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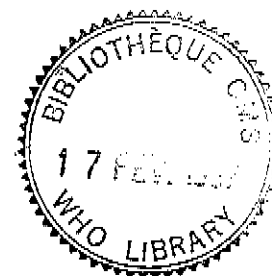
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HEALTH CENTRES IN DEVELOPING COUNTRIES

AN ANNOTATED BIBLIOGRAPHY 1970-1985

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Division of Strengthening of Health Services  
World Health Organization  
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## INTRODUCTION

When beginning our work on this bibliography the first question we had to pose was, 'What is meant by a health centre?'. We are aware that health centres differ greatly from country to country in respect of size and resources, and in the extent of population covered, but we offer the following definition of a health centre: it is concerned primarily with ambulatory patients; it provides (or should provide) both curative and preventive services; whether staffed by a doctor or not, it has a multi-disciplinary team capable of providing a range of services including mother and child care; it often exercises supervision over a lower tier of primary health care units (dispensaries, health posts or subcentres), and over auxiliary health workers based in villages.

The idea of the health centre as the basis for primary health care in the developing world became accepted in the late 1950s. The decade which followed was the heyday of health centre development in many countries. Milton I. Roemer's WHO publication, **Evaluation of Community Health Centres**, published in 1972, surveyed the achievements of that period. Since that time, trends in planning have turned away from health centres and moved out into the community, with greater emphasis on the contribution of village health workers.

One of the conclusions of Roemer's study was that evaluation of the role and functioning of health centres was necessary. Since Roemer's study, a comprehensive review of health centres has not been carried out, and thus the WHO Division of Strengthening of Health Services considered it appropriate to determine what had been accomplished in this field during the intervening years. In addition, given current modes of thought, more fundamental questions require to be answered: How relevant is the health centre concept today? What role does the health centre have to play in connection with village health workers and similar schemes? Does it make more sense to build new health centres or to train more auxiliaries to provide health care in the villages? How can the functioning of health centres be improved? How can the community participate in improving health centres and enhancing appropriate use?

In order to provide background information to answer some of these questions this annotated bibliography of material produced between 1970 and 1985 on health centres in developing countries was compiled during an 8 week period in the Department of Community Medicine, University of Edinburgh. The obvious first source of our search, Index Medicus, produced very little of relevance; it has only recently begun to have a separate listing for Community Health Centres, and much of that material concerns the U.S.A. and other Western countries. (Initially we planned to include material on health centres in developed countries which might prove useful to developing countries, but the gap in available resources, staffing etc. in health centres between the two worlds is so wide that we have included only a handful of such references in our bibliography.) One major problem we discovered was that, unlike most subjects, recent papers on health centres rarely provided us with many earlier references; this is symptomatic both of the fragmentary nature of much of the material, and

the isolation in which many researchers in this field are working.

More productive were conversations with various experts in the field of primary health care in the developing countries, who provided us with leads, ideas, and material, and whose names appear on the acknowledgements page. A great boon was the annotated bibliography produced for us by the International Development Research Council in Canada, who entered the key words 'health centres' into their SALUS data base and came up with 858 entries, of which they supplied us with the most recent 150. Some 30 of those appeared directly relevant to our bibliography.

We decided that, with much of the material covering more than one subject, and sometimes more than one country as well, it would be pointless to arrange the bibliography under specific headings. The method we used was to list abstracts alphabetically under author's name, and to provide separate indexes according to principal subject matter and country. Many of the articles and books which we looked at did not confine themselves to discussing health centres: in the abstracts we included only points of direct relevance to the bibliography. Due to constraints of time, we included abstracts of material which we did not ourselves examine: any entry which ends with a source in square brackets was taken from the acknowledged bibliography and was not written by us.

Although covering a wide spectrum of countries and subjects, the material reveals certain features consistently enough to be summarised here. On the positive side it is clear that a number of evaluation exercises have been carried out - particularly in the field of maternal and child health - and these revealed successes in improved nutrition, lower infant mortality rates etc. Also on the positive side, it is obvious that the ideal of community participation is being vigorously pursued, and that outreach activities are increasing.

The material also revealed a number of problems in the role and functioning of health centres. Some of these are more attributable to lack of resources, for example lack of drugs and supplies. Others are more to do with management; staff problems are the most consistent difficulties experienced in health centres. Staff are often inadequately trained and not properly supervised. There is no encouragement for them to evaluate their own performance, and when evaluated by outsiders performance was often poor. Staff were often found to be absent and performing inappropriate tasks. And in spite of the great emphasis being placed on prevention, training is often still oriented toward the curative side and consequently health centre staff are not wholly able to provide adequate preventive services. Community participation is also hampered by health centre staff not being properly attuned to the idea.

Where health centres are under-used, this is often the result of poor quality of care as perceived by the community. The importance of good teamwork emerges very clearly. Teams must be flexible enough to take on a variety of tasks, but a properly tiered referral system, both within and outwith the health centre, is also vital.

In spite of the many problems with health centres, our overall findings

are positive rather than negative. There have been a number of successful community health programmes in various parts of the world, and we discovered that they were virtually all based on a well-functioning health centre. Similarly, successful village health worker programmes were also based on health centres. Criticism of staff remaining in their health centres waiting for patients to come to them is not criticism of the health centre concept; it is a reflection of improper training and attitudes which require changing.

To conclude, it is obvious that health centres can never by themselves cover the whole of the population in any developing country, but well-run community health programmes and outreach programmes will start from properly functioning health centres. Ignoring health centres and concentrating solely on health care in the villages is counter-productive: all outreach activities require a solid professional base. Getting health centres right is a vital prerequisite.

## INDEX OF SUBJECTS

### Community Attitudes

Amonoo-Lartson et al; L'Abbate & Westphal; Nitzschke & von Luttwitz; Sundar Rao & Richard; Wang'ombe

### Community Health Programme

Arole & Arole; Centre International; Chakravorty; Hendrata; Okubagzi; Shah & Shah; Sibley

### Community Participation

Chagula & Tarimo; Chakravorty; Correion et al; Hendrata; Kasongo Project Team 1983; Lamboray & Laing; Patten; Were

### Costs

Alexander et al; Gish 1973; Kasongo Project Team 1983; Zakir Hussain

### Financing

Developpement et Sante; Kasongo Project Team 1984

### Health Centre Functions

Ashitey, Wurapa & Belcher; Assaad & El Katsha; Brasil, Miniesterio de Saude; Chabot; Chagula & Tarimo; Chowdhury; Cole-King, Gordon & Lovel; Conference of Missionary Societies; Developpement et Sante; Djukanovic & Mach; Fanning; Guel Jimenez, Herdia Diaz & Beaujean; Moonny; Ojo; Okubagzi; Rakowski & Kastner; Sanjivi; Sebai, Miller & Ba'aeel; Smith; Srouji & Connolly; Wallis

### Health Education

Bhandari & Bhandari; Hoorweg & Niemeijer; Namboze; Tuli

### Maternal & Child Health

Ayeni & Oduntan; Bella; Dissevelt; Fisek & Rengin; Kamalamma et al; Sachar et al; Sharma, Bansal & Venkatesh; Shawqi et al; Soothill et al; Srouji & Connolly; Tuli; Udo

### Miscellaneous Activities

Battersby; Nchinda; Wright

### Organisation of Services

Ahmed; Assar & Jaksic; Bennett, Eaton & Church; Chen & Tuan; Cole-King, Gordon & Lovel; Correion et al; Djukanovic & Mach; Gish 1973; Gish 1975; Gish 1979; Guel Jimenez, Herdia Diaz & Beaujean; Indian Council; Kasongo Project Team 1983; King; Lamboray & Laing; Lampang; Nichols; O'Connor; Patten; Seitz; Van Etten 1972; Were; Yeon; Zouari

### Physical Structure

Conference of Missionary Societies; Kleczkowski & Nilsson; Mukerji

Staff Attitudes

Amonoo-Lartson & Lovel; Jagdish 1980; Maru; Taylor et al

Staff Functions

Arnon; Jelley & Madeley

Staff Performance

Amonoo-Lartson & Lovel; Amonoo-Lartson, Alpaugh-Ojermark & Neumann; Cole-King, Gordon & Lovel; Isely; Jelley & Madeley; Matovu, Bennett & Namboze; Rakowski & Kastner; Rao, Benjamin & Richard; Sebai, Miller & Ba'aqueel

Staff Training

Amonoo-Lartson & Lovel; Australia, Dept of Health; Centre International; Neumann, Sai & Dadu; Pereira Binder, Magaldi & Lopes; Shawqi et al; Smith

Staffing

Fanning; Fendall et al; Fernando; Goyal & Yadov; Jagdish 1981; King; Lampang; Maru; Nichols; Sanjivi; U.S. Agency

Utilisation

Agnihotri, Pandey & Nandan; Ashtey, Wurapa & Belcher; Assaad & El Katsha; Davis Tsu; Desai & Ahern; Fisek & Rengin; Gershenberg & Haskell; Joseph et al; Kamalamma et al; Nagpaul et al; Rao, Benjamin & Richard; Saeed; Selwyn & Ruiz de Chavez; Sharma, Bonsol & Venkatesh; Sorkin; Udo; Van Etten 1976

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Afghanistan  
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General Reviews  
Amonoo-Lartson et al; Battersby; Conference of Missionary Societies; Fendall & Tiwari; Kamani; Kleczkowski & Nilsson; Kohn; Mukerji; Roemer; Sorkin; University of Hawaii

Ghana  
Amonoo-Lartson & Lovel; Amonoo-Lartson, Alpaugh & Neumann; Ashitey, Wurapa & Belcher; Cole-King, Gordon & Lovel; Lamptey, Wurapa & Nicholas; Neumann, Sai & Dadu

India

Agnihotri, Pandey & Nandan; Alexander et al; Arole & Arole; Bella; Bahndari & Bahndari; Chakravorty; Goyal & Yadav; Indian Council; Jagdish 1980; Jagdish 1981; Kamalamma; Maru; Nagpaul et al; Rao, Benjamin & Richard; Sachar et al; Sanjivi; Shah & Shah; Sharma, Bansal & Venkatesh; Soothill et al; Sundar Rao & Richard; Taylor et al; Tuli; Varghese, Thomas & Amar

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Kasongo Project Team 1983; Kasongo Project Team 1984; Lamboray & Laing

Zambia  
Wallis

ABSTRACTS

Agnihotri S.P., Pandey D.N. & Nandan D.

'Impact of rural health services in Agra sub division'

Ind J Pub Health 1984, 28: 25-9

India. Evaluation. 3 health centres. Utilisation./ A questionnaire was distributed to 300 randomly-selected villagers living either within a 2 km radius or outside of a 5 km radius of three primary health centres near Agra, to determine their awareness and utilisation of the centres' medical, disease control, family welfare, environmental sanitation, school health, health education, and vital statistics services. The survey revealed that 52% of respondents living within 2 km of a centre used that centre's services, compared to 16.6% of those living more than 5 km away. The curative services were the ones most heavily used. Reasons for not utilising the services were drug shortages and the distance involved. [Source: IDRC SALUS data base]

Ahmed M.Z.

'Basic Health Services Project, Pakistan (1977-85)'

in C. Sepulveda & N. Mehta eds., Community and Health: an Inquiry into Primary Health Care in Asia (Bangkok: UN Asian and Pacific Development Institute, UNAPDI Health Technical Paper No.35/BCS 4, 1980)

Pakistan. Description. National. Organisation of services./ Rural health centres will form the focal point for health care delivery under a new approach to basic health care which is being implemented in Pakistan, based on the utilisation of paramedics and auxiliaries under regular supervision by doctors in a more efficient management system. Rural health centres will provide a referral centre for basic health workers. [Source: IDRC SALUS data base]

Alexander C.A. et.al.

'Cost Accounting of Health Centre Expenditures'

Indian J Med Res 1972, 60: 1849-63

India. Evaluation. 2 regions. Costs./ The authors formulated a method of evaluating the distribution of health centre expenditure by functions. The five major health functions were defined for this costing procedure as: (1) illness care, (2) maternal and child health, (3) family planning, (4) communicable disease control, and (5) environmental sanitation. The data used to illustrate the method were obtained from a study conducted in the states of Punjab and Mysore in 1967-69. The results showed that a health centre in Punjab incurred almost twice the expenditure of a similar facility in Mysore. The difference was almost entirely related to greater expenditures for recurring items and salaries in Punjab. Health centres in both states spent about one-third of their total resources on family planning and a little less than one-third on care of illnesses. A slightly

greater proportion was spent on maternal and child health activities in Mysore (16%) than in Punjab (9%). More was spent on communicable disease control in Punjab than in Mysore and in both areas very little was spent for environmental sanitation.

Amonoo-Lartson R. & Lovel J.H.  
**'Medical Assistants in Ghana'**  
World Health Forum 1983, 4: 211-3

Ghana. Evaluation. National. Staff performance, attitudes and training./ In Ghana medical assistants are the most senior category of auxiliary health staff. They work mainly in rural health posts and health centres, but also in urban health centres where a doctor is not available. Given the nature of their training it might be expected that they would be highly competent nurses, but at many of the health units studied a number of very poor practices were revealed. For example, patients rarely had a case history taken or underwent a clinical examination. Even when these were done, they were done quickly and superficially. Of the medical assistants surveyed almost all found that their training in communicable disease control, health education and patient care had been very useful, but only about half thought that the teaching on leading the health team and on organising community health programmes was adequate. The change in emphasis now from clinical care to community health requires a new approach; a reorientation of training, including refresher courses for those already in service, is essential.

