quality Assurance in Developing Countries was convened, 18-20 May 1995, in Geneva to discuss quality assurance (QA) concepts for developing countries and to explore areas for collaboration and joint follow-up action.

Discussion on quality assurance

Following presentations by Professor Dr Avedis Donabedian and Dr W.M. Jackman, it was agreed that QA is based on sound system design followed by continuing performance evaluation, leading to appropriate educational-motivational activities and readjustments of system design.

The Working Group discussed a number of characteristics common to traditional QA, total quality management (TQM), and other quality management methods. Sustainable QA was identified as a continuing effort using any of these methods to promote effective and efficient health care services, which meet progressively higher standards that relate directly to client and community needs within the limits of available resources. The term "quality assurance" will henceforth be used to represent such effort using any pertinent method.

Country/agency experience

Experiences from selected countries were presented to the Working Group, outlining efforts to promote and apply QA in developing countries. QA projects in hospitals in Egypt and Zambia were progressing with donor funding. In Malaysia, the QA approach has been changed from a "top-down" (National Indicator) approach to a "ground-up" (Institution Specific) approach. There are as yet little data on the sustainability of QA efforts for PHC in developing countries with very limited resources.

All agencies present outlined their experiences in promoting and developing QA in developing countries. The Centraal Beleids Orgaan (National Organization for Quality Assurance in Hospitals in the Netherlands) (CBO) reported on the Netherlands agencies involved with QA and the underlying principles of its QA consulting for Central and Eastern Europe and for South-East Asia. The World Bank outlined some preliminary QA studies and a new Internet QA facility. The Joint Commission on Accreditation of Health Care Organizations (JCAHO) reviewed the current status of QA in the United States and described their assistance projects in Central and Eastern Europe, the Middle East and Latin America. The University Research Corporation Quality Assurance Project (URC/QAP) provided feedback on a wide variety of QA projects in over 20 developing countries, using a "targets of opportunity" approach. The United States Agency for International Development (USAID) presented its comprehensive ten-year QA

Note: The appendices provide a list of participants and QA documentation available from the Working Group members, including: training programmes, monographs, computer simulations, etc.

programme which ends in 1995; with a budget of US \$24 million the project has been active in 25 countries and has developed country-appropriate QA training materials.

The Danish International Development Agency (DANIDA) emphasized three critical problems of QA in developing countries. QA programmes cannot presume that service providers are motivated towards QA standards in places where vested medical interests may be threatened. QA indicators must not become "aims in themselves" that distort health service delivery in countries with strong target orientation and authoritarian systems. In countries where traditional concepts of disease and treatment often differ significantly from those of western medical services, there may be considerable problems in defining and conceptualizing QA.

General discussions

During the meeting a range of issues were touched upon on which no decisions or agreements were reached. For the interest of the reader a selection of ideas that were discussed are offered in summary form.

Next steps - ideas for future action

The Working Group suggested future cooperative activities:

1. Create professional acceptance of QA in medical schools, nursing schools and all health educational organizations.
2. Support cooperative multi-centre research to determine how QA can be: sustainable and cost-effective for PHC; applicable to traditional medicine; acceptable as a value system in different cultural environments; and, related to continual developments in modern management.
3. Improve QA training activities with joint programmes and sharing of materials.
4. Use the WHO central, regional and country structures for QA promotion, guidelines, fellowships exchanges, coordination of research, etc.
5. Improve linkages between countries and agencies by supporting:
 - a. Informal meetings to share new QA information and experience in developing countries;
 - b. Annual meetings of the Working Group to assess progress in QA implementation (successes and failures) and to plan areas for new cooperative action; and
 - c. The "Qcare Internet Facility" established by the World Bank

1. PROCEEDINGS

A WHO Working Group on Quality Assurance in Developing Countries, met in Geneva from 18 to 20 May 1994, in the week preceding the 11th Annual Conference of the International Society for Quality Assurance in Health Care (ISQA).

The meeting was sponsored by WHO to discuss four QA concepts for developing countries. The specific objectives were to:

1. Review the current and planned programme of activities of participating agencies and countries in support of QA.
2. Consider possible ways of intensifying action for QA.
3. Identify and target action in areas where QA is currently receiving little attention.
4. Explore areas for collaboration and joint follow-up action.

Countries represented were: Malaysia, Zambia and the United States. Agencies attending included: DANIDA, the World Bank (WB), USAID, the National Organization for Quality Assurance in Hospitals (CBO), the Netherlands, JCAHO, QAP/University Research Corporation and members of the WHO Secretariat (Appendix A).

The meeting was opened with a welcome from Dr J.-P. Jardel, Assistant Director-General. Dr K. Kalumba (Zambia) was elected as Chairman and Dr Maimunah Hamid (Malaysia) as Rapporteur.

2. DISCUSSION ON QUALITY ASSURANCE

2.1 Introduction

Despite the growth of a complex technical jargon which at times obscures the central ideas, all approaches to QA share one common theme: the measurement of actual performance and its comparison with either expected or normative performance. Any QA method involves the implementation of changes to improve the delivery of health services and, consequently, of health status.

QA has deep historical roots in medicine and health care, as a methodology for identifying, analysing and solving health care delivery problems. However, QA has often been misapplied and used to affix blame for poor patient care results and to punish those responsible. This has resulted in widespread professional opposition.

During the mid-1980s, health care professionals began to learn about a philosophy of management and methods of quality improvement implemented in Japanese industry, but deriving from work in the United States by pioneers such as Walter Shewhart, W. Edwards Deming, and Joseph Juran. This philosophy and these methods have been

incorporated in a model of Total Quality Management (TQM) that is sometimes perceived as an alternative to the more established methods of QA in health care.

A TQM organization is one in which every organizational unit, and every worker in the organization, regularly and systematically uses QA tools and methods to improve their work. It is also an organization characterized by a culture of empowerment of workers, support and coaching by the organization's leaders, and a system of incentives for continuous improvement. This orientation is reinforced by the conviction that problems in quality are more likely to be related to systems or resources than to the failures of performance by individuals.

TQM employs a number of tools derived from industry. The most characteristic of these is statistical process control. There are also some simple descriptive and analytic tools (e.g. histograms, Pareto charts, scatter diagrams, cause-and-effect diagrams, etc.) that workers are expected to learn and become proficient in using.

