



Providing high quality accessible information to policy makers and practitioners working in health and development

Produced by the [IDS Health and Development Information](#) team in collaboration with [Eldis](#) and the [DFID Health Resource Centre](#)

Disease eradication and elimination

Health reporter, September 2008

Feature: [Disease eradication and elimination](#)

Recommended readings:

- [Leprosy: too complex a disease for a simple elimination paradigm](#)
- [Certification of polio eradication: process and lessons learned](#)
- [Global health goals: lessons from the worldwide effort to eradicate poliomyelitis](#)
- [Neglected patients with a neglected disease? a qualitative study of lymphatic filariasis](#)
- [Fighting blindness: trachoma in Ethiopian children](#)

Latest additions:

- [The status of rural poverty in the Near East and North Africa](#)
- [Does subjective social status predict health and change in health status better than objective status?](#)
- [Monitoring and evaluation of nutrition and nutrition-related programmes: a training manual for programme managers and implementers](#)
- [What do we mean by 'major illness'? the need for new approaches to research on the impact of ill-health on poverty](#)
- [Mobilising communities on young people's health and rights: an advocacy training guide](#)

[Announcements](#)

Feature: Disease eradication and elimination

In 1977 the last case of naturally transmitted smallpox was recorded, and by 1979 the global eradication of one of the most devastating diseases known to humanity was officially certified. Since then, various eradication programmes have been initiated, with varying degrees of success. Eradication of a disease is the permanent reduction to zero of its worldwide incidence as a result of deliberate efforts, so that further control measures are unnecessary. This is distinct from both extinction of the disease pathogen from the environment, and elimination of the disease or infection from within a defined geographical area, such as a country or continent. Control measures usually require maintenance of routine services in the long-term, while eradication is generally time-limited and targeted.

Over the decades the focus of eradication and elimination programmes has shifted, reflecting the health priorities and technologies available at the time. In the 1980s the International Task Force for Disease Eradication (ITFDE) identified six diseases: dracunculiasis (guinea worm), polio, mumps, rubella, lymphatic filariasis and cysticercosis as suitable candidates for eradication. Current eradication programmes include guinea worm and polio, and elimination programmes include neonatal tetanus, leprosy, onchocerciasis, trachoma and lymphatic filariasis. It is important to draw lessons from the varying success and failure of such programmes. Some diseases such as Malaria, yaws and yellow fever have not been responsive to eradication attempts in the long term. For example the Global Malaria Eradication Program of the 1950s, while resulting in major reductions in less-developed countries failed to interrupt transmission completely and a resurgence of malaria eventually meant that the strategy was abandoned. The Global Polio Eradication Initiative however has been more successful, and polio incidence since 1988 has been reduced by 99 percent.

The ITFDE identified two main factors that determine the success of a disease eradication programme: scientific feasibility and political support. The factors affecting scientific feasibility include epidemiological vulnerability of the disease; availability of effective and practical interventions; the lack of an animal reservoir for the disease; and demonstrated successful elimination of the disease in a particular area. Other factors include the cost effectiveness of eradication versus elimination or control programmes; benefits of eradication in terms of reducing morbidity and mortality compared to other health interventions; the ability to coordinate with other health programmes and the potential effects of control programmes on the health system. The degree of societal and political commitment is also important, as well as the capacity for financial, managerial and technical support. Disease eradication programmes should not bypass or compromise existing health systems and attempts should be made to expand benefits to health services beyond the limited impact of eradicating the target disease.

More information:

- Centers for Disease Control and Prevention - the principles of disease eradication
<http://www.cdc.gov/mmwr/preview/mmwrhtml/su48a7.htm>
 - The Carter Centre – disease eradication and elimination
<http://www.cartercenter.org/health/itfde/role.html>
 - Recommendations of the International Task Force for Disease Eradication
<http://wonder.cdc.gov/wonder/prevguid/m0025967/M0025967.asp>
 - Global eradication of Lymphatic Filariasis: the value of chronic disease control in parasite elimination programmes
<http://www.pubmedcentral.nih.gov/picrender.fcgi?ahhttp://www.pubmedcentral.nih.gov/picrender.fcgi?artid=2490717&blobtype=pdf&blobtype=pdf>
 - New global malaria eradication strategy
<http://www.thelancet.com/journals/lancet/article/PIIS0140673608604249/fulltext>
 - World Health Organisation Smallpox factsheet
<http://www.who.int/mediacentre/factsheets/smallpox/en/>
 - The Global Polio Eradication Initiative
<http://www.polioeradication.org/>
-

Recommended readings

1. Leprosy: too complex a disease for a simple elimination paradigm

Authors: D. N. Lockwood; S. Suneetha

Publisher: Bulletin of the World Health Organization: the International Journal of Public Health, 2005

Can leprosy be eliminated? This paper considers the question against the background of the World Health Organization programme to eliminate leprosy. In 1991 the World Health Assembly set a target of eliminating leprosy as a public health problem by 2000 where prevalence is less than one case per 10,000 people. The paper finds that whilst the elimination programmes has been successful in delivering highly effective antibiotic therapy worldwide, new-case detection rates remain stable in countries with the highest rates of endemic leprosy such as Brazil and India. This suggests that infection has not been adequately controlled by antibiotics alone.