Amonoo-Lartson R. et.al.  
**District Health Care**  
(London: Macmillan, 1984)

General review. Community attitudes./ One of the themes of this book is that too much emphasis is placed on structural facilities, thus creating false 'needs', so that each community without a health post believes it should have one for reasons of prestige; each community with a health post wants to expand it into a health centre; and each community with a health centre sees a 'need' to add a surgical theatre and ward. There are certain advantages to utilising buildings for health care, and by encouraging local people to extend and make use of such facilities the community can be encouraged to think of health provision as its own responsibility. However, there are also a number of serious disadvantages to relying on health centres as the principal means of providing primary health care, e.g. they may isolate staff from the community they are meant to serve; they may become an end in themselves rather than a means to better health; they encourage institutional thinking rather than problem-solving of the community's needs.

Amonoo-Lartson R, Alpaugh-Ojermark M. & Neumann A.

**'An Approach to Evaluating the Quality of Primary Health Care in Rural Clinics in Ghana'**

J Trop Med 1985, 31: 282-5

Ghana. Evaluation. 3 health centres. Staff performance./ This study is a simple, low cost assessment of the quality of care in a rural primary health care setting. The evaluation data are based on structured observations of the care provided by non-physician personnel in three rural health centres in Ghana. The three types of personnel observed were the medical assistant, the midwife, and the community health nurse. The clinical conditions selected for study were care of paediatric malaria, prenatal midwifery care, and postnatal health education. Criteria for evaluation were expected and actual performance assessed according to pre-assigned expected performance levels. In most instances actual performance fell short of expectations. More experience is needed to select criteria carefully and observe reasons for non-compliance. A greater involvement of personnel in the process of evaluation would facilitate constructive changes for improved quality of care and training of staff.

Arnon A.

**'Doctor-nurse team; comprehensive family care in a rural community'**

Annals of the New York Academy of Sciences 1978, 310: 129-38

Israel. Evaluation. Single health centre. Staff functions./ A rural health centre at Nehora, Israel, that serves a scattered population of 2,160, is described. The centre is staffed by a doctor and a chief nurse, who as a team supervise the activities of nurses in remote village clinics. The functions of each member of the team with regard to family and comprehensive, especially preventive, medicine are discussed. Evaluation of the team's efforts showed that the village nurses were capable of dealing with 85% of patient complaints and that the hospitalisation rate in the area decreased 20%. [Source: IDRC SALUS data base]

Arole M. & Arole R.

**'A Comprehensive Rural Health Project in Jamkhed (India)'**

in K.W. Newell ed., Health by the People (Geneva: WHO, 1975)

India. Evaluation. Single health centre. Community health programme/ The authors initiated this project themselves in 1970 with very clear ideas about the importance of integrated health care and community involvement. They began work in 1970 in a makeshift clinic. The main health centre, now established at Jamkhed, has an outpatient clinic and diagnostic facilities as well as an operating room for emergency surgery and sterilisation operations, and in-patient facilities for thirty patients. However, the authors' interest lay mainly in the surrounding villages and on prevention and health promotion. Popularity and reputation gained in clinical service were used as a springboard for launching community health programmes. They believe in a team approach; the members of the team are trained together

and each member has a role in the delivery of health services. There are two mobile health teams that visit various villages daily and return to the main centre. A village health worker proved to be a necessary component of this health care system. The authors believe the main reason for the success of the project was the fact that instead of sitting in a surgery waiting for patients, the providers went to the consumers and involved them in making a decision as to what they wanted; as a result they succeeded in getting broadly based community support for the programme. [See also Bella; Chakravorty; Soothill et al]

Ashitey G.A., Wurapa F.K. & Belcher D.W.

'Danfa Rural Health Centre: its patients and services 1970-71'

Ghana Med J 1972, 2: 266-73

Ghana. Evaluation. Single health centre. Utilisation. Health centre functions./ Studies were conducted to provide an analysis of the work of the health centre before changes were made in its operation. Study of the health problems at the clinic showed that (1) a typical patient was young and suffered from a small variety of disease, (2) almost all diseases encountered were readily diagnosed and treated by auxiliaries using a relatively few drugs, (3) 70% of Danfa patients lived within three miles so that little contact was made with preschool children and pregnant women further away. Analysis of health centre operations showed that (1) the average patient spent nearly four hours there, (2) history-taking was redundant and occasionally misleading, (3) dispensary efficiency could be improved by prepacking frequently dispensed drugs and making the location of stock drugs more functional. As a result of these studies, the clinic has been reorganised, a maternal and child health clinic is being held daily, prepackaged drugs are in use, and a programme of in-service training has been conducted. Also, two satellite clinics have been started in villages some distance from Danfa. [See also Lamptey, Wurapa & Nicholas; Neumann, Sai & Dadu]

Assaad M. & El Katsha S.

'Villagers' Use of and Participation in Formal and Informal Health Services in an Egyptian Delta Village'

Contact 1981, 65: 1-13

Egypt. Description/evaluation. Single health centre. Health centre functions. Utilisation./ The authors describe the staffing, work and shortcomings of the Health Unit, including maternal and child health services, family planning services, the pharmacy, health inspectors, health educators etc. They also describe the functions of the traditional healers, such as the bone-setter, the barber, and the daya (midwife). They conclude that the villagers take an eclectic approach to health care and the treatment of disease. Informal practitioners are used for certain specific purposes, while for treatment of children most villagers consult the Health Unit. Free medication attracts a number of villagers to the Health Unit as well. There appears to be no conceptual distinction between

traditional and modern practitioners in terms of efficacy, or even consciousness of two distinct systems of health care. The authors recommend that the formal health system recognise the informal health practitioners, deal with the informal system as complementary rather than competitive, and attempt to improve the quality of medical care offered by informal practitioners through appropriate training courses. The unofficial policy adopted by the nursing staff at the Health Unit of cooperating with the *daya* in return for her adherence to basic hygienic practices and with the system of birth registration is seen as a step in the right direction.

Assar M. & Jaksic Z.

'A Health Services Development Project in Iran'  
in K.W. Newell ed., *Health by the People* (Geneva: WHO, 1975)

Iran. Description. Region. Organisation of services./ The setting up and proposed organisation of the West Azerbaijan project are described. Great emphasis was put on the district level of health services: district health centres were planned to (i) provide support to the rural health centres where mostly young and inexperienced doctors work, (ii) be responsible for supervision and the first review of field data, and (iii) act as a coordinating centre for the training of primary health workers. Each rural health centre was judged capable of supporting 8-12 health posts. The important thing was that no unit would be working in isolation: there should be a clear organisational structure for referrals.

Australia, Department of Health, Northern Territory  
**Aboriginal health workers book: basic skills course**  
(Darwin, Australia, Department of Health, Northern Territory, 1979)

Australia. Description. National. Staff training./ This handbook is designed to teach basic medical skills to Aboriginal health workers in rural health centres in Australia. Simplified instructions, accompanied by ample illustrations, stress the importance of clean water, safe disposal of sewage and garbage, and proper food handling. Basic skills involve the treatment of injuries and common illnesses. The care of pregnant women and proper delivery procedures are also covered. Final chapters describe essential equipment and outline the organisation and operation of a rural health centre. [Source: IDRC SALUS data base]

Ayeni O. & Oduntan S.O.

'Infant mortality rates and trends in a Nigerian rural population'  
J Trop Ped 1980, 26: 7-10

Nigeria. Evaluation. Single health centre. Maternal and child health./ A rural health centre carried out vigorous programmes in maternal and child health, health education, and environmental sanitation, resulting in the

death rate dropping approximately 50%, from 140 per thousand live births to 67 per thousand live births between 1965 and 1975. [Source: IDRC SALUS data base]

Battersby A.

**How to look after a health centre store**

(London: Appropriate Health Resources and Technologies Action Group Ltd, 1983)

General. Miscellaneous activity: store./ This book offers basic guidelines for running a health centre's medical store. It is divided into seven sections: where to locate the store; how to organise it; what equipment is necessary; and how to obtain, look after, organise and issue supplies. There are also annexes dealing with various other points. [Source: IDRC SALUS data base]

Bennett V.L., Eaton D.J. & Church R.L.

**'Selecting Sites for Rural Health Workers'**

Soc Sci Med 1982, 16: 63-72

Colombia. Evaluation. Region. Organisation of services./ The authors discuss the various factors which determine whether a site would be a good location for a health centre. They developed a computer programme which would array the data and assist in calculating the best selection of sites. This was applied to a planning operation in Colombia, the goal being to maximise the number of persons with access to a health centre. It was found that the computer-assisted approach helped health planners solve the health centre selection problem in a manner that was superior to that of only using common sense and experience.

Bella H.

**'Evidence of Improved Nutritional Status of Children in a Comprehensive Health Care Project'**

J Trop Pediatr 1983, 29: 145-7

India. Evaluation. Single health centre. Maternal and child health./ An evaluation of the nutritional status of children under five years was carried out in two villages covered by the Jamkhed project and one control village. The differences between each of the project villages and the control village were found to be significant for all the various measurements used, and it can be concluded from this study that the Jamkhed project has been successful in meeting its stated objectives of 'prevention, detection and correction of malnutrition'. There was also a statistically significant difference in the reported use of family planning methods between project and control villages. [See also Arole & Arole; Chakravorty; Soothill et al]

Bhandari U. & Bhandari V.

**'Public health education through primary health centres'**

Nursing Journal of India 1979, 70: 142-4

India. Description. National. Health education./ The authors discuss the planning and implementation of public health education programmes in rural primary health centres in India. Initial contact should deal primarily with the patient's own particular ailment, motivating him or her to carry out certain practices to provide relief from the illness. Once a rapport has been established, general education about family and community health problems can begin. The educational opportunities of various situations at health centres, such as the registration counter, the waiting room, the doctor's examining room, and the maternity section, are outlined along with the activities to be undertaken, teaching methods, audiovisual aids, and health personnel involved. [Source: IDRC SALUS data base]

Brasil, Ministerio de Saude

**Orientacao para organizacao de centros de saude (Guidelines for organising a health centre)**

(Normas e Manuais Tecnicos - Ministerio de Saude, Centros de Documentacao, no.1, 1982)

Brazil. General review. Health centre functions./ This handbook covers the definition and characteristics of a health centre; the information needed on problems in the catchment area; facilities, activities and equipment; the role of the local community; and the administration of personnel, resources, and finances. [Source: IDRC SALUS data base]

Centre International pour le Développement Social et la Santé  
Communautaire

**What new kind of training for rural health doctors in the Third World?**

(Bordeaux: Centre International pour le Développement Social et la Santé Communautaire, Cahiers du CIDESSCO - Research and Application Class B, No.1, May 1984)

Bangladesh. Description/Evaluation. Single health centre. Community health programme. Staff training./ In 1972 the People's Health Centre was established at Savar, a rural Bangladesh village with no existing health services. Among its accomplishments are the provision of both preventive and curative medicine, the creation of a health insurance scheme and rural credit cooperatives, the training of midwives and community health workers, the implementation of a number of rural development programmes, literacy training, and the foundation of an elementary school. This report contains a review of the health centre's history and the proceedings from two conferences organised to discuss and evaluate its experience and to plan the training of local doctors. [Source: IDRC SALUS data base]

Chabot H.T.J.

**'A Comparison between Four Health Centres in Indonesia'**  
(Unpublished report, ?Rotterdam, 1973)

Indonesia. Evaluation. 4 health centres. Health centre functions./ The observation of underutilisation of health centres was thought to be caused by an insufficient quality of care; the aim of this survey was to find an index of quality by comparing different health centres in the way they perform their tasks. Two of the health centres were in the city of Surabaya, one was in rural Java and one in rural Bali. The main parameters used for scoring their performance were (1) attendance per person per year, (2) morbidity coverages, (3) available time per patient, and (4) effectivity ratios. The results showed (1) a difference in nearly all parameter scores between the two city health centres and (2) an even bigger difference between the city and the rural health centres. A difference in the quality of the health service delivered was suggested as the main reason for the difference between the two city health centres. Differences in radius of action, illness perception of the population and quality of health service delivered were thought to be the most likely explanations of the difference between the city and the rural health centres. The number and education of staff employed in the health centres seemed less likely as an explanation of either finding. The different standards of the quality in the various health centres were noticed to correspond with the performance scores, which suggests that these parameters could be useful in evaluating and comparing the quality of medical work delivered in the health centres in Indonesia.

Chagula W.K. & Tarimo E.

**'Meeting Basic Health Needs in Tanzania'**  
in K.W. Newell ed., Health by the People (Geneva: WHO, 1975)

Tanzania. Description. National. Health centre functions. Community participation./ The most important rural health service facility in the country is the rural health centre. In 1974 there were 108 rural health centres functioning. These units are managed by 7-9 medical auxiliaries, including a medical assistant, who is in charge. The centres provide both curative and preventive medical care, with emphasis on the latter. Each centre supervises the dispensaries in its catchment area, usually four or five in number. The centre also provides a mobile health service for remote parts of its catchment area. Community involvement is an important component of health projects. In the construction of a health centre, certain buildings such as kitchens and mortuaries are not usually provided for in the financial estimates; it is expected they will be built on a self-help basis.

Chakravorty U.N.