It was the opinion of the Working Group that the characteristics of TQM described above (and others not described) reinforce rather than negate the best methods of QA long established in the health care field. Contemporary QA in health care draws upon traditional tools of epidemiology and peer review, as well as applicable tools of statistical process control. It recognizes that when differences between actual and expected performance occur, they should trigger a careful process of analysis to identify the root cause of these differences. While such differences may involve the performance of individuals, they may also be related to the design of work processes in the organization. Enriched by tools from industrial quality control, built upon foundations of epidemiology, and rooted in professional motivations for self-improvement, QA in health care can be a vital tool for improving the health of peoples in both developing and industrialized nations.

Following the presentations by Prof. Dr Avedis Donabedian and Dr W.M. Jackman, it was agreed, as a guiding principle, that QA is based on sound system design followed by continuing performance evaluation leading to appropriate educational-motivational activities and to readjustments in system design. The Working Group also agreed to adopt the term "Quality Assurance" (QA) to include all methods of performance assessment and readjustment (among them TQM), the purpose of which is to improve health care and serve the health and welfare of people.

The following section of this report draws from a variety of traditions and experiences to synthesize critical points and set out principles for effective QA. These principles and experiences can guide the implementation of a variety of QA activities to meet the unique needs of each developing country.

2.2 A QA concept for practical application

The Working Group identified a number of characteristics common to traditional QA, TQM, and other quality management methods. Henceforth, the term QA will be used to represent the essential elements of all of these methods and is summarized as follows:

1. Objectives - QA is an organized activity through which information is obtained about the performance of a health care enterprise, the pattern of performance is evaluated, the reasons for the observed pattern are identified, and action taken to improve care and to verify the effects of that action on performance.

QA is a continuing activity in which the stages described above are continuously repeated with two objectives:

- a. to establish that the health care enterprise is "in control" meaning that it is performing as it has been designed to perform; and
 - b. to improve performance and make it less variable.
2. Standards - Prior agreement on, and continuing commitment to, what constitutes good performance standards are necessary preconditions to sustainable QA.

The ability to assess performance and to establish accountability is enhanced by written standards that describe the essential steps and important processes that influence performance and their communication to those who must implement them. All processes, clinical and non-clinical, are amenable to specification by written guidelines. Such guidelines require frequent reassessment and updating.

Standards require input from many sources including clinical and other health staff, clients, suppliers and others.

The concept of good performance includes attention to effective and efficient, health care, and the acceptability of such health care to consumers, within socially defined guidelines and limits.

3. Scope - QA can be conducted at every level in a health care system, from national to community levels, to institutional units and sub-units. The specification of good performance could reflect different priorities and emphasis at each level with modifications in method appropriate to each level.

QA can also vary in scope and target of assessment. The main focus may be purely on performance in clinical care or, in contrast, may have a broader perspective which also includes performance of all services supporting the clinical function.

4. Techniques - QA has many methods of describing and evaluating performance and identifying causative factors. Largely, these can be described as an application of epidemiological methods, and other quantitative, organizational and educational techniques.

QA uses many methods to identify problems and opportunities for improvement. These include:

1. problem-reporting, problem-identification and problem-solving by relevant teams of participants;
 2. routine surveillance by opinion surveys and statistical monitoring; and
 3. outcome standards with measurable indicators, use of expert opinion, quality teams and bench-marking, etc.
5. Organization - QA is a distinct function that should have a visible locus of authority and leadership where resources and expertise are concentrated. However, QA for organizational sub-units depends mainly on persons who are closest to where services are provided or products manufactured.

QA's main purpose is to foster an environment in which everyone involved in health care activities is supportive of quality, alert to problems of performance and opportunities for improvement, and prepared to take responsibility for setting in motion the changes needed to improve care. Thus QA is primarily promotive and rehabilitative rather than punitive, aiming to give the fullest possible play to the capacities for self-expression and self-actualization innate to everyone.

6. Focus - The QA enterprise is responsive to the local reality of available resources and local political, economic and social conditions in the:
 - a. needs it identifies,
 - b. standards it adopts, and
 - c. methods it employs,

and aims to make the best use of available resources to achieve: effectiveness, efficiency, and acceptability of health services, subject to socially defined guidelines and limits.

7. Overall - In seeking ways to improve health care performance, QA recognizes the fundamental role of system and process design, but also values the role of all the human players in the health care system, whose knowledge, skills and attitudes are critical to sustainable QA. Sustainable QA is designed to provide a continuity of efficient and effective health care services, which relate directly to resources available and client/community needs. This requires:
 - a. some longer-term planning for each health unit (vision, mission, position, action) to create a supportive organizational environment in which QA can be sustained;
 - b. written standards, based upon a balance of client needs, community values, health professional judgment and resource availability;
 - c. communication and "ownership" of such standards by both professional and non-professional health staff throughout the health unit;

- d. continuous monitoring to determine that the standards are still appropriate and that they are being achieved; and
- e. systems for performance improvement and planning revision.

Thus in practice, QA activities are responsive to a set of priorities, the most important of which is the greatest improvement in health and well-being (for individuals and communities) with the least effort and cost.

However, QA also continually seeks to demonstrate and document what the allocation of more (or less) resources to the health care function might achieve for individuals and the community.

3. COUNTRY QA EXPERIENCES

3.1 Egypt (Submitted by Dr W.M. Jackman)

The Egyptian Ministry of Health has sponsored a Cost Recovery for Health Programme (CRHP) in five pilot public hospitals in Egypt. The goal is to improve quality of care and perception by patients of quality of service rendered such that patients would pay for health care services received.

The Quality Assurance Project (QAP) is assisting the implementation of QA in two of these pilot hospitals - May 15 Hospital and El Kantara Gharb. QA principles and practices workshops have been provided for staff at the Egyptian MOH, CRHP, USAID mission, pilot and other hospitals. Ownership (QA Committees) has been established in the May 15 Hospital. Quality planning has identified some areas for improvement and teams have been assigned to processes in the operating room, paediatrics, obstetrics-gynaecology, infection control, orthopaedics and hospital reception. Some improvements have been made and documented. Studies of infrastructure and organization are being made to provide for sustainability of QA.

The Ministry of Health has expressed interest in establishing countrywide QA and, in early 1994, Dr Avedis Donabedian led a conference in Cairo for 30 health care senior staff. QAP has also provided QA training and assistance to a number of health care activities on micronutrients, using team problem-solving techniques.

