Course Name	**: Health Today/Policies and Regulations**
Course Code	**: APBPH 3406**
Course level	**: level 6**
Course Credit	**: 4 CU**
Contact Hours	**: 60 Hrs**

Course Description
The Course discusses globalization in the context of resources, globalization & health resource, international health & health organization resources, a global world; disease &disaster resource, measuring development &health resource, the Strategic development goals (SDGs), the policies and regulations in public health and public health.

Course Objectives

- To introduce students to the policies and regulations from a global to a local level that are seen to govern the practice of public health
- To strengthen the student's capacity to get exposed to knowledge of minimum use of existing resources in public health to produce maximum output.
- To help students observe objectively to the integration of law in public health by the government and practitioners to promote social justice in accessing public health interventions/programs without any sort of discrimination on the basis of race, color and sexual orientation.

Course Content
Introduction to health in the World today Resource
Globalization: the context Resource

- The features of globalization resource
- The challenges of globalization resource

Globalization and Health resource

International health and health organizations resource

- Multilateral organizations resource
- Bilateral organizations resource
- Non-governmental organizations resource
- Refugee and disaster relief organizations resources

A global World: disease and disaster resource

Measuring development, measuring health resource

- An unequal world resource
- Health in the "developed" world resource
- Health in the "developing" world resource

The Millennium Development Goals Resource

- Millennium Development Goal 4 Resource
- Millennium Development Goal 5 resource
- Millennium Development Goal 6 Resource
- The MDGs in 2005 Resource

The policies and regulations in Public Health

- What is a health policy
- Key elements of policy
- Politics and power resource
- The Linkage between power and policy making
- The value base of health policies
- Overview of the health policy making and implementation process
- Other health policy options
- Development of the Memphis health care principles
- How the Health care principles were developed

Public Health Law

- Importance of Law in Public Health
- Types of law in Public Health
- Health insurance
- Law of populations
- The network for Public Health Law
- Quality of system

Mode of delivery Face to face lectures

Assessment
Coursework 40%
Exams 60%
Total Mark 100%

HEALTH IN OUR WORLD TODAY /POLICIES AND REGULATIONS

Course description

This courseexamines the nature of globalization in order to set the scene for an understanding of the concerns about health and public health in this first decade of the third millennium and also analyses the interrelationship between health policy, politics and power with particular focus on developing countries. and seeks to empower students with the analytical and conceptual skills to perform this analysis themselves. The models, actors, process, content and context of health policies are examined.

Although globalisation is a long-standing, many-faceted, and complex area of investigation, its effects on health, more especially public health, are only

relatively recently becoming apparent. And while globalization is generally the subject of much criticism, some of the health-related effects are extremely beneficial, especially for the so-called “developing” countries. Our examination of international health will reveal just how much smaller the world has become through globalization such that we can actually talk about “international” health. In the section “a global world: disease and disaster”, we outline the extent to which diseases and disasters at local levels can have global implications.

Contents

Aim of the course

The course is intended to equip students with the knowledge and skills to analyze health policies and the process of health policy making and to enable students to appreciate the influence of power and politics at international, national and community levels in the design and implementation of health

policies.

Course objectives

The objectives of the course are to enable students to:

- Understand and analyse the role of health policy in building effective health systems.
- Understand the various models, actors, process, content and values in health policy formulation and implementation.

Course Work

In not less than 2000 words write and essay critically explore the influence of politics and power on health policies and systems in your Country.

Briefly account for the following terms in relationship to Public Health

- Evidence-based policy
- Health care reform
- Health crisis
- Health economics
- Health insurance
- Health promotion
- Health law
- Inverse benefit law
- Inverse care law
- Medical law
- National health insurance
- Patient safety
- Pharmaceutical policy
- Policy typologies
- Public health law

Health in the world today: Globalisationcontext

The challenge in this era of globalization –for countries and individuals– is to find a healthy balance between preserving a sense of identity, home and community and doing what it takes to survive within the globalization system. Any society that wants to thrive economically today, must constantly be trying to build a better Lexus and driving it out into the world. But no one should have any illusions that merely participating in this global economy will make a healthy society. If that participation comes at the price of a country's identity, if individuals feel their olive tree roots crushed, or washed out, by this global system, those olive tree roots will rebel. They will rise up and strangle the process. Therefore, the survival of globalization as a system will depend, in part, on how well all of us strike this balance. A country without healthy olive trees will never feel rooted or secure enough to open up fully to the world and reach out into it. But a country that is only olive trees, that is only roots, and has no Lexus, will never go, or grow, very far. Keeping the two in balance is a constant struggle. (Friedman, 2000: 42)

Globalization is a phenomenon that everyone has been talking about for the past decade and more. Ever since Samuel P. Huntington published *The Clash of Civilizations and the Remaking of World Order* in 1997, academics, especially political economists, have been worrying the issue of globalization to death. According to Thomas Friedman in *The Lexus and The Olive Tree*, "globalization has replaced the Cold War as the defining international system". (Friedman, 2000: 7) Whereas the world was characterized by division during the period of the Cold War, now, with globalization, the world is characterized by integration. And most of this integration has taken place, and is continuing to take place through the Web – incidentally, making our world a much less human place. When the first explorers from Europe came to the continent of Africa, the world was a rather big place, full of unknowns. Their journey to us was long and arduous. Today, we can contact their descendants in Europe in the blink of an eye. That in itself, is something of a miracle; and yet it can also be de-humanizing, as we shall see later in this unit.

The cultural homogenization of this age of globalization has its own defining technologies: computerization, digitalization, satellite communication, fibre optics, and the Internet, all of which make it much more easy to communicate across vast distances. And it is this closing of distance that causes some of the problems associated with globalization. In this topic of module 1, Foundations of Public Health, we want to bring a closer analysis of the issue of globalization to your attention so that you can begin to appreciate the fact that the world is growing smaller by the day –and when that happens, all sorts of problems raise their heads. In Friedman's book about the Lexus and the olive tree, he describes the Lexus as a forward-looking process whereby people (and countries) strive for improvement, prosperity, and modernization. The olive tree, on the other hand, stands for what roots us: family, friends, home, community. The problems begin when one or other takes the upper hand, according to Friedman. And, it must be said, that many people are torn between the two: torn, in a sense, between tradition and rootedness and an a-cultural prosperity attained through modernization.

The features of globalization

There are many explanations of globalization as there are many types of it. However, the economic explanations seem to dominate. It generally refers to the accelerating interdependence of the world's economies, characteristic of modern history. Some people talk of the "global village"/"villagization", with many benefits as well as many disadvantages, especially for the marginalized, the poor, and the powerless. Globalization is related to the so-called maturation of capitalism/imperialism and its imminent interdependencies, alongside the information superhighway. What does all this mean?

Economic globalization is characterized by increases in capital movements, faster growth of world trade than domestic trade, the internationalization of production, with the rapid expansion of companies with multinational corporations, declining communications costs due to the information technology revolution with increased technological interdependence, and the convergence in state economic policy approaches in favour of neo-liberal market-oriented development.

Social scientists recognize that globalization is not a new feature of the contemporary world economy. Various ideas on globalization were expressed by people such as Adam Smith, Karl Marx, John Stuart Mill, John Maynard Keynes, and Vladimir Ilyich Lenin, to name only a few. In the last few years there has been a flurry in the number of writings and intellectual contributions on and about globalization: its evolution, meaning, impacts, and broader implications. And there are almost as many points of view as there are writers. Many people are really concerned and preoccupied with this powerful multi-faceted trend known as globalization. Some of the efforts have been directed towards understanding the evolution of globalization: is it part of the evolutionary trend of humanity in general or of capitalism in particular or an advanced stage in the development of the 20th century multilateralism, or simply one of many processes of change?

The challenges of globalisation

For any country and society globalisation presents both formidable challenges and promising opportunities. To cultivate the fruits of "going global" and to minimize its adverse impacts requires continuously developed human capital. The dynamism, speed, and scale of globalization processes could very well marginalize countries as well as people, and generate processes of social exclusion and polarization even in countries benefiting, on the macro level, from globalization. Being dependent on one or a few exports to generate the needed revenues, having less diversified industrial structure, characterized by a micro and small-family type private sector, heavy dependency on both foreign capital and highly skilled expatriate workers and imported products, and for variety of other reasons, we would have to say that African countries are among those countries facing marginalization under globalization.
The political economy of globalization seems to be facing a challenge of the tension between the “globe” and the “local”. It is no longer as homogeneous as the word globalization would seemingly suggest. And it gets mixed reactions from different people and institutions according to whether they benefit or not. However much globalization as growth has not been good news for the world’s marginalized peoples, it has had some “positive side effects”, such as increased human rights advocacy, gender sensitization, and so on. This consideration suggests that there are "good" forms of globalization as well as "bad" ones. What is important, then, is to globalize in what society deems as good

globalization and to de-globalize in what society sees as detrimental globalization.

There are more questions than answers in the debate concerning the advantages and disadvantages of globalization precisely because, as a process, it has meant many things to different people and nations. On one hand, it has contributed to and become a source of human deprivation through processes of marginalization and social exclusion. On the other, it has enhanced human development through various processes which lead to increased efficiency of both investment and production, expansion of choices and provision of wider opportunities for most people. Human development, viewed in the context of capability, choice, and contribution, is likely to be effected by globalization.

Globalisation and health

It should be obvious by now that the smallness of our world will have its effects on human lives, especially on health. While it is the case that globalization is somehow regarded as being “bad” for Africa and other marginalized countries, it must be said that there are some positive benefits of globalization in relation to health. But before we outline some of these benefits, let us see how globalization affects health in its most general ways.

First of all we should note that the kind of development that focusses on economic growth will not be the kind of development that puts people and people's health as a first priority. Yet it must be said that poverty is possibly the greatest disease affecting African countries. While malaria, communicable diseases, and maternal and infant deaths claim more lives than they should each day, often poverty is the underlying cause for sickness and disease in the first place. In recognition of this fact, Live Aid and the Make Poverty History Campaign focussed on improving the lives of the poorest of the poor not only through cash donations, but also through self-help initiatives. The thinking behind the approach of artists as Bob Geldof and Bono was that people who can feed and shelter themselves will be more self-sufficient in relation to other aspects of health and well-being. However, poverty will not simply go away through further economic growth and modernization – these can actually cause more poverty.

In a globalizing world, the increasing interconnectedness of nations and peoples has made the differences between them more glaring, especially in relation to health care. A girl born in a "highly-developed" country today may have a 50% chance of seeing the 22nd century - while a newborn in many "developing" countries has a 1 in 4 chance of dying before the age of 5. And the richest 5% of the world's people have incomes 114 times those of the poorest 5%. Every day more than 30,000 children around the world die of preventable diseases, and nearly 14,000 people are infected with HIV/AIDS. In Botswana more than a third of adults have the disease; in Swaziland and Zimbabwe the

number is more than a quarter. And if tuberculosis control does not improve world wide, 1 billion people will contract it by 2020 and 35 million will die from this disease.

International health and health organisations

Contrary to what most people think, almost the entire cost of health care in the developing world is borne by the developing countries themselves. Aid from international health organizations in the developed countries pays for less than 5% of the total health care costs in many countries of the developing world. Yet, according to the World Bank, in sub-Saharan Africa (excluding South Africa) aid from donor countries averages 20% of total health expenditures.

Although the aid given to the developing world as a whole is relatively small in financial terms, it can be of crucial importance. Research and pilot programs sponsored by agencies from the industrial nations have generated many of the best ideas for improving health in developing countries. Also, the international health organizations are a major source of expert technical advice and training for local health professionals. Finally, these organizations produce the major textbooks in tropical health, as well as the most important manuals for health care workers.

A large number of organizations of various sizes provide international health aid. The exact roles played by these organizations can be bewildering at times, even to professionals in this field. What follows is a description of the functions of the largest international health organizations. The international health organizations providing long-term health care are usually divided into three groups: multilateral organizations, bilateral organizations, and non-governmental organizations (NGOs).

Multilateral organisations

The term **multilateral** means that funding comes from multiple governments (as well as from non-governmental sources) and is distributed to many different countries. The major multilateral organizations are all part of the United Nations. The **World Health Organization** (WHO) is the premier international health organization. Technically it is an "intergovernmental agency related to the United Nations." WHO and other such intergovernmental agencies are "separate, autonomous organizations which, by special agreements, work with the UN and each other through the coordinating machinery of the Economic and Social Council." According to its constitution (1948) its principal goal is "the attainment by all peoples of the highest possible level of health."

WHO has three main divisions. The governing body, the *World Health Assembly*, meets once a year to approve the budget and decide on major matters of health policy. All the 190 or so member nations send delegations.