**'A health project that works - progress in Jamkhed'**  
World Health Forum 1983, 4: 38-40

India. Evaluation. Single health centre. Community health programme. Community participation./ In 1970 a husband-and-wife team of physicians, the Aroles, initiated a project at Jamkhed health centre. From the outset their intention was to accord prevention and health promotion equal status with treating illnesses. They stimulated a number of community development projects and trained village health workers - mostly women - in basic health care and particularly in health education. Infant mortality has dropped from 150 per 1000 to under 30 per 1000. Whether this project can serve as a model for a mass health care programme for India is open to question. A similar government scheme has not met with the same success. The main reason seems to have been insufficient care in selecting the volunteers, but it may also be that a government organisation will have difficulty in arousing the kind of motivation that a more personal and voluntary project engenders. Also, the country's health professionals are not yet attuned to new ways of thinking about community participation in health. [See also Arole & Arole; Bella; Soothill et al]

Chen P-C & Tuan C-H

**'Primary Health Care in Rural China: Post-1978 Development'**  
Soc Sci Med 1983, 17: 1411-17

China. Description. National. Organisation of services./ The rural primary health care system has three tiers: at team level there are health aides, then a brigade medical station staffed by two or three 'barefoot doctors', and finally a commune health centre. The latter supervises the barefoot doctors and health aides to carry out the sanitation, immunisation and vaccination programmes; it also conducts on-the-job training of the barefoot doctors, provides outpatient care, and refers cases beyond its competence to the county hospital. Preventive, maternal and child health, birth planning, and curative services are integrated, although each has its own distinct responsibilities and maintains its own separate chains of command. In 1979 the post-Mao government initiated a project aimed at consolidating and strengthening the primary health care services. One objective was to raise the technical competence and improve the facility and equipment of a selected group of commune health centres. Designated as the 'central' commune health centres, they will serve as an intermediate link between county-level health units and commune health centres. Professionalising and retraining health personnel has been a major priority, for during the period of the Cultural Revolution (1966-1976) a large number of persons with no professional health care training entered the nation's health system. Since 1979 the post-Mao leadership has initiated a series of changes in the rural commune and agricultural policy. While these changes have spurred farm production and raised rural living standards, they have threatened the financial viability of the cooperative medical service. Because of the government's insistence on local self-reliance, the financial burden falls much more heavily on those in poorer areas.

Chowdhury Z.

'People's health center at Savar; Gonoshasthaya Kendra; progress report no.7'

Ecodevelopment News 1981: 16: 14-51

Bangladesh. Description/evaluation. Single health centre. Health centre functions./ This progress report provides a description of the health-related activities and training programmes of this centre, which is known internationally for its programmes of integrated development. The centre's internal problems are explained. [Source: IDRC SALUS data base]

Cole-King S., Gordon G. & Lovel H.

'Evaluation of primary health care - a case study of Ghana's rural health care system'

J Trop Med Hyg 1979, 82: 214-8

Ghana. Evaluation. 2 districts. Organisation of services. Health centre functions. Staff performance./ Facilities studied included health centres, health posts, dispensaries, and district hospitals (a total of 16 health units). The majority of units offered a limited range of services: this was true even for most health centres which were intended to provide comprehensive primary care. The quality of care was found to be poor at government health units, though on average health centres scored higher than district hospitals. Poor quality of care and lack of immunisation services affected utilisation. In identifying reasons for poor quality of care, it was found that physical facilities were, on the whole, quite good, but there were considerable problems with supplies and equipment. Most noteworthy was the paradox that all primary care units, though in general overflowing with drugs, were short of two or more basic drugs. As far as human resources were concerned, the evaluation brought to light inadequacies of a quantitative as well as qualitative nature. At many units staff trained in one (or more) of the basic skills -outpatient curative care, midwifery, child care and environmental sanitation - were missing. Qualitatively it was found that staff at the majority of units were performing tasks inconsistent with their training, either by engaging in activities for which they had never been properly trained, or by performing duties which could be done effectively by less trained personnel. Supervision was infrequent and there were no arrangements for in-service training. Basic health worker training programmes were found to be inadequate, and there was a lack of coordination and integration within and between health units.

Conference of Missionary Societies in Great Britain and Ireland

**A Model Health Centre**

(London: Conference of Missionary Societies in Great Britain and Ireland, 1975)

General review. Physical structure. Health centre functions./ This study was offered as a design primer and provides detailed recommendations for the general layout of a health centre and for all of the different rooms. It also offers guidance on many other aspects of health centre operations, e.g. stores and store-keeping, communications and responsibility, duties of the doctor in relationship to the health centre, teaching and staff training, community hygiene, nutrition and food, etc.

Correon G. et.al.

**'The Barangay-Health Center Linkage in the Metropolitan Manila Health Care Delivery System'**

(Unpublished paper, delivered at the Twentieth International Hospital Congress, Tokyo, 1977)

Phillipines. Description. Region. Organisation of services. Community participation./ The barangay is the smallest unit in the Phillipine political structure. It is a distinct community composed of at least one hundred families in a definite area. The barangay members elect among themselves a barangay council which works for the welfare of the whole community. Health and sanitation services administration would be much more effective if they had optimum support from the recipients of these services; hence the linkage between health centres and the barangays assigned to them. The linkage incorporates (1) utilisation of the health centre by the members of the barangays it serves, (2) regular meetings between the barangay councils and the health centre personnel, (3) participation of the barangay officials in health and sanitation campaigns of the health centre, and (4) the establishment and operation of a barangay health post in each barangay, manned by barangay health workers - volunteers coming from the barangay itself and trained by health centre personnel. The involvement of barangay health workers in community health, and the introduction of the barangay health post, are ways of strengthening the health care system at the grassroots.

Davis Tsu V.

**'Underutilization of health centers in rural Mexico: a qualitative approach to evaluation and planning'**

Studies in Family Planning 1980, 11: 145-54

Mexico. Evaluation. District. Utilisation./ The author conducted a field study in two rural towns in the state of Durgango, Mexico, to identify factors related to the underutilisation of health centres and to explore the relationships between clinic use, the role of the specially trained auxiliary nurse, and the family planning programme. Major factors

affecting clinic use included: irregularity of supplies; availability of nearby, more attractive medical facilities, use of indigenous health care resources as well as, or instead of, the health centre; and personnel problems.[Source: IDRC SALUS data base]

Desai P. & Ahern M.B.

'Assessment of the role of a general clinic of a health centre in a rural Jamaican community'

West Indian Med J 1979, 28: 178-84

Jamaica. Description/evaluation. Single health centre. Utilisation. / The aim of the study was to describe the disease pattern seen among patients attending the general clinic of a rural health centre. During the 9 months of the study, 133 sessions of the general clinic were held, with an average attendance of 9.1 persons. Seven hundred and fifty residents of the defined area (9.2%) and 105 persons living outside the defined area each attended once or more; a total of 1,444 illnesses were diagnosed. Females aged 45 years and over had the highest morbidity rates, with infant boys having the next highest. The three commonest types of disease with which the clinic staff had to deal, in all age groups combined, were of the 'skin and subcutaneous tissue' (14.9%), 'respiratory system' (13.6%) and 'musculo-skeletal system and connective tissue' (11.4%). The health centre had separate hypertension and diabetes mellitus clinics, so patients with those diseases did not normally attend the general clinic. Ten per cent of patients attending the general clinic during the period of study had also attended a private practitioner, and there would certainly have been others who attended a private practitioner and did not visit the health centre at all.

Développement et Santé, Paris

'Bangladesh: l'expérience d'un centre de santé populaire' (Bangladesh: the example of a local health centre')

Développement et Santé 1980, 30: 17-19

Bangladesh. Description. National. Health centre functions. Financing./ Rural health services in Bangladesh are organised around local health centres, which provide a population of about 20,000 with basic curative care, physical examinations, simple surgery, deliveries, and vaccinations. Health auxiliaries, predominately women, staff the centres and visit surrounding villages. Contributions from patients cover 40% of the operating costs, with the remainder being provided by OXFAM-Great Britain and OXFAM-Canada.[Source: IDRC SALUS data base]

Dissevelt A.G.

**Integrated Maternal and Child Health Services: A Study at a Rural Health Centre in Kenya**

(Amsterdam: Medical Research Centre, Nairobi and Royal Tropical Institute, 1978).

Kenya. Evaluation. Single health centre. Maternal and child health. / This is a study of an attempt to integrate services in a Kenyan health centre. The author concludes that integration of maternal and child health services may only enhance utilisation and coverage of those services such as immunisation that do not require substantial behavioural change on the part of the population. He also points out that an integrated service may make a more equal distribution of the work load among the health workers, so the public experience less unmet demand, perhaps leading to a rise in the acceptance of maternal and child health services. But this may mean that more time and possibly more staff will be required, unless a high risk strategy and better use of time is applied. [Source: Ross Institute of Tropical Hygiene Publication No.13]

Djukanovic V. & Mach E.P.

**Alternative approaches to meeting basic health needs in developing countries**

(Geneva: WHO, 1975)

Bangladesh. Cuba. Venezuela. Yugoslavia. Description/evaluation. National. Organisation of services. Health centre functions./ This book presents several case studies. For Bangladesh it describes the general health service structure and notes that the intention is to provide one health centre for each of the 356 rural districts and one subcentre in each of 3,698 rural unions. At district level the rural health centre is the headquarters for the integrated health services provided in the entire district through its union subcentres. For Cuba the reorganised health system is described. In order to develop a well integrated health programme for rural areas, a pilot scheme was set up, with a health team responsible for eight fields: integrated care for children; integrated care for women; integrated care for adults; communicable diseases; environmental sanitation; food hygiene; occupational health; and dentistry. After six months the pilot study was showing successful results. Subsequently, health centres with the same programme were gradually established throughout the country, with the emphasis on underdeveloped areas. In Venezuela auxiliary workers staff rural dispensaries which provide basic health care for the population. The training courses are held in district health centres. Auxiliaries are not permitted to go beyond elementary medical care; great use is made of referrals to the nearest health centre. The Yugoslavian case study concerns Ivanjica, an underdeveloped district of Serbia. In 1954 a new health centre, the House of Health, was established there, comprising the following services: a hygiene and epidemiological service; a maternal and child health clinic; a tuberculosis clinic; a general practitioners' outpatient clinic with health stations in the district; dental services;

and a laboratory and X-ray department. Health education and various health programmes were initiated, and the highest priority was given to the improvement of the water supply and hygienic conditions. The whole programme was coordinated by the House of Health through the community authorities, and this cooperation has resulted in the eradication of some communicable diseases, a reduction in the incidence of tuberculosis, the disappearance of criminal abortion, and a decline in the infant mortality rate.

Fanning M.A.

**'Medical assistants in the health care delivery system of Papua New Guinea'**

Trop Doct 1981, 11: 39-43

Papua New Guinea. Description. National. Health centre functions. Staffing. / Regional hospitals supervise district hospitals which in turn supervise health centres, which operate at a subdistrict level; within each subdistrict aid posts look after one or more villages. The person in charge of the health centre is the health extension officer. After a three-year training period, followed by a one year supervised residency, the health extension officer is able to work without close supervision as the leader of a team of nurses and aid post orderlies to promote health and cure disease in rural areas. Often there are two health extension officers posted at one health centre, and while one looks after the centre the other is on patrol in the remote areas. A patrol can last one to several months and usually involves trekking on foot with a few workers and supplies through the areas of the subdistrict inaccessible by road. The system works effectively and, although there are some problems, it enables a small number of doctors to look after a large population and to provide it with primary care and preventive programmes. Furthermore, the system operates at low cost.

Fendall N.R.E. & Tiwari I.C.

**'Trends in primary health care'**

Trop Doct 1980, 10:75-85

General review. Staffing./ The authors briefly relate the history of health centres and of medical auxiliaries and conclude that although the two streams - the health centre concept and auxiliary health manpower - grew out of different compulsions in the past, their complementary nature ensured their merging into a single stream for primary health care for all. Amongst the topics discussed in this wide-ranging paper is that of health teams. The authors have found that the three-man team covering mother and child health/family planning, medical care, and communicable diseases/environmental sanitation seems to offer the optimal basic team for a balanced integrated curative-preventive-promotive primary health care delivery system. The bottle-neck to expanded numbers of trained auxiliary health care workers is a totally inadequate supply of trained teachers; until this is overcome any talk of primary health care having a substantial outreach into the community is a pipe dream.

Fernando J.

**'Training Doctors for Family Practice in Primary Health Care Work in Sri Lanka'**

Soc Sci Med 1983, 17: 1457-61

Sri Lanka. Description. National. Organisation of services. Staffing./ The government proposes to establish divisional health centres, one per 60,000 population, manned by medical officers. Under each divisional centre there will be three subdivisional centres and a village health centre per 3000 population; these will be manned by health workers with lesser levels of training. The rationale behind this plan is the training programme which was recently initiated for doctors in primary health care. If the country is to make adequate use of these doctors then the existing uncoordinated system must be changed.

Fisek N. & Rengin E.

**'Primary health care: a continuous effort'**

World Health Forum 1985, 6: 230-1

Turkey. Evaluation. District. Maternal and child health. Utilisation./ The country's most effective programme of primary health care is in the Etimesgut Health District. A district health officer manages the 30 health stations with resident auxiliary nurse-midwives, the five rural health centres, the two town health centres, and the 50-bed hospital. The medical officer at each health centre is the leader of the health team. The auxiliary nurse-midwives are the most important members of the team as far as mother and child health and family planning are concerned. In 1983, seventeen years after the Health District was set up, the infant mortality rate had fallen from 142 to 43 per 1000 live births. As a result of the family planning programme, the total fertility rate dropped from 4.9 to 2.6. However, the services are still not fully utilised by mothers, and non-compliance of mothers with the recommendations of staff remains a serious problem with disastrous results: whereas the infant mortality rate is 36/1000 for complying mothers, it is 80/1000 for non-complying mothers.

