

EDITORIAL

The public health imperative in Papua New Guinea

In the late 1970s the Government changed the name of the Department of Public Health to the Department of Health, thus more widely encompassing the Department's many functions and responsibilities. We now accept the unique role of public health in an integrated health service: during the recent medical symposium in Port Moresby we heard views on the nature of the relationship between public health and clinical medicine, on the areas in which they might be considered exclusive and, more importantly, on the areas in which they are, or should be, complementary. Public health physicians, who usually have a significant background in clinical medicine, realize the relevance of population-based practice and its enormous potential for influencing the health of the individual, the community and the nation and have no problem appreciating the definitive role of public health in the overall scheme of health service provision.

Public health and politics

In all countries health authorities struggle to reconcile the long-term potential of public health initiatives with the more urgent and visible, and therefore politically imperative, needs of curative health care. It is no easy task to balance these two needs: to have a vision for the future yet attend to the needs of the present. For many governments, whose security is usually measured in brief periods, say three years, forward thinking in any area of social need is compromised by the necessity to secure early, visible, political gains. In health care it is far easier to spend money on hospital-based activities with their visible and immediate returns than plan for preventive and promotive services whose benefits extend far past the lifetime of the political regime. Thus the current emphasis on waiting-list times for non-urgent surgical procedures appears to be the most important topic in contemporary health care in Australia.

At no time in the history of public health in

Papua New Guinea (PNG) have political influences been more significant than at present. Almost all aspects of health care delivery, certainly outside of Port Moresby and the provincial capitals, are provincial or district responsibilities and the influence of provincial and local politics on health expenditure, especially on infrastructure, is considerable. A major task of provincial and district health leaders is to ensure that real measures of health status (morbidity rates, malnutrition rates, maternal mortality rates) rather than measures of health infrastructure (numbers of health centres, beds, vehicles) are used to evaluate health needs and the quality of health care provision, and to provide a realistic basis for health planning. In rural areas it is difficult to demonstrate that new health facilities alone have had an impact on staff retention rates, admission rates for common illnesses or any measure of community health service (vaccination rates, antenatal coverage, supervised delivery rates, family planning services), yet local politicians use new facilities as a measure of improvement in health care and emphasize their own role in the creation of such facilities.

Health extension services

In Papua New Guinea, fortunately, an appreciation of the diverse health care needs of its largely rural population was realized at an early stage. Extension of health services from curative institutions has always been a 'culture', a code of behaviour accepted at least for health centres if not for district and base hospitals. In this vein PNG is unique amongst less developed countries and we certainly do not see this blend of curative and preventive/promotive health care at institutions in more industrialized countries. The concept of health extension in industrialized countries usually means curative (often private) health services taken to rural and remote areas with little regard for preventive and promotive health. In PNG health workers are trained with an eye to the needs of rural populations. The

community health worker (CHW) and health extension officer (HEO) courses are oriented to this end and the medical course at the University of PNG contains courses in public and rural health far in excess, numerically and qualitatively, of those in other countries in the region.

PNG can justly be proud of the way it struggles to support rural and extension health services in the face of an increasing imbalance between rich and poor, the influence of the vocal urban middle class and effectively decreasing resources for the provision of any type of health care. All provinces continue to support the principle of equality of health care although they have yet to demonstrate that decentralization of health services to district level administration has actually improved rural health care.

Church health services

PNG is blessed with an extensive church input into health, education and other social services. Almost half of the nation's health facilities are run by churches, as much as 75% of rural facilities in West Sepik Province and, at the least, approximately 30% in Enga, Simbu and Oro provinces (1). In addition many community health worker training schools and schools of nursing are run by churches. Our attention is constantly drawn to the quality differentials between church-run health services and government-run health services, the former operating on smaller budgets, with fewer staff and from older (but well-maintained) buildings yet achieving a higher quality of health care delivery, by any measure of curative or public health. Provincial health staff, provincial and local politicians and rural health staff all know this but, religious commitment aside, the transfer of skills and attitudes does not take place from one system to the other.

At the national level there is no shortage of good intention for quality rural health services and these intentions are described in detail in the National Health Plan 1996-2000 (1). Major national and donor-assisted projects (infrastructural, managerial and educational) should secure a firm basis for rural health services. However, their ongoing effectiveness

will depend on a well-educated and motivated rural health staff force with training and logistic support from provincial and national capitals, and this seems unlikely without major financial, hence political, support. The current state of supportive supervision is sadly lacking, resulting in a demoralized and inefficient rural health service. With few exceptions effective leadership from provincial and/or district levels, which holds the key to improvement of service, is lacking.