The World Health Assembly elects 31 member nations to designate health experts for the *Executive Board*, which meets twice a year and serves as the liaison between the Assembly and the *Secretariat*, which carries on the day-to-day work of the WHO. The Secretariat has a staff of about 4,500 , with 30% of the employees at headquarters in Geneva, 30% in six regional field offices, and 40% in individual countries, either as country-wide WHO representatives or as representatives of special WHO programmes.

The principal work of WHO is directing and coordinating international health activities and supplying technical assistance to countries. It develops norms and standards, disseminates health information, promotes research, provides training in international health, collects and analyzes epidemiologic data, and develops systems for monitoring and evaluating health programs. The Pan American Health Organization (PAHO) serves as the regional field office for WHO in the Americas and, since it pre-dates WHO, carries on some additional autonomous activities.

The **World Bank** is the other major "intergovernmental agency related to the UN" heavily involved in international health. The World Bank loans money to poor countries on advantageous terms not available in commercial markets. The amount of money loaned to developing countries for human resources development, i.e. health and education, has increased steadily over the past 10 years, from 5% of total loans in the early 1980s to 15% in the past two years, with a projected 50% increase in human resource development loans over the next three years. The total amount of loans for health, nutrition, and population activities in 1995 was approximately $1,200 million.

Three subsidiary agencies of the UN Economic and Social Council are heavily committed to international health programs. The **United Nation Children's Fund (UNICEF)** spends the majority of its program (non-administrative) budget on health care. UNICEF makes the world's most vulnerable children its top priority, so it devotes most of its resources to the poorest countries and to children younger than 5. In 1994 UNICEF received about $1 billion in contributions, all voluntary - 70% from governments and 30% from private sources. (The US government is the largest single donor to UNICEF, but the per capita contribution from the US, including private sources, is much less than that from Canada, Switzerland, the Netherlands, and the Scandinavian countries.) In 1994 UNICEF spent $202 million on child health, $81 million on water supply and sanitation, $30 million on child nutrition, and $216 million on emergency relief. UNICEF runs many of the child health programs in cooperation with WHO. The **United Nations Population Fund (UNFPA)** spent about $130 million of its $260 million budget for 1994 on family planning programs, with 59 priority countries receiving 70% of this money. (Priority is based on rate of population growth and poverty.) The **United Nation Development Programme (UNDP)** allocated $141 million, out of a total budget for field expenditures of $1 billion, to "health, education, employment." Its

major health concerns are AIDS, maternal and child nutrition, and excessive maternal mortality. In conjunction with WHO and the World Bank it sponsors the Special Programme for Research and Training in Tropical Diseases (TDR).

Bilateral organisations

Bilateral agencies are governmental agencies in a single country which provide aid to developing countries. The largest of these is the **United States Agency for International Development (USAID)**. Most of the industrialized nations have a similar governmental agency. Political and historical reasons often determine which countries receive donations from bilateral agencies and how much they receive. For example, France concentrates on its former colonies, and Japan gives mostly to developing countries in Asia. In 1994, USAID, through its Center for Population, Health, and Nutrition, donated $1,050 million for long-term health care in developing countries. USAID channels most of this aid through "cooperating agencies" - private international health agencies which contract with USAID.

Non-governmental organisations

Non-governmental organizations (NGOs), also known as private voluntary organizations (PVOs), provide approximately 20% of all external health aid to developing countries. Most of these organizations are quite small; many are church-affiliated. In the very poorest countries, hospitals and clinics run by missionary societies are especially important. Data from Uganda indicates that church mission hospitals are much more efficient than government health facilities, with mission doctors treating five times as many patients as their counterparts in government facilities and mission nurses attending twice the number of patients that government nurses do. The largest NGO devoted to international health in the United States is **Project Hope**, with an annual budget exceeding $100 million. Worldwide, the most important NGO in long-term international health is probably **Oxfam International**. Founded in the United Kingdom in 1943, it now has affiliates in 10 other countries.

The **International Red Cross and Red Crescent Movement** is the largest and most prestigious of the world's humanitarian NGOs. It has three components: the *International Committee of the Red Cross (ICRC)*; the *International Federation of Red Cross* and *Red Crescent Societies*; and the 160 or so individual national *Red Cross societies*. The seven fundamental principles of the movement are: humanity; impartiality; neutrality; independence, i.e. autonomy vis-à-vis national governments; voluntary service; unity, i.e. for each country only one national Society, open to all and serving the entire country; universality.

The **ICRC** is a Swiss organization, founded in 1863 and mandated by the Geneva Conventions to protect and assist prisoners of war and civilians in

international armed conflicts. It may also offer its services in civil wars. Its functions include: visiting and treating prisoners of war and political detainees and providing them with a communication service with the outside world; setting up surgical hospitals or providing expatriate teams to work in existing hospitals; providing other types of medical assistance and relief, especially rehabilitation of war-disabled patients; development and dissemination of educational materials concerning health care of prisoners and victims of war. In regard to this last function, the book *Surgery for Victims of War* is especially well-known. In 1994, the ICRC expended about $530 million on these various activities.

The **International Federation of Red Cross and Red Crescent Societies**receives its principal support from the individual national societies. Its main mission is to provide disaster relief. It works closely with the national Red Cross societies in the affected countries. In addition, it issues international appeals for emergency aid and often serves as the organizing agency for the relief efforts of smaller organizations. In 1994 it supplied almost $400 million in disaster aid.

Like the Red Cross, **Medecins Sans Frontieres (MSF)** provides health aid to victims of war and natural disasters. Unlike the Red Cross, MSF is willing to enter war-torn areas without the permission of authorities. Another difference between the two organizations is that MSF, although its charter includes the same principles of impartiality and neutrality followed by the Red Cross, considers one of its functions to be speaking out on human rights abuses. Usually this speaking out consists of drawing attention to cases of human rights violations that MSF considers under-reported, but on occasions MSF will take a strong stand and denounce egregious violations. Such denunciation can render the humanitarian work of MSF more difficult and dangerous. Founded in 1971 in France, MSF now has six operational centers in Europe and 13 delegate offices throughout the developed world. In 1994 it spent over $300 million on its programs and sent 2,950 volunteers into the field. In addition to aiding in acute disasters, MSF also provides aid in "chronic emergencies" (e.g. Somalia, Sudan), assists in several long-term health projects, and publishes a series of field manuals/texts on disaster medicine.

It is important to note that alongside the large international health organizations there are many excellent, smaller NGOs, with long records of valuable contributions to health care in developing countries. There are about 65 official multi-lateral and bilateral international health agencies. The total number of NGOs worldwide has been estimated at 1,500. Thus it is not unusual to find two hundred or more international health agencies operating in the world's poorest countries.

Refugee and disaster relief organisations

In most natural disasters, e.g. earthquakes, floods, volcanic eruptions, the majority of deaths occur in the first few hours or days, and likewise most of the lives that are saved are saved early on and saved by local efforts at disaster relief. A major disaster, however, can overwhelm the resources of a poor country and, by destruction of an already somewhat tenuous economic and social infrastructure, set the stage for famine and epidemics. The aid provided by international relief organizations in the days immediately following the disaster can play a major role in averting health crises and re-establishing a functioning society.

In contrast to natural disasters, famines and refugee crises tend to develop slowly, often preceded by warning signs of the impending emergency, so that international agencies can coordinate relief efforts with national agencies in a timely fashion. The United Nations agencies are probably the most important of the international relief organizations, but there are several very large NGOs active in refugee and disaster relief, notably the ICRC and MSF.

United Nations Organisations

Six major UN organizations are involved in refugee and disaster relief. The Department of Humanitarian Affairs, established in 1992, coordinates UN activities in this area. The Department operates on a 24-hour basis the UN Disaster Assessment and Coordination Team, which can be deployed immediately to an affected country. Three of the six major agencies are mentioned above in the section on long-term health care. *UNICEF* allocated $216 million to emergency relief in 1994. The *WHO* budget does not contain a line item for disaster relief, but WHO is active in this area through its Division of Emergency and Humanitarian Action, which coordinates the response of the international relief community and supplies technical assistance and emergency drugs and equipment. *UNDP* allocated $59 million to disaster relief in 1994; its special function is organizing efforts at rehabilitation in the disaster-struck area.

The *World Food Programme (WFP)* supplies food relief in disasters and coordinates the activities of NGOs involved in food relief, as well as assisting them with transportation and logistics. In 1994 it spent $874 million on relief. The WFP also supports agricultural and rural development ($181 million), and education ($131 million).

The *Office of the UN High Commissioner for Refugees (UNHCR)* provides international protection to refugees and also attempts to find long-lasting solutions to their problems. UNHCR is the major international organization for the world's 20 million refugees. It aids refugees directly and coordinates the work of NGOs involved in refugee relief. Although it has no formal authority over displaced persons), upon request of the UN General Assembly and the Secretary General, UNHCR has provided assistance to displaced persons in

such countries as Bosnia and Herzegovina, Somalia, and Rwanda in recent years. In 1994, UNHCR spent almost $1.2 billion on its programs.

The sixth of the UN organizations involved in relief work is the *Food and Agriculture Organization (FAO)*. Like the World Bank and WHO it is technically an "intergovernmental agency related to the UN." It helps developing countries prepare for famine through its Global Information and Early Warning System and its Food Security Assistance Scheme, which helps developing countries set up national food reserves. In disasters its principal role is to assist in the re-establishment of agricultural production.

A global world: disease and disaster

The spread of a disease does not stop at a country's borders. With more people travelling to other countries and living in crowded cities, it is much easier for germs to spread. Infectious diseases that start in one part of the world can very quickly reach another. Drug resistance is on the rise, making it more difficult to treat some diseases. Natural and human-made disasters create refugee populations with immediate and long-term health problems.

According to the World Health Organization: in our globalized and mobile world, infectious diseases are emerging and spreading at an unprecedented rate. Around 40 new diseases have been identified since the 1970s, and in the past five years alone, the WHO has verified over 1,100 epidemic events worldwide. The *2007 World Health Report, A Safer Future: Global Public Health Security in the 21st Century*, explores the challenges underlying today's most urgent public health threats. The WHO sends a clear message throughout the report: effectively preventing and responding to new and emerging public health risks will require enhanced international cooperation and transparency.

The world now faces a number of public health threats originating from both human and environmental sources. With an estimated 2.1 billion airline passengers travelling in 2006, the rapid global spread of epidemic-prone diseases, such as Acute Respiratory Syndrome (SARS) in 2003, is a constant risk. Although the SARS virus was ultimately contained within 4 months, the human and economic toll in Asian countries included over 10,000 people infected and $60 billion of gross expenditure and business losses. Appearing shortly after the SARS outbreak, Avian Influenza is now the most feared public health threat globally, although early warning has provided the international community with an opportunity for planning and preparedness.

Inadequate surveillance, inconsistent policies, and lack of material and financial resources in some countries presents a major challenge to achieving public health security worldwide. The emergence and spread of HIV/AIDS in the 1970s demonstrates the global consequences of failing to recognize a new disease threat quickly. In 2003, a change in vaccination policy in Nigeria led to

an outbreak of polio, a disease that had been virtually eliminated. The outbreak paralyzed thousands of children in Nigeria and spread the disease to 19 previously polio-free African countries.

Selected Emerging and Re-emerging Infectious Diseases, 1996-2004 (Source: WHO, 2007)The effects of infectious diseases, such as HIV/AIDS and tuberculosis include the destabilization of nations and damage of social and political infrastructures. The rapid spread of communicable diseases such as SARS, West Nile virus, and avian influenza, and the resistance to a growing number of antibiotic drugs have contributed to the increased prominence of publicThe effects of infectious diseases, such as HIV/AIDS and tuberculosis include the destabilization of nations and damage of social and political infrastructures. The rapid spread of communicable diseases such as SARS, West Nile virus, and avian influenza, and the resistance to a growing number of antibiotic drugs have contributed to the increased prominence of public health as a security priority for the entire world.

The emergence of infectious diseases reflects complex social, economic, political, environmental, ecological, and microbiological factors that are globally linked. Recent natural disasters (December 2004 tsunami, Hurricane Katrina) have demonstrated the threat to human life and health posed by non-human sources of fear. Developing countries, in particular, suffer from the impacts of natural disasters, urbanization, deforestation, population growth, poverty, malnutrition, political instability, and even terrorism, and have created the conditions for several infectious diseases to become new or recurrent threats.