3.2 Malaysia (Presentation by Dr Maimunah Hamid)

The Quality Assurance Programme (QAP) was formalized in 1985, with the overall objective of ensuring that patients, their families and the community obtain the optimum achievable benefit from the services of the Ministry of Health, within the framework of available resources.

Currently the Ministry of Health provides comprehensive health services to 90% of the population and, in 1986, the Malaysian Fifth (1986-1990) Plan marked the era of quality management.

Through the problem-solving process, several quality indicators have been developed to monitor quality in common areas of concern. The focus has been on the areas addressing issues of patient care, utilization of resources and patient satisfaction. Outcome measures are the main thrust for quality monitoring at national level and process measures are commonly employed by institutions at local level.

Technically, the Malaysian QAP evolved from a "top-down" approach, later known as the "National Indicator Approach" (NIA). After five years of implementation, evaluation of the NIA necessitated emphasis of the QAP to shift more towards the "ground-up" approach, known as the "Institutional Specific Approach" (ISA). This was introduced later in addition to the NIA. A summary description of the two approaches is given below:

The NIA provides a standardization of the monitor-and-feedback system, formalized by indicators to monitor quality in common areas of interest. Local health personnel at institutional or district level are informed about their role in gathering and utilizing the information. With the compiled data, comparisons of performance between and within institutions can be made.

Institutions or districts identified as not performing to the agreed standards are required to:

- a. investigate and verify the performance status;
- b. identify reasons for shortfalls;
- c. determine remedial measures; and
- d. take actions to implement specific activities towards quality improvement.

The effectiveness of the remedial measures implemented at local level is assessed during the next cycle of data compilation, which usually takes place every six months to one year.

The ISA places emphasis on local people solving local problems. Local QA Committees are given the responsibility of identifying and monitoring quality of care at local level.

A problem-solving approach is applied in the QA process, leading to the development of QA projects. The information is used directly by the local managers and a summary report of the activities is submitted to national level. Several multi-disciplinary committees are formed at national, state and district or institutional levels.

Training in QA is a key strategy to sustain QAP. At first, consensus building was the main thrust in the early phase of development of QAP. Efforts began in 1980 for capacity building, and the target was to develop a critical mass of professionals within the systems with QA knowledge skills. The current training technique is "learning by doing" in place of formal lectures.

Overall, the challenge now is to consolidate QA as a management tool in order to achieve quality management. Leadership and commitment have been clearly demonstrated by political and government authorities as well as from within the health sector. The recent Quality Service Improvement in Public Service and the declaration of Vision 2020 by the Prime Minister provide strong impetus for QA to move ahead.

3.3 United States of America (Presentation by Dr W. Jessee)

Increasingly, United States health care workers have begun to conceptualize quality improvement as a continuous and cyclic process which applies to all levels - from national to local to organizational to sub-units within organizations - of the health care delivery system, as well as to clinical processes.

That cycle (involving people, resources and systems) may be described as follows: define objectives, design processes to meet objectives, measure performance (process and outcome), compare the actual to the expected (or norm), and analyse reasons or performance gaps.

For many years, the USA has utilized standards as a tool for QA. These have been set by private sector organizations (as for accreditation or certification) as well as by governmental units (for licensure). Comparison of actual performance with the standards occurs during on-site surveys of health care organizations. Such standards are used not only for hospitals but also for home care agencies, mental health programmes, nursing homes, primary care centres, laboratories, etc.

The Joint Commission is the largest of several private non-profit organizations which set standards and conduct surveys of organizations to identify "performance gaps" and stimulate improvement. Governmental agencies have comparable programmes and increasingly use the private sector organizations to meet public accountability objectives without public sector financing (i.e. the review is paid for by the organization rather than by government).

Current trends are toward supplementing standards with performance indicators. As part of the Clinton Administration proposals for health care reform, "report cards" of performance have been suggested. Among the proposed measures to be included on these report cards are preventive measures (immunization rates); early detection measures (pap smear rates, breast cancer screening rates); and outcome measures (low birth weight incidence, and procedure-specific mortality rates).

Some have advocated that such performance indicators should replace the use of standards as a QA approach. Most, however, agree that standards and performance indicators are complementary - while indicators measure past performance, standards compliance measures likely future performances. Furthermore, the "report cards" are conceptually simple but operationally complex.

The problems of data reliability, validity and costs for acquisition and reporting are only beginning to be addressed.

The Joint Commission is currently working with several countries to assist them in developing standards and processes for accreditation surveys. With USAID, we are involved in both the NIS and Eastern Europe. We are assisting the Kingdom of Saudi Arabia to develop an accreditation programme. With PAHO, we are providing consultation in Argentina, Brazil, and Uruguay, related to standards and accreditation.

In addition, we have hosted study missions from Australia, China, Japan, Malaysia, New Zealand, Spain, Sweden, Switzerland, and the UK over the last few years. We have also recently contracted with the Peace Corps to evaluate health services in sites where volunteers are assigned and to work with them in improvement efforts.

3.4 Zambia (Presentation by Dr K. Kalumba)

A "Quality of Care Beneficiary Assessment Study" was commissioned by the World Bank in August 1992 and was carried out by the EURO health group. It was designed to provide preliminary indicators of the extent of the differences in quality of care provided by Zambia in rural and urban areas and the differences in perceptions of quality of care issues expressed by beneficiaries.

Results indicated a need for QA, in that rural areas complained of problems of "distance and lack of staff", and urban areas complained of "shortage of drugs and poor staff attitudes". The 1993/4 QA activities in Zambia are briefly summarized below.

In February 1993, a National Quality Assurance Conference was held to reach a consensus on the need for QA and to develop a national position paper. Forty-eight senior health personnel and representatives of the Consumer Protection Association attended. It was proposed that QA be introduced in all districts alongside the "District Capacity-building Initiatives". However, due to funding limitations, it was finally agreed to start QA in only three pilot districts in 1993/4.

In April/May 1993, QA workshops were held in three target districts to sensitize practitioners to the concept and rationale for QA, to form QA committees, and to facilitate the election of key QA contact persons. A training manual for use in developing QA programmes has been developed.

