Primary health care in industrialized countries

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TWO common fallacies, particularly in the industrialized countries, concerning primary health care (PHC) are that it is a new phenomenon and that it is relevant only to the developing countries. Somewhat paradoxically, the origin of these misconceptions can be traced back to an event, the Alma-Ata Conference on Primary Health Care, which has contributed perhaps more than anything else to the current worldwide interest in PHC. The explanation of the paradox is simple: the Alma-Ata Declaration was written primarily with the developing countries in mind and gave rise to the notion that PHC can solve the health problems of these countries. By putting forward PHC as an alternative to the current high-technology-oriented, hospital-based mainstream of health care, the conference encouraged the idea that PHC was something new. The purpose of this paper is to demonstrate that these are indeed fallacies by describing the long history and relevance of PHC in industrialized countries.

From primary medical to primary health care

Historically, primary medical care has been by far the most important approach to providing health services. The 'horse-and-buggy' physician with his little black bag, and all his predecessors through the centuries, were clearly practitioners of primary medical care. Their array of services did not include anything that could be called secondary or tertiary medicine, because the available technology simply did not enable it to exist. It did, however, include an element of primary health because, for lack of anything better, they often had to content themselves with giving good advice which, if based on experience rather than prevailing speculative medical theories, could well have been effective.[1]

The rise to dominance of secondary and tertiary medicine, symbolized by and embodied in big, technologically sophisticated hospitals, is a relatively recent event which, contrary to the lamentations of many present-day critics, is socially justifiable. Becoming effective after the turn of the century with the advent of anaesthesia, asepsis, new surgical procedures and drugs, medicine first turned its attention to very sick patients with life-threatening conditions. In this situation, the hospital was the doctor's natural workshop. Moreover, this situation was supported by popular demand, reflecting society's concern for the welfare of the people.

The often-deplored "hospitalization" and "biomedicalization" of medical education is a part of the same development, based to a great extent on Abraham Flexner's request to reform medical education in the USA at the beginning of this century. The main principles of the Flexner reform were that medicine is basically a biological science and that medical education has to be concentrated in high-quality teaching hospitals which should be "centres of excellence". Flexner also equated medical specialization with good medicine.

Although understandable and justifiable, even salutary at the time of their emergence, these trends have skewed the health care system of most countries in favour of hospital-based curative medicine practised by medical specialists. This development has been claimed to be the source of many of the ills plaguing today's health care, such as alienation, even hostility, felt by the population, high costs, poor marginal utility and irrelevance to the real health problems of the society.

WHO, industrialized countries and primary health care prior to Alma-Ata

The reports and recommendations made by working groups organized by the European Region of the World Health Organization shed light on the recent development of PHC in industrialized countries. These reports make two important points. First, in Europe, one can indeed discern an incremental evolution from primary medical care towards primary health care. Second, most of the principles of the Alma-Ata Declaration had been proposed—although not necessarily implemented—in Europe long before the conference.

I will substantiate these conclusions with some examples using the leading principles of the Alma-Ata Decla-

ration, summarized by Kaprio[2] as the criteria by which PHC can be evaluated:

1. Health care should be related to the needs of the population.

2. Consumers should participate, individually and collectively, in the planning and implementation of health care.

3. The fullest use must be made of available resources.

4. Primary health care is not an isolated approach, but the most local part of a comprehensive health system.

Health care related to the needs of the population

This first principle concerns the comprehensiveness of care and the functions of primary medical care and research needs.

Comprehensive care

During the late 1950s, a clear need was felt to make health services more comprehensive, particularly by developing services that would reach out into the community. The prevailing centrifugal notion of the role of the hospital influenced the recommended approach. The hospital was considered to be the hub of the health care system, providing leadership and guidance to all other sectors and responsible for the entire spectrum of health services. The primary medical care system, consisting of general practitioners, was deemed too weak and poorly organized to shoulder the responsibility. As a consequence, it was stated that: "The hospital is to be regarded as an integral part of a social and medical organization, the function of which is to provide comprehensive health care for the population. And its activities are no longer restricted to services provided within its own walls: out-patient services are to reach out to the family in its home environment."[3] However, it was conceded that primary medical care might possibly expand enough to provide comprehensive care: "Home care by the family doctor, supported by assistance from the local health department, ranging from a simple home nursing service up to highly organized schemes that employ a wide variety of professional health workers and volunteers, must be studied and compared with hospital-based home care schemes that may or may not include the family doctor."