The WHO report discusses these and many other of the most critical public health threats in the 21st century, including:

- Foodborne diseases, such as bovine spongiform encephalopathy (commonly known as mad cow disease), which are facilitated by international food trade.
- Toxic chemical or radioactive accidents, such as the dumping of 500 tons of petrochemical waste around the city of Abidjan, Cote d'Ivoire, forcing over 90,000 to seek medical help.
- Bioterrorism, a risk made real by the USA anthrax letters in 2001.
- Environmental disasters, such as the European heat wave in 2003 that claimed at least 35,000 lives, but also including disease outbreaks associated with disasters such as floods, Hurricane Katrina, and the Tsunami that claimed so many lives in the recent past.
- Conflict situations, which disable public health services and sometimes force millions of people into overcrowded camps with inadequate water and sanitation.
- Microbial adaptation and drug resistance, which has resulted in a drug-resistant strain of tuberculosis in Africa (XDR-TB) and is emerging in HIV/AIDS.

According to the report, no single country is alone capable of preventing, detecting or responding to all public health threats. Strengthening public health security at the global level will require stepped up international cooperation, especially regarding those countries that lack resources, have weak health infrastructure, or are particularly vulnerable. The World Health Organization gives six key recommendations to improve global public health security:

- All countries must fully implement the International Health Regulations, which were revised in 2005 to include new and emerging public health threats.
- All countries must cooperate in surveillance and outbreak alert and response.
- Countries must share knowledge, technologies and materials openly.
- The health infrastructure of all countries must become a global responsibility.
- Cross-sector collaboration within governments should be improved.
- Global and national resources for health must be increased.

More detail concerning global health issues will be found in the course Health in Conflict and Complex Emergencies.

Measuring development, measuring health

In this section of the unit on measuring health, we begin with a brief introductory discussion of development since “development” is the framework within which we place health and health indices when attempting to measure health. Development itself has many dimensions, not only the economic one: it is at once political, social, personal, and spiritual. In short, development is human. Someone once said that there are no specific political, economic, or religious problems, there are simply human problems.

If development means concentrating on human beings, then it must focus on human well-being or flourishing and that means: good health, peace, abundance, respect, honour, security, happiness, responsibility, participation, empowerment, freedom, and self-reliance. Thus, with the idea of human development in mind, development becomes a sort of journey; it cannot be a state to be reached because we can never reach the stage where we can say: “we are developed".

The concept of human development has attracted many interdisciplinary contributions and orientations from diverse fields. The writings of various philosophers, from Aristotle to Emmanuel Kant, and among the leading political economists, from Adam Smith, David Ricardo, and Thomas Malthus, to Karl Marx and John Stuart Mill, all make reference to and emphasize

"human good", "flourishing lives", and human beings as the "real end" of all activities.

In the field of managerial and industrial psychology, as early as 1954 Abraham Maslow brought to the fore the very essence of contemporary human development thinking when he proposed the theory of a human "hierarchy of needs". Maslow argued that human needs are hierarchical by nature and when people are assured of all those needs they can then be able to reach and use their full potential. From Maslow's initial reflections, the concept of human needs has undergone a number of significant transformations. Contemporary scholars and philosophers, for example, have enriched the debate on human development greatly. For example, AmartyaSen conceives development as an expansion in positive freedoms, while Martha Nussbaum distinguishes between internal capabilities of a person and external factors that facilitate the exercise of such capabilities.

In the aftermath of World War II, development economics was predominantly concerned with growth in average income: GDP per capita. When the concept of human capital arose in the 1960s, it emphasized the qualitative aspects of human inputs, namely skills and education, in wealth generation and capital accumulation. A shift towards issues of income distribution had taken place by the 1970s in response to the failure of the then adopted development strategies to have significant impacts on reducing poverty. The switch to distributional aspects of growth facilitated the emergence of Basic Needs strategies, a fundamental element of which was the concept of human development and its relationship with income growth. In the mid-1970s, The Club of Rome called for the creation of a Quality of Life index to measure development and economic welfare in and between nations. Recently, attention has been directed towards another important dimension of human inputs in community development and well-being, and that is social capital.

The fact that human development has been conceptualized in a variety of ways emphasizing many and diverse issues, means that there are some implications on the measurement of such development. Measures are needed and used for planning, comparison and decision-making purposes, and they are meaningful when real, accurate, and sufficient data are available. It is not possible to construct a measure based on a philosophical conceptualization unless such a measure is translated into quantifiable variables. This explains why we find a significant gap between the richness of conceptualization and the limitation of measurements, despite their vast and growing number, of human development. Nevertheless, the attention to human deprivation and development has boosted efforts to devise some yardsticks for measurement, and led to an unprecedented mushrooming of various indices, indicators, and formulas, only few of which are considered below.

Most people today are aware that GNP is not an adequate measure of development. However, given that economic well-being is so central to development viewed as growth, the most traditional measure of development has been GNP per capita. However, there is a number of major problems associated with this rather traditional measurement of development. Chief among them is that it tells us nothing about the actual or real distribution of wealth amongst people in an economy and it does not include wealth generated in the unofficial or "informal" sector. Thus, while it could be said that GNP per capita is a real measure of economic development at the national level, it is purely theoretical at the individual level. This, however, is a criticism levelled at any "average" measurement. Another criticism of GNP as a measure is that it assumes that economic wealth equals development and it takes no account of the human dimension of development

The US Overseas Development Council, motivated by the above mentioned call from the Club of Rome, proposed the *Physical Quality of Life Index (PQLI)* to assess progress in terms of human welfare. The PQLI combines three indicators: life expectancy, infant mortality, and literacy, in an equally weighted composite index. However, some empirical work proved that PQLI was defective since its three independent variables were closely correlated and any one of them could give the same result. The index could also rank most countries similar to that of GNP per capita. Others found it difficult to accept its results without a stronger theoretical foundation.

When the UNDP launched its first issue of the Human Development Report (HDR) 1990, it constructed a composite *Human Development Index*. The three components of HDI are: life expectancy, representing a long and healthy life; educational attainment, representing knowledge; and real GDP (in purchasing power dollars), representing a decent standard of living. The successive HDRs came with many new composite indices, in addition to the improvement in the main HDI, while others were dropped. The HDI measures the average achievements of a country in basic human capabilities. It indicates whether people lead long and healthy lives, are educated, and enjoy a better standard of living.

The *Gender-related Development Index (GDI)* measures average achievements of a country in basic human capabilities as the HDI does, but takes note of inequality in achievement between men and women. The greater the gender disparities, the lower a country's GDI compared with its HDI. The *Gender Empowerment Measure (GEM)* examines whether women and men are able to participate actively in economic and political life and take part in decision-making. So, while GDI focuses on the enhancement of basic capabilities of women, GEM is concerned with the utilization of those capabilities to take advantage of the opportunities of life.

In 1996, HDR (UNDP 1996) introduced a new multi-dimensional measure of human deprivation: the *Capability Poverty Measure (CPM)*. The measure is composed of three variables having equal weight in the index, expressed in percentage terms they are: births unattended by trained health personnel, underweight children under five, and female illiteracy rate. A lower value of CPM is better.

The CPM was elaborated upon and improved further and was replaced, in HDR 1997, by a new *Human Poverty Index- HPI.* Unlike CPM, HPI was intended to measure deprivation in terms of five, instead of three variables: people expected to die before age 40; adults who are illiterate; people without access to health services; people without access to safe water; and underweight children under five. Again, like CPM, a lower value of HPI indicates an improvement in poverty levels. As was the case with PQLI, HDI has been subject to many criticisms and has provoked some controversies related to: limited dimensions and variables, quality of data, the way in which income variable is treated, and suggestions to add political freedom, cultural values, and environmental sustainability.

In 1995, UNICEF came up with a measure of relevance to children's health and education: *National Performance Gap (NPG).* NPG is the difference between a country's actual level of progress in under-five mortality rates (u5mr), malnutrition rates and the percentage of children reaching grade 5 (crg5) on one hand, and their respective expected levels for that country per capita GNP. When the actual performance of individual countries diverge (lower) from this trend line - the expected level of performance - a performance gap emerges. All these measurement techniques have one major goal: to improve human development statistics.

No one disputes the fact that the African countries have, since early 1990s, seen improvements in human development. However, while these countries continue to make some significant progress, they have also witnessed serious setbacks since the mid 1990s.The comparative levels of HDIs and their progress during these years since 1990, show some discomforting trends after an impressive progress attained by all countries during the 1970s and 1980s. The incremental improvement in the value of HDI and its trend is not comforting. In many countries, the situation moved from bad to worse and then to severe deprivation. Progress and deprivation in human development (measured as the periodic difference in the value of HDI multiplied by 100) ranged from negative to negligible levels in most countries. The most troubling of all is the increasing level of human deprivation in countries such as the Democratic Republic of Congo and Somalia. Therefore, it is clear that in spite of raising GDP per capita and, accordingly, high ranking HDI for the many African countries, still more needs to be done to enhancing peoples "basic" capabilities in health, education, and poverty eradication.

While indices and techniques have improved since 1994 and we have gone

some way towards including the human element into development statistics, we still have a very long way to go before the economic aspect becomes secondary to the human aspect. Of course, the question of who is measuring development is another key issue which needs to be addressed because the measuring process could be in danger of becoming modelled on one country's development. In fact, the whole enterprise of measurement might well be misguided since human life is not a reality that can accurately be measured.

An unequal world

All the recent World Development Reports have been outlining in great detail what is wrong with the world and how the inequalities of our world can be changed for the better. They tell us in graphic detail why the world needs to change its priorities, and the reasons can be summarized as follows.

Half the world's people live on less than $2 a day. 1.2 billion people live on less than $1 per day. Although poverty has been dramatically reduced in many parts of the world, a quarter of the world's people remain in severe poverty. In a global economy of $25 trillion, this is a real scandal - reflecting shameful inequalities and inexcusable failures of national and international policy.

The richest 1% of the world have income equivalent to the poorest 57%. Four fifths of the world's population live below what countries in North America and Europe consider the poverty line. The poorest 10% of Americans are still better off than two-thirds of the world population. The assets of the 200 richest people in 1998 were more than the total annual income of 41% of the world's people. Three families – Bill Gates, the Sultan of Brunei and the Walton family – have a combined wealth of some $135 billion. Their value equals the annual income of 600 million people living in the world's poorest countries. The richest 20% of the world population now receives 150 times the income of the poorest 20%.

While 1.3 billion people struggle to live on less than $US1 a day, the world's richest 200 people actually doubled their net worth between 1994 and 1998 to more than $1 trillion. The world's top three billionaires alone possess more assets than the combined Gross National Product of all the least developed countries and their combined population of 600 million people. Far from narrowing, the gulf between rich and poor is growing. The past decade has shown increasing concentration of income, resources, and wealth among people, corporations, and countries.

Health in the "developed" world

Those living in the highest income countries have 86 percent of world Gross Domestic Product (GDP), 82 percent of world export markets, 68 percent of foreign direct investment and 74 percent of world telephone lines. Those living

in the poorest countries share only one percent of any of these. OECD countries, with 19 percent of global population, control 71 percent of global trade in goods and services, and consume 16 times more than the poorest fifth of the globe.

Almost ten years ago, the richest one-fifth of the world:

- Consume 45% of all meat and fish, the poorest fifth 5%.
- Consume 58% of total energy, the poorest fifth less than 4%.
- Have 74% of all telephone lines, the poorest fifth 1.5%.
- Consume 84% of all paper, the poorest fifth 1.1%.
- Own 87% of the world's vehicle fleet, the poorest fifth less than 1%.

(UNDP Human Development Report 1998).
The situation is worse today.

Given all these rather frightening statistics, we can conclude without any doubt that the world is becoming a more unequal place, with an unethical growing gap between rich and poor households. Our world in the formative years of the twenty-first century is a world of haves and have nots – a world where one child can die for the simple lack of rehydration fluids and another from obesity!

Health in the "developing" world

There is a number of acute problems affecting health in the "developing" world – access to health care is only one of them. HIV/AIDS is perhaps the most serious problem and has already claimed more lives in SSA than anywhere else in the world. Malaria reports almost 300 million cases per year (90% in SSA). Of the 1 million people who die from this disease each year, the majority are poor Africans. Every day, almost 30,000 children around the (mostly "developing") world die of preventable diseases such as diarrhoea, malaria, pneumonia, and neonatal disorders, and nearly 14,000 are infected with HIV/AIDS. A girl born in a "developed" country may have a 50% chance of seeing the 22nd century, while a newborn in many "developing" countries has only a 1 in 4 chance of living beyond the age of 5.

Every year more than half a million women die as a result of pregnancy and/or childbirth complications (and many more are disabled) – most of them in the "developing" world where the poor cannot afford medical care or medical care is too far away from them.

In Uganda alone, it is estimated that a shocking 6,000 women die from pregnancy or childbirth-related complications per year. The average age of Uganda's 31 million population is 15.3 – the global average age is 28. If Uganda's population projections do reach 40 million by the end of 2010 and the staggering estimated 90 million by 2050, then the current health training

institutions will not be able to cope with the increased demands of an already health-starved population. With 1.3 million babies being born in the course of 2007 in Uganda alone, the current quality and quantity of health care workforce is woefully inadequate.