In July 1993, a workshop was held in Siavonga to introduce the concept of standards and the tools for measuring them to a "critical mass" of health professionals. The output set some basic standards in clinical care, nursing, public health and diagnostics. Standards found to be appropriate were put to use in the target districts. The group was to be used again in May 1994 to develop more standards.

In October/November 1993 a two-day training session was held for key staff expected to perform a leading role in leading QA activities. A national QA committee was appointed, which has continued to meet regularly. QA Standard Dissemination Workshops were held in target areas to introduce the concept of standards, to discuss the Siavonga standards, and to adopt appropriate standards for districts.

In January/March 1994, the QA coordinators spent three weeks learning from the Malaysian QA programme in Kuala Lumpur. A workshop was held for programme managers at the central level to introduce the concept of "indicators" and to set at least one indicator per programme. Managers should now set indicators for use in districts.

4. AGENCY QA EXPERIENCES

4.1 CBO, Netherlands (Presentation by Dr E. Reerink)

In the Netherlands, three agencies are engaged in providing support to QA activities in foreign countries.

The Royal Tropical Institute (RTI) in Amsterdam is mainly working through its established contacts with a limited number of developing countries. Its main emphasis is on teaching and on organization development. The focus on health care improvement is brought about through the disciplines of epidemiology, health care organization, and the applied social sciences.

The Ministry of Foreign Affairs in The Hague, though officially not engaged in research and development, is through its Directorate-General for International Cooperation (DGIS) in the process of resetting its mission and will refocus its goals to include QA health care improvement in the selected countries it serves.

The third agency is CBO, the National Organization for Quality Assurance in Health Care, established in 1979 and located in Utrecht. CBO, as a World Health Organization Collaborating Centre for Quality Assurance in Health Care, has developed links with a small number of countries and supports QA activities through technical assistance and programme development.

Each agency has a limited number of countries to serve. The DGIS and RTI are mainly active in Africa, and some countries in Latin America and Asia.

The CBO/WHO Collaborating Centre is affiliated mainly with the countries in Central and Eastern Europe, with an occasional extension to South-East Asia. Work in QA during 1993/4 includes:

1. Support for QA development in Indonesia, Malaysia, and the People's Republic of China, at the request of the respective Regional Offices of WHO.
2. Support for QA in Bangladesh, at the request of the World Bank.
3. QA contacts with the national governments of some countries in Eastern Europe, served within the framework of research and development projects that emanate from the European Commission in Brussels.
4. QA contacts with national governments of the Republic of Korea and Saudi Arabia.

5. Response to QA requests from local authorities and individuals in many countries, e.g. the Republic of Slovenia.

The following principles form the basis of support for QA activities by CBO:

1. The target of QA support is primarily professionals in the health care system. This closely follows the development of QA in Western European countries where the emphasis is on professional responsibility for QA, assistance given to professionals through support agencies such as CBO in the Netherlands, VIK in Belgium, and ANDEM in France. Government is not directly involved but provides support through legislation.
2. The receiving country is independent in selecting ways and means of improving health care and implementing QA focused on its own health care needs and priorities.
3. No foreign value systems and judgements as to the quality of care are forced upon the client country.
4. The approach to developing QA is bottom-up and incremental, since it involves the introduction of an innovation; it uses "action research" and "organization development", with rather few experiments and pilot studies.

Technical assistance in the introduction and maintenance of QA activities in a country's health care system will vary in intensity and cost. Low-cost, low-level support may cover: education, information transfer, awareness and motivation development. More effective and costly is technical support at the local and regional levels. Finally, high-level assistance focuses on national programmes and systems development with the necessary follow-up activities. In general, there is a lack of funds for these QA support activities.

4.2 DANIDA (Presentation by Dr F. Schleiman)

DANIDA has very limited experience with comprehensive QA projects. However, DANIDA has for a long time applied goal-oriented project planning in the form of the "Logical Framework Approach", and has been emphasizing Management Information Systems, Operational Research, supportive supervision and, more recently, decentralized District Health Management. This results in intervention designs that include most aspects of QA. DANIDA projects explicitly identify "quality of service delivery" as a key-problem to be addressed.

A one-year formal QA pilot project is being implemented with DANIDA assistance, as part of the Health Sector Support Programme in Zambia. Although the programme is going well, the plan to expand it from three pilot districts to the whole country will be postponed, because implementing QA has proved to be more complicated than expected.

QA components will probably be part of future DANIDA Health Sector Support Programmes. However, based on our general experience, some dangers and problems of

QA must be considered:

1. QA often assumes that service providers have a commitment to and an interest in improving the quality of care. This is definitely not always the case, as a lot of vested interests are in force, e.g. government doctors with private practice have been known to counteract efforts to improve the public health services.
2. When choosing indicators, and when taking action on their implications, extreme care should be applied to avoid their becoming "aims in themselves", and thereby distorting the functioning of the service delivery. This is a particular danger in countries with a tradition of strong target orientation and/or authoritarian and repressive supervision systems.
3. There are considerable problems in defining quality of care, not least in developing countries where the population's concepts and perceptions of disease and appropriate treatment often differ significantly from those of the providers of the predominantly modern medical services.
4. It is therefore possible to achieve a high quality modern health service without an increase in consumer satisfaction. This occurs when consumers do not understand or accept the modalities of modern diagnostics and treatment, and the service providers cannot relate to the beliefs and expectations of the consumers.
5. Finally, the resources involved in establishing QA should be weighed against the possible benefits. In many countries the deficiencies of the health system are well known and of a severe and fundamental nature. Thus their correction might not require a QA system - this could be developed later a slower pace.

4.3 QA Project - Centre for Human Services (Presentation by Dr D.D. Nicholas)

The Quality Assurance Project (QAP) has provided assistance to over twenty countries during the past three years. The reasons behind the growing interest in developing countries include democratization and the rights of clients to quality health care; the need to improve quality for cost recovery; and the necessity to improve efficiency and conserve scarce resources.

QAP country initiatives have addressed a number of QA issues, including: national structures, advocacy, capacity building, and testing approaches. The overall purpose in all these QAP programmes has been to: create awareness of the benefits of QA; initiate experience in using QA for priority health programmes and, ultimately, to create advocacy for institutionalized and sustainable QA that will result in improved care, greater efficiency, and a better quality of life.