Functions of primary medical care

Gradually the centrifugal concept of the hospital yielded to a centripetal one, according to which the role of the hospitals is to provide support for the frontline services when they fail. The hospitals thus stand responsible for only a tiny fraction of health services and cannot be the provider of the comprehensive services needed. In the wake of this change of attitude, the role of primary medical care was naturally enhanced. It was felt that "the primary care doctor's role was moving from a more passive to a more active one, on the one hand reaching out into the community to discover, for instance, groups of individuals at special risk and, on the other, continuing his care beyond immediate treatment to cover medical and social rehabilitation." In accordance with this more active role, the functions of the primary care physician were expanded to include the following:[4]

a) To provide continuous and comprehensive care.

b) To refer to specialists and/or hospital services.

c) To co-ordinate health services for the patient.

d) To guide the patient within the network of social welfare services and public health services.

e) To provide the best possible health and social services in the light of economic considerations.

Accordingly the provision of comprehensive care is the task of the primary care physician. Another concern of this approach is continuity of care—or at least continuity of concern. The new division of labour between primary, secondary and tertiary care has been considered to correspond with the expectations of patients, who increasingly feel "the need for access to a particular person or group of persons who will provide the health or social care they require on a personal basis and the desire to be cared for, so far as possible, at home or at any rate in an ambulatory setting rather than as an in-patient."[5] The last point in particular, that is, domiciliary or ambulatory care, is far from a statement made in 1958: "All patients should have the right to diagnostic facilities and treatment at the hospital, if it is the only place where these can be given effectively."[3] The reversal of thinking is epitomized by the suggestion that one of the tasks of the primary care physician may be to protect the patient from the super-specialist.[5]

Research needs

In order to provide health care which is more closely related to needs, the focus of morbidity studies has to be shifted to primary care: "Hospital morbidity studies would remain useful for some purposes, but increasing emphasis is now placed on measurement of general morbidity in the population . . . His longitudinal knowledge of the patient and his family and community background provides the general practitioner with the challenge and opportunity to investigate and provide information on disease at the 'grass roots' in the community and to study the best methods of combating ill-health and providing medical care for the community."[4]

Consumer participation

Consumer participation has an individual and a collective aspect. As an individual the patient—and his or her family—should have the right to participate in the decision-making about their own care and to implement treatment as much as possible. The collective aspect is concerned with the public's right to participate in the

decision-making and planning for the provision of health services as a whole.

The traditional approach to individual consumer participation has been through health education. This type of health education has been practised in a paternalistic way, aiming to make the patient aware of the 'proper' behaviour, including the 'proper' use of services and compliance with the prescribed regimen in the case of an illness, without really attempting to involve patients actively in the treatment of their own disease. The key word has been compliance, not participation. Accordingly, it has been emphasized that greater efforts should be made to educate the community on health matters[4] and health services.[5] The main objective has been the improvement of knowledge and information,[6] when it should perhaps have been to make the patient a partner in the treatment team. The first clear stand taken on this issue would have been unequivocal ("It can be argued that the patient, or the patient and his family, should be regarded as belonging to the primary care team") had its effect not been diluted by specifying the objectives of this partnership in a rather traditional way: a) to ensure that the patient knows what the health service can provide and how to make the best use of those services, and b) to develop effective measures of health education so that potential patients as well as actual patients are given authoritative guidance about how to look after their health and avoid patterns of behaviour likely to prejudice it.[5] The word authoritative is very conspicuous and implies unquestioned professional supremacy.

The first references to the collective aspect of consumer participation are characterized by the same cautious and paternalistic, even authoritarian approach, reflecting only the concept of the 'right to be heard'. The views of the population should be ascertained, but the public does not need to be involved: "Surveys of public opinion should be attempted, particularly since public consultation before the inception of a new programme is today regarded as essential."[7] The somewhat later recommendation that "not only physicians (including primary care physicians) but also informed patients should be associated with the planning process"[4] also falls short of the current goal of full partnership, based on the awareness of "the desire of people to participate in decisions".[6]

Effective use of available resources

The effective use of resources has been dealt with in relation to the organization of health services (that is, what is the most effective way to organize them?), their functioning (are the existing organizations—regardless of their being optimal or not—working in an efficient manner?) and their quality.