Gershenberg I. & Haskell M.A.  
**'The Distribution of Medical Services in Uganda'**  
Soc Sci Med 1972, 6: 353-72

Uganda. Evaluation. National/District. Utilisation./ Part 1 of this paper looks at the whole country and concludes that health facilities were being constructed in a very haphazard and poorly planned manner. Part 2 looks at medical services in one district (Masaka). It compares users of aid posts, dispensaries and health centres in terms of distances travelled, means of transport, cost of travel, and waiting times. It was found that health centre patients had the longest waits for treatment and that they also travelled further than aid-post patients. There appeared to be a need for expansion of existing health centre facilities and possibly the construction of one or two new centres in particularly high density areas which were under-serviced. The fact that health centre patients travel fairly far is not as significant as the time they wait since good public transport is available to them and costs them less than the patients of other facilities.

Gish O.  
**'Resource Allocation, Equality of Access, and Health'**  
Int J of Health Services 1973, 3: 399-412

Tanzania. Description. National. Organisation of services. Costs./ For the cost of building a very modest 200-bed regional hospital, it would be possible to build 15 fully equipped rural health centres, including staff housing. With 15 such centres it would be possible to meet most of the curative health needs of approximately 300,000 to 0.5 million people, and to launch a wide variety of preventive health care activities. The running costs of 15 rural health centres are virtually the same as for one 200-bed regional hospital. In the short term regional hospitals are necessary because health centres do not begin to live up to their potential in most places. But one major reason why health centres do not function well enough is that the very scarce resources available to the health service are almost everywhere devoted to large hospital development.

Gish O.  
**Planning the Health Sector - The Tanzanian Experience**  
Chapter 9 - 'Health Service Facilities'  
(London: Croom Helm, 1975)

Tanzania. Description/evaluation. National. Organisation of services./ The concept of the rural health centre represented a significant departure from the curative orientation of the previously existing hospitals and dispensaries. The accent of work was to be on improving standards of health rather than the treatment of disease. However, due to the curative orientation of the health services into which the health centres were fitted, the training of health centre staff is usually inappropriate for the sort of work they are supposed to be doing. and, because enough

resources are not being made available for the training and employment of a sufficient number of rural health workers, health centres are usually grossly understaffed; consequently the staff are severely overworked (or would be if they always attended to their duties) and faced daily with a huge demand for curative attention. The shortages of staff, and particularly of medical assistants, usually means their being posted from health centre to health centre in response to emergency conditions, so that they seldom stay long enough in any one place to develop the local knowledge required to properly serve the community. The rural health centre concept has also suffered from medical attention. A combination of wanting the health centre to be a larger structure, in fact a rural hospital, coupled with the general constraint on funds being made available for health centre development, meant that increasingly fewer health centres were being developed. The health centre programme became bogged down by a hospital (curative) and bureaucratic mentality which required that all its potential clientele come to the health centre while staff remain carefully protected within their own environment.

Gish O.

'Planning health services in Swaziland'

Trop Doct 1979, 9: 200-8

Swaziland. Description/evaluation. National. Organisation of services./ Public health centres are located at the sites of the five major government and mission general hospitals; they carry out only preventive health care activities. There are about 60 clinics in the country, mostly in rural areas. The clinics offer both curative and preventive services. They are in the charge of a staff nurse; in some there is a second nurse or nurse-aid. The clinics are supervised by medical staff from the hospitals, as well as public health centre nurses who should visit them regularly. In 1973 it was estimated that the public health centres and rural clinics reached less than 15% of the under-five population. Hospital services were taking around 70% of all health ministry expenditure. Amongst the author's recommendations are the training of village health workers, the development of a cadre of auxiliary nurses, the development of four to six rural health centres over the next decade, and the expansion of the work of the public health centres to include much greater co-ordination with the hospitals and other health service facilities.

Goyal S.K. & Yadav J.P.

'Allocation of doctors to health centres in Haryana state of India - a case study'

Journal of the Operational Research Society of America 1979, 30: 427-31

India. Evaluation. Region. Staffing./ The number of doctors allotted to Haryana state's 89 primary health centres is almost the same, regardless of whether the centre serves a population of 40,000 or 150,000. A mathematical model has been formulated and a heuristic method has been suggested for maximising the expected number of patients seen by doctors

employed by the health services. This paper describes the model and method and demonstrates its application on a random sample of nine health centres. [Source: IRDC SALUS data base]

Guel Jimenez R., Heredia Diaz J.G. & Beaujean M.  
'Participation de los centros de salud en la enseanza de personal tecnico y auxiliar' ('Participation of health centres in the training of technical and auxiliary personnel')  
Educacion Medica y Salud 1979, 13: 34-41

Mexico. Description. National. Staff training./ The training of health technicians and auxiliaries for health institutions must be geared to the historic, economic, and cultural, as well as the epidemiological, situation in a given region. It is therefore suggested that training services be set up in Mexico's health centres with specific objectives designed to meet the needs of their communities. In addition to providing trainees with relevant experience, such an approach would foster more organised education and a better service. [Source: IDRC SALUS data base]

Harrison S. & Saul J.  
'An uphill struggle - self-help in Bangladesh'  
World Health Forum 1981, 2: 350-7

Bangladesh. Description/evaluation. Single health centre. Organisation of services Community participation./ This paper describes many aspects of the work of the People's Health Centre at Savar, Bangladesh, without attempting to minimise the problems encountered. The achievements of the Centre cannot be measured in terms of the success or failure of any particular venture: it operates in an environment in which the basic conditions for health - adequate nutrition, plentiful unpolluted water, and proper sanitation - are not readily available, but have to be created, and in which the traditional social structures militate against the provision of these conditions on a wide and equitable basis. The Centre has created four subcentres as well as a 'daughter' project in the form of the Bhatsala Centre. The work of the subcentres is often complicated or thwarted by the existing social structure. In accordance with the principle of self-help, the people of the area in which a subcentre is to be built are expected to provide the land; the donors are usually rich farmers who often attempt to exert an undue influence on the staffing and running of the subcentres. The introduction of village-based health workers proved to be an important development, though here too there have been difficulties. The Savar Centre itself, with its growing prestige and its community life, holds an undoubted attraction, and the auxiliary medical staff working away from it, in the villages, have lacked some of the enthusiasm of those working within it, though after some time in the villages workers usually find increasing satisfaction in the communities they serve. Amongst the other subject discussed in this paper are the preventive programme, water and sanitation, and the training programme. The Centre's stand for the emancipation of women has been vindicated but

has also caused difficulties in this traditional society: village elders did not always take kindly to independent females who did not behave with due deference.

Hassouma W.A.

'Reaching the people: a three-country study of health systems'  
World Health Forum 1983, 4: 57-62

Bahrain. Egypt. Yemen Arab Republic. Description/evaluation. National (3 countries). Organisation of services. Health centre functions./ A comparative study of the three countries. Two-thirds of the health centres in Bahrain and 45% of those in Yemen are new, in contrast to those in Egypt, most of which were built before 1966. Nearly all the units in Bahrain are well maintained, whereas in Egypt and Yemen fewer than a third could be said to be clean and well maintained. In Bahrain all units have cars and all but one have telephones. In Yemen fewer than one-third had telephones and cars in working order, and only 5% had working ambulances. Most of the units in Egypt lacked working telephones, ambulances or cars. In Yemen most of the units are 10km from the target population they serve, in contrast to 4 km in Egypt and 3 km in Bahrain. Supplies and equipment for delivering basic health services were considered adequate in all the units surveyed in Bahrain and adequate in some respects in two-thirds of those in Yemen. Particularly serious were inadequacies in refrigeration equipment, vaccines, and items used for simple laboratory work and for physical and obstetric-gynaecological examinations. The Bahrain health centres were also found to be more adequately staffed than those in the other two countries. In Bahrain 85% of the units offer regular outreach and health education; only about 70% of the units in Egypt and Yemen offer these services and then, usually, only on request. Regular health education programmes are given by one of the units in Yemen, and by 31% in Egypt. A variety of favourable factors indicate that Bahrain has no structural problems to inhibit service delivery. In Egypt and Yemen, logistical support problems, inadequacies of some supplies and equipment, and shortages of health manpower all impede delivery of basic health care.

Hendratta L.

'A Model for Community Health Care in Rural Java'  
Contact 1976, 31: 1-7

Indonesia. Description/evaluation. Single health centre. Community health programme. Community participation./ The Emmanuel Health Centre serves Klompok, a subdistrict of Central Java. In 1970 a survey was carried out to determine whether the centre-based service was what the community actually needed. The main findings were that: (1) the people who actually used the services were those who lived near to the health centre and those in the upper economic and educational strata, (2) there were other aspects of life, e.g. economic development and agricultural improvement, which were seen by the community as greater priorities than health, and (3) there was little participation from the community in solving its own health

problems. A new programme strategy was worked out which included improvements in agriculture, communications and nutrition. In 1972 the programme was implemented by the health centre staff in close cooperation with various village-level government agencies and was considered a success. However, it was felt that the initiative had come almost entirely from outside and therefore was not true community participation. The philosophy of a community-based health care effort was translated into a new programme strategy. When health workers discussed this strategy with the local community, two key elements emerged. The first of these was the village health cadre: voluntary workers from the community, selected by their community, and trained by health centre staff. The second was the village health insurance scheme: to be a member each household pays about 1% of their monthly income and is then entitled to curative services as well as total family care. The value of this scheme lies beyond its direct economic benefits, for it creates and maintains a community forum in which health can be discussed as a relevant community issue. The Klompok model has as its primary emphasis the establishment of new perspectives in the relationship between the health centre and the community.

Hoorweg J. & Niemeijer R.

**Impact of nutrition education at three health centers in central province, Kenya**

(Leiden: African Studies Centre, Research Reports, No.10, 1980)

Kenya. Evaluation. 3 health centres. Health education./ This report analyses the effectiveness of nutrition education given at three Kenyan health centres in different ecological zones over the course of several years by nutrition field workers, who were specially-trained maternal child health nurses. Surveys of frequent health centre attenders and control groups revealed that, while the former appeared to be more aware of the need to supplement a young child's diet at an early age, there were no significant differences between them with regard to maternal food preferences, children's food consumption during the previous day, or children's nutritional status. Reasons for this failure are considered. [Source: IDRC SALUS data base]

Indian Council of Social Science Research and Indian Council of Medical Research

**Health for All - An Alternative Strategy**

(Pune: Indian Institute of Education, 1981)

India. Description. National. Organisation of services./ The first basic change which the book proposes is that the urban-biased, centralised, bureaucratic, over-professionalised and top-down approach of the existing system should be abandoned and the new system be strongly based in the community. There should be a community health centre for every 10,000 population, with a sub-centre for every 5,000 population and a village or neighbourhood sub-centre for every 1,000 population. Another major change proposed is that the almost exclusively curative orientation of the

existing health care services should be eliminated and the promotive, preventive and curative functions be integrated at all levels. In theory this should already be happening, as it is part of existing policy, but the gulf between theory and practice is very wide.

Isely R.B.

**'Use of a Time-Motion Study to Evaluate the Activities of Rural Health Center Chief Nurses in the Cameroon'**

J Trop Pediatr 1980, 26: 46-9

Cameroon. Evaluation. 3 health centres. Staff performance./ A programme was planned to train head nurses at health centres in health education; as a prelude to this a study was carried out to ascertain how much of their time was already being allocated to that purpose. The study was based on three health centres (two developed and one elementary) and carried out over a three-day period. A striking result of the study is the small amount of time any of the nurses spent in total professional activities in a day - between five and six hours for the first two centres and less than two hours in the third. In general all three nurses demonstrated a need to increase the amount of time given to explaining the cause, treatment, and prevention of illnesses to patients.

Jagdish V.

**'Primary health care in rural India'**

Trop Doct 1980, 10: 38-41

India. Evaluation. National. Organisation of services. Staff attitudes./ From 1946 onwards health centres were developed as fundamental units for the provision of primary care in rural areas. By 1973 there were 5,197 primary health centres, each covering 80,000 to 100,000 population. While the Indian health centre movement is one of the most ambitious in the world, there have been problems resulting in ineffective and unsatisfactory delivery of health programmes. There is hardly any interaction between district hospitals and health centres. For professional and personal reasons doctors dislike postings to health centres. In the community, health auxiliaries have not generally been accepted by the people. Programmes of health, family planning and nutrition are generally independent of one another with no coordination between them. The fall in birth, death and infant mortality rates in the State of Kerala - the only area which has an equitable system - demonstrates the importance of the need to make primary care in the rural areas effective. Changes in attitudes of doctors, who have no interest in preventive medicine, are crucially important. Medical colleges can be used to strengthen curative and preventive services at district level and to interact with health centre staff. A system whereby village volunteers are trained to provide basic services could provide those services in unserved or underserved villages and generate the interest of the rural areas in health programmes.

Jagdish V.