Thus QAP has taken a very flexible and practical approach to assisting many countries to develop the following QA programmes. For example:

- Bolivia:** providing a QA project team to help hospital staff to carry out quality improvement studies on some important issues such as post-Caesarian infection rates.
- Chile:** assisting a national QA office to develop decentralized QA for primary care in the country's 15 regions.
- Ecuador:** providing a Resident Adviser to assist several Latin American countries to utilize QA approaches to improve and ensure the quality of cholera treatment.
- Egypt:** assisting the MOH to institutionalize QA in five cost-recovery hospitals.
- Guatemala:** conducting QA research to identify the most cost-effective methods for supervisors to assess the quality of health worker performance in carrying out essential PHC tasks.
- Honduras:** conducting QA research to test and validate ways to improve physician-patient counselling and communication.
- Indonesia:** providing technical assistance to carry out assessment of the quality of care; and assisting the development of QA standards and supervision system for the provision of long-term family planning methods in hospitals.
- Jordan:** helping to set up a national QA Directorate as well as to carry out a pilot QA project for hospitals and primary care clinics in one of the country's eight regions.
- Malawi:** technical assistance in carrying out assessments of the quality of care.
- Niger:** providing a Resident Adviser to help to develop a QA programme in the Tahoua Region, using both traditional and TQM approaches.
- Nigeria:** working with Johns Hopkins University to develop QA programmes in several demonstration Local Government Areas (LGAs) and in several national child survival and family planning programmes.
- Philippines:** helping the MOH to use QA to improve micronutrient programmes and the ambulatory treatment of tuberculosis.
- Trinidad:** conducting QA research to test and validate ways of improving physician-patient counselling and communication.

QAP has delivery Quality Awareness seminars for hospital managers in Jamaica, for MOH staff in Costa Rica and Zambia, and for private voluntary organizations (PVOs) in Thailand. Working with the Aga Khan Foundation, QAP has developed a series of information modules that can be used to assess the quality of PHC care and support services.

4.4 USAID (Presentation by Dr J. Heiby)

The Office of Health has invested 24 million dollars in QA activities in 25 countries since 1985. The current focus of this programme is known as the Quality Assurance Project (QAP), implemented by the Centre for Human Services, Johns Hopkins University, and the Academy for Educational Development.

This project ends in September, 1995. There are additional quality-related activities, completed or under way, carried out by other units within the Agency, including the CCCD project in 11 African countries, the global population programme, and a programme of assistance in the NIS.

A concern for the quality of health and family planning services has recently been incorporated into Agency strategy papers, and into the list of indicators used to monitor the results of projects. Agency health strategy emphasizes child survival services but recognizes the need to address larger issues of health reform.

The QAP seeks to develop, refine, and institutionalize QA approaches in cooperating country health systems. Currently, the project is providing long-term technical assistance in six cooperating countries, and has provided short-term assistance in QA in an additional fourteen countries.

The project has developed a series of partially standardized training courses in QA, addressing:

1. Awareness - a 1-3 day seminar intended to provide an overview of the field of QA and of the nature of quality problems.
2. Problem-solving - a course of 1-2 weeks addressing the specific QA techniques that are available to deal with quality problems, both clinical and non-clinical.
3. Standards - a course addressing the design of effective standards and the process of communicating these standards to those who are to carry them out.
4. Team dynamics - a course which deals with the skills and approaches of the effective use of teams in QA.
5. Planning - a less-structured workshop which seeks to help senior managers plan an overall QA programme.
6. Cost and quality studies - a 3-day course designed for investigators who wish to pursue issues regarding the relationships between elements of quality and the associated costs.

The project includes a research component to refine and adapt QA tools and approaches for application in developing country settings. These studies generally involve data collection and interventions that are beyond normal QA activities, usually conducted by external organizations. Examples include:

1. Patient counselling - a meta-analysis of the published literature on interpersonal communication in developed countries identified several principles of effective patient counselling, outlining the process of counselling. These principles have been validated in studies in Honduras and in an ongoing study in Trinidad.
2. Comparison of quality assessment methods - this study, under way in Guatemala, is examining the relative cost-effectiveness of different techniques available to a field supervisor for assessing the quality of different types of clinical services, using a prospective intervention design.
3. Baseline quality assessments - the project has conducted external quality assessments in 15 developing countries, relying chiefly on the structured observation of more than 10 000 patient-provider interactions. These findings are presented predominantly in terms of percentage compliance with programme standards.

QAP has begun the development of a computerized data base of project findings and documents, and produces two regular reports for dissemination. In addition the project has produced longer technical documents that summarize its overall technical approach, analyse institutionalization issues and review approaches to incentives related to quality, and training course summaries for several of the courses.

QAP is also an active participant in international meetings, such as ISQA, and regularly sponsors participants, in addition to co-sponsoring a pre-ISQA conference on developing country issues in QA.

A computerized simulation addressing QA skills has been developed, and the project is currently applying this technology to an interactive training programme for integrated case management of the ill child. As part of the project, Johns Hopkins University has developed and presented the first academic course focused specifically on the issues of QA in developing countries.

QAP has developed QA approaches in specific technical areas, including tuberculosis case management, micronutrient supplementation, the integrated case management of the ill child, and cholera control programmes. QAP is also assisting the World Bank and the Government of Indonesia in the development of a large-scale QA programme.

Among the major issues yet to be addressed by the project are issues on the overall management of QA programmes and their evaluation, the development of empirical data on the relationship between cost and quality, and the formulation of an overall research strategy for adapting QA approaches for application in developing countries.

4.5 World Bank (Presentation by Dr W. De Geyndt)

World Bank supported projects have only recently started addressing QA issues explicitly and incorporating actions to improve the quality of health care. This development is both demand and supply driven as World Bank staff and client countries

are increasingly aware of the benefits of continuously striving to improve the quality of services offered to populations.

Benefits would include more efficient use of current resources, potential reduction in unit costs, better utilization of services offered, more rational use of drugs, customer orientation and beneficiary participation.

An introductory and extensive background paper on managing the quality of health care in developing countries has been published. QA training seminars are being conducted for staff.

An important initiative is the organization of a worldwide electronic network using "Internet". The "QCare" network is the brainchild of Dr Jean-Louis Lamboray and its purpose is to create a "free international information highway" linking all professionals interested in and working on QA problems. "QCare" would allow its users to share experiences, to ask for help on solving specific quality problems, and to offer assistance in problem-solving.

