Ten years ago the Public Health Network was established to strengthen the public health function throughout NSW. At that time it consisted of the Epidemiology Branch of the NSW Department of Health, and the newly-created Public Health Units. It has come to describe a much wider network of public health practitioners from health promotion, public health laboratories, and academia.This network has attracted and retained many talented public health workers, and its productivity is reflected not only in innovative project work and scientific publication, but also in commentary on current policy initiatives, and in finding pragmatic solutions to issues such as the training of an effective public health workforce.

Maintaining a sense of an active critical mass and unity of purpose is difficult for any group that is not collocated and that reports to different management structures. However, this network has been able to do that better than many, and this is reflected in the successful coordination of public health effort across NSW, a capacity highlighted during public health emergencies.

As part of exploring the future of public health directions in NSW, we are examining how the expertise contained within the network can make a wider contribution to policy development, and encompass more of the public health activities of the Area Health Services (AHS). The Divisions of Population Health, established in several AHS in recent years, have brought together public health functions such as public health units, health promotion units, and health services planning units. These Divisions have helped AHS execute their population health responsibilities, allowing better coordination and effective joint working between these groups. As we look to ways to further strengthen the network, we will examine the potential benefits that this model may offer public health, organisationally, if adopted statewide. Another task over the next decade will be to develop and implement a quality improvement framework appropriate to public health based on principles of effectiveness, appropriateness, equity and accountability.

The NSW Public Health Officer Training Program, also 10 years old this year, has produced a cohort of high-level multi-skilled public health workers with practical experience. Many of its graduates have filled places in the Public Health Network. Importantly, the program and the network have supported the dissemination of the broader concept of population health. Re-accredited in 1999 by the NSW Vocational Education Training and Accreditation Board, it is a significant credit to the program that we have received several requests by outside professional public health groups to adopt or adapt the program's competencies for their own training purposes. Recently we have identified specific workforce needs and targeted some of the training

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PRESSURES AND FUTURE TRENDS IN PUBLIC HEALTH AROUND THE WORLD

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A few years ago, the Pan-American Health Organization (PAHO) published a book entitled *The Crisis of Public Health*. In it, the authors suggested that public health as a community has become inward looking, focusing more on obscure methodological questions and less on the contribution of epidemiology to policy. They worried that an often misunderstood field would become even less relevant.

The Crisis of Public Health sparked an intense debate about the training and functions of public health practitioners, and it continues to this day. Who should these people be and what skills do they need? The question of what will they be working on has been less well explored.

The following observations about the pressures in public health now, and some ideas about future trends, are drawn from 12 years work with and visits to public health colleagues in more than 30 countries in Europe, Africa, Latin America and Asia. While acknowledging that only a fool forecasts the future, and that proposing classifications is a sure invitation to be vilified, I offer the following three broadly grouped categories as starting points to analyse where public health is now and where it may be headed.

1. ENVIRONMENTAL AND DEMOGRAPHIC CHANGES AND PRESSURES

Within this category, three features strike me as being increasingly important. One is the rapid shift in almost all countries in the balance between young people, those of

working age and the elderly. While the exact nature of the change varies widely, there is no question that intergenerational tension concerning society's resource choices will increase in the future. This tension is usually expressed in terms of how to care for the elderly, but, for some countries (notably in Asia), the problem has more to do with a relatively declining working-age group supporting large numbers of both young people requiring education and older people requiring care. As traditional family-based social structures change, solutions will increasingly require dialogue among citizens, government and the private sector. Public health has much to say about the relative value of education and about what kinds of care should be provided late in life.

Another major area within this category is that of emerging and re-emerging communicable diseases. Especially in more developed countries, public health had congratulated itself on 'solving' the problem of infectious disease. We could turn our attention to non-communicable and lifestyle-related illnesses. However, AIDS and chronic HIV infection, a resurgence of tuberculosis, and recent outbreaks of Ebola, Legionnaire's disease and Japanese encephalitis remind us that viruses, bacteria and other micro-organisms remain powerful enemies. Public health must be active, not only in identifying these pathogens, but in developing effective strategies to combat them.

While we have long known about links between environmental contamination and human illness such as cancer, evidence is beginning to emerge of disturbances to human reproduction as a result of long-term exposure to man-made environmental toxins. Beyond disease, these signs may be the first warnings that we have truly made our planet unfit for life as we know it. In their recent book *Our Stolen Future*, Theo Colborn, Dianne Dumanoski and John Peterson Myers explore the emerging science of endocrine disruption: how some synthetic chemicals interfere with the ways hormones work in humans and wildlife. The epidemiology in this area is still in its infancy and clearly calls for a renewed public health effort.

2. CHANGING HEALTH SYSTEMS

Around the world, health systems are changing because of financial and technological pressures. In this brave new world oriented to outcomes and accountability, public health can play a central role in assessing the effect of expenditure and result. Personally, I am a great optimist and believe that increased competition and transparency can only result in better care and healthier people. However, for public health workers to play an active role in achieving these outcomes, they must engage in a new kind of debate that is more economics- and management-oriented than many have cared to be involved with in the past.

The International Finance Corporation, the World Bank's private-sector arm, recently announced the results of a study which showed that between 30 and 70 per cent of health care in the average developing country is either financed or provided privately. Major banks such as Chase Manhattan and Rabobank actively invest in health care projects. Privatisation and corporatisation are favorite policy tools around the globe. Much public health thinking (especially in Europe and North America) is still influenced by a belief that the ultimate health system model involves public financing and provision. To influence positively the emerging model of partnership among public and private sectors, public health specialists in these regions will have to cast off their preconceived ideas of the private sector and actively evaluate the contribution to be made by all sectors.

Having said that, it is also important for public health to act as a 'health conscience' and remind society of the need for equality of access to health care, for investments in basic prevention and health promotion, and of the reasons for programs such as vaccination and environmental and occupational health. There is no excuse to abandon well proven public health activities.

3. EXTERNAL FORCES

Public health, like all fields of human endeavour, is affected by the currents of globalisation. Two facets of change are creating current pressures and defining the future: the growing access to information and the increasingly complex forces that affect health status. One of the most positive outcomes of the rapid dissemination of information is a more empowered consumer. It is a good outcome that patients ask more questions and are more demanding, even if it makes health care providers' jobs more difficult. In the United States, it is not uncommon for a patient to walk into a doctor's office with an advertisement for a new drug and demand a prescription. Improved information access and management can also yield better quality care. Public health both produces and interprets the raw data that becomes health information. Therefore, it is essential that the public health community is active in both information creation and fostering health literacy among the general population.

Public health specialists have always known that health is largely created outside the formal health care sector. Education, environment, income and lifestyle, among other factors, play significant roles in determining an individual's or a community's health. However, today's increasingly complex world has created new health determinants, some good, some less so. For example, the growing popularity of physical fitness is a welcome public health trend, but the wide distribution of highly sugared fizzy drinks in countries where oral hygiene is still rudimentary is much less so. How to maximise the beneficial aspects of globalisation for the public's health while minimising the negative aspects remains a key future challenge for us all.