'Reorganization of health auxiliaries in India'

Trop Doct 1981, 11: 44-6

India. Description. National. Staffing./ By the mid-1970s primary health centres were staffed by different types of auxiliaries each doing very specific jobs in the community; this was because various health programmes, and at later stages the family planning programme, were envisaged as running separately with their own staff. It was found that the rural people were not at all happy with so many workers coming to their homes for individual programmes. A new plan has been approved and is being implemented whereby auxiliaries will become multipurpose workers. It is essential that the training of the new health personnel be realistic and that medical colleges become increasingly involved with staff in rural areas: otherwise reorganising health auxiliaries will be a futile exercise.

Jelley D. & Madeley R.J.

'Primary Health Care in Practice: A Study in Mozambique'

Soc Sci Med 1984, 19: 773-82

Mozambique. Evaluation. Single health centre. Staff functions and performance. / The primary health care approach in this country has been based on the health centre concept. In both urban and rural areas, the health centre is responsible for the primary health care of the entire population of the defined areas. This study focussed on one urban health centre in Maputo as a case study. It was found that the logistics of staff provision and available facilities made it impossible for the health centre to carry out all the tasks allotted to it, and the predominant emphasis is on curative rather than preventive care. Over 90% of all curative care in the health centre is carried out by nurses who have a maximum of two years training; it is they who decide which patients should be referred to the doctor, but they spend much less time with each patient than does the doctor. The main problem of health centre doctors is clinical isolation and lack of referral feedback. In the health centre the preventive and curative sectors remain sharply divided instead of integrated. Primary care practitioners have no say in the organisation and planning of the service.

Joseph G. et.al.

'Measure of community health needs and actions in a rural area of Iraq: the Abu-al-Khasib experience'

Trop Geog Med 1982, 34: 279-86

Iraq. Evaluation. Single health centre. Utilisation./ A longitudinal survey was carried out among randomly-selected households in four villages to study health needs as perceived by the community and actions people

take when the need arises. Most of the morbidity was found to be within the scope of preventive services at the local health centre level, although health centres were underutilised. Only half of the spells of sickness were reported to the local health centre for medical care, partly because of the emerging reference for care by clinical specialists. [Source: IDRC SALUS data base]

Kamalamma A. et.al.

'Trends in utilisation of maternal care services in a rural community'  
Nursing Journal of India 1979, 70: 162-4

India. Evaluation. Single health centre. Maternal and child health. Utilisation./ To determine trends in utilisation of maternal child health services in a rural area of India, this 1977 study followed up until 42 days after delivery, all women registered at the Jawaharlal Institute Rural Health Centre, Ramanathapuram, Pondicherry state. Utilisation patterns with regard to registration, antenatal home and clinic visits, tetanus immunisation, etc. were compared with those of women treated in 1967. The findings suggested progressive improvement in the utilisation of maternal services; maternal mortality was also reduced, from 10.6 to 2.8 per thousand live births. [Source: IDRC SALUS data base]

Kanani S.

'The role of the health centre in primary health care'  
(Unpublished report. Kenya: Ministry of Health, ?1985)

General review/ The author discusses the history and concept of health centres, referring to selected studies in various parts of the world, with a view to planning future health service facilities in Africa. He concludes that the health centre will continue to have an important role to play in primary health care, but due to limitations of resources the health centre infrastructure will not be adequate by itself to provide health care to entire populations, and the development of community-based health care must be accelerated.

Kasongo Project Team

'The Kasongo Project'  
World Health Forum 1983, 4: 41-5

Zaire. Description. District. Organisation of services. Community participation./ In February 1971, the Institute of Tropical Medicine of Antwerp was given responsibility by the Government of Zaire for the operation of a health care project in the Kasongo district. The plan was to set up a decentralised network of health centres affording curative and preventive primary care, and a hospital for referral. At the start of the project only the hospital was functioning. From the beginning, close attention was paid to the felt needs of the local people, who had long

been making use of the hospital and would have rejected a centre that did not meet their demands. The health centre team tested in Kasongo had four members - an auxiliary nurse, an orderly, a clerk, and a mediosocial aide. The team had collective responsibility for curative and preventive care. Timetables of work were carefully arranged and administrative and interdisciplinary barriers were abolished. Community participation was maintained by means of health committees consisting of members of the local population and the staff of the health centre. As an additional incentive, health committees were given direct responsibility for managing the finances of the health centre. A network of health centres was built up from scratch, beginning with three in the town of Kasongo, and moving out thereafter to the rural areas. Fifteen health centres now serve three-quarters of the population and are the basic unit of health care.

**Kasongo Project Team**

**'Primary health care for less than a dollar a year'**  
World Health Forum 1984, 5: 211-15

Zaire. Description. District/National. Costs and financing. / Various means of financing health centres were discussed before it was decided to levy a flat rate per sickness-episode (or per episode of risk necessitating preventive activities), however serious or long-lasting a particular episode might be. This type of payment makes explicit the 'contract' between the service provider and the service recipient. The flat rate can be adapted periodically in each of the health centres, according to the balance between income and expenditure. The paper discusses the various costs, both fixed and variable. It concludes that even in a low-income rural area, half the cost of adequate coverage by a health centre can reasonably be expected to be borne by the local population. The involvement of the primary health team and representatives of the target population in the regular assessment of the services rendered will contribute to a more cost-conscious provision and utilisation of health care. Discussions about health costs will facilitate the orientation of community efforts towards health-promoting alternatives such as water supply and improved eating habits.

King M., ed.

**An Iranian Experiment in Primary Health Care - the West Azerbaijan Project**  
(Oxford: OUP, 1983)

Iran. Description/evaluation. Region. Organisation of services. Staffing./ When the project began in 1973 it was found that the traditional type of health centre, which had been intended to serve 20-50,000 people, was in fact serving only 3-5,000 people, or about an eighth of its intended coverage. One of the main disadvantages of these health centres was that they could not work without a doctor; this meant that during many months of the year they provided no services at all. New roles were envisaged for the large district health centres, and they are set out

in the book; however, little or no progress was made on most of the stated objectives. New types of health centres were planned and, below them, a network of health houses in the villages. The health houses are staffed by community health workers who are locally recruited and locally trained. This key component of the new system has been very successful. With two-thirds of cases now being seen by CHWs, the clinical loads of health centre doctors is much lighter. However, they have to lead, manage and teach their team of CHWs in the seven or eight health houses surrounding the health centre. Unfortunately, at the present time, few health centre doctors understand their role as team leader of all the health workers under their control. Doctors are so scarce in Iran that many of those in health centres are recruited from India, Pakistan, and Phillipines. Consequently, they do not speak Persian and cannot communicate satisfactorily, either with their health team, or with the patients.

Kleczkowski B.M. & Nilsson N.O.  
**Health care facility projects in developing areas: Planning, implementation and operation**  
(Public health Paper No.29. Geneva: WHO, 1984)

General review. Physical structure/ Information is provided on the building of a primary health care unit, including advice on such matters as roof design, walls, ceilings, windows and doors. Advice is also given on planning and operating health care facilities, but this is of a very general nature.

Kohn R.  
**The health centre concept in primary health care**  
(Copenhagen: WHO, Public Health in Europe 22, 1983)

General review./ This book is about health centres in the European Region of WHO, but the author contends that as the Region comprises countries at widely different levels of industrialisation, with climates ranging from the arctic to the subtropical, findings should therefore have application in corresponding situations in the other WHO regions. The following subject are covered: staffing patterns, the team, range of services, records and information, management and decision-making, organisational structure, primary care and the community, financing, and external relationships.

L'Abbate S. & Westphal M.F.

'Alicacao-teste da medida de atitude a area de atuacao de um centro de saude do municipio de Sao Paulo, Brasil' ('Application of a test for measuring the attitude toward the actuation of a health centre in the municipality of Sao Paulo, Brazil')

Revista da Saude Publica 1979, 13: 69-79

Brazil. Evaluation. Single health centre. Community attitudes./ An interview schedule was designed and tested for evaluating the attitude of an urban community towards its health centre, the *Centro de Saude Experimental de Barra Funda* in Sao Paulo. The schedule, which is reproduced in full, consisted of 24 indirect questions covering four areas: medical staff, clerical staff, service efficiency, and general atmosphere. This paper describes the development of the questionnaire, discusses its results, and concludes that its approach could usefully be applied in other similar situations. [Source: IDRC SALUS data base]

Lamboray J.-L. & Laing C.

'Partners for better health'

World Health Forum 1984, 5: 30-4

Zaire. Evaluation. Region. Organisation of services. Community participation./ Services for primary care in the rural health zone of Kisantu (pop.160,000) are now offered through 50 health centres, of which 35 belong to the state network, and 15 to different church groups. Typically a health centre is intended to cover some 3200 people and 12 villages, none of which is more than 8 km from the centre. Prior to 1970, there was not a single health committee in existence; by 1981 there were 42. This unprecedented community participation in health was sparked off by one man, P.Y. Konde, whose example fired the villagers where he was based to initiate a sanitation programme and join together to deal with other health problems. The challenge then was to reproduce this achievement throughout the region. To make the most appropriate use of a health centre, it was considered necessary to develop a true partnership between the community and the health centre nurse. Priority was given to getting the work of the health centres firmly established. This approach was taken at a time when prevailing opinion throughout the world favoured the training of volunteer workers at village level, but the view here was that such training should be deferred until later. When a community has found that it can rely on a health service that guarantees resources in personnel, equipment, and supplies; when it has a functioning health committee: then is the time to introduce volunteer workers in order to expand coverage. The next step was to form a health committee for each centre, with representatives from each village, and to get the villagers to collaborate on specific programmes. A new management system was designed for the health centre, in which the nurse and the health committee were jointly responsible for price-setting, the ordering, storage and utilisation of drugs, control of the cash flow, payment of auxiliaries, etc. Naturally there were some failures and conflicts, and it has been found that there are various phases through which health committees generally progress before full community participation takes place, but overall the scheme has shown how effective collaboration between nurse and committee can be.

Lampang Health Development Project Team  
**The Lampang Health Development Project - A Case Study in Integrated Rural Health Care**  
(Thailand: Ministry of Public Health, 1978)

Thailand. Description/evaluation. Region. Organisation of services. Staffing./ The deployment of paraprofessionals - called *wechakorn* in Thai - to rural health centres has brought a dramatic change to health care at this level. These *wechakorn* have been selected from existing health services personnel categories - nurses, midwives, sanitarians, and nurse aides - and given an intensive year of training that equips them to deal with most common health problems. Rural villagers previously utilised the health centre only minimally, knowing that competent clinical care could be found only at the district or provincial hospital. With the deployment of *wechakorn*, care of illness and other health problems, including expanded family planning services, is now available near the village. The addition of *wechakorn* with clinical skills to health centres does introduce new demands for technical supervision and management, and also for a broad range of antibiotics and other drugs, as well as more sophisticated medical supplies and equipment. The average health centre also has responsibility for 5 to 10 Health Post Volunteers, 50 to 100 Health Communicators, and about 5 Traditional Midwives. Although village volunteers seem a promising path to improved health care at the village level, in the short term they add new burdens to the role of health centre workers. To date, the planning role of village committees seems unrealised: the current situation is characterised more by 'downward support' than 'upward planning'.

Lamprey P., Wurapa F. & Nicholas D.  
**'The Evolution of a Primary Health Care Programme: the Danfa Experience 1970-1977'**  
J Trop Pediatr 1984, 30: 252-6

Ghana. Description. Single health centre. Organisation of services. Community participation./ During the early part of the project the main services provided at the Danfa Health Centre were the treatment of acute illness, and maternal and child welfare programmes. In 1970, 70% of health centre visits were made by people who lived within a 4.8 km radius, although such people constituted only 23% of the area's population. To improve the coverage of health services, weekly satellite clinics were organised in three villages. The health centre staff is divided into two rotating teams: one team provides services at the satellite clinics while the other remains at the health centre. The progressive involvement of the community in the provision of services can be divided into three phases. Amongst the programmes included in Phase I were health education and sanitation. Health education activities in the area have been carried out

by three paid village-based health education assistants (members of the health centre staff), the sanitarian, and village volunteers. The sanitarian based at the health centre coordinates all the sanitation programmes in the district. Family planning and immunisation were two of the Phase II programmes. Health centre staff were trained to provide family planning services, and a family planning team was set up to extend coverage to a large number of villages. During the initial three years of the project, immunisation of children was restricted to the health centre and satellite clinics. Only 10% of children under five years were immunised during this period. In order to improve coverage, an annual three-day mass immunisation programme was established. Phase III was the Village Health Worker Programme. These volunteers were trained and supervised by the public health nurse, the sanitarian, and the health centre superintendent. [See also Ashitey, Wurapa & Belcher; Neumann, Sai & Dadu]

Lombardi C.

'Situacao do atendimento do paciente venereo nas unidades sanitarias da Secretaria da Saude do Estado de Sao Paulo, Brasil' ('Care of the venereal patient in health centres of the health department of the state of Sao Paulo, Brazil')

Revista de Saude Publica 1978, 12: 16-22

Brazil. Evaluation. Region. Miscellaneous activity: venereal disease./ This paper presents and discusses the results of a questionnaire on the care of the venereal patient in 340 health centres in Sao Paulo. In the judgement of nearly all of the doctors in charge of the centres, facilities were considered inadequate for controlling venereal diseases and were underutilised by the public. *In situ* laboratory facilities for diagnostic purposes, routine screening for syphilis, standard treatment regimens and public education are called for if the centres are to assume a significant role in the control of venereal diseases. [Source IDRC SALUS data base]

McCord C.