Indicator	**2004**
Physicians	2,209
Physicians (per 1 000 population)	0.08
Nurses	16,221
Nurses (per 1 000 population)	0.61
Midwives	3,104
Midwives (per 1 000 population)	0.12
Dentists	363
Dentists (per 1 000 population)	0.01
Pharmacists	688
Pharmacists (per 1 000 population)	0.03
Lab technicians	1,702
Lab technicians (per 1 000 population)	0.06
Health management and support workers	6,499
Health management and support workers (per 1 000 population)	0.24

Source World Health Organization – World Health Report 2006 – Working Together for Health

In “developing” countries, the gap between the rich and the poor is increasing at a very fast pace which means that the privileged minority can generally afford health care, while the majority continues to die from preventable and easily-curable diseases. All this has a toll on economic performance with knock-on effects on every aspect of life, quite apart from the fact that more than half the population cannot generate income and are, therefore, dependent on others.

In policy terms, through the Uganda Health Policy (1999), which aims to reduce mortality, morbidity, and fertility by ensuring access to a minimum health care package (UNMHC Package1), and the Health Sector Strategic Plans I & II (2000 & 2005), government is committed to ensuring that all Ugandans have access to health care. However, there are simply not enough health care workers to go around. With the decentralization of health care delivery to Uganda's districts, central government has placed a huge burden on the districts and access to relevant and adequate health care has not improved significantly. In fact, funding for health care has decreased in recent years as a

result of strategic policy implementation. Apart from assisting with health facility infrastructure and developing health sub-districts within each district, government is now (with the assistance of the donor community) committed to revamping or constructing Health Centres from Grade I (first aid station) through to Grade IVs, or working with already existing smaller or mission hospitals to provide necessary health services for the people in all parts of the country.

In the midst of this long-awaited re-structuring, serious consideration is now being given to the question of who will "human" these facilities because increasing access to effective health care depends on having the human resources to run the health facilities being constructed or upgraded. The Ministry of Health's attempts to re-orient health services to Primary Health Care have thus far been difficult given the fact that urban areas take the lion's share of health care professionals. In Uganda today, it is estimated that up to 54% of trained health workers is currently working in the larger hospitals or health care facilities in the city and towns. This leaves the rural areas seriously deprived of a well-trained and adequate health care workforce. Because the population of Uganda is growing faster than the health workforce, it is foreseen that there will be an even more serious crisis in health care provision within the next decade.

The migration of health workers to "greener" pastures is a problem that will not perhaps go away. Given that individuals have the freedom to chose where to live and work, it would appear that government cannot force its young health workers to remain in the country. The huge cost incurred in training medical doctors, for example, is not returned to society. The salaries paid to doctors and other health workers in the public sector are less than acceptable. It is not surprising that some of our brightest young professionals leave to earn a living elsewhere.

While a great deal of effort, time, and money is being used to address these issues, they remain problems that are not easily solved. Solutions are elusive. In the meantime, thousands of unnecessary deaths occur every year in the "developing" world. We can only hope that the next decade of this millennium sees some improvement in the health status of the world's poorest countries.

In the final part of this unit we examine the nature of the Millennium Development Goals, specifically, the health-related goals. This ambitious project is an example of the good-will that does exist.

The Millennium Development Goals

At the UN General Assembly in 2000, heads of state and government took stock of the gross inequalities in human development worldwide and recognized their collective responsibility to uphold the principles of human dignity, equality and

equity at the global level. In addition to declaring their support for freedom, democracy and human rights, they set eight goals for development and poverty eradication, to be achieved by 2015. These are:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Achieve gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

Most of the Millennium Development Goals have quantifiable, monitorable targets to measure progress against standards set by the international community and many countries have made progress. But much of the world, generally the poorest countries, seem unlikely to achieve the goals. Although 55 countries, with 23% of the world's people, are on track to achieve at least three-quarters of the goals, 33 countries with 26% of the world's people are failing on more than half. Extraordinary efforts will be needed in sub-Saharan Africa, where 23 countries are failing and 11 others do not have enough data to be assessed - a possible indication that they are even further behind. That leaves just 10 sub-Saharan countries on track to meet at least half of the goals.

Lack of data makes it difficult to assess progress on the goal of halving income poverty. But slow growth in average incomes indicates that many countries will have to struggle to achieve the goal. Optimistic estimates suggest that 3.7% annual growth in per capita GDP will be needed, yet in the 1990s only 24 countries achieved such growth. China and India, the most populous countries, are in this group. But incomes in nearly 130 countries, with 40% of the world's people, are not growing fast enough - including 52 countries that actually had negative growth in the 1990s. Again, progress is most elusive in the poorest countries: 40 of 44 sub-Saharan countries, with 93% of the region's people, grew too slowly. Half of those 40 countries, with, more than half of the region’s people, are poorer now than in 1990. These include 11 of the world's 20 poorest countries. Even though economic growth is not necessarily the best indicator for "development", these statistics are more than a little disturbing.

Some countries have come closer to some goals than others. Many developing countries have already achieved or are on track to achieve universal primary education and gender equity in education. Given the importance of education to so many other areas of development, this bodes well for accelerating progress towards the other goals. Most developing countries have also achieved or are on track to achieve the targets for eradicating hunger and improving water supplies (part of the environmental goal). But more than 40 countries, with 28% of the world's people, are not on track to halve hunger by 2015. And

25 countries, with 32% of the world's people, may not halve the share of people lacking access to an improved water source. Most pressing, however, is child mortality: 85 countries with more than 60% of the world's people are not on track to achieve the goal.

A goal that cannot be monitored cannot be met or missed. The targets for poverty, HIV/AIDS and maternal mortality cannot be monitored directly with current international data. Even targets that can be monitored have many gaps in the data. Complicating matters, is the fact that countries lacking data may have the worst performance, giving an inflated impression of the proportion of countries that are progressing.

In order to see if these goals are being met, we have to be able to measure accurately the levels of achievement in relation to each of them and that means that we must be able to measure development. How do we measure something that is so difficult to express in words? And yet, many development analysts have tried to evaluate how far the global community has come towards meeting the requirements for each goal. Below we list the specific health-related goals before giving a summary of the MDG 2005 report.

Millennium Development Goal 4

GOAL 4 : Reducing Child Mortality
Target 4a: Reduce infant and under-five mortality rate by two-thirds

Every year about 11 million children die of preventable causes, often for want of simple and easily provided improvements in nutrition, sanitation, and maternal health and education. Some developing regions have made rapid improvements in this area - especially Arab States, where 6% of children die before age five, down from 20% in 1970.

Although Latin America and the Caribbean is doing well as a whole, eight countries are far from achieving the infant mortality target. In East Asia and the Pacific 13 countries are on track but 3, including China, are far behind - and in Cambodia under-five mortality rates are increasing. Central and Eastern Europe and the CIS, doing badly as a whole, combines good performance from the European countries and worse performance from the more populous CIS countries. In Sub-Saharan Africa 34 of 44 countries are far behind or slipping back. Immunizations against leading diseases are a vital element in improving child survival. After soaring in the 1980s, immunizations in developing countries levelled off at about 75% in the 1990s. And in recent years the proportion of children immunized in Sub-Saharan Africa has fallen below 50%.

Child mortality has a dramatic effect on a country's life expectancy, which is part of the HDI and is an excellent indicator of a country's overall health.

Between 1975 and 2000 East Asia and the Pacific increased life expectancy by about 8 years, to almost 70. South Asia, Latin America and the Caribbean and Arab States also achieved consistent increases. But high-income OECD countries are still head and shoulders above the rest, with a life expectancy of 77 years - 7 years more than the next-highest region.

Sub-Saharan Africa, ravaged by HIV/AIDS and conflict, saw life expectancy reverse in the 1990s from already tragically low levels. Eastern Europe and the CIS also suffered a decline, and is the only other region where life expectancy is lower now than in 1990.

Millennium Development Goal 5

GOAL 5 : Improving Maternal Health
Target 5a: Reduce maternal mortality ratios by three-quarters

Every year more than 500,000 women die as a result of pregnancy and childbirth, with huge regional disparities. The situation is worst in sub-Saharan Africa, where a woman has a 1 in 13 chance of dying in pregnancy or childbirth, and the rates are rising in some countries.

Increasing the number of births attended by skilled health personnel is key to reducing maternal mortality ratios, and again there is wide variation with as few as 29% of births attended by skilled personnel in South Asia and 37% in Sub-Saharan Africa. Uganda's policy of TBAs (Traditional Birth Attendants) has been successful in many areas and can be seen as a positive way to bring local knowledge and tradition to bear on current situations.

There are not enough data on maternal mortality or births attended by skilled health personnel to assess how countries are progressing towards this important goal, indicating an urgent need for more complete, comparable data on this vital issue.

Millennium Development Goal 6

6a. Halt and begin to reverse the spread of HIV/AIDS

By the end of 2000, almost 22 million people had died from AIDS, 13 million children had lost their mother or both parents to the disease and more than 40 million people were living with the HIV virus - 90% of them in developing countries, 75% in sub-Saharan Africa. In Botswana, the most affected country, more than a third of adults have HIV/AIDS and a child born today can expect to live only 36 years - about half as long as if the disease did not exist. In Burkina Faso, the 20th most affected country, 330,000 adults are living with HIV/AIDS, and life expectancy has fallen by 8 years.

The toll on life expectancy is only the beginning. In Thailand one-third of AIDS-affected rural families saw their incomes fall by half because the time of farmers, and those caring for them, was taken from the fields. At the same time, medical expenses shoot up. In Côte d'Ivoire caring for a male AIDS patient costs an average of $300 a year, a quarter to half of the net annual income of most small farms. The effect on poor households, with little or no savings to cope with such shocks, is devastating. In urban Côte d'Ivoire food consumption dropped 41% per capita, and school outlays halved.

HIV/AIDS is also a concern in the Caribbean, the region with the second highest infection rate. In Latin America 1.3 million people have HIV/AIDS. Central and Eastern Europe and the CIS has fast-rising infection rates - 240,000 people are now infected in Ukraine. And there are warnings that Asia is on the verge of an epidemic. In Ho Chi Minh City, Vietnam, one sex worker in five is HIV positive, up from almost none in the mid-1990s. And nearly 4 million people are now infected in India, second only to South Africa. Without strong preventative measures, as in Thailand, the epidemic could rage out of control.

There are no comparable trend data for assessing how well countries are fighting the disease. But it is clear that policies can make a difference and that contraceptive prevalence and reproductive rights for women are vital. Through preventive measures, Uganda reduced HIV rates from 14% in the early 1990s to around 8% by the end of the 1990s.

Also vital is providing treatment and care to those already affected. But at a cost of $300 per year per patient - well over half the GDP per capita of sub-Saharan Africa - antiretroviral drugs that can prolong life expectancy are out of reach for the average African HIV patient. As homes to the leading pharmaceutical companies, some industrial countries have pressured developing countries not to manufacture generic alternatives of these patented drugs. But in November 2001 the World Trade Organization ministerial conference in Doha, Qatar, adopted the Declaration on Trade-Related Intellectual Property Rights and Public Health, affirming the sovereign right of governments to protect public health. One issue that remains uncertain is whether countries can override patents and produce generic drugs for export to other developing countries - a crucial question for all developing countries with no pharmaceutical industry of their own. Goal 8, developing a global partnership for development, includes the aspiration of resolving this problem with the help of pharmaceutical companies.

Target 6b: Halt and begin to reverse the incidence of malaria and other major diseases

Every year there are more than 300 million cases of malaria, 90% of them in sub- Saharan Africa. And every year 60 million people are infected with

tuberculosis. Current medical technologies can prevent these diseases from being fatal, but lack of access means that tuberculosis kills 2 million people a year and malaria 1 million. The poorest people typically suffer most.

Without much more effective control, by 2020 nearly 1 billion people will be infected and 35 million will die from tuberculosis. In addition to its human costs, disease takes a heavy economic toll: for instance, high malaria prevalence can lower economic growth by 1% or more a year. Work is under way to strengthen national health systems and increase international support, and there are some encouraging signs: the World Health Organization, for example, has struck a deal with the Swiss firm Novartis on the drug Coartem, an extremely effective malaria treatment. The price of this drug, which can reduce infection and fatality rates by 75%, has fallen to less than $2.50 a treatment. But this is still far more than many people can afford. In Uganda, artemesia is now being cultivated to treat and eradicate malaria and early signs of success are very promising.