The paper suggests that leprosy may be more appropriately classed as a chronic disease than as an acute infectious disease responsive to elimination strategies. In many countries activities to control and treat leprosy causes long-term immunological complications, disability and deformity. The health care activities of treating and preventing disabilities need to be provided in an integrated setting. It concludes that detecting new cases and monitoring disability caused by leprosy will be a challenge. One solution is to implement long-term surveillance in selected countries with the highest rates of endemic disease so that an accurate estimate of the burden of leprosy can be determined.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=35291&type=Document>

2. Certification of polio eradication: process and lessons learned

Authors: J. Smith; R. Leke; A. Adams; R. H. Tangermann

Publisher: Bulletin of the World Health Organization: the International Journal of Public Health, 2004

This article, published in the Bulletin of the World Health Organization (WHO), examines the certification process for polio eradication, highlights lessons learned, and identifies future challenges in achieving global certification. Three World Health Organization regions – the Region of the Americas (AMR), the Western Pacific Region and the European Region – have already been certified polio-free, and good progress is being made in the three endemic regions (African, Eastern Mediterranean and South-East Asian). The authors identify three main elements in this success: the application and further development of lessons learned from smallpox eradication and polio eradication in AMR, the integration of important programme elements such as wild poliovirus laboratory containment, and the close collaboration of certification groups with national and WHO teams.

The article concludes by highlighting remaining challenges to the certification of polio eradication on a global scale. These include: the need for closer coordination of certification activities between WHO regions, the verification of laboratory containment, the development of a mechanism to verify the absence of circulating vaccine-defined polioviruses in the future, and the maintenance of polio-free status in certified regions until global certification. The continued commitment of national governments, ministries of health, scientists and public health experts will also be crucial. [adapted from authors]

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=18347&type=Document>

3. Global health goals: lessons from the worldwide effort to eradicate poliomyelitis

Authors: R.B. Aylward; A. Acharya; S. England; M. Agocs

Publisher: The Lancet, 2003

International initiatives to combat global health threats share a common belief that coordinated international action is in the interests of all countries. The effort to eradicate polio is one such initiative which has been running since the late 1980s. This paper, published in the Lancet, assesses the politics, production, financing and economics of this international effort, and suggests lessons that may be relevant for campaigns targeting other global health threats.

The authors report that the global poliomyelitis eradication initiative was launched in 1988, and in 1990 endorsed by the 1990 World Summit for Children. The paper describes the process of implementing anti-polio strategies and the international coordination effort involved, explores the direct and indirect costs and benefits of the programme, and discusses the current status of polio eradication and threats to achieving the goal of elimination of the disease. The authors set out six lessons that are relevant for future global disease eradication campaigns. They conclude that the experience gained through the international poliomyelitis eradication initiative provides insights into the political, organisational, scientific and economic factors that must be taken into account in internationally coordinated actions on health issues.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=18431&type=Document>

4. Neglected patients with a neglected disease? a qualitative study of lymphatic filariasis

Authors: M. Perera

Publisher: Public Library of Science Medicine, 2007

This research article from PLoS Neglected Tropical Diseases aims to find more effective ways to help people with lymphatic filariasis (LF). Also known as elephantiasis, this neglected tropical disease causes extreme swelling of the limbs and male genitals, resulting in long-term disability. A survey of LF patients in Sri Lanka showed that they suffered social stigma, leading to isolation and emotional distress as well as delaying diagnosis and treatment. Some avoided free government clinics for fear of drawing attention to their condition. All households reported loss of income while the poorest were almost destitute. Those from low-income households also had problems accessing distant clinics and their living and working conditions made treatment difficult.