**'The Companiganj Rural Health Project: A Joint Venture Between Government and Voluntary Agencies'**

Contact 1976: 34, 1-9

Bangladesh. Single health centre. Description/evaluation. Community health programme./ This project began in 1973, with a view to providing comprehensive rural health care. The existing health centre was remodelled and seven subcentres (most of them concentrating on maternal and child care) were established. Various staff training programmes were conducted, and after some initial difficulty women were recruited to work as combined clinic assistants and field workers. Clinic attendances rose very rapidly, which was helpful for some of the health programme objectives, but not for those which require discussion and education. It has been found, in fact, that 90% of new acceptors of family planning come from field workers visiting women in their homes. The author discusses some of the failures of the project to date and some of the questions raised by it. A project committee of local leaders was set up at the start, but community involvement has been hampered by the inequitable community structure. The author concludes that the questions, failures and successes which he has described are overshadowed by the fact that a team has been established. This team brings together professional health competence and the dynamic of local residents who can carry this competence into every village in Companiganj. The team has survived economic crisis, political disturbance and a change in project leadership with steady improvement in its morale and efficiency.

McGilvray J.

**'Review of Health Services in Botswana with Particular Reference to Medical Missions'**

(Unpublished report: Christian Medical Mission, 1972)

Botswana. Description. National. Organisation of services./ It is doubtful whether more than 20% of the population has access to existing facilities, so the development of rural health services is a priority. The Ministry of Finance & Development Planning recently submitted a project to the Swedish International Development Authority for financial assistance to upgrade several health posts, clinics and area health centres. The existing rural health centres are operated by a mix of central government and mission enterprise. The report describes the minimum facilities and staff which each health centre should have.

Maru R.

**'Community Health Worker: National Experience'** in A. Bang & A.J. Patel eds. Health Care Which Way to Go? (Medico Friend Circle, Pune, n.d.)

India. Evaluation. National. Staffing. Staff attitudes./ In 1975 a new Multipurpose Worker scheme was initiated, but this did not go far enough toward reducing the worker-population ratio and involving village

communities in health programmes and therefore the Community Health Worker (CHW) scheme was introduced in 1977 in 777 primary health centres. One CHW was to be trained for every village community of 1,000 population. The community selects one of its own members who then undergoes a 3-month training in basic health care at the health centre, after which the CHW spends two to three hours a day doing health work in the community. One of the most innovative characteristics of the CHW scheme is that formal control is divorced from the official health bureaucracy; the village community has power to select, supervise and even dismiss a CHW. A study of the scheme in operation found that there was often a 'love-hate' relationship between CHWs and health centre staff due to their mutual dependence: the staff needed the CHW to obtain cooperation from resistant villagers while the CHW needed the health centre worker for the supply of medicines and for technical guidance. Overall, CHWs are tending to adopt the prevalent orientation of the health system, which is curative rather than preventive. The successive reforms have led to a gradual increase in the coverage of population, but the nature of activities carried out by various structures has not undergone any significant change: alternative organisation models need to be considered.

Matovu H., Bennett F.J. & Namboze J.

**'Kasangati Health Centre: a Community Approach'**

in C. Clifford Gould ed., Health and Disease in Africa (EA MRC Sc.Cong., 1970).

Uganda. Evaluation. Single health centre. Staff performance./ This is the rural teaching centre for the Department of Preventive Medicine at Makerere Medical School. The health centre has always had a community approach, and numerous publications relating to the people's way of life appeared throughout the 1960s. This paper provides tables showing patterns of morbidity, mortality, laboratory and survey findings, as well as maternal and child health services, immunisation and prophylaxis. The emphasis on immunisation, ante-natal care, health education, surveillance of infants and early diagnosis and treatment has led to a dramatic reduction in the infant mortality rate and death rates. There has always been an emphasis on in-service training and discussion on new methods of work. Considerable effort also goes into environmental sanitation. One area of relative failure has been malaria control (perhaps because of the lack of clear government policy). Possibly the most urgent need for improved services and accompanying education is in family planning.

Moonny I.S.

**Stratification of Health Centres: A Model for the Development of Health Centres'**

(Unpublished report: The Regional Office of the Department of Health, The Provincial Health Office of East Java, 1982)

Indonesia. Evaluation. National. Health centre functions./ The term 'stratification' is used to mean the classification of health centres into

three strata (advanced, standard, and sub-standard). In order to achieve this it is necessary for each individual health centre to be evaluated, and this report provides a detailed theoretical model for doing so.

Mukerji K.

**Basisgesundheitsseinrichtungen in Entwicklungslandern (Primary health care facilities in developing countries)**  
(Starnberg: Institute for Building in the Tropics, 1981)

**General. Description. Physical structure.** / The aim of this report is to increase awareness of the problems and possibilities of various design concepts by presenting case studies of examples of health centres in Thailand, Indonesia, Korea, Togo, Ghana, Liberia, Guatemala, and Nicaragua. Then, on the basis of these and other sources, it sets forward a number of design guidelines and standards relative to the various services offered in a primary health centre. [Source: IDRC SALUS data base]

Nagpaul D.R. et.al.

**'Prevalence of symptoms in a South Indian rural community and utilization of Area Health Centre'**  
Indian J Med Res 1977, 66: 635-47

**India. Evaluation. Single health centre. Utilisation.** / Only 1.3% of the sick, at any point of time, had attended the area health centre, but the attendance by the sick persons residing in the village where the health centre was located was 9.2%. The composition of the attenders was significantly different from that of the sick in the community in respect of age, sex and symptoms. Thus, women and the elderly, who constitute a major reservoir of tuberculosis, tended to disregard their symptoms, while younger persons used the health centre facilities more freely. Of the out-patients, 71% had attended only once, 18% twice and 11% three times for a particular episode of sickness. Only 9.7% were offered laboratory examination and an insignificant number were referred to better equipped health institutions. The author concludes that while increasing the number of rural health institutions may solve the problem of accessibility of the service to the people, attention has to be given also to the acceptability, continuity and quality aspects of the service.

Namboze J.M.

**'A Rural Nutrition Rehabilitation Project at Kasangati Health Centre'**  
J Trop Paediatr 1973, 19: 45-52

**Uganda. Description/evaluation. Single health centre. Health education.** / The project was conducted at the health centre. A 'nursery nurse' who had received in-service training in health education, demonstrated to mothers the preparation of various protein food mixtures, keeping a record of the

mixture taken, the child's weekly weight gain and the mother's response to the education given her. After three or four visits the mother prepared the food herself and brought in her own raw food. The Health Visitor or auxiliary Health Visitor took a full history of the child and visited the home. The author concluded that in a health centre set-up members of the staff have constant contact with the family background and this advantage makes a health centre excel over other institutions for nutritional rehabilitation.

Nchinda T.

**'The Propharmacy as a Means of Meeting Chronic Drug Shortages in Rural Health Centres in Rural African Communities'**

Trop Doct 1978, 8: 226-8

Cameroon. Evaluation. National. Miscellaneous activity: drug supplies. The problem of a chronic shortage of drugs in rural health centres, with resulting fluctuating attendances, was considered in Cameroon. In an attempt to improve the situation, propharmacies were established near health centres, where no private pharmacy existed. Financed by the local council and supported by the government, they stocked and sold drugs at very low cost. It is claimed that the scheme was successful, in that drugs were always available, and the author argues that the advantage of having drugs available all the time at low cost greatly outweighed that of having free treatment occasionally in health centres, where drugs were out of stock most of the time. [Source: Ross Institute of Tropical Hygiene publication No.13]

Neumann A.F., Sai F.T. & Dadu S.R.

**'Danfa Comprehensive Rural Health and Family Planning Project: Ghana'**

J Trop Pediatr 1974, 20: 39-54

Ghana. Description/evaluation. Single health centre. Staff training./ The monograph describes the setting up of the project, its objectives, and its achievements to date. Amongst the latter the authors note that health centre functional analysis research helped stimulate the writing of a new manual of health centre personnel task descriptions. This led to a new in-service training programme which saw a change in the role of almost all staff members. Work loads were equalised, and patient waiting time was reduced. Community outreach and preventive services are now being carried out on a regular basis. [See also Ashitey, Wurapa & Belcher; Lamptey, Wurapa & Nicholas]

Nichols A.W.

**'Primary health care in the Middle East'**

Trop Doct 1981, 11: 166-73

Egypt. Sudan. Evaluation. National. Organisation of services. Staffing./ In Egypt the author found that primary care health centres were widely

distributed throughout the country, but often seemed to operate at a sub-optimal level. Utilisation appeared to be low in relation to resource availability. Ancillary health personnel were employed, but infrequently in the role of physician extenders. In the Sudan health centres were staffed not by doctors but by medical assistants, who had all been nurses before receiving their training as medical assistants, and by health visitors. Comparatively weak, when compared to Egypt in terms of the number of health care facilities and doctors available to the population, the Sudan was strong in terms of its highly developed health manpower training and programme structure. Amongst the author's conclusions for the whole of the Middle East was the following: that eventually primary care services will best be delivered in the context of consolidated rural health centres employing two or more doctors, with related ancillary personnel, all collaborating in a multidisciplinary health delivery team.

Nitzschke T. & von Luttwitz D.

**Annehmbarkeit praeventiver und promotiver Massnahmen eines Health Centre fur die Bevolkerung (Popular acceptance of a health centre's preventive and promotive services)**

(Frankfurt am Main: Medizin in Entwicklungslaendern Series, Vol.10, 1981)

Cameroon. Description/Evaluation. Single health centre. Community attitudes./ This monograph reports on the results of a 3-month investigation to determine the acceptability of the promotive and preventive services provided by the health centre in the village of Big Babanki in the northwest province of Cameroon. The situation is analysed in terms of economic, cultural, and social factors. Various aspects of the health centre, e.g. antenatal clinic, infant welfare clinic, drinking water supply, waste disposal, etc. are examined; this is followed by a discussion of factors influencing acceptability and rejection.[Source: IDRC SALUS data base]

O'Connor R.W.

**Managing Health Systems in Developing Areas - Experiences from Afghanistan**

Chapter 2: 'Working with What Exists: The Basic Health Center System'  
(Lexington, Mass: Lexington Books, 1980)

Afghanistan. National. Description/evaluation. Organisation of services./ In 1973, when the project began, there were 95 basic health centres in operation. They were unmanaged, autonomous units scattered across the country with many vacant posts and much absenteeism. They offered poor quality sickness care and little organised maternal or child care. Drug supplies arrived about every two years, and the drugs were often inappropriate. They offered no public health activities at an effective level. Less than 2% of the rural people used them in a given year. When the project was suspended in 1979 there were 138 basic health centres in operation, and the Basic Health Services Department had 35 management staff members and 15 continuing-education trainers. Certain critical

problems still remained, particularly in personnel management. Drug supplies had improved; the quality of sickness, maternal and child care had modestly improved; and family planning services were now being offered. But the average health centre still affected less than 8% of its service area. The pilot project in 1974 covered six health centres in one province. At the end of it, in 1975, the health centres in the province were much improved, and the project was viewed as a success despite many areas of uncertainty. Immediately following the initial results of the Parwan-Kapisa project, the Ministry began to expand the strategy to 41 health centres in 12 provinces. Whereas only 5% of all operating health centres were included in the pilot project, the initial expansion reached 43% of the total. Many factors prevented this approach from achieving results similar to those in Parwan-Kapisa, particularly staffing, support systems and politics.

Ojo M.A.Y.

'The Family Clinic - an experiment in primary health care in Nigeria'  
Int Nurs Rev 1980, 27: 154-5

Nigeria. Description/evaluation. Single health centre. Health centre functions./ The Shomalu clinic, situated on the outskirts of Lagos, is designed as a demonstration clinic and caters for a population of 30,000. The staff consists of a doctor, nurses, clinic assistants, and aides. The clinic provides a comprehensive service, including preventive measures, family planning and health education. Health education is carried out on an individual basis, in group sessions, and through home visits. All mothers are invited to attend food demonstration classes, and there are regular 'Fathers' Club' meetings. The nurses examine children and adults, with referrals to the doctor when necessary. The nurse is now designated Community Health Officer; the change in name reflects her new role in the community. It was found that the concept of the nurse as the provider of primary care is well accepted. Since a nurse is allocated to each area, continuity is achieved and a good relationship with mothers is built up.

Okubagzi G.S.

'Effect of health centre services on the health status of a community in Gondar region, Ethiopia'  
Ethiopian Medical Journal 1978, 16: 99-104

Ethiopia. Evaluation. Region. Health centre functions. Community health programme./ About 20 years after the launching of health centre services in Gondar region, communities in served and unserved areas were compared with respect to six indicators: source of drinking water, availability of latrines, vaccination status, knowledge and practice of basic hygiene, trachoma and skin infections, and weight of children. No significant differences between served and unserved communities could be ascertained and it was concluded that, as long as health centres continue to direct most of their efforts toward curative medicine, this will continue to be the case. [Source: IDRC SALUS data base]

Patten R.C.

'A workable plan for improving health care in developing nations'

Trop Doct 1980, 10: 192-4

Korea. Evaluation. District. Organisation of services. Community participation./ In South Korea the government has established a network of government health centres, but these are understaffed and little utilised. In 1969, the island of Koje Do was chosen as the site for a demonstration project. The Primary Care Centre was the hub of the operation. The doctor was located there, his work being supported by a simple laboratory, simple x-ray facilities, a limited pharmacy, and a few in-patient beds. A group of women were chosen to be trained as village health aides, and they received an intensive course in the basics of health care. They then began visiting the villages and eventually sought out village volunteers to represent each village. For any medical problems encountered outside of her competence the village health aide referred the patient to the doctor at the Primary Care Centre. The evidence showed that such a project, which used locally-recruited staff and involved the community, could significantly improve the health of those in needy areas.[See also Sibley]

Pereira Binder M.C., Magaldi C. & Lopes R.M.