These statistics and figures should make any right-minded person think twice about the kind of institutional health improvement programmes being initiated all over Africa today. Given the ambitious nature of the MDGs, it is not surprising that many countries are not on target to meeting them. In the case of the countries of sub-Saharan Africa, the global economic order is one of the reasons why these countries find it almost impossible to allocate sufficient funds to education, health, and so on, although we must also remember that monies donated by foreign aid are often miss-directed as a result of the growing phenomenon of corruption!

The MDGs in 2005

The *Millennium Development Goals+5*conference took place at the World Summit in New York from 14-16 September 2005. The aim of that conference was to evaluate the progress towards the United Nations Millennium Declaration adopted by over 150 Heads of State at the UN Millennium Summit in September 2000. Opinions on the progress and usefulness of the MDGs vary, however: while some development analysts and organisations are cautiously optimistic about the potential of the MDGs, given some re-thinking of priorities, others claim that the goals are totally unrealistic without a radical shift in policy from donor countries as well as aid recipients.

Jeffrey Sachs, for example, believes that extreme poverty can be eliminated through greater large-scale investment in basic and economic infrastructure, and better analysis of the specific economic problems underlying poverty in different contexts. We shall be examining the position of Sachs and other neo-liberal economists in a later topic of this module.

Other critics argue that efforts to reach the MDGs need to go beyond Sachs's

recommendations to invest in pro-poor growth by strengthening the dynamic sectors of the economy and encouraging rapid modernisation. Most Southern organizations believe that little progress has been made five years into the MDGs programme. They point to, among other things, aid conditionality and linked policies that contribute to donor countries' dominance over poverty reduction strategies.

The field research for Gold's report identified a number of interlinking risks associated with the current drive to reaching the MDGs. These include:

- given the holistic nature of the goals, and their cross-cutting dimensions, they encapsulate the breadth of development cooperation efforts that have been in existence for many years. In this respect, it is possible that the only thing that the MDGs will change is the discourse of poverty and development (making it even more technical) and not the substance of policies
- the MDGs make no distinction between best practice and bad practice: within the terms of the goals, there is no distinction made between a totalitarian regime that "halves poverty" on the basis of an ethnic divide and a state that enables poor people to participate actively in budget processes
- the MDGs tend to entrench a top-down approach to development that ignores local knowledge, participation and solutions in the name of a global agenda and global targets
- the MDGs tend to foster a "charity" approach to development, focused on the volume of financial aid, while side lining necessary reforms to the national and international financial, commercial and political systems.

Gold's key recommendations to ensure that the Millennium Development Goals benefit the world's poor in means as well as ends include:

- there should be a stronger focus on processes and quality within the global consensus on the MDGs
- greater participation of poor people and countries should be facilitated within the structures of global economic governance
- the global trade agenda should be brought into line with a rights-based approach to human development
- additional funds should be dedicated to financing the MDGs, and the international aid system should be reformed to ensure that aid is well spent. Conditions associated with these funds should include 100% debt cancellation, untying of aid, and the realization of the 0.7% aid targets.

According to Gold, the following challenges need to be met:

The challenge of measurement. Many of these strengthened goals and targets are not easily measured. Reliable, direct measures of the incidence or

prevalence of many diseases are unavailable. And because models and data sources are still evolving, estimates may not be comparable over time or across countries. Gaps remain even for the well established measures of poverty, education, mortality, and health care, and major investments in statistical systems will be needed to fill them, by developing countries themselves and international agencies.

Expanding targets to support the goals. The World Summit resolution draws attention to four issues that should receive greater prominence over the next five years:

1. Reproductive health, integrating reproductive health into strategies for achieving the goals of improving maternal health, reducing child mortality, promoting gender equality, combating HIV/AIDS, and eradicating poverty.
2. Combating disease, intensifying the fight against HIV/AIDS by "providing sufficient health workers, infrastructure, management systems, and supplies to achieve the health-related [goals] by 2015" and calling for renewed efforts to come "as close as possible to the goal of universal access to HIV treatment by 2010."
3. Employment, strengthening the focus of the goals on employment by making it "a central objective of our relevant national and international policies as well as our national development strategies …"
4. Environment, extending the areas of concern in at least three dimensions: biodiversity, development of indigenous people, and protection from natural and human-caused hazards. The resolution calls on all states to "significantly reduce the loss of biodiversity by 2010."

Conclusion

At the end of this unit of the module we hope you are now better informed about the general state of the world today in relation to health and development. By placing our discussion of health in a development context, we hope you have internalized the idea that health is primarily a development issue – indeed, it is also a human rights issue. The fact that a globalized world can lead to "globalized" health, is an issue that all of us should be aware of. The world continues to shrink, and with this the health of the world's populations can either improve through the sharing of health technologies, or the situation can become worse for "developing" countries as the economic drivers of development continue to harvest the gains for the richest countries.

Health policy Resource

Health policy can be defined as the "decisions, plans, and actions that are undertaken to achieve specific health care goals within a society." According to the World Health Organisation, an explicit health policy can achieve several

things: it defines a vision for the future; it outlines priorities and the expected roles of different groups; and it builds consensus and informs people

Policy refers to interrelated decisions taken by political actors concerning social goals and means of achieving them (Walt, 1994). Hogwood and Gunn (1984) presented policy as a course of action taken by political actors who show particular form of behaviour and intention to address a matter of social concern.

The key elements of policy from these definitions are:

- Decisions
- Actions
- Political process
- Political actors
- Intended to achieve goals/address social concerns

What then is health policy?

Health policy is the course of action taken by political actors about the organisation, financing and management of health services and promotion in order to improve service delivery and ultimately health (Walt 1994). WHO (2000) indicated that health policy defines a vision for the future which in turn helps to establish benchmarks for the short and medium term health activities. It outlines priorities and the expected roles of different groups (actors). It builds consensus and informs people and fulfils an important role of governance. Similar to the elements of policy, health policy entails:

- Actions (organisation, financing and management)
- Actors (including politicians) and their expected roles
- Goal (improving health service delivery, health promotion and health)
- Provides benchmark (for measuring improvements)
- Priorities for the health sector (prevention, curative or rehabilitation)
- It is a process and spells out the role of Government.

Health policy can thus be summed up as a plan of action to attain the desired health goals and priorities.
PS. Forgotten what **health** is? Health is a state of complete physical, psychological, social and mental wellbeing and not necessarily the absence of a disease or infirmity (WHO, 1979).

Definition of key concepts

Politics and power Resource

Politics is the process and method of making decisions for groups. Although it is generally applied to governments, politics is also observed in all human group interactions including corporate, academic, and religious institutions. Politics is a process by which groups of people make collective decisions. The term is generally applied to behaviour within civil governments, but politics has been observed in other group interactions, including corporate, academic, and religious institutions. It consists of social relations involving authority or power.
Power is the capacity to make decisions or the ability to influence and control. All relationships are affected by the exercise of power (at individual, community, group, national and international/global level) (GoU and UNAIDS, 2009).

What is the linkage between power and policy making?

The way planning/policy making is carried out will reflect organization structure/leadership system, the stated or constituted aims of the organization, the relative power of different groups, individual aims, the political ideology or climate and the relationship with consumers/beneficiaries of the policy/plan (Green, 1998).

. **Health system** consists of all organizations, people and actions whose primary intent/purpose is to promote, restore and maintain health. This includes efforts to influence determinants of health as well as more direct health improving activities. Thus a health system is more than the pyramid of publicly owned facilities that deliver personal health services. It includes a mother caring for a sick child at home, private providers, behaviour change programmes, vector control campaigns, legislation etc. (WHO, 2007). What is evident from the above definition is that a health system goes far beyond the confines of public health facilities. This is in consonance with the 3 sector categorization of a health system that includes medical, popular and the folk sub-sectors by Helman, C. G. (2001).

The WHO (2007) outlines the six building blocks of a health system as:

1. Good health services
2. A well-performing health workforce
3. A well-functioning health information system
4. Equitable access to essential medical products, vaccines & technologies
5. A good health financing system
6. Leadership and governance

Note: Having good health policies, their appropriate implementation and monitoring are critical requirements in realizing the above building blocks of a strong health system.

The value base of health policies

The major values that guide health policies and systems in many countries stem from the Alma Ata Declaration of 1978. These values are:

- Universal access
- Equity
- People's Participation
- Intersectoral approach
- Health as a fundamental human right
- Good health for all advances social and economic development and world peace
- Political will is critical for PHC

Interdependence between countries in health care delivery directly concerns and benefits all countries Baum, 2007).The late 1980s saw the emergence of new paradigms aimed at health care reforms with focus on cost minimization, efficiency and limited involvement of the public sector spearheaded by the World Bank. As a result many developing countries saw the growth of the private sector as a major player in the health sector, introduction of user fees and reduction in Government expenditure on public services including health care. All these were counter to the values and virtues of the Alma Ata Declaration.

Overview of the health policy making and implementation process

Health policy making is a process (Walt, 1994) and involves a number of stages including: agenda setting, consensus building, rationale, value base, prioritization, option appraisal, implementation and evaluation (Green, 1998).

The many include personal health care policy, pharmaceutical policy, and policies related to public health such as vaccination policy, tobacco control policy or breastfeeding promotion policy. They may cover topics of financing and delivery of health care, access to care, quality of care, and health equity.[

There are also many topics in the politics and evidence that can influence the decision of a government, private sector business or other group to adopt a specific policy. Evidence-based policy relies on the use of science and rigorous studies such as randomised controlled trials to identify programs and practices capable of improving policy relevant outcomes. Most political debates surround personal health care policies, especially those that seek to reform health care delivery, and can typically be categorized as either philosophical or economic. Philosophical debates center around questions about individual rights, ethics and government authority, while economic topics include how to maximize the efficiency of health care delivery and minimize costs.

The modern concept of health care involves access to medical professionals from various fields as well as medical technology, such as medications and surgical equipments. It also involves access to the latest information and evidence from research, including medical research and health services research.In many countries it is left to the individual to gain access to health care goods and services by paying for them directly as out-of-pocket expenses, and to private sector players in the medical and pharmaceutical industries to develop research. Planning and production of health human resources is distributed among labour market participants.

Other countries have an explicit policy to ensure and support access for all of its citizens, to fund health research, and to plan for adequate numbers, distribution and quality of health workers to meet health care goals. Many governments around the world have established universal health care, which takes the burden of health care expenses off of private businesses or individuals through pooling of financial risk. There are a variety of arguments for and against universal health care and related health policies. Health care is an important part of health systems and therefore it often accounts for one of the largest areas of spending for both governments and individuals all over the world. For example, medical debt is now a leading cause of personal bankruptcy in the United States.

- *UDHR Article 25:* "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control."

In some jurisdictions and among different faith-basedorganisations, health policies are influenced by the perceived obligation shaped by religious beliefs to care for those in less favourable circumstances, including the sick. Other jurisdictions and non-governmental organisations draw on the principles of humanism in defining their health policies, asserting the same perceived obligation and enshrined right to health. In recent years, the worldwide human rights organization Amnesty International has focused on health as a human right, addressing inadequate access to HIV drugs and women's sexual and reproductive rights including wide disparities in maternal mortality within and across countries. Such increasing attention to health as a basic human right has been welcomed by the leading medical journal *The Lancet.*[

Another issue in the rights debate is governments' use of legislation to control competition among private medical insurance providers against national social insurance systems, such as the case in Canada's national health insurance program. Laissez-faire supporters argue that this erodes the cost-effectiveness of the health system, as even those who can afford to pay for private health

care services drain resources from the public system.The issue here is whether investor-owned medical insurance companies or health maintenance organizations are in a better position to act in the best interests of their customers compared to government regulation and oversight. Another claim in the United States perceives government over-regulation of the health care and insurance industries as the effective end of charitable home visits from doctors among the poor and elderly

ECONOMICS; HEALTH CARE FINANCING

Many types of health policies exist focusing on the financing of health care services to spread the economic risks of ill health. These include publicly funded health care (through taxation or insurance, also known as single-payer systems), mandatory or voluntary private health insurance, and complete capitalisation of personal health care services through private companies, among others. The debate is ongoing on which type of health financing policy results in better or worse quality of health care services provided, and how to ensure allocated funds are used effectively, efficiently and equitably.

There are many arguments on both sides of the issue of public versus private health financing policies:

Claims that publicly funded health care improves the quality and efficiency of personal health care delivery:

- Government spending on health is essential for the accessibility and sustainability of health care services and programmes
- For those people who would otherwise go without care due to lack of financial means, any quality care is an improvement.
- Since people perceive universal health care as *free* (if there is no insurance premium or co-payment), they are more likely to seek preventive care which may reduce the disease burden and overall health care costs in the long run.
- Single-payer systems reduce wastefulness by removing the middle man, i.e. private insurance companies, thus reducing the amount of bureaucracy In particular, reducing the amount of paperwork that medical professionals have to deal with for insurance claims processing allows them to concentrate more on treating patients.