The article highlights an estimated 40 million people worldwide with LF symptoms requiring long-term care, many of whom have been neglected or forgotten by governments and donors. It calls for a comprehensive survey of LF patients, followed by expansion of mass drug treatment programmes and better surgical care. It also recommends special measures to identify, reach and care for patients in advanced stages of the disease, and specific poverty reduction policies targeting the poorest affected households.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=35107&type=Document>

5. Fighting blindness: trachoma in Ethiopian children

Authors: Phillipa Cumberland; Girum Hailu; Jim Todd; Institute of Child Health, University of London, UK

Publisher: id21 Development Research Reporting Service, 2004

Trachoma is the number one infectious cause of blindness worldwide. Globally it has blinded around six million people and another 150 million people have the disease. Blindness results from repeated episodes of active trachoma, which usually occur in childhood. In some areas of Ethiopia over half of young children have the disease.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=9637&type=Document>

Latest additions from the Health resource guide

1. The status of rural poverty in the Near East and North Africa

Authors: I. Christensen; B. Veillerette; S. Andricopulos; Food and Agriculture Organisation (FAO)

Publisher: International Fund for Agricultural Development, 2007

Poverty in the Near East and North Africa region (NENA) is mainly a rural phenomenon. Almost half (48 percent) of the area's population live in rural areas. This report focuses on key rural poverty issues in 13 diverse countries in the region, Algeria, Djibouti, Egypt, Jordan, Lebanon, Morocco, Somalia, Sudan, Syria, Tunisia, Turkey, and Yemen, without attempting to propose policy or programme actions at national or local levels.

Overall, the rural poor still face traditional constraints such as water scarcity, inadequate rural infrastructure, inappropriate policies and institutions, weak local-level organisations and gender inequity. They are also affected by new trends in migration, globalisation, changing trade patterns and increasing unemployment amongst young men and women.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=39430&type=Document>

2. Does subjective social status predict health and change in health status better than objective status?

Authors: A. Singh-Manoux; M.G. Marmot; N.E. Adler

Publisher: American Psychosomatic Society, 2008

Is a person's health status better predicted by their subjective or objective socioeconomic status? This article examines this question and finds that:

- when analysed independently, both subjective and objective measures of socioeconomic status were significantly associated with health outcomes and with decline in health status over time
- when analysed simultaneously, subjective measures offer a better association to health and changes in health than objective measures

These results are discussed in terms of three possible explanations:

- subjective socioeconomic status is a more precise measure of social position
- the results support the idea that hierarchical rank influence health through direct and indirect mechanisms
- the results could be a product of common method variance, where both subjective socioeconomic status and health ratings have no meaningful relationship to each other, rather they are affected by a common underlying variable

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=39400&type=Document>

3. Monitoring and evaluation of nutrition and nutrition-related programmes: a training manual for programme managers and implementers

Authors: The Applied Nutrition Programme, University of Nairobi; School of Nutrition Science and Policy, Tufts University

Publisher: AED Center for Global Health Communication and Marketing, 2000

Monitoring and evaluation is an essential part of all projects and programmes. This manual has been designed to assist facilitators to train development and nutrition programme managers and those working on nutrition-related activities on how to design a monitoring system and develop an evaluation plan. It has two parts: guidelines for the facilitator and guidelines for the training course.

Part one provides facilitation guidelines including tips on how to get started, facilitation approaches, preparation and evaluating the training.

Part two provides seven modules which cover the tasks and information necessary for a programme manager to design a monitoring system and develop an evaluation plan. Step by step instructions are given including content, exercises and facilitation techniques.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=39394&type=Document>

4. What do we mean by 'major illness'?: the need for new approaches to research on the impact of ill-health on poverty

Authors: H. Lucas; S. Ding; G. Bloom
Publisher: Studies in Health Services Organisation and Policy, 2008

It is widely recognised that ill-health is one of the most serious challenges that many individuals, households and families have to face. But there is limited knowledge of the complex processes involved in suffering from and coping with multiple and diverse health-related challenges. Support mechanisms are seen primarily in terms of providing assistance in meeting the cost of in-patient treatment but such approaches fail to address the multiple and complex pathways which link ill-health and well-being. It has recently become commonplace for health economists to use the term 'catastrophic health expenditure' when referring to situations in which household expenditures on healthcare exceed a given proportion of 'disposable income', social support mechanisms. This chapter in the book 'Health and social protection; experiences from Cambodia, China and Lao' by Studies in Health Services Organisation and Policy argues that such indicators, while of considerable interest, should by no means be seen as adequately reflecting the range of issues which need to be addressed in either understanding the links between ill-health and poverty or in designing social support mechanisms.

The paper outlines research in Cambodia, China and Laos which has focused on households affected by a 'major illness', defined broadly in terms of risk to household livelihoods. The research investigated the processes set in motion as different types of households coped with different types of health problems. The authors argue that in spite of the attractions of traditional research surveys, there is an urgent need from both academic and policy perspectives to go beyond the kind of information that they can deliver. Continuing to estimate the incidence of predominantly minor, acute, symptomatic illnesses or the proportion of such episodes which result in a visit to a facility described by the respondent as a pharmacy, clinic, health centre or hospital, is simply not sufficient. It does not address existing serious knowledge gaps relating to the impact of ill-health on households or to guide policies intended to mitigate the effects of such impacts.