(Note: The Internet address to request admission to the QCARE network is: PHNLINK at worldbank.org)

4.6 World Health Organization

A. Presentation by Dr F. Siem Tjam, Division of Strengthening of Health Services

From its inception, WHO has focused on two broad areas - the provision of technical support to countries on disease control (such as programmes on tuberculosis, leprosy, malaria), and programmes focusing on health infrastructures in countries (such as information, human resource development and strengthening health services).

In the area of QA, therefore, WHO can be seen to have a concern with:

1. the quality of service content, with a major focus on technical validity within resource and cultural constraints, which is the area of the first group of programmes; and
2. the quality of service delivery, with a major focus on the administration, organization and management of health care services, within the constraints of prevailing resource configurations and political imperatives.

In 1982, the WHO Regional Office for Europe published "Quality Assurance of Health Services: Concepts and Methodologies" by Hannu V. Vuori, and in 1985, WHO Geneva published "Quality Assessment and Assurance in PHC" by M.I. Roemer and C. Montoya-Aguilar. Subsequently, meetings to promote the adoption of QA methodologies were promoted through a meeting in Shanghai, China, in 1990, for the Western Pacific Region and in Pyong Yang, DPRK, in 1992, for the South-East Asia Region. In 1993, a Consultation for Developing Countries was held in Maastricht, Netherlands, preceding the ISQA Meeting, for the first time in collaboration with DANIDA and USAID.

At this time, WHO Geneva is considering the feasibility of holding similar meetings with a promotional character for QA in the African Region and the Eastern Mediterranean Region. In addition, there seems to be a need to develop technical guidance for developing countries who are considering the implementation of QA in district health systems and health facilities. To this end, a meeting to produce technical guidance on QA in district hospitals and/or health centres is under consideration.

Another more strategic activity would be to support meetings which bring together donors and executive agencies involved in the promotion and implementation of QA throughout the world, with an accent on developing countries.

**B. Presentation by Dr W.N. Gibbs
WHO Laboratory Technology and Blood Safety Unit**

The importance of the contribution of the laboratory services to the quality of patient care is often overlooked by planners and decision-makers. High quality laboratory services contribute directly to reducing mortality and morbidity and the cost of providing health services, and also indirectly because of their impact socially and economically.

QA is stressed in the educational curricula all over the world for all health professionals working in laboratories, and QA procedures are intrinsic to the methods used in laboratory practice. However, it is still perceived by some health authorities as being too expensive, and by some laboratory workers as being tedious and boring. The problem is often compounded by the equivocal attitude of some managers and by poor supervision.

WHO has addressed these issues by advocacy - increasing the awareness of national health authorities by: showing the cost-effectiveness of ensuring high quality performance; preparation and distribution of guidelines and manuals; organization of training courses and facilitating training of laboratory professionals; and facilitating the preparation and distribution of standards.

During the last 20 years, WHO has arranged for the organization of International External Quality Assessment Schemes (IEQASs), which now cover 10 disciplines in laboratory medicine and involve over 300 laboratories, mainly in developing countries. These provide a mechanism for interlaboratory comparisons. Although they are limited to only one aspect of the analytical component of QA, they have stimulated interest in the subject as a whole and have contributed to the improvements mentioned above.

In April 1993, WHO convened a meeting on QA related to health laboratory technology, attended by about 90 people from all over the world. The meeting developed a series of practical recommendations and conclusions. A full report is available on request.

The Working Group on Quality Assurance could now consider how to help in this process, and thus contribute to the improvement of the quality of patient care all over the world.

**C. Presentation by Dr G.P. Hanson
WHO Radiation Medicine Unit**

Beginning in the 1960s the Radiation Medicine unit has been involved in the interrelated issues of planning, organization, promotion and implementation of QA in the medical use of radiation. Examples are the WHO Technical Report Series No. 328 (Planning of Radiotherapy Facilities) 1966, and the TRS No. 644 (Optimization of Radiotherapy) 1980. Because of worldwide concern about the over-use of diagnostic X-rays in the 1960s, WHO provided guidance on the rational use of radiodiagnostic procedures and effective choices of diagnostic imaging (WHO TRS No. 689 in 1983 and WHO TRS No. 795 in 1990).

A series of reports on specific applications of QA at the national level in the organization of services, the hospital facility level, and the clinical department level, were provided during the period 1983-1990 in the three areas of Quality Assurance in Diagnostic Radiology, Nuclear Medicine, and Radiotherapy.

To provide direct technical support to both countries at the national level and to individual radiotherapy centres, WHO, in collaboration with the International Atomic Energy Agency, established the Network of Secondary Standard Dosimetry Laboratories (now comprising 70 SSDLs in 50 countries, 36 of which are in developing countries), and the Postal Dose Intercomparison Service (now having provided approximately 2 500 radiation measurement intercomparisons to approximately 800 radiotherapy centres in 90 countries. Over the past two decades a noticeable impact in improving the quality of radiation measurements has been observed.

In the radiation protection area (mindful that about 95% of man-made radiation exposure arises out of the medical use of radiation) WHO is collaborating with five other international organizations (FAO, IAEA, ILO, OECD, PAHO) to revise the International Basic Safety Standards for Radiation Protection. These revised standards include requirements for QA, demonstrating a close relationship between risk management and QA.

Because approximately two thirds of the world's population lack diagnostic imaging services (zero quantity equals zero quality), WHO concentrated on the development of the Basic Radiological System (WHO-BRS) during the period 1975-1985. The WHO-BRS consists of three training manuals, periodic supervision, and a deceptively simple X-ray unit which is rugged and incorporates designed-in features for the production of high quality radiographs and little maintenance.

Although WHO had worked on the problem since the early 1960s, attempts to develop an X-ray machine that was more suitable to the needs of developing countries than the X-ray machines currently available were unsuccessful and, by 1970, the consensus of expert opinion was that a more basic X-ray unit was required. Thus a multidisciplinary team was assembled to develop the specifications for a simple, high-quality X-ray machine. Many maintenance problems were designed-out and many quality features were designed in.

The BRS X-ray apparatus consists of a high-quality X-ray generator and X-ray tube, together with a high-quality focused grid, and a unique tube-stand; all of which are linked together in a sophisticated manner to produce an optimum and simple X-ray system.