Claims that privately funded health care leads to greater quality and efficiences in personal health care:

- Perceptions that publicly funded health care is *free* can lead to overuse of medical services, and hence raise overall costs compared to private health financing.

- Privately funded medicine leads to greater quality and efficiencies through increased access to and reduced waiting times for specialized health care services and technologies.
- Limiting the allocation of public funds for personal health care does not curtail the ability of uninsured citizens to pay for their health care as out-of-pocket expenses. Public funds can be better rationalized to provide emergency care services regardless of insured status or ability to pay, such as with the Emergency Medical Treatment and Active Labor Act in the United States. Privately funded and operated health care reduces the requirement for governments to increase taxes to cover health care costs, which may be compounded by the inefficiencies among government agencies due to their greater bureaucracy.

OTHER HEALTH POLICY OPTIONS

Health policy options extend beyond the financing and delivery of personal health care, to domains such as medical research and health workforce planning, both domestically and internationally.

Medical research policy

Medical research can be both the basis for defining evidence-based health policy, and the subject of health policy itself, particularly in terms of its sources of funding. Those in favor of government policies for publicly funded medical research posit that removing profit as a motive will increase the rate of medical innovation. Those opposed argue that it will do the opposite, because removing the incentive of profit removes incentives to innovate and inhibits new technologies from being developed and utilized.

The existence of sound medical research does not necessarily lead to evidence-based policymaking. For example, in South Africa, whose population sets the record for HIV infections, previous government policy limiting funding and access for AIDS treatments met with strong controversy given its basis on a refusal to accept scientific evidence on the means of transmission. A change of government eventually led to a change in policy, with new policies implemented for widespread access to HIV services. Another issue relates to intellectual property, as illustrated by the case of Brazil, where debates have arisen over government policy authorizing the domestic manufacture of antiretroviral drugs used in the treatment of HIV/AIDS in violation of drug patents.

Health workforce policy

Some countries and jurisdictions have an explicit policy or strategy to plan for adequate numbers, distribution and quality of health workers to meet health care goals, such as to address physician and nursing shortages. Elsewhere, health workforce planning is distributed among labour market participants as

a laissez-faire approach to health policy. Evidence-based policies for health workforce development are typically based on findings from health services research.

Health in foreign policy

Many governments and agencies include a health dimension in their foreign policy in order to achieve global health goals. Promoting health in lower income countries has been seen as instrumental to achieve other goals on the global agenda, including:

- Promoting global security linked to fears of global pandemics, the intentional spread of pathogens, and a potential increase in humanitarian conflicts, natural disasters, and emergencies;
- Promoting economic development including addressing the economic effect of poor health on development, of pandemic outbreaks on the global market place, and also the gain from the growing global market in health goods and services;
- Promoting social justice reinforcing health as a social value and human right, including supporting the United Nations' Millennium Development Goals.

NEED FOR HEALTH CARE

Community health-improvement collaborative, which represent both health care consumers and health care providers in efforts to improve health care systems at the local level, are becoming a major force for improving health care systems throughout the world .However, many authors have argued that members of local collaborative must unite around shared principles in order for their efforts to be successful .This article describes the development of a set of ethical principles, based on essential health needs, that can serve as a common foundation for collaborative attempting to improve local health care systems.
Many nations have already organized their health care systems according to principles chosen to help them best meet the needs of consumers. For example, Canada based its health care system on the principles of comprehensiveness, universality, portability, accessibility, and public administration .Similarly, the proposed Clinton health plan and Newt Gingrich's recommendations for transforming the U.S. health care system both placed basic ethical principles and fundamental consumer health interests at the forefront.

Development of the Memphis Health Care Principles

In early 2000, as a small group of community leaders in Memphis, Tennessee, considered how to reorganize regional health systems to better meet the needs of their community, they sought to articulate principles that communities could use to improve the health of community members. These leaders served

as the founding board for a newly incorporated non-profit Memphis health-improvement collaborative that was to become the Healthy Memphis Common Table. The founding board's first step was to form a diverse, 12-member interdisciplinary team that included the 9 founding board members and 3 additional community representatives. The board consisted of four experts in pertinent areas (health care policy, preventive medicine, international health insurance finance, and ethics), three consumer representatives (a small business owner, a person with a chronic illness, and a faith community representative), a primary care physician, and a specialist physician. The three additional members added to the interdisciplinary team were an attorney with expertise in corporate health care, a political scientist, and a nurse. This team led a 5-year process to identify the principles that can best guide health care providers, payers, and consumers toward common goals related to the health of community members and to the quality of the health care that they receive

How the Health Care Principles Were Developed

Team members began by brainstorming at a group retreat during which they produced a preliminary list of potential core principles. They then conducted independent literature reviews to identify ethical principles articulated by other health care systems and shared their findings with all team members. The group next identified a list of core ethical principles that other systems had in common and merged this with the preliminary list. Team leaders then refined this augmented list of principles with facilitator assistance. During near monthly meetings, the team continued to refine its list of principles through a consensus process until team members reached agreement on what the principles should be and how they should be worded.

The principles identified during this process were adopted as the founding principles of the Healthy Memphis Common Table, a healthy city collaborative for the Memphis metropolitan area. In November 2003, the Healthy Memphis Common Table organised a summit at which it presented the principles to community leaders. At the end of the summit, in a public ceremony attended by more than 300 health care leaders, the chief executive officers of all the major area hospitals, together with government, public health, physician, consumer, and faith community leaders, publicly signed a pledge to uphold the principles.

Following the initial publication of the principles, the Healthy Memphis Common Table board conducted a second group consensus process to consider additional public input and formulate an acronym for these principles that would be useful in disseminating them to the public. The acronym they came up with, Healthcare (*health* plus *choice, access, responsibility,* and *education* in health care), depicts the health care principles shared by health care consumers, providers, and payers. These principles provide a framework for bringing everyone together in a spirit of cooperation around a "common table" to improve the health and health care of the community.

The Memphis Health Care Principles

The following principles are based on what people need from a health care system in order to flourish. The broad acceptance of such needs-based principles requires that community members share a basic conception of what minimum standards for human health and health care will be sufficient to enable them to pursue happiness without outstripping their community's ability to provide what are determined to be necessary services.

Health

The principle of *health* means that all constituents of a health care system must commit to making the health of community members their first priority. Health care providers or systems that put financial profit, shareholder interest, or political gain ahead of patients' health are less likely to truly serve individual and community needs, as are not-for-profit systems that place financial, research, educational, or other interests ahead of their patients' health. The health principle demands that all health care systems inform their partners or shareholders that their first responsibility is to serve their patients and that they make themselves transparently accountable to this standard through public reporting of their performance data.

The health principle further affirms that people need health, not simply health care services. A corollary of this principle is that the health care industry must redefine health care to include everything that people need to be healthy. Health care systems should expand beyond the bounds of hospitals, clinics, and traditional public health activities and consider all factors that affect people's health, including their economic condition, their occupation, their education, their behaviour, and their environmental exposures. Communities, particularly in developing nations, frequently need to consider these factors first when working to improve the health of community residents.

Choice

The *choice* principle derives from the ethical principle of autonomy, which recognizes the fundamental nature of free choice and self-determination. Respect for a person's freedom to choose directly reflects Immanuel Kant's most fundamental moral principle, that people should not be treated merely as a means to advance another person's self-interest. The choice principle is also consistent with the World Health Organization's Alma-Ata declaration following the International Conference on Primary Health Care in 1978, which included the statement, "The people have the right and duty to participate individually and collectively in the planning and implementation of their health care" . The choice principle means that people should participate not only as payers but also as partners in pursuing optimal health.

This principle does not imply that choice is only possible in independent fee-for-service systems, nor does it require that people be offered an infinite choice of insurance benefit options, providers, or treatments. However, it does reflect consumers' desire for some choice of providers and treatment options, and well-designed health plans with sufficiently diverse provider panels should be able to offer them such options. Studies have shown that a choice of insurers,

health plans, and benefit packages may be substantially less important to consumers than having accessible, high-quality health care.

Access

The *access* principle is based on the premise that access to health care is a fundamental good that all just health care systems should work to ensure. The Alma-Ata declaration recognizes that a just community has a basic responsibility to provide community members with universal access to primary health care. To achieve such universal health care access, the members of a society must accept that they have a duty to ensure that all members of their society receive primary health care.

Responsibility

The principle of *responsibility* is based on the premise that people need to take personal responsibility for their own health but are also obligated to care for their neighbours by helping them to obtain services that promote health. Consumers, providers, and health care institutions must all take responsibility for the health of community members and for the use of the health care resources with which they are entrusted. All of the world's major religions recognize the importance of hospitality — the responsibility of people to care for one another and especially the responsibility of the "host" toward his or her "guest." Indeed, this responsibility of a host to be hospitable is inherent in the name hospital.

Education

The principle of *education* reflects the responsibility of healthy community collaborative to encourage all their partners, including both health care providers and health care consumers, to continually strive to learn and to share what they learn with others. Devotion to evidence-based, cost-effective care is essential to the improvement of health care systems. As Mintzbergnoted in an article on the management of government programs, everyone in a health care organization designed for public benefit should serve as 1) a worker in the organization, 2) a citizen with a right to expect needed care, and 3) an informed customer whose demand for quality helps to create a marketplace that provides exceptional value in health care.

The five Health Care principles described here are interdependent and sometimes in conflict. For example, the principle of responsibility requires that consideration be given toward using resources in a way that best meets population needs or the common good, whereas the principle of choice requires that consideration be given to the personal needs and desires of individuals within that population. Communities thus may sometimes need to balance the demands of competing principles, in this example, perhaps by limiting the health care choices of community members to those that value-conscious community members might reasonably expect. Decisions that are best for a community are those that reflect both individual and population needs.

Community Validation of the Health Care Principles

Health care principles, such as those of Health Care, provide a framework on which communities can base their expectations for justice in health care and develop health care systems that are accountable to community members and

committed to the good of society. By rallying communities around common goals, healthy city collaborative can help improve local health care systems, but to be most effective and overcome divisions that afflict the health of our communities, these collaborative must foster broad participation and consensus among community members. Because of the local nature of many health issues, communities should adopt, affirm, and adhere to health care principles that hold all community members consumers, providers, health care administrators, insurers, businesses, government entities, and other institutions accountable for the health of people in their own neighbourhoods.

LEGISLATION AND LAW

The terms "legislation" and "law" are used to refer generically to statutes, regulation and other legal instruments (e.g. ministerial decrees) that may be the forms of law used in a particular country.

In general, there are a wide range of regulatory strategies that might be used to ensure people's health and safety. Increasingly, regulators are taking an approach of "responsive regulation". This involves using mechanisms that are responsive to the context, conduct and culture of those being regulated, providing for a range of regulatory mechanisms to achieve the behaviour desired. Where appropriate, the aim is to use incentives before sanctions. However, when those being regulated do not respond accordingly, escalating sanctions can be invoked. These strategies may be broadly classified into five groups:

1. voluntarism: voluntary compliance undertaken by an individual organisation without any coercion;
2. self-regulation : for example, an unorganised group that regulates the behaviour of its own members through a voluntary code of practice;
3. economic instruments: for example, supply funding sanctions or incentives for health care providers, and/or demand-side measures that give more power to consumers;
4. meta-regulation: involving an external regulatory body to ensure that health care providers implement safety and quality practices and programmes;
5. command and control mechanisms : involving enforcement by government

PUBLIC HEALTH LAW

Law is an important public health tool that plays a critical role in reducing illness and premature death. Public health law examines the authority of the government at various jurisdictional levels to improve health of the general population within societal limits and norms.

Public health law focuses on legal issues in public health practice and on the public health effects of legal practice. Public health law typically has three major areas of practice:police power, disease and injury prevention, and the law of populations.

Inverse Law

The Inverse Benefit Law states that the ratio of benefits to harms among patients taking new drugs tends to vary inversely with how extensively a drug ismarketed. Two Americans, Howard Brody and Donald Light, have defined the Inverse Benefit Law, inspired by Tudor Hart's Inverse care law.

A drug effective for a serious disorder is less and less effective as it is promoted for milder cases and for other conditions for which the drug was not approved. As effectiveness becomes more diluted, the risks of harmful side effects proliferate, thus the benefit-harm ratio worsens as a drug is marketed more widely. The inverse benefit law highlights the need for comparative effectiveness research and other reforms to improve evidence-based prescribing

Inverse care law

The Inverse care law is the principle that the availability of good medical or social care tends to vary inversely with the need of the population served. Proposed by Julian Tudor Hart in 1971, the term has since been widely adopted.