Public health training

Much basic and post-basic training in public health is supervised by the Department of Community Medicine at the University of Papua New Guinea (UPNG). All formal qualifications in public health are via this institution, with only a few accessible from overseas institutions. In the past three years the Department has been severely depleted of staff, not only because of limited resources to employ staff but also because of the difficulty in attracting and retaining staff from within PNG and overseas to work at the Medical Faculty. Salary differentials (academic and government service, public and private work) do not encourage suitably qualified public health physicians to enter the academic arena, or indeed public health in general. In addition conditions at the UPNG Medical School are not appropriate for efficient teaching, and financial and administrative uncertainties make improvements in this school seem unlikely in the near future. Without some stability in the Department of Community Medicine the future for training in public health, and thus public health practice, seems bleak.

Transitions in health

Requirements for basic public health are not in place in rural or urban areas of PNG. Before the 1930s, when movement of a large proportion of the population was limited to a nearby valley or forest or to villages within the same language group, the potential for the spread of infectious disease was minimal. This was particularly so in the highlands where frequent intergroup rivalries ensured very limited exposure to influences outside of the clan. The majority of the population is now extremely mobile, with attending risks for

exposure to new health hazards and potential for disease dissemination, for example malaria (2,3).

Public health authorities have not responded with a vigour to match that of the mobile public. Thus epidemic typhoid of the 1980s is now endemic throughout the highlands region and in many urban areas. A visit to any settlement, town or village attests to high levels of faecal pollution, absence of potable water and unhygienic food preparation and storage practices, thus creating optimal conditions for the spread of faecal-oral diseases. Syphilis, a rare disease in PNG before the mid-1960s (4), is now common in all urban centres despite the availability of effective treatment. Tuberculosis admissions continue to rise in many provinces and only 60-70% of patients complete treatment (1) thereby ensuring community spread of the bacterium. A rising prevalence of HIV infection increases individual and community susceptibility to tuberculosis and failure to control either disease will result in the decimation of some poorer communities. Our current capability to detect HIV means that, according to figures given by the World Health Organization, we underestimate actual prevalence by up to 10 times (5), and the logarithmic rise of known cases predicts a grim future. Admissions for pertussis and measles are increasing in three out of four regions in PNG. The infant mortality rate has deteriorated in eight provinces from 1980 to 1991 and has stalled nationwide since 1991 (6,7). Fertility remains high at five children per rural woman and four per urban woman, which is 25% more children than couples actually want and underlies much maternal and childhood ill-health. The maternal mortality rate remains equivalent to that in many desperately poor, war-torn African countries.

A resident medical officer writes recently in a report on an investigation into an epidemic of pertussis in an island/coastal area: "I came to see that the majority of the population don't get the type of health services that they are entitled to. It is a fact that the reporting system does not give us the real picture, more mothers die in the rural areas without any health worker doing anything about it. More children die in the rural areas without us knowing about it.

Vaccination status of those children is not up to date and they miss them very badly and get severe attacks of those avoidable diseases and die. The CHW or NO [nursing officer] or HEO is out there trying his/her best to treat the majority with less manpower, less amount of essential drugs and most of the time expired drugs. He/she does not have the laboratory support to help confirm epidemics. They are sent into the remotest part of the country and they don't see the fruits of their labour and become frustrated and finally all hope is lost. Embezzlement over the delayed receipt of their pay reduces their morale, discipline and thus collapse in health services." Similar sentiments are expressed by other resident doctors (personal communications).

In urban and some rural areas lifestyle changes are promoting sloth and overindulgence with epidemics of obesity and cardiovascular, cerebrovascular and pulmonary disease (8,9). In addition the tobacco industry has a firm grip on almost every activity associated with sport, the media and community recreation with an associated explosion in smoking amongst schoolchildren and young adults. Sporting authorities have permitted themselves to be overtaken by tobacco companies, as a trip to any sporting venue will verify. The media, in failing to recognize the deception and by its own blatant advertising, promotes social acceptance of smoking. In addition there is saturation advertising of tobacco by almost all small and many large retail businesses. Public health input into these problems is minimal, apart from education contained within formal training programs for health workers. There certainly is no aggressive commitment at government level to stem the rising tide of degenerative diseases, least of all those caused and accelerated by smoking. The ageing population, which currently consumes so many health resources in developed countries, will highlight these conditions which, taken together with degenerative neurological conditions, will present an enormous challenge for the health services of PNG in the future.