Organization of health services

Under this heading, such issues as type of practice (general practitioner or specialist, group practice or solo practitioner), family medicine, definition and functions of primary care physicians, and teamwork have been discussed. Except for teamwork, no very clear recommendations have emerged. There is, however, a consensus on the need for further research: "In primary care there are problems of organizational priorities all of which require the evaluation of existing services for their solution."[8] This is why "there is much scope for research and properly evaluated experiments in varying patterns of primary health care. International comparative studies may be of value in this connexion."[5] One of the objectives of such studies is "to identify the specific infrastructure necessary for better primary health care".[9] No doubts obviously prevail about the salience of primary health care in improving the overall efficiency of health care: "The best trained and often the most experienced staff is in the frontline to carry out effectively and efficiently what is necessary, and to protect the more expensive and complex resources of modern hospitals".[9]

In this context, teamwork deserves a special mention as a means of shifting the focus of care from purely medical problems to broader health aspects, and of expanding the scope of legitimate providers of care from physicians to other health personnel and ultimately to lay people. This shift has been necessary because the development described above has largely neglected those needs that cannot be ministered by a physician.

The introduction of the concept of teamwork is a major step in closing this gap. During the early stages, one cannot speak of real team approach, since other health professionals and social welfare personnel were considered to be mere assistants to physicians. Gradually the idea of a team consisting of members specializing in various facets of care and capable of independent judgement creeps in, although the physician is still seen as the natural leader of the team, or at least a first amongst equals. The bold concept of "rotating leadership determined by functional requirements"[4] appears to be watered down, however, by the notion that "as most of the patient's troubles will still fall within (the physician's) province, he will in most circumstances be the effective leader of the team".[5] Somewhat discordantly, this working group defined the team as "a non-hierarchical association of people with different professional backgrounds but with a common objective, which in a given setting is to provide patient and families with the most comprehensive health care practicable"—a definition which would clearly envisage rotating leadership.

In certain fields, such as health care of the elderly, teamwork has come to be considered almost synonymous with efficient functioning: "Teamwork between the doctor, nurse, patient and family is an essential component of these services."[10] This statement also takes a clear stand on the patient's and the family's right to a full and equal membership of the team.

Gradually, the team concept has been extended from the provision of services to planning, management,

research and evaluation.[9] Such a team cannot work without appropriate training for teamwork. Consequently, the need for joint basic and continuing education and for careful selection of the team members has been repeatedly stressed.[5,9,11] This new emphasis will, however, require radical changes in the educational tradition of health professionals and in the attitudes of teachers—a need recognized early in the game.[4]

Functioning of health services

Explicit concern with efficiency (that is, outcome in relation to resources used) has surfaced relatively late in the discussions concerning health care. In 1958, it was claimed that: "It is a fundamental right of all people to have access to the best possible forms of health care".[3] During the rapid economic growth and expansion of hospitals in the 1960s, the nonchalant attitude to costs continued: "There was unanimous agreement that there was no way of and, indeed, no justification for, reducing expenditure on health services."[12] Ten years later, the mood was very different: 'How much is enough . . .? It is increasingly being asked whether the cost increase in health care expenditure has resulted in improvements in health status anything like commensurate with the extra expenditure."[13]

The increasing concern about the cost explosion of health care, so keenly felt by politicians although not always by health professionals, has resulted in two kinds of recommendations. On the one hand, the focus has been on the balance of different services within the health care system; on the other hand, the proper balance between health services and other services such as education, housing and nutrition, which contribute to health promotion, has been scrutinized. The first notion is discernible all the way through: "Sometimes patients were retained in expensive hospital beds because general medical practitioners and community services were not being used as effectively as possible",[3] "It is also necessary to study each component in relation to other components and eventually to the service as a whole. The hospital in-patient department must be studied in relation to the out-patient services, the domiciliary services, rehabilitation and convalescent services, and so on",[8] and "The strengthening of the role of primary and out-patient care will inevitably help to achieve a shorter and more effective stay in hospital, as well as an improvement of all components of curative care".[4]