The law states that: *"The availability of good medical care tends to vary inversely with the need for it in the population served. This ... operates more completely where medical care is most exposed to market forces, and less so where such exposure is reduced."* (Hart, 1971)

Inverse laws are commonplace, and arise because of inequality and a lack of social justice. In most areas of life (politics of envy aside) most of us are reasonably happy with this state of affairs; the fact that the rich have more clothes than they strictly 'need' is not too great a cause for concern. However, it is unsettling to many that an inverse law applies to health, offending a sense of fairness a view which forms the basis for the existence of the National Health Service in the United Kingdom.

Health Insurance

Health insurance is insurance against the risk of incurring medical expenses among individuals. By estimating the overall risk of health care expenses among a targeted group, an insurer can develop a routine finance structure, such as a monthly premium or payroll tax, to ensure that money is available to pay for the health care benefits specified in the insurance agreement. The

benefit is administered by a central organization such as a government agency, private business, or not-for-profit entity

Health promotion

Health promotion has been defined by the World Health Organisation's 2005 Bangkok Charter for Health Promotion in a Globalised World as "the process of enabling people to increase control over their health and its determinants, and thereby improve their health. The primary means of health promotion occur through developing healthy public policy that addresses the prerequisites of health such as income, housing, food security, employment, and quality working conditions. There is a tendency among public health officials and governments—and this is especially the case in liberal nations such as Canada and the USA—to reduce health promotion to health education and social marketing focused on changing behavioural risk factors.

Recent work in the UK *(Delphi consultation exercise due to be published late 2009 by Royal Society of Public Health and the National Social Marketing Centre)* on relationship between health promotion and social marketing has highlighted and reinforce the potential integrative nature of the approaches. While an independent review (NCC 'It's Our Health!' 2006) identified that some social marketing has in past adopted a narrow or limited approach, the UK has increasingly taken a lead in the discussion and developed a much more integrative and strategic approach (see Strategic Social Marketing in 'Social Marketing and Public Health' 2009 Oxford Press) which adopts a whole-system and holistic approach, integrating the learning from effective health promotion approaches with relevant learning from social marketing and other disciplines. A key finding from the Delphi consultation was the need to avoid unnecessary and arbitrary 'methods wars' and instead focus on the issue of 'utility' and harnessing the potential of learning from multiple disciplines and sources. Such an approach is arguably how health promotion has developed over the years pulling in learning from different sectors and disciplines to enhance and develop.

Police power

These areas perpetuate are employed by governmental agencies. Bioterrorism is a growing focus of this practice area in some jurisdictions; for example, public health lawyers in the United States have worked in the creation of the Model State Emergency Health Powers Act and the Model State Public Health Act.

Disease and injury prevention

This broader area of public health law applies legal tools to public health problems associated with disease and injury. Practitioners apply legislation, regulation, litigation (private enforcement), and international law to public

health problems using the law as an instrument of public health. Litigation against tobacco companies in the United States provides an excellent example.

Law of populations

Population-based legal analysis is the theoretical foundation of public health law. The law of populations is a relatively new theoretical framework in jurisprudence that seeks to analyze legal problems using the tools of epidemiology. Population-based legal analysis can be applied to traditional public health problems but also has application in environmental law, zoning, evidence, and complex tort.

Public Health Law Research

In 2010, a Public Health Law Research(PHLR) program at Temple University in the US was founded to promote effective regulatory, legal and policy solutions to improve public health. It is funded by the Robert Wood Johnson Foundation. Lawyers have long proclaimed the maxim that "the health of the people is the supreme law,"(Saluspopulisupremalexesto) but in practice, making law work for public health is a constant challenge. PHLR provides the evidentiary foundation for these efforts. Through policymaking studies, PHLR identifies forces that shape public health policy and strategies for effecting policy change. Through mapping studies, it illuminates what has been done, and thus, what kind of action it is possible for various government units to take. Through implementation studies, it provides information about how best to ensure that "law on the books" becomes effective "law on the streets". Through intervention studies, it determines which legal approaches are most efficacious in improving health environments, behaviours, and outcomes, and identify harmful legal side effects. Finally, through mechanism studies, it tells us why laws have the effects they do, and what mechanisms are at our disposal for improving the effectiveness of legal interventions.

The Network for Public Health Law

The Network for Public Health Law is a non-profit organization whose mission is to provide free legal technical assistance in the field of public health law. The five regional centres of the Network serve all 50 states in the U.S. as well as its territories, and their primary audiences include local, tribal, state and federal officials; lawyers; policy-makers; and public health advocates, though anyone may ask for their assistance. Some of the topics on which they provide assistance include food safety, health care reform, and tobacco control. In addition to delivering technical assistance, the Network builds relationships and provides training within the public health community.

Heath Law

Health law is the federal, state, and local law, rules, regulations and other jurisprudence affecting the health care industry and their application to health care patients, providers and payers, and vendors to the health care industry, including without limitation the (1) relationships among providers, payers and vendors to the health care industry and its patients; and (2) delivery of health care services; all with an emphasis on operations, regulatory and transactional legal issues

QUALITY OF SYSTEMS

Information Technology Help develop IT systems for health H data collection, management and reporting.

Lend in-kind service to train staff on using the IT systems and for the maintenance and updating of systems.

Help develop IT systems to manage health system accounting processes and centrally monitor devolved financial resources.

Provide the technology necessary to ensure continued learning by nurses and doctors in remote areas (eg, via telemedicine).

Help to create inexpensive and durable technologies, telemedicine and software that can link remote communities.

Provide ongoing maintenance of software for remote settings.

Strategic Opportunity #1

Develop regional and local centres of excellence in training on essential management and professional skills, based in various institutions throughout Sub-Saharan Africa.

Focus on building capacity and establishing centres of excellence in least developed countries (LDC).

Goals

• To build a skilled cadre of managers and professionals to support scale-up of programmes and promote efficient management of health systems at all levels.

• To improve management attitudes, practices and capabilities in all sectors systematically and increase the performance of health systems through effective management.

• To instil a culture of continuous quality improvement and make skills development a permanent part of institutions.

How

• Groups of corporations agree to support and sponsor the development of existing management and professional training institutions regionally and nationally. Training centres of excellence could be based in a variety of settings including public health facilities, universities, institutes, corporations, NGOs, faith-based organisations and international agencies.

• Pre- and post service courses would be offered, as well as long-term continuous education for retraining, support and mentorship. A combination of long and short courses might be delivered onsite or remotely through distance learning.

• Training centres could “adopt” facilities in more remote areas to provide a management cascade of skills building.

Target population

• Individuals and institutions associated with any element of the healthcare supply chain that play a management role.

• Healthcare providers such as doctors, nurses, lab technicians, biomedical engineers, finance and planning analysts, community health workers, home-based workers and shopkeepers, etc.

What Might Be Offered

• Basic training on general management and technical skills. Advanced skills where needed.

• Specific technical skills, in such areas as lab equipment, biomedical engineering (to keep equipment functioning), procurement and materials management.

• Training of nurses to prescribe, dispense and manage patients where no doctor is available.

• Training on guidelines and policies associated with treatment and care.

Potential Partners

• Health product suppliers, African businesses and multinational employers could help to develop models for training and provide training in specific management and technical areas.

• Governments at all levels (national, regional, local) could provide coordination with health system strategies and help to support and identify centres of excellence.

• Existing local and regional training institutions could provide trainers, develop curricula and provide facilities.

• International academic organizations could provide trainers and support curricula development (twinning programmes).

• Agencies such as the World Bank Institute and the WHO could provide expertise.

• Private providers, NGOs, faith-based organisations and public facilities could provide trainers and serve as local centres of excellence.

Possible Funding

• Pooled corporate funds for capacity development of institutions.

• Cost sharing from in-kind contributions of business experts.

• Donor funding through the World Bank Institute and others who invest in training.

• Co funding from those who can afford to pay.

• Public funding for baseline institutional running costs, etc.

• Individuals who can afford to share in costs.

• Twinning with international academic institutions.

Strategic Opportunity #2

Support the development and operations of mandatory health coverage in those countries with high out-of-pocket expenditures.

Goals

• To reduce the number of people plunged into poverty due to catastrophic health expenditures.

• To allocate public funds more efficiently and equitably.
• To lower financial barriers to access.
• To increase patient choice by funding the "demand side" and giving people purchasing power rather than simply funding the "supply side" by providing services.
• To provide opportunities for governments to focus on the role of stewardship, policy and financing, rather than service provision. As experience in other countries shows, developing a viable, sustainable insurance sector can encourage private providers and hospitals to enter the market.

How

• Assist governments in creating an *Essential Financial Protection Package*.

Traditional essentialintervention plans are based on those conditionsthat have the highest burden of disease, mostoften covering primary care services that are usedby many people but usually do not present afinancial hardship for non-poor households.

Healthcoverage, however, is most effective at providingfinancial protection from high medical expendituresand sharing the financial burden for ill healthbetween the healthy and the sick.

Affordablepackages can be designed to provide coverage forconditions that are relatively less common in thepopulation but which can lead to catastrophicexpenditures by households, such ashospitalisations, cancer treatment and HIV/AIDStreatment.

Strategic Opportunity #3

Establish minimum evidence-based quality standards specifically for LDCs focused on resource-poor and rural settings. Provide a mechanism for quality accreditation of health care facilities, laboratories and outreach centres.

Goals

• To establish quality of care and service standards that are tailored to resource-poor and rural environments in Sub-Saharan Africa.
• To provide a benchmark for quality in resource poor settings that can be used as reassurance for consumers, governments and funders.
• To build capacity in quality management techniques and expertise and, where needed, in accreditation skills.
• To instil a culture of continuous quality improvement in health facilities.
• To provide knowledge transfer and sharing of best practices among facilities in Africa those are facing similar challenges.

How

• Establish an external, objective, voluntary accreditation organisation along the lines of the International Standards Organisation (ISO) or the US Joint Commission for the Accreditation of Healthcare Organisations (JCAHO). Based in a low-income country, the institution would develop and monitor quality standards for healthcare in resource-poor and rural settings. This body would be separate from national regulatory or licensing authorities but could work with these agencies to ensure coordination with national requirements.

• Contract with an existing, respected accreditation body (such as ISO, JCAHO) to work with African professional associations, business associations, existing quality assurance bodies, public and private facilities and Ministries of Health to develop standards and monitoring processes tailored to conditions in Sub-Saharan Africa.
• Several sources can be referenced to develop these standards. For example, the NGO Code of Practice offers guidance on how to provide quality community services. Professional associations also provide standards of practice.
• Build accreditation capacity by training and using evaluators who are healthcare providers. Encourage knowledge transfer on quality and standards within sub-regions and countries in Sub-Saharan Africa.
• Identify advantages and incentives to seeking accreditation such as the ability to participate in clinical trials, expedited processes for funding from governments and donors and national recognition.

De Beers: Comprehensive Healthcare Programmes in South Africa, Botswana, Namibia, Tanzania

De Beers, a mining company which operates in several countries in Sub-Saharan Africa, has made it a part of their company mission to provide healthcare services not only to their employees but also, where possible, to the communities in which they operate. They provide a range of primary care, trauma services and hospital care to over 150,000 people in four countries.
One of their ventures, Debswana, is a partnership between the Botswana Government and De Beers. The Debswana Health service provides services to the local populations in Orapa and Jwaneng. Two 100-bed hospitals were built when the mines were established in the early 1970s because there were no health services in the area. The mine hospitals eventually came to be regarded as the district hospitals, and currently serve as referral hospitals for the public hospitals in the district. Over half of outpatients and 80% of hospitalised patients seen at the hospitals are not mine employees or their dependants. The local population is treated free of charge in these Botswana hospitals. In 2003 the mine health service became the registered site responsible for providing ARTs as part of the government's HIV/AIDS programme.

Target Population

• Public and private healthcare facilities that wish to improve the quality of their system and the care they provide.
• Ultimately the patients and clients of these facilities would be the primary beneficiaries.

What Might Be Offered

• Evidence-based quality standards appropriate to the environment.
• Training for accreditors.
• On-site accreditation visits and consultation services to health facilities.
• Tools for health facilities to use for self-monitoring performance on an ongoing basis.

Potential Partners

• Ministries of Health, government bodies and professional associations could support the process and ensure that standards meet national guidelines.

• Businesses, especially those in the health sector, could support development of standards and provide training on total quality management processes, based on their experience with ISO and other accreditation bodies.
• International organisations such as WHO, professional associations and NGOs could contribute to standards development.
• Healthcare facilities (public, NGO, faith-based, private) could provide input into standard-setting and volunteer staff who could serve as accreditors.

Possible Funding

• Donor and government, co funding for establishment of standards and creation of institutions.
• Co funding or in-kind skills contribution from businesses.
• Co funding and in-kind expertise from accredited healthcare facilities in Africa, Europe, Asia and North America (twinning programmes).
• Public and private funding for ongoing institutional operating costs.