The WHO-BRS also includes three training manuals which are an integral part of the system: (1) Manual of Radiographic Technique (1986); (2) Manual of Darkroom Technique (1985); and (3) Manual of Radiographic Interpretation for General Practitioners (1985).

4.7 Review of 1993 pre-ISQA meeting reports¹

1. Maastricht Developing Countries pre-Conference Report (Dr. W.M. Jackman)

On 18/19 June 1993, representatives from 17 developing countries met in Maastricht, Netherlands, for two days before the Tenth Annual Conference of the International Society for Quality Assurance (ISQA) in Health Care.

The meeting was sponsored by the World Health Organization (WHO), the Quality Assurance Project funded by USAID, and DANIDA. The National Organization for Quality Assurance in Hospitals in the Netherlands (CBO), and the State University Limburg, in Maastricht, hosted the local conference and provided technical advice.

The purpose of the meeting was to share the experiences of developing countries that had already embarked on developing QA programmes. The meeting also sought recommendations on strategies to be adopted by countries and the global community to enhance health care quality.

Presentations focused on four QA topics of particular interest: strategic planning of QA activities; standard setting and monitoring; problem-solving as a QA activity; and QA capacity-building. Countries represented included Chile, Costa Rica, Egypt, Guatemala, Indonesia, Iran, Jordan, Malaysia, Mexico, Niger, Nigeria, the Republic of Korea, Saudi Arabia, Thailand and Zambia.

The meeting resulted in recommendations for ministries of health, international organizations, research groups, and implementing health institutions. These recommendations were presented to the International Society for Quality Assurance, along with summary presentations from Chile, Malaysia, and Niger. The ISQA meeting honoured these presentations by awarding the Italian Prize to Dr Gilda Gnecco of Chile and the Australian Prize to Dr Boukar Maina of Niger.

¹ A complete report was prepared by USAID-QAP entitled "Conference Report. Consultative meeting on Quality Assurance in Developing Countries, Maastricht, Netherlands, 18-19 June 1993" and is available from: Quality Assurance Project, University Research Corporation, Center for Human Services, 7200 Wisconsin Avenue, Bethesda, MD 20814-4820, USA.

2. Newly-independent States (NIS) pre-Conference Report (Dr E. Reerink)

A meeting was held among the representatives of eleven countries from the former East European region prior to the Tenth Annual Conference on Quality Assurance in Health Care, sponsored by the International Society for Quality Assurance in Health Care (ISQA) and held in Maastricht, The Netherlands, in June, 1993. The meeting was organized by the National Organization for Quality Assurance in Hospitals (CB0), The Netherlands, with the active support of the WHO Regional Office for Europe, Copenhagen. The purpose of the meeting was to exchange opinions and experiences in QA activities, and identify change agents as main persons of contact for future activities. The participating countries were: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Roumania, Russia, and the Ukraine. Slovenia and Belarus were unable to send delegates to this meeting and conference.

The meeting considered the following:

1. A number of written reports on country activities. An important report on the health care developments in Russia will appear in the coming issue of the International Journal for Quality Assurance in Health Care (1994, nr. 1).
2. A number of localized, often isolated, QA activities. Hungary was found to be the most advanced, with the existence of a Hungarian Society for QA, a running QA programme and several change agents. Participation of NIS hospitals in the European Concerted Action Health Services Research (COMAC) study that was initiated during this meeting focused on four topics (record keeping, prevention of bed sores, prophylactic use of antibiotics in surgery, and preoperative screening), and proved to be successful.

There was fresh awareness of QA as a tool that could be used to serve the country's needs, and a new enthusiasm to stimulate national developments.

However, concern was expressed as to the sustainability of QA programmes within unstable health care systems.

Information technology, systems development, local support and resources, and recognition and status for QA were the needs identified by the meeting's participants to enhance their QA activities.

5. DISCUSSIONS

The presentations on principles and experiences gave rise to lively and far-ranging discussions. The main ideas are incorporated in chapters 2 and 6. However, quite a number remained on which there was no general agreement. To offer the reader of this report an impression of the rich exchange of ideas, a selection is presented grouped under three subject areas. They should not be taken as agreements or statements of the Group. The Group further identified some areas where QA is currently receiving little attention.

Related to QA objectives

It was noted that the WHO movement of Health for All includes the notion of QA, for it promotes the attainment of the highest possible health status that is affordable, to be universally adopted.

Appropriateness and excellence are central to QA and may be difficult to interpret, but should always be understood in the context of local conditions. High quality clinical care for a minority, in countries where large sections of the population have almost no care at all, can hardly be termed nationally appropriate. At a basic level, general medical practice can be provided by appropriately trained health workers to provide adequate health services, thus achieving "appropriate" QA of health services.

In the pursuit of efficient and effective use of resources to achieve results for clients/communities, QA might be considered a paradigm for obtaining a measure of control over both resources and people, which may not always be easy or feasible. When questioned on which QA was being applied, the representative of a developing country answered: "The best in the circumstances". It was thus evident that the aim of any exercise in QA should be to achieve the best quality of care for clients within the limited resources available, rather than to pursue any particular methodology.

In countries with low per capita income, the priority for QA may be for first contact care. But, to achieve early acceptance and sustainability, QA could initially be aimed at "targets of opportunity" rather than at the total health system. However, noting that the gain of one project or programme may lead to a loss for another, it was felt that where QA projects attack "targets of opportunity" as entry points, the risk and sustainability for the total system must not be overlooked.

Another subject that also emerged was: how to obtain a balance between consumer and professional QA objectives. While traditionally professional judgement might be considered technically paramount, consumer groups will become increasingly influential. This will make some "interactive learning" necessary for both consumers and professional health staff.

Therefore, setting QA objectives requires careful identification of the client constituencies and what their perceptions of "quality" really are. Consumer expectations and strong community participation in health development may become dominant features of future QA programmes.

It was further noted that health problems in developing countries are not very different from those in some poor areas in Europe and the USA. QA experiences in developing countries might therefore contain lessons for use in industrialized ones.

Related to QA standards

Standards should be related to local problems, resources and feedback. Low compliance rates have been observed where standards were set without the involvement of relevant staff, and a negative perception and consequent mistrust by staff might develop.

It was observed that some donor projects that were decided at national level might have been at variance with local priorities, leading to unsustainable developments.