'Internato de saude publica na Faculdade de Medicina de Botucatu'

('Internship in public health at the Faculty of Medicine of Botucatu')

Educacion Medica y Salud 1981, 15: 142-53

Brazil. Evaluation. 3 health centres. Staff training./ In 1978 and 1979, a pilot project was undertaken in Brazil to give 6th year medical students experience in delivering primary health care within the health services network. The 180 participants received supervised training in groups of seven or eight for a period of 18 days at the Botucatu Health Centre School and two other health centres serving both urban and rural populations. Tests indicated that the students' knowledge regarding the role of the doctor in society, the team approach to health care, etc. had increased. The students' evaluation of the experience was highly favourable.[Source: IDRC SALUS data base]

Rakowski C.A. & Kastner G.

'Difficulties involved in taking health services to the people: the example of a public health care center in a Caracas barrio'

Soc Sci Med 1985, 21: 67-75

Venezuela. Description. Single health centre. Health centre functions. Staff performance./ Some 83% of the country's population reside in urban areas; up to half of these live in squatter settlements called barrios. El Libertador's health centre was opened to the public in 1981. The Ministry established three priority objectives for the barrio centres: (i) Avoid saturating the central hospitals by providing patients with a full range of services locally; (ii) Shift the emphasis in health care from curative to preventive services; and (iii) Promote client participation in health-

related programmes. Recently, the Ministry instituted a new programme known as 'rural penetration' in all centres, whereby the centre doctor must go once or twice a week to the more destitute or difficult to reach ~~barrios~~. When the health care centres were first inaugurated in 1974 and 1975, they answered directly to the Minister and enjoyed considerable autonomy and control over their staff, their budgets, and their programmes. Subsequently the health care system was regionalised, and this regionalisation seems to have weakened centre services by creating confusion regarding lines of authority and responsibility, and removing control of materials from the centre staff. Centre doctors set very high standards for themselves and make a point of examining each patient very thoroughly and explaining in detail the cause of the ailment and the proper curative and preventive treatment. As a result they come across to patients as people who 'care about us' and the patients 'reward' this concern with loyal participation in preventive programmes and promotion of the centre. The staff has shown innovation in organising preventive activities, though the shift of emphasis from curative to preventive services has been hindered by the need for additional training of staff, lack of materials for promotional tasks, and lack of supplies for critical preventive programmes such as family planning. Patient participation in health care is still rudimentary and dependent on a paternalistic institutional relationship.

Rao P.S.S., Benjamin V. & Richard J.  
'Methods of evaluating health centres'  
Brit J prev soc Med 1972, 26: 46-52

India. District. Evaluation. Staff performance. Utilisation./ A major step in programme evaluation consists of mapping the objectives of the health centre as precisely as possible. This study showed that in spite of the lack of readily available and reliable data, there is a considerable amount of information from various sources that can be used in health centre evaluation. It also showed that simple techniques can be employed to collect primary data, such as interviews, records, and observational studies at the health centre. Two major factors found in this study which influenced the utilisation of health centre services were (1) the distance of the area from the health centre and (2) the intensity of the services provided.

Roemer M.I.  
Evaluation of Community Health Centres  
(Public Health Paper No.48. Geneva: WHO, 1972)

General review./ This is a comprehensive review of the literature on health centres up to that date. It provides functional definitions of health centres, discusses past attempts to evaluate primary health centres, and suggests the most appropriate design for future research. It concludes that the question being posed - on the value of primary health centres - appears important enough to justify a sizeable investment of funds into further research.

Sachar R.K. et.al.

'Tetanus neonatorum - the next goal for world wide success'  
Health and Population - Perspectives and Issues 1982, 5: 213-19

India. Evaluation. Single health centre. Maternal and child health./ From 1976-1980 a health centre in the Punjab gave special attention to some 3,000 pregnant women in three rural areas, making every effort to vaccinate them and training, supervising, and supporting the birth attendants. The result was a dramatic decline in the number of neonatal and infant deaths due to neonatal tetanus. [Source: IDRC SALUS data base]

Saeed A.A.W.

'Utilization of Primary Health Services in Port Sudan, Sudan'  
Trop Geogr Med 1984, 36: 267-72

Sudan. Evaluation. 2 health centres. Utilisation./ The utilisation of primary health services provided at a hospital out-patient department and two health centres was studied. The epidemiological pattern was similar in the three health care facilities; minor gastrointestinal tract, respiratory tract and skin conditions formed the majority of cases. More than 90% of the patients visiting both health centres travelled two km or less; distance is clearly a limiting factor. Lack of drugs was a major problem in both health centres. The average consultation time was only two minutes, which is clearly inadequate for comprehensive medical care or even for adequate curative services.

Sanjivi K.S.

Planning India's Health  
(Madras: Orient Longman, 1971)

India. Description. National. Health centre functions. Staffing./ The book proposes that instead of taking care of 60,000-80,000 population, a health centre should cover two thousand families or a population of approximately 10,000. The staff should consist of one part-time doctor and six full-time workers: a health administrator, a nurse, a midwife-cum-health visitor, a nutrition worker, a pharmacist and a laboratory worker. Every family should by law contribute 0.5 per cent of its annual income to the health centre. All families should get an initial health check up.

Sebai Z.A., Miller D.L. & Ba'aqueel H.  
'A Study of Three Health Centres in rural Saudi Arabia'  
Saudi Medical Journal 1980, 1: 197-202

Saudi Arabia. Evaluation. 3 health centres. Health centre functions. Staff performance./ Each health centre is staffed by a doctor and four to six health assistants. The study showed that the main function of the health centres was to render curative health services to out-patients. The doctor spent approximately three minutes with each patient. The diagnosis was made on clinical presumptions without any diagnostic facilities and was recorded according to the 'body system' which gave no clue to the health problems in the community. In many cases medicines were dispensed indiscriminately. Few preventive or promotive health services were given. The conclusion was that the three health centres were not performing their functions as agencies of health promotion. The reasons were multiple: lack of the doctors' understanding of their role as promoters of the health of the people (basically because their medical training was hospital based and curative oriented): none of the professional staff was Saudi (due to the shortage and inappropriate distribution of Saudis): no adequate planning, supervision and follow up of the functions of the health centres (due to centralisation of the organisation and lack of qualified personnel in health administration) and, finally, the lack of community participation.

Seitz R.  
'Village life in Laos'  
World Health 1980, July: 21-3 .

Laos. Description. National. Organisation of services./ The government of Laos is attempting to set up a national network of community health and referral services, the cornerstone of which is the village health centre. In doing so, it must overcome the effects of war, poverty, underdevelopment, and underpopulation. This paper describes the organisation and special features developed for demonstration and training purposes. [Source: IDRC SALUS data base]

Selwyn B.J. & Ruiz de Chavez M.  
'Coverage and patterns of ambulatory medical care use in Tlalpan, Mexico City'  
Soc Sci Med 1985, 21: 77-86

Mexico. Evaluation. District. Utilisation./ Cross-sectional surveys were carried out in the community, in health centres, and in ambulatory services (outpatient department and emergency department) in order to provide information for planning services appropriately. The health centres are expected to care for commonly occurring health problems and therefore the distribution of illnesses attended in health centres should be similar to the community's illness distribution. The most commonly reported illnesses affecting all groups in the community involved the

respiratory system. The prevalence of respiratory system problems in the health centres was significantly higher than in the outpatient or emergency departments, but was lower than the community prevalence. Only 29% of community respondents were aware of the existence of the community hospital, whereas amongst women with children 0-14 years of age, 51% were aware of the health centre closest to them, though only 41% were aware of the range of services available. Some of the repeated use of the emergency department could be for problems that would be more appropriately cared for at health centre level; 23% of the emergency department users surveyed sought preventive services.

Shah P.M. & Shah K.P.

**'Community diagnosis and management of malnutrition: a realistic approach to combat malnutrition at the grass-roots level'**  
Food and Nutrition 1978, 4: 2-7

India. Evaluation. Single health centre. Community health programme./ The Kasa Primary Health Centre, located about 130 km north of Bombay, serves 70 villages containing approximately 65,800 people. Twenty-seven part-time social workers were recruited from their local communities and trained to identify nutrition disorders and high-risk pregnancies, distribute locally available food supplements to the needy, diagnose and manage common illnesses, and generally promote health and nutrition. Eighteen months of programme operation witnessed the improvement of 63% of the severely malnourished children and raised immunisation coverage from 1.4% to 65% of the target population. The achievements are attributed to community and health centre support and the enthusiasm of the part-time social workers. [Source: IDRC SALUS data base]

Sharma S., Bansal, R.D. & Venkatesh S.

**'Evaluation of maternal care services in a semi-urban community of Pondicherry'**  
Health and Population - Perspectives and Issues 1982, 5: 259-71

India. Evaluation. Single health centre. Maternal and child health. Utilisation./ One hundred and two women who experienced more than one pregnancy between January 1978 and December 1981 were studied to assess the changing trend in their utilisation of the maternal care services provided by the Urban Health Centre, Pondicherry. The findings showed an overall improvement in receptivity to the services. It was noted that the improved socio-economic circumstances of the women and the activities of the health centre staff did have some positive influence. [Source: IDRC SALUS data base]

Shawqi A.M. et.al.

'A Study of Food Habits of Mothers and Children Attending Rural and Urban Health Centres in Minya, Egypt'  
J Trop Pediatr 1985, 31: 112-17

Egypt. Evaluation. District. Maternal and child health. Staff training./ The overall aims of the study were (1) to collect information on food habits and food availability to help improve the relevance and accuracy of nutrition education and (2) to train staff in methods of research and evaluation. A sample of 400 mothers was taken from those attending government health centres in Minya Governorate in Upper Egypt. Following the administration of the questionnaires four centres were chosen for intensive follow-up of 20 families. The results of the study gave a general picture of the eating habits of the mothers and the way they fed their young children in a community where there was a high rate of infant deaths. It proved impossible to collect quantitative data on food intake, but any failure in achieving the first objective of the study - information on food habits - was balanced by considerable success in the second - training health service staff. A great deal of enthusiasm was generated in the course of the work and there was improvement in the home visiting skills of the nurses taking part. Regular meetings between nurses and sociologists and regular payments of agreed incentives were major factors in getting good results.

Sibley J.R. ed.

Pits and Peaks - Lessons Learned Through a Community Health Project in Rural Korea Volume 3  
(unpublished, n.d.)

Korea. Description/evaluation. Single health centre. Community health programme./ This volume describes the Kojedo project and provides detailed information on both the village health services and the Primary Care Centre. In the introduction to the latter section, it is pointed out that however much preventive medicine is emphasised, the need for curative services will still exist, and good curative care is essential to any programme. The final section of the volume is an evaluation of the programme and discusses such aspects of it as financing and community participation. The operation of the Primary Care Centre was seen to be smooth and efficient; it is doubtful that better medical care could be obtained in any comparable rural area. The major limiting factor seems to be the financial state of the patients: the provision of free medical care to the population is a concept which is anathema to the government, the medical profession, and probably the people, as it is in the USA. [See also Patten]

Smith E.S.

'Nursing in rural Papua New Guinea'

Nursing Times 1977, 73: 210-1

Papua New Guinea. Description. Single health centre. Health centre functions. Staff training./ A British nurse describes her experience at a rural health centre serving a population of 8,000 in Iruna. In addition to inpatient and outpatient care and medical patrols, the centre provides a 3-year training course for community health nurses. Their training emphasises preventive medicine and maternal child health, especially midwifery. [Source: IDRC SALUS data base]

Soothill P.W. et.al.

'A Controlled Study of the Effect of an Indian Comprehensive Rural Health project on the Children's Arm Circumference, Adjusted for Height'

J Trop Pediatr 1980, 26: 243-5

India. Evaluation. Single health centre. Maternal and child health./ This study measured the arm circumference of children of villages inside the Jamkhed project and those of similar villages outside it in order to assess nutrition. There was no evidence of improved nutrition amongst the project children. [See also Arole & Arole; Bella; Chakravorty]

Sorkin J.L.

Health Economics in Developing Countries

Chapter 7: 'Health Centers and Hospitals'

(Lexington, Mass.: Lexington Books, 1976)

General review. Methods of evaluation. Utilisation./ Many developing countries are giving the highest priority to the establishment of integrated primary health centres on a national scale. Nevertheless, most of these countries still spend much more on hospitals than on health centre networks. There are various methods of evaluating health centres. Probably the most common (and least useful) has been based on a simple description of personnel, facilities and equipment. A higher level of evaluation is concerned with the volume of services provided from the resources available, and it includes studies of two general types: (1) operations research to quantify the output of health centre services, and (2) utilisation studies which indicate in quantitative terms the rate at which a population receives services. A third type of evaluation attempts to assess the quality of the services rendered. Using this method, one focusses on the nature of the services provided. The most sophisticated evaluations measure the extent to which the ultimate objective of a programme - an improvement in the health of the people served - has been attained. This is the most difficult type of evaluation to undertake, but it is the most important because it helps to answer the question, What difference has the health centre really made? For example, the conclusion of the various studies in Ethiopia was that health centres had made little impact on the health status of the population. Turning to the question of

utilisation of health centres, distance is a major factor. Studies in East Africa indicated that few people would walk more than a few miles to a health centre, and therefore the effect of distance is an important concern regarding the distribution of health facilities, and it is an indication of the importance of reaching into communities and homes.