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=39284&type=Document>

5. Mobilising communities on young people's health and rights: an advocacy training guide

Authors: K. McFarland
Publisher: Family Care International, 2008

The international community and many national governments have endorsed young people's rights to sexual and reproductive health (SRH) information and services. SRH laws, strategies, and policies have been passed in over 150 countries; unfortunately, in many countries, these commitments have not been translated into programmes and services on the ground.

This toolkit aims to strengthen community-level advocacy initiatives focusing on young people's health and rights. The practical training curriculum provides an introduction to advocacy and takes participants through the steps involved in defining goals and objectives, developing effective messages and activities, and monitoring and evaluating an advocacy campaign. It is comprised of two toolkits: an advocacy toolkit for programme managers and an accompanying training guide.

The training guide is designed for use with community-based organisations, youth groups, and other grassroots partners that are interested in improving access to SRH information and services for youth. The five-day training leads participants through the essential steps in designing and planning an advocacy campaign. A number of tools are provided specifically designed to help grassroots partners formulate advocacy goals and objectives, and map out a comprehensive advocacy plan. [adapted from the author]

Available online at: <http://www.eldis.org/go/topics/resource-guides/health&id=39197&type=Document>

See the complete list of latest additions at: www.eldis.org/health

Announcements

Conference: International Symposium on Tropical Medicine and Hygiene

Dates: 10 - 13 November 2008

Location: Karachi, Pakistan

Aga Khan University (AKU), Pakistan, is hosting this international symposium on diseases of the tropics in collaboration with the Royal Society of Tropical Medicine and Hygiene (RSTMH), UK, and the Infectious Diseases Society of Pakistan (IDSP).

The symposium will highlight important issues of relevance to tropical medicine, and clinical and public health practice in Pakistan and the developing world. s

More information: <http://www.eldis.org/go/topics/resource-guides/health/health-events-and-announcements&id=39086&type=Item>

Conference: Second Ditan International Conference on Infectious Diseases

Dates: 14 - 17 November 2008

Location: Beijing International Convention Center, China

This conference organised by the Beijing Ditan Hospital, will focus on the globalisation of infectious diseases. The aim of the event is to provide the opportunity to enhance

scientific exchange, provide information updates and experience sharing between countries.

Experts from around the world will talk about the prevention, diagnostics and therapy for viral hepatitis, AIDS, respiratory diseases, bacterial, fungal and parasite Infection.

More information: <http://www.eldis.org/go/topics/resource-guides/health/health-events-and-announcements&id=39087&type=Item>

See the complete list of announcements at: www.eldis.org/go/topics/resource-guides/health/health-events-and-announcementsB

The Health Reporter is produced by the IDS Health and Development Information team in collaboration with the DFID Health Resource Centre (HRC) and Eldis.

The IDS Health and Development Information team promotes health and equity in developing countries through the provision of high quality, accessible information to policymakers and practitioners. IDS Health and Development Information currently has three flagship products:

- Health Resource Guide - <http://www.eldis.org/health/index.htm>
- Health Systems Resource Guide - <http://www.eldis.org/healthsystems/index.htm>
- HIV and AIDS Resource Guide - <http://www.eldis.org/go/topics/resource-guides/hiv-and-aids>

The HRC provides access to technical assistance and information for the Department for International Development (DFID UK), and its partners, in support of pro-poor health policies as well as health systems, service delivery and public health topics and programmes.

Eldis currently includes descriptions and links to over 4,500 organisations and over 22,000 full-text online documents covering development and environmental issues. It can be searched or browsed free over the Internet.

You are welcome to re-use material from this bulletin on your own website, provided that it is accompanied by an acknowledgement to Eldis and a link to the Eldis website (either to our home page or to the home page of one of our Resource Guides). An alternative way to add Eldis content to your website is by adding one of our [newsfeeds](#).

If you are unable to access any of these materials online and would like to receive a copy of a document as an email attachment, please contact our editor at the email address given below.

Eldis is funded by DFID, Sida, SDC and NORAD, and hosted by the Institute of Development Studies, Sussex, UK.

If you like the Health Reporter, you may also be interested in subscribing to the other Reporters produced by the IDS Health & Development Information Team:

- Health Systems Reporter - to subscribe, send an email to lyris@lyris.ids.ac.uk with "subscribe eldis-healthsystems FirstName LastName" in the body
- HIV and AIDS Reporter - to subscribe, send an email to lyris@lyris.ids.ac.uk with "subscribe eldis-hivaids FirstName LastName" in the body

To unsubscribe please send a message to lyris@lyris.ids.ac.uk with the subject: unsubscribe Health Systems Reporter

Please forward this email bulletin to colleagues and networks who may be interested.

Contact details:

Emily Robinson
IDS Health Development Information Team
Institute of Development Studies, Sussex
Brighton BN1 9RE, UK

Email: e.robinson@ids.ac.uk

Tel: 44 1273 877 540

Fax: 44 1273 621202