Much is made of the national wealth generated by multi-million-kina economic initiatives and how these are good for everyone. However, PNG has not addressed

the issue of adverse health consequences as a result of economic development and/or degradation of the environment. These consequences are multitudinous and include social disruption resulting in stress, poverty, crime and prostitution. Much illness presenting at outpatient departments and general practices is psychosomatic in origin and may be related to loss of esteem, feelings of guilt or overt poverty secondary to the social disruption caused, directly or indirectly, by mining, logging or industrial development. In Bougainville we observed how the mine resulted initially in considerable provincial and national wealth, later to cause massive social disruption and death and the total disintegration of all government services, including health. The current situation in Bougainville will take many years to correct. In the meantime thousands are displaced, approximately 50,000 children are unvaccinated and curative health services are rudimentary. More recently the Ok Tedi, Misima and Lihir developments have taken note of many of these mistakes and have ensured local involvement in decision-making and the development of support services, and have thereby minimized the health impacts of what are major environmental disturbances.

It is difficult to predict what condition the country would be in if these mines and developments had not occurred and no doubt much of the current national wealth rests largely on the minerals extracted from the earth. However, for many, the economic benefits of these developments are outweighed by the long-term consequences of family disruption, loss of community identity and social values and physical relocation to hostile environments. These consequences were, to some degree, inevitable but we should recognize them and have strategies in place to manage them.

Environmental health issues are approached, to some degree, by the larger mines, although not by independent monitoring agencies. No monitoring occurs, by health or environmental protection authorities, for the thousands of smaller industries springing up throughout the country (personal communication, Department of Environment and Conservation). In the absence of any system to monitor these

industries we may expect direct local pollution of air, water and food chains with heavy metals, carcinogens, hydrocarbons and biological agents, and indirect health effects by reduction of the food-bearing potential of the land and sea.

A transition in public health needs is occurring in PNG, as in many countries in the region. Interventions associated with shelter, food and water, and basic protection from infectious diseases are still important and their maintenance will ensure health gains already achieved for rural people. Public health priorities must now, however, address issues of urbanization, industrialization, ageing and health service management in order to deal with health problems associated with contemporary PNG society. Conventional strategies for achieving public health gains through vaccination, water purification and sanitation must be reinforced by a political will to improve access to and quality of service, to encourage administrative decision-making based on quality health information and to improve the distribution of socioeconomic services which affect health.

Health, politics and statistics

The health manager needs to be proactive at local and national political levels. This is not an easy task given the transient nature of political structures in PNG, particularly at provincial and national levels, and the effort to secure continuous improvement in health though multiple changes of Minister is enormous. The public health physician must affiliate himself or herself with politicians and ensure that decisions which influence the health of thousands are the correct decisions. Without an approach at the political level, local, provincial or national, no sustained improvement in health is likely to occur. Many health workers have realized this in the past and have taken the extreme step of formally entering the political arena. Alas, many have been side-tracked.

How can the public health professional be influential at a political level without getting involved politically? This is a difficult task. A start on the attack on poor health is information: accurate, reliable, comprehensive

health facts. Information that health workers understand. Information that politicians can understand and use. Facts that village people can use to compare their health over time and between villages or provinces. Facts that are epidemiologically robust and can withstand scrutiny on the world stage. Health information is available in PNG, mountains of it. The Department of Health generates monthly, quarterly and annual health statistics and uses the information for planning and evaluation of health services. What does not occur is dissemination of this information to the public who make decisions on health, who utilize health services and who elect politicians. The public lives in villages and settlements, goes to church, goes to school, goes to the market and attends local council and provincial government meetings, and these are the forums for dissemination of formal and informal information. Only a minority have televisions and access to newspapers so reliance on these methods of communication does not seem appropriate. A people-based approach which utilizes existing social structures will have a much greater impact.

In PNG the stage is set for senior public health workers to adopt an aggressive approach to these major deficiencies in health care provision, and efficient use of quality statistics is a first step. Their mandate for action is a review of any province's present health records. The magnitude of the problem is encapsulated in the ministerial document *The Health of the Nation*, published in February 1998, which demonstrates the above problems and highlights urban-rural disparity, a severely declining expenditure on health, decay of infrastructure and a general worsening of health in the community, especially of children and women (10).

Conclusion

The only certainties in contemporary PNG are that the population and the disparity between rich and poor will increase, that urban drift will continue, that the economy is unlikely to recover in the short term, that resources for health will continue to decline and that the

demands placed on struggling health services will increase. A renewed emphasis on public health and primary health care is therefore essential if PNG is to stay afloat in the rising tide of preventable disease.

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