The second notion finds its clearest expression in the report of the 1977 Working Group on the role of health economics in national health planning and policy-making,[13] which also very perceptively looked at the internal balance of health services: "Pressure to control costs is encouraging countries to try to identify the health benefits obtained from different parts of their present health expenditures as the basis for selecting priorities for the further development of each part. There is special interest in examining the extent to which less costly types of service can be substituted for more expensive services. How far, for example, can the strengthening of primary care services restrict, if not reverse, the trend towards specialization and cut down on the use of expensive hospital beds both by reducing admission rates and by facilitating earlier discharge from hospital? . . . Health care is increasingly seen as linked to social care and priority is being given in several countries to the development of alternative patterns of care in hostels, day centres, and residential homes for such groups as the elderly, the mentally ill, the mentally retarded and the long-term disabled." This Working Group also identified the key role of doctors with regard to efficiency: "It should never be forgotten that, while the patient normally presents himself to the doctor, the major costs of health services depend not on the decisions of the patients but on the decisions of the doctors."

The interest in the efficiency of health services has gone hand in hand with interest in evaluation. Already in 1972, it was stated[14] quite categorically that: "The time when medical care can be offered without evaluation is fast disappearing; resource constraints alone demand objective measures of effectiveness and cost-efficiency."

Quality of health services

Quality is a concept which appears with increasing frequency in discussions about the evaluation of health services and effective use of available resources. At first the notion of everybody being entitled to the best that medicine can offer prevails,[3] but gradually it has been replaced by the concept of functional quality, when the logical and economic fallacies of the 'best to all' approach have been realized. Since quality of health services is a more or less normally distributed variable with two tails, someone is bound to use the low quality services; not even the richest countries can afford the luxury of always providing everybody with the best that medicine can offer—'best' here meaning scientific-technological sophistication (cf. Vuori[15]). Consequently, it has been admitted that: "Quality of care is often influenced by available resources, volume and nature of work to be done, methods and techniques or process that may be used and finally the time available for tasks involved".[9] The context makes it clear that these factors were not thought to constrain health professionals from working at a desired higher level of care but were legitimate determinants of the optimal level. Patients' views on care as a valid criterion of quality is a recurring theme from the outset.

Public health care

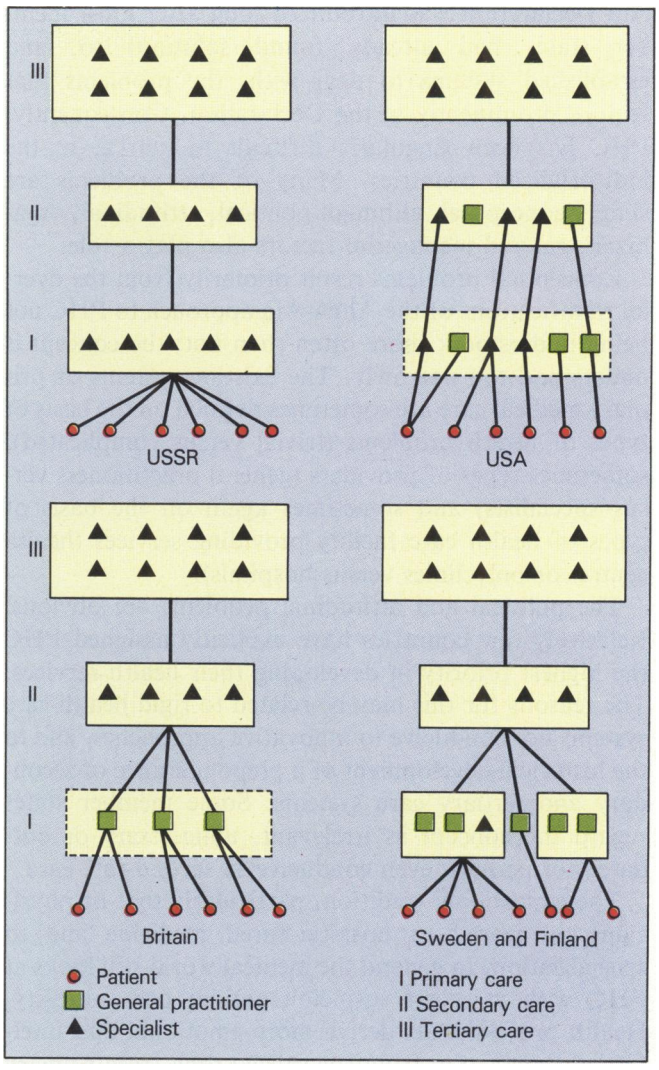
The chicken and egg relationship is always hard to establish, and PHC is no exception. In any case, regardless of whether WHO recommendations have influenced the train of events or whether the working