Related to the organization of QA

However, it was also argued that to introduce QA, development at a central level may sometimes be necessary before action in districts and municipalities becomes possible. In some societies a "top-down" approach might need to be considered, and a measure of political, economic, social and certainly staff stability seem to be key requirements for successful QA implementation. A critical determinant may well be the working conditions of health staff. It was recognized that low success rates of QA projects in some countries may be due to a high turnover rate of QA trained staff. However, if such staff are not lost by the health system, QA may experience wider dissemination in the long run.

The development of a QA programme might start by simply finding out what is available, trying to determine what the major problems are and seeking solutions for solving them. This approach is practical and non-threatening and would fit very easily into ongoing activities and, at a next stage, may develop into a full QA programme.

In discussing exchange of materials, it was mentioned that USAID QAP has developed several examples of country specific and generic training materials that might be shared with other countries and agencies. However, it was also noted that a simple adaptation of methodologies may not always be feasible in countries where environments may be very dissimilar and QA models may have to be selected for similarity and relevance.

As an example, the excessive use of drugs by doctors was reported as a QA problem that does not require sophisticated QA action but rather an organizational environment where QA could become a cultural value throughout the health system's organization. Many QA problems arise from a lack of supervision in a tradition that allows poor quality work to continue, e.g. poor X-ray films.

Thus there might be a need for medium- and long-term planning for each health unit (vision, mission, position, action) as a prerequisite for sustainable QA. In addition it was felt that recognition of QA as a health service discipline with professional status in all health training would be an asset.

For the management of QA information, a system may be used that may or may not involve the use of computers. However, computers have proven to be a significant "staff motivator" in some environments.

It was reported that there is a tendency in industry for TQM to be displaced by newer concepts of re-engineering and restructuring. Its spill-over in health care remains to be seen.

Finally, the value of exchanging information on failures for a better understanding of actual implementation problems in countries was considered.

Subject areas where QA is currently receiving little attention

The Working Group also felt that the relationship between cost and quality was a complex one. More empirical data would be required to understand the relationship between quality and the way in which health services are organized, managed and financed. It would be desirable to clarify this further (e.g. the impact of decentralization, privatization, public and private insurance, etc., on the quality of health care in finite populations).

Further research might indicate how QA could influence the operational integration of clinical activities with non-clinical health activities. Another topic might be the setting of standards that are currently achievable with available local resources, but that still motivate pursuing higher levels of performance.

6. NEXT STEPS - IDEAS FOR FUTURE ACTION

The Working Group suggested future cooperative activities as outlined below.

A. Promote professional acceptance of QA by:

1. introducing QA to all medical, nursing, allied health and public health training institutes, as part of the basic and post-graduate curriculum, and establishing a professional status for QA as an element for health care; and
2. introducing QA to civic groups with an interest in health, such as women's groups, health educators, legislators and mass media.

B. Support cooperative multi-centre research to determine how QA can be:

1. sustainable and cost-effective for PHC with limited local resources;
2. applied to the practices of traditional medicine;
3. introduced as a value system in a variety of different cultural environments;
4. related to modern management developments, e.g. re-engineering, restructuring, provider and consumer satisfaction; and
5. improved, with acceptance of the consumer as a principal factor in standard-setting and performance appraisal (e.g. assess the effect of a "patient reaction feedback form" in every patient medical record).

C. Improve QA training activities by:

1. jointly sponsored training workshops;
2. making existing QA training materials freely available;
3. cooperative development of new training materials and computer-based packages;
4. development and sharing of: QA simulations, case studies, and exercises for active-mode learning;
5. support for centres of excellence in QA basis and advanced training; and
6. producing an inventory of materials available.

D. Use the WHO central, regional and country structures to:

1. promote QA in developing countries through existing WHO regional communication channels to governments, health care organizations, medical schools, NGOs, and others;
2. develop WHO guidelines for QA in district hospitals and health centres in developing countries;
3. support QA fellowship and attachment programmes between suitable developing countries;
4. promote regional QA meetings;
5. strengthen coordination of QA activities within each country through the WHO Representative; and
6. promote a more widespread use of "bench-marking" and other relevant QA techniques.

E. Improve linkages between countries and agencies by:

1. supporting annual meetings of the Working Group to assess QA experiences (successes and failures) and to plan areas for new cooperative action;
2. holding informal meetings to share new QA information and experiences;
3. promoting worldwide support of the World Bank "Internet Qcare Facility" for QA communications, information bulletins, training courses, experience sharing, questions, answers, etc.

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APPENDIX B - DOCUMENTS AVAILABLE FROM PARTICIPANTS

- DANIDA:** Continuous Quality Development - Why and How (Danish Ministry of Health and National Board of Health, DANIDA, 1993)
- Continuous Quality Development - a Proposed National Policy (WHO/EURO, DANIDA, 1993)
- Project Document Development in Health Care Quality Assurance System in Zambia (DANIDA, 1993)
- JCAHO:** Facts About the Joint Commission on Accreditation of Health Care Organizations (background, activities, processes, decisions, agenda for change) (JCAHO, 1994)
- URC/QAP:** Quality Assurance - A Computer Simulation (1-4 hours of training for clinical health staff, which requires a 386 PC and Windows 3.1) (USAID/QAP, 1994)
- Monograph: Problem Solving in QA (QAP/USAID, 1993)
- Monograph: QA of Health Care in Developing Countries (QAP/USAID, 1993)
- QAP Brief - Specific QA activities in developing countries - 5 issues (QAP/USAID, 1993/4)
- WORLD BANK:** Managing the Quality of Health Care in Developing Countries (Dr Willy de Geyndt, Human Resources and Social Divisions, World Bank, 1994) Note: The internet address for the World Bank QCare information project is: PHNLINK at worldbank.org.)
- ZAMBIA:** Health Care QA Manual (Ministry of Health, Zambia, 1993)
- WHO:** The Contemporary Use of Standards in Health Care (WHO, Geneva, 1993)
- Measuring the Performance of Hospitals and Health Centres (WHO, Geneva, 1993)
- Quality Assurance in District Health Systems based upon Primary Health Care (New Delhi, WHO, 1992)
- The Principles of Quality Assurance (WHO/EURO reports and studies 94, report on a WHO meeting, Barcelona, 17-19 May 1993)
- Quality Assurance in District Health Care, Focused on Hospitals and Health Centres, by J.M.J. van den Berg. (Draft document)