Srouji E. & Connolly C.

'Role of a department of pediatrics in a village comprehensive health care program'

Courrier 1979, 29: 333-339.

Lebanon. Description. Single health centre. Maternal and child health. Health centre functions./ The Ghaziyye Health Centre, Lebanon, allows physicians specialising in social and preventive pediatrics at the American University in Beirut to experience community pediatrics in a semirural setting. This paper describes the centre facilities and organisation, the demographic and vital characteristics of the population served, and the results of selected surveys of the same. It is suggested that the centre would be suitable for the training of auxiliaries as well. [Source: IDRC SALUS data base.]

Sundar Rao P.S.S. & Richard J.

'Measuring Community Responses to Health Centre Programmes'

Indian J Med Res 1970, 58: 938-46

India. Evaluation. 7 health centres. Community attitudes./ The authors designed a questionnaire to measure the community's responses to their local health centre. Respondents were chosen from four categories: the general public, patients, community workers, and community leaders. They were further sub-divided according to distance from the health centre. The findings showed a decline in awareness as the distance from the health centre increased. Due to their lack of first-hand knowledge, community workers gave the least valid estimates of the true response in the community; patients were not found suitable for representing the community response either as they had too favourable a view; valid and reliable estimates of community response were obtained from community leaders, when selected on the basis of the length of their stay in the area and intensity of contact with the public. It was concluded that future studies based entirely on such community leaders would give accurate estimates of community responses at a far lower cost in terms of effort, time and money.

Taylor C.E. et.al.

Doctors for the Villages

(New York: Asia Publishing House, 1976)

India. Evaluation. National. Staff attitudes./ As part of their postgraduate training, young doctors are required to serve for two to

three months in a rural health centre. This book is based on a study of these trainee doctors, the aim being to discover what causes the negative attitudes so many of them have toward rural health centres. The most positive finding of the study is that these young doctors reported that they were ready to go to the villages if better professional and personal conditions of service were met. At the top of the list was concern about the lack of drugs and supplies. (The only reason given for the practice of providing a bare minimum of drugs and supplies to health centres is the fear that they will be sold for personal profit; this argument is not valid economically.) The next three professional obstacles relate to the difficulties rural doctors experience in maintaining their professional competence; one solution to this would be to develop a regionalised relationship between medical schools and health centres. A lack of recognition and prestige accorded to village service is another barrier, as the existing medical structure puts health centre service and preventive work at a very low level; the challenge of community medicine should be built into the career expectations of doctors and of society at large. A new approach to team care is essential: in particular, routine medical care must be turned over to auxiliaries to permit professionals to concentrate on the more complex problems, especially those involving community diagnosis and therapy.

Tuli J.

'Child care has changed in Kasai Mohalla'

Nursing Journal of India 1979, 70: 104-5

India. Description/evaluation. Single health centre. Maternal and child health. Health education./ Case histories of the successful deliveries of two young women, both of whom had previously lost a child at birth, are used to illustrate the impact of the local health centre on the community. Also serving as a training centre for public health nurses, lady health visitors, paramedics, and medical students, the centre provides antenatal and postpartum care, assistance during delivery, daily outpatient services for 500 patients, and health education. The comments of a traditional midwife also emphasise the improvements the health centre staff have effected. [Source: IDRC SALUS data base]

Udo A.A.

'Use of socio-economic and accessibility information for improving MCH/FP services - the Nigerian case'

J Trop Ped 1980, 26: 203-8

Nigeria. Evaluation. District. Maternal and child health. Utilisation./ Two hundred and forty-seven women of reproductive age in 25 villages served by the Ikot Omin Health Centre were interviewed regarding their socio-economic characteristics and exposure to the health centre. The findings indicate that younger women tend to be more educated, have smaller families, and visit the health centre more than older women. The distance from the centre was also a factor. The author suggests that more

home visits and mobile clinics could help solve attendance problems.  
[Source: IDRC SALUS data base]

U.S. Agency for International Development  
Korea Health Demonstration Project  
(A.I.D. Project Impact Evaluation Report No.36, 1982)

Korea. Description/evaluation. 3 regions. Staffing./ A new system was developed to extend low-cost integrated primary health care in rural areas. Below the level of community health centres, which were staffed by doctors and served a population of 10,000-25,000 (varying between regions), lower tiers of health sub-centres were created. A new type of health provider, called a Community Health Practitioner (CHP) was established by giving nurses a year's extra training in the provision of curative services. However, private doctors, finding that CHPs provided competition for them, successfully lobbied to have the role of the CHP curtailed and the price differential to the patient removed. The status of the CHP declined significantly, which also reduced their effectiveness.

University of Hawaii, John A. Burns School of Medicine  
Health center operations  
(MEDEX Primary Health Care Series - Mid-level Health Worker Reference Manual No.30, 1982)

General review./ This reference manual for mid-level health workers in charge of health centres explains the policies, procedures, and forms used at the health centre level of the primary care system. It includes sections on drugs and medical supplies, facilities and equipment maintenance, transportation, communications, personnel, finance, health information, and management guidelines. [Source: IDRC SALUS data base]

Van Etten G.  
'Toward Research on Health Development in Tanzania'  
Soc Sci Med 1972, 6: 335-52

Tanzania. Evaluation. Region. Organisation of services./ In view of the priority which health centres received in the second 5-year development plan 1969-1974, studies were done in four out of twelve health centres in the Mwanza region. These studies found that none of the health centres were actually performing the functions described in the 5-year plans. They were not engaged in the supervision of dispensaries and they were not spreading curative and preventive medicine into the community. None of the health centres was serving a population of 50,000 as they were supposed to do. Patients were travelling rather short distances: about 50-60 per cent of them came from within 4 miles and about 80 per cent from within 9 miles. It was obvious that the health centre concept was not clear to many medical workers. From 1969 central government took over all health centres

in the country to guarantee their better development; of equal importance will be a thorough re-orientation of health staff already in the field and the intensive training of new candidates.

Van Etten G.M.

**Rural health development in Tanzania**

Chapter 3: 'Obstacles to an adequate health care delivery system for rural areas'

(Assen: Van Gorcum & Comp, 1976)

Tanzania. Evaluation. Region (2 health centres). Utilisation./ The author carried out surveys into the utilisation of primary health services in Mwanza region. Two types of surveys were carried out: 'institution-based' studies and 'population-based' studies. It was found that about 90% of the patients who attended health centres lived within 10 miles of them. Diseases of the digestive system and diseases of the eye and skin were recorded more frequently at health centre and dispensary level than at hospital level. There were differences in frequencies of diagnosis between health centres and dispensaries; in the latter units diseases of the digestive system, respiratory tract, and eye were reported relatively more. During the period of study patients were rarely referred to units of higher level medical care. Most patients who visited a particular health centre said they had done so because of lack of medicines at their local dispensary. This shows that in most cases the health centres were chosen for negative reasons. Only a few patients went to the health centre for reasons of better diagnostic facilities. Specific health centre facilities such as antenatal or child health care did not motivate people to go there. The data showed that both the hospital and the traditional doctor were perceived to have specific functions but that people generally did not identify the health centre as an institution with specific curative or preventive functions.

Varghese M., Thomas M.J. & Amar D.S.

**'Morbidity survey of patients attending a community health centre'**

J Indian Med Assoc 1983, 80: 134-7

India. Evaluation. Single health centre. Utilisation./ A study was conducted to analyse the morbidity pattern of patients attending a community health centre. One hundred and seventeen cases were selected at random. A clinical diagnosis could be made in 109 (93.16%) cases; 8 cases remained undiagnosed. The majority of diagnosed cases comprised injuries (38 cases) and bacterial infections (35 cases). The patients in the diagnosed group had only one non-specific symptom in most instances (66.1%) whereas 87.5% of the patients in the undiagnosed group had two to five of such symptoms.

Wallis R.  
'In Kabulamema'  
Saving Health 1979, 18: 10-13

Zambia. Description. Single health centre. Health centre functions./ The facilities and staff of the Kabulamema Mission Health Centre are described. The centre's prime function is preventive medicine, including health and nutrition education, antenatal and child health care, immunisation, and other disease control measures, although there are beds for some 20 inpatients as well. Approximately 150 outpatients are treated daily. The activities of a typical day as well as the centre's weekly routine are outlined. [Source: IDRC SALUS data base]

Wang'ombe J.K.  
'Economic Evaluation in Primary Health Care: the Case of Western Kenya Community Based Health Project'  
Soc Sci Med 1984, 18: 375-85

Kenya. Description. National. Community attitudes./ This paper provides a very detailed cost-benefit analysis of patients' use of community health workers instead of health centres, taking into account the amount of time needed to travel to a health centre. The study found that the majority of those surveyed (74.01%) considered the CHW to be either more satisfactory or as satisfactory as the health centre or hospital.

Were M.K.  
'Organization and Management of Community-Based Health Care'  
(Unpublished report: National Pilot Project of Kenya Ministry of Health/UNICEF, ?1978)

Kenya. Description. National. Organisation of services. Community participation./ In 1970 the central government decided to take over the health services at the health centre level and lower. Before 1970 these services were in the hands of local authorities. The main reasons for the takeover were the great variation in the services provided by them, discrepancies in management of these centres, and the general fact that it was difficult to work for an equitable distribution of health facilities and benefits in the structure that existed then. After the takeover, the crucial factor was how best to go about managing them and how best to meet the health needs of the people through these structures. The concept of dividing the country into geographical health units (RHUs) has just been put into effect. The planning of the services is proceeding as a two-pronged thrust: health facility-based services and community-based health care. The health facilities planned per RHU are one health centre and possibly a sub-health centre and satellite dispensaries. Personnel based at the health centre will provide clinic-based services while also expanding the role of mobile services to include dialogue and interaction with communities.

Wright J.

'Chirurgie foraine au Niger, Département de Niamey' ('Mobile surgery in Niger, Niamey district')

Afrique Medicale 1979, 18: 27-9.

Niger. Evaluation. District. Miscellaneous activity: surgery/ From 1976-77, 652 minor surgical interventions were performed by a mobile team of two retired surgical nurses in the health centres of four arrondissements in a particular district. This paper discusses the cost and advantages of the mobile surgery. These include the fact that it is less expensive per day than hospital surgery, it eases the congestion in hospital surgeries, patients are spared the expense and psychological strain of travelling far from home, and health centre staff enjoy increased respect because of their participation in the operation.[Source: IDRS SALUS data base]

Yeon H.C.

Primary Health Care in Korea: An Approach to Evaluation

(Seoul: Korea Development Institute, 1981)

Korea. Description/evaluation. National. Organisation of services./ The rural health programme conducted by the Government includes the operation of county health centres, each covering a population of 100,000 to 150,000 persons. However, these centres do not function satisfactorily due to lack of qualified doctors, nurses and technicians; and moreover, their equipment and facilities are inadequate. In the townships health care services are provided by three health workers dispatched from the health centre. Each of these health workers is responsible for one of three services: maternal and child health, family planning and tuberculosis control. These health workers, however, are mostly nurse aides without sufficient skills and knowledge to carry out health programmes by themselves and because they lack motivation their performance is usually poor. Another weak point of the health care delivery system in rural Korea is the dual system of health services. The preventive medicine and public health programme are under the government's jurisdiction and the curative service is mostly in the hands of local practitioners. No integrated programmes have been attempted. Because the health care services for the rural population are so inadequate the Korea Health Development Institute set a basic goal of overhauling the system so that it would provide both curative and preventive care to at least two-thirds of rural residents. The proposed Comprehensive Health Care Delivery System planned to establish more service units such as health centres, and at the same time to introduce various new types of health personnel such as community health practitioners, community health aides, health communicators etc. During the project's four years of operation (1977-1980) the number of community health centres rose from two to nine and there was a large increase in public health personnel. Had it not been for the innovative features of the project, this expansion would have followed the conventional pattern and simply reproduced the old system on a larger scale. As it was, however, the project helped to broaden the scope and

improve the quality of the system's service, and to increase the utilisation of its capacity.

Zakir Hussain A.M.

'Cost analysis of a primary health care centre in Bangladesh'

Bulletin of the World Health Organisation 1983, 61: 477-83

Bangladesh. Evaluation. Single health centre. Costs./ The aim of this report was to provide information on the cost of various health care activities available in a particular health centre in relation to the number of patients and the intensity of use of services. Of 1979 capital costs, 84.6% were incurred on the buildings; recurrent costs for 1979 (62% of overall costs) reflect the labour intensiveness of the complex. Cost per unit of activity depended mainly on the intensity of use of the resources, unit costs being low where utilisation was high. [Source: IDRC SALUS data base]

Zouari B et.al.

'Implementing primary health care programmes'

World Health Forum 1983, 4: 31-3

Tunisia. Description. National. Organisation of services. Many decision-makers think of 'the health service' as if it were a synonym for 'hospital'. The result is that health centres become poor relations, understaffed, underequipped and underfinanced. What makes matters worse is the widespread opinion that health centres are 'punishment battalions' for incompetent or unwilling staff. Improvements could be effected by offering incentives such as financial help or low-priced living quarters. A change of approach is vital: management must be decentralised. A primary health care system cannot be administered at national level. Let the means and the decision-making be left to the health centre. Local solutions must be found for local problems.

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