groups have just sensed and recorded what has already been in the air, there are certain trends in the European health care scene in line with the WHO recommendations analysed above and also with those of the Alma-Ata Conference. These trends are apparent within the framework of existing primary care systems and are shaped and conditioned by them.

Systems of primary medical care

Although few industrialized countries have a system of primary health care in the true sense of the Alma-Ata Declaration, all have some system for providing first-contact medical care. Four main approaches to organizing these primary medical services, the nucleus and starting point of primary health care in industrialized countries, can be discerned, and are illustrated in the Figure.

Many Central European countries have a variant of the United States model, which consists of a relatively unco-ordinated system of general practitioners and specialists working independently, either singly or in group practice. In the USSR, virtually the entire population is covered by polyclinics, which in densely populated areas can be very large, providing facilities for up to 50 physicians, the majority of whom are specialists. In sparsely populated areas, the polyclinics are smaller and one also encounters general practitioners working alone. In the most remote areas auxiliaries may provide the first-contact services. In the British National Health Service a general practitioner is typically responsible for a group of patients who have chosen him or her as their primary care physician. In the Scandinavian system (Finland and Sweden), the focal point for the provision of care is not the general practitioner but a health centre run by the local administrative unit. The area of responsibility is defined not by the people's choice but by administrative boundaries. The personnel working in the health centres are salaried employees.



Patterns of organization of primary care in industrialized countries (from Vuori[16]).

Trends in primary health care

Whatever the system adopted by a country, there are certain universal trends that were already discernible before the Alma-Ata Conference. These trends concern the relative roles of institutionalized versus ambulatory care, secondary and tertiary care versus primary care, more versus less specialized services, and health services versus social services.

In several countries, studies have shown that a large number of beds in highly specialized hospitals are occupied by patients who could well be taken care of in a less specialized institution. Such studies have prompted recommendations to identify for each patient the most appropriate level of care. In Sweden, for example, the bold concept of 'the lowest effective level of care' has been advocated. Another impetus for shifting the emphasis of health care from highly specialized hospitals to less specialized, primary care facilities comes from controlled clinical trials, which have demonstrated that ambulatory and primary care can, in many cases, be just as effective—and more cost-efficient—than specialized and institutionalized care.

In many countries the organizational, administrative and attitudinal obstacles to a better integration of health and social services are formidable, because these services are often the responsibility of different administrative units and organs. This easily leads to almost complete compartmentalization of activities, overlapping and rivalry. Integration is, however, being aimed at because many countries are increasingly realizing that the health care system is a singularly expensive and ineffective vehicle for providing social services. Behind the desire to integrate is the belief that almost all social improvements relieve the pressure on health care.

Problems in implementing primary health care

In the European Region, many problems stem from the fact that the concept of PHC as defined in the Alma-

Ata Declaration was introduced long after most member states had already found solutions to, and established systems to deal with, the problems that feature prominently in the Declaration. Consequently, PHC has been singularly difficult to market in the industrialized countries. Many of the problems are simply conceptual, although political, attitudinal, organizational and managerial factors also play a role.

Conceptual problems result primarily from the overall ramifications of the Alma-Ata approach to PHC not being understood; more often than not, the concept is understood too narrowly. The existing systems of primary medical care are sometimes defined on the basis of types of health problems (trivial versus complicated), sometimes types of providers (general practitioners versus specialists) and sometimes again on the basis of types of health care facility providing services (health centres or polyclinics versus hospitals).