Becton Dickinson and Company (BD):Improving Laboratory Quality and Skills

Diagnostics are an essential quality control for drug therapy. In the absence of appropriate diagnostics, drug therapy will not be properly administered, leading to unnecessary costs for people being treated who might not require treatment and additional complications because those who require treatment are not receiving it.The problem of drug resistance is also compounded without appropriate diagnostics. Increased funding for laboratory equipment means that a greater number of hospitals and clinics can now perform more complex and reliable diagnostic tests at remote sites.

The quality of skilled laboratory personnel to perform and analyse those tests presents a significant constraint to use these facilities fully. To address this problem, BD has joined forces with local ministries of health in 41 countries to provide basic training on quality control, quality assurance, standard laboratory operating procedures, record keeping, safety and testing methodologies needed to improve the quality of laboratory services. BD uses the *train the trainer* approach, focusing on laboratory workers or managers who are then capable of training others. The training has resulted in better-skilled and more motivated workers, as well as improved processes such as standardised operating procedures, testing and certification.

Strategic Opportunity #4

Take advantage of new, inexpensive technologies to build communities of practice amongst healthcare providers who are sparsely located and address the challenge of providing quality care in remote settings.

Goals

• To link healthcare providers with centres of excellence, sources of information and experts.
• To provide efficient, real-time consultation services to those in remote settings.
• To retain and develop community health workers by connecting them with a broader network for support and advice.

• To provide professional development of health workers in rural areas and encourage retention through providing support and connectivity.
• To integrate more effectively information technology (generally hardware) being funded by donors into daily management of healthcare operations in resource-poor and rural settings.

How
• Provide simple and low technology telemedicine using mobile telephones and/or personal digital assistants (PDAs) to create communities of practice between isolated clinical staff and community health workers.
• Engage IT companies to build inexpensive software tailored to managing in resource-poor environments and remote locations, leverage Internet broadband where available.

Target population
• Community health workers and health professionals in isolated areas.
• Managers and health professionals in rural and resource-poor communities.
• Rural populations and populations those are difficult to reach.

What Might Be Offered
• Reliable technologies such as mobile telephones, PDAs, computers that are robust and appropriate to the setting.
• Software to support technologies.
• Basic and ongoing training in use of technologies and software.
• Ongoing maintenance of technologies and software.
• Centres of reference to link health professionals and facilities.

Potential Partners
• Government ministries could be involved with planning and implementation of health at the community level.
• The IT sector could provide technology, software development, skills training as well as maintenance and equipment support.
• Businesses based in Africa, such as mining companies, could share existing IT systems.
• Health companies could help develop software content.
• NGOs/healthcare organisations could be involved in software development and technology selection.
• NGOs in other low-income countries that already use these technologies and have low-cost software could provide advice, technology and knowledge transfer, such as the Aravind Eye Institution in India.
• International organizations, such as WHO, and national organisations with a technology focus could support development of technical standards and compatibility within countries and across national boundaries.

Possible Funding
• Funding for model development and new software development could come from governments, NGOs, donors, software developers, IT companies.

Strategic Opportunity #5

Develop programmes to empower communities to determine their own health needs. More specifically, such programmes would select, train and support influential community members so they can cater to the basic health needs of their community.

Goals

.To address inequities in access to healthcare and allow outreach to the most vulnerable communities.

.To provide 24/7, holistic and accessible care for rural communities.

• To train and empower rural communities to be able to take ownership of their own health issues and the related solutions.

• To foster development within a community, starting with community health programmes.

• To support the role of community health workers so that they remain engaged and grow into community health experts over time.

How

• Groups of companies, government entities and NGOs would agree to support a selected community in partnership.

• Phases of work to be carried out by the group

---Define the community and problems to be targeted in conjunction with the government.

—Mobilise the community leaders/influencers.

—Develop the holistic package to address the major issues in conjunction with the community.

Most importantly, the solutions would be developed in conjunction with communities and leverage existing programmes/initiatives where these exist in the community.

—Identify gaps in resources and skills needed to implement the solutions.

—Develop a funding, action, monitoring and evaluation plan. The emphasis should be on monitoring and evaluating programmes with the community so they are able to learn and redefine their own needs.

—Mobilise the community at large.

Target population

• Resource-limited and vulnerable communities.

What Might Be Offered

• Financial and training resources to community health workers.

• Health information in local languages.

• Structured linkages to existing health facilities.

Potential Partners

• All ministries in governments involved with planning and implementation of health at community level could support planning and implementation of the programmes.

• Businesses could advocate for other businesses to get involved and transfer organisational thinking to health management challenges.

• Businesses could support programmes by filling in the knowledge, management skill and funding gaps. Examples of how different sectors can do this include:

- Mining sector could help with infrastructure building and capacity.
- Healthcare sector could provide business, financial and project management skills, access to medications, training for disease areas, supply chain and procurement expertise and technology transfer.
- Fast-moving consumer goods companies could help with awareness and social marketing.
- Horticulture sector (tea estates, coffee estates, etc)—could extend "in the fence" programmes to the outside communities.

• NGOs/community-based organisations/faith-based organisations could be the implementing partners.

Possible Funding

• Pooled corporate funds and expertise to support the community health worker support package (such as training, information).
• Public funding and provision of medical supplies.
• Local NGO resources to foster continuous engagement with the communities.

Existing Examples of Similar Successful Programs

• AMREF and GlaxoSmithKline: Uganda's community drug distributors.
• AMREF and AstraZeneca: Eastern Cape, community-based management of TB.
• Bristol-Myers Squibb Company: Secure the Future Programme a community-based treatment support for HIV/AIDS in resource-limited settings 6 countries.
• Merck: Mectizan Donation programme uses community health workers in some 90,000 communities in more than 30 countries to help in treating some 70 million people each year at risk of river blindness or lymphatic filariasis.

The Bristol-Myers Squibb "Secure the Future" Community-based Treatment Support Programme

Secure the Future (STF) has established an innovative, community-based treatment supportprogramme in five southern African countries to determine if comprehensive medical treatment, when combined with broad-based community support, can be successful in fighting HIV/AIDS in very resource-limited settings. These programmes provide support not only during the half hour with patients in the clinic but also for the other twenty-three and a half hours of their day. The programmes were agreed upon after consultation with the relevant governments. They are tripartite partnerships among the communities (NGOs, community-based organisations and faith-based organisations), a public health facility and theprivate sector. STF provided funding, access to medication and capacity-building in financialmanagement, project management and operational research skills.

The programmes were designed by local stakeholders. Chiefs, traditional leaders and healers were actively engaged. Community activities and support services include community mobilisation, education and prevention, voluntary counselling and testing, home-based care, psychosocial support, training in wellness and positive living, buddies, food security, income generating activities and orphan care.

Extensive monitoring and evaluation are incorporated in the programme and results exceed expectations. After two and a half years of operation, more than 10,500 patients have been enrolled, of whom more than 4,250 are on antiretroviral. The response rate is 67% measured in sustainable increase in CD4 count and 76% in undetectable viral load. Eighty-two percent of the patients are more than 95% adherent. Those who are not on antiretroviral have access to all the community support services, with the objective of keeping them as healthy as possible. Community mobilisation, education and testing have been strong. Since the start of the programme, there has been a ten-fold increase in voluntary counselling and testing, changing from approximately 100 people to more that 950 per month. Initial data demonstrate improvement in patients' quality of life and reduction in stigma, both correlating with the level of community support. It is now the objective of the initiative to develop a tool kit available for public use for establishing holistic programmes for managing HIV/AIDS patients in resource limited settings, with the community taking the leading role.

REFERENCES

- FRIEDMAN, T., 2000. *The Lexus and the Olive Tree*. London: HarperCollinsPublishers. [IHSU Library no. 337 FRI]
- GOLD, L., 2004. *The Sharing Economy: Solidarity Networks Transforming Globalisation*. UK: Ashgate Publishing.
- LABONTE, R., *et al.*, 2004. *Fatal Indifference. The G8, Africa and Global Health*. SA: University of Cape Town Press/IDRC. http://www.idrc.ca/en/ev-45682-201-1-DO_TOPIC.html
- CORNIA, G.A., 2001. Globalization and health: results and options. *Bulletin of the World Health Organization*. 79 pp. 834–841. http://www.who.int/entity/bulletin/archives/79(9)834.pdf
- Tikki Pang and G. Emmanuel Guindon, "Globalization and risks to health", EMBO Reports 5 (2004) at http://www.natrure.com/embor/journal/v5/n1s/full/740226.html
- The World Health Organization website is a valuable store of relevant information http://www.who.int/en/

Additional References

1. ^ Winslow, Charles-Edward Amory (1920 Jan 9). "The Untilled Fields of Public Health". *Science* **51** (1306): 23–33. doi:10.1126/science.51.1306.23. PMID 17838891.
2. ^ Frequently asked questions from the "Preamble to the Constitution of the World Health Organization" as adopted by the International Health Conference, 1946
3. ^ Global Public-Private Partnership for Handwashing with Soap. *Handwashing research*, accessed 19 April 2011.
4. ^ Lincoln C Chen; David Evans; Tim Evans; Ritu Sadana; Barbara Stilwell; Phylida Travis; Wim Van Lerberghe; Pascal Zurn (2006). *World Health Report 2006: working together for health*. Geneva: WHO. OCLC 71199185.
5. ^ Cuter, David; Grant Miller (February 2005). "The Role of Public Health Improvements in Health Advances: The Twentieth Century United States". *Demography* **42** (1): 1–22. doi:10.1353/dem.2005.0002. OCLC 703811616. PMID 15782893.
6. ^ Wilson, Kumanan; Keelan, Jennifer (May 2009). "Coping with public health 2.0". *Canadian Medical Association Journal* **180** (10): 1080. doi:10.1503/cmaj.090696. PMC 2679846. PMID 19433834.
7. ^ Vance, K.; Howe, W.; Dellavalle, R.P. (April 2009). "Social internet sites as a source of public health information". *Dermatologic Clinics* **27** (2): 133–136. doi:10.1016/j.det.2008.11.010. PMID 19254656.
8. ^ "Public Health 2.0: Spreading like a virus". 24. Retrieved 2011-06-13.
9. ^ DLSPH Conference Planning Committee. "Public Health 2.0 FAQs". Public Health 2.0 Conference. Retrieved 2011 June 13.
10. ^ D. Parvaz (26). "Crowdsourcing Japan's radiation levels". Al Jazeera. Retrieved 2011-06-13.
11. ^ Hardey, Michael (July 2008). "Public health and Web 2.0". *Perspectives in Public Health* **128** (4): 181–189.
12. ^ *a b c* U.S. Department of Health & Human Services. (1999). *Achievements in Public Health, 1900–1999* - http://www.cdc.gov/mmwr/PDF/wk/mm4850.pdf
13. ^ Public Health Agency of Canada. Canadian Public Health Workforce Core Competencies, accessed 19 April 2011.
14. ^ *a b c d* Patel, Kant; Rushefsky, Mark E.; McFarlane, Deborah R. (2005). *The Politics of Public Health in the United States*. M.E. Sharpe. pp. 91. ISBN 076561135X.
15. ^ Fee, Elizabeth; Acheson, Roy M. (1991). *A History of education in public health : health that mocks the doctors' rules*. Oxford University Press. ISBN 0192617575.
16. ^ Pencheon, David; Guest, Charles; Melzer, David; Gray, JA Muir (2006). Pencheon, David. ed. *Oxford Handbook of Public Health Practice*. Oxford University Press. OCLC 663666786.
17. ^ Smith, Sarah; Sinclair, Don; Raine, Rosalind; Reeves, Barnarby (2005). *Health Care Evaluation*. Open University Press. OCLC 228171855.

18. ^ Sanderson, Colin J.; Gruen, Reinhold (2006). *Analytical Models for Decision Making*. Open University Press. OCLC 182531015.
19. Garrett, Laurie (2000). *Betrayal of Trust: the Collapse of Global Public Health*. New York: Hyperion. ISBN 0786865229.
20. Breslow, Lester, ed. (2002). *Encyclopedia of Public Health*. New York: Macmillan Reference USA. ISBN 9780028653549.
21. Heymann, David L., ed. (2008). *Control of Communicable Diseases Manual*. Washington, D.C.: American Public Health Association. ISBN 9780875531892.
22. Schneider, Dona; David E Lilienfeld (2008). *Public Health: the Development of a Discipline*. New Brunswick, NJ: Rutgers University Press. ISBN 9780813542317.
23. Turnock, Bernard (2009). *Public Health: What It Is and How It Works* (4th ed.). Sudbury, MA: Jones and Bartlett Publishers. ISBN 9780763754440.