The political and attitudinal problems are obvious. Relatively few countries have explicitly assigned PHC the highest priority in developing their health services. The reasons for this may be related to rigid health care systems not conducive to innovative approaches, and to the historical development of a preponderance of secondary and tertiary care systems. Some member states regard the concept as irrelevant, unnecessary or outdated, or perhaps even conducive to second-rate care.

The educational tradition, particularly that of physicians, is geared to hospital-based medicine and to specialization. In general the medical world still looks at PHC with at worst suspicion and at best curiosity. Health professionals derive more emotional and intellectual satisfaction from specialized than from primary care, which seldom offers such thrills as, for instance, major surgery. The public is not innocent either; it has demanded sophisticated high-technology medicine and has looked askance at PHC, often equating 'primary' with 'primitive'. In all fairness to the public, one should hasten to add that it has not invented this attitude, but has just adopted the prevailing professional prejudices. Against this background it is very encouraging to learn that the new generation of doctors seems to view PHC differently. The International Federation of Medical Students' Associations, at its General Assembly in 1979, passed a resolution expressing support for the Alma-Ata Declaration and a belief that practical training and teaching in PHC must be central to medical curricula.[17]

Perhaps the most important organizational problem is that in many European countries there is no official system for PHC, primary medical services being provided by private practitioners in an unco-ordinated fashion. This non-system easily results in a biased geographical and socioeconomic distribution of the services and in emphasis on curative services at the expense of preventive services. Social and health services are often poorly integrated.

The managerial problems are a corollary of the previous ones. As the PHC system as a whole is, in many countries, poorly defined, it has not been possible, or felt necessary, to develop effective managerial structures and techniques or to include managerial aspects in the training of health professionals.

The programme of the WHO Regional Office for Europe in primary health care

The underlying objective of this programme can be claimed to be the reversal of the relative roles of primary, secondary and tertiary care. The immediate objectives are the widening of the scope of PHC towards better integration of health and social services and towards self-care; increased community participation (including both an individual's participation in the decision-making concerning his or her care and the community's participation in the planning of PHC as a whole); making more efficient use of scarce resources by improving the co-operation between primary, secondary and tertiary care and by creating organizational structures and managerial mechanisms for PHC; and focusing on the problems of underprivileged populations. In addition, political commitment to the idea of shifting the priorities within health care from secondary and tertiary care to primary health care has to be promoted, and a clear conceptual framework to be used in 'selling' PHC must be developed.

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(Note: the abbreviations after the WHO publications are an essential part of the reference.)

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Investigation procedures in the elderly

Some commonly used screening investigations in the management of elderly acutely ill medical patients were performed on 50 consecutive admissions to one ward. All patients received a full blood count, ESR, urea and electrolyte estimation, liver function tests, thyroid function tests, examination of a mid-stream urine specimen and P-A chest x-ray examination. Only a full blood count, urea and electrolyte estimation, ward testing of urine, and, possibly, P-A chest x-ray examination are worthwhile screening investigations in this patient population. The ESR and liver function tests and mid-stream urine specimens seem to be of little value in the absence of clinical indication.

Source: Sewell, J. M. A., Spooner, L. L. R., Dixon, A. K. *et al.* (1981). Screening investigations in the elderly. *Age and Ageing,* **10,** 165-168.

Fractured femurs in the elderly

Forty-seven elderly patients admitted with a fractured neck of femur were compared with 34 elderly female control patients undergoing elective surgery who had been admitted over the same period to the same orthopaedic wards. The fracture patients had a lower forearm trabecular bone density, with lower bodyweight (both lower muscle mass and lower fat content), increased body sway, worse eyesight and reduced mental acuity. The serum biochemistry of the two groups was almost indistinguishable except that the fracture patients tended to have slightly lower concentrations of proteins. There was no evidence to implicate dietary vitamin D deficiency, osteomalacia, oestrogen deficiency or alcoholism in the aetiology of the fractures.

Source: Hudson, E. A. *et al.* (1982). Risk factors for fractured neck of femur in the elderly. *Age and Ageing,* **11,** 160-168.