90-90-90 Targets Workshop
July 21-22, 2018 • Amsterdam

Sponsored by:

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Maintaining Momentum: HIV within an Evolving Global Health Agenda

Stefano Vella MD
Center for Global Health
Istituto Superiore di Sanità - Rome

90-90-90 Targets Workshop
July 21-22, 2018 • Amsterdam

Sponsored by:
IAPAC
UNAIDS

In partnership with:
BRITISH COLUMBIA CENTRE FOR EXCELLENCE in HIV/AIDS
GLOBAL NETWORK OF PEOPLE LIVING WITH HIV
i.e: from HIV to Global Health
Chapter 1:

What is Global Health
THE DRIVERS......1. CLEAN WATER

WORLDWIDE, 1 OUT OF EVERY 5 DEATHS OF CHILDREN UNDER 5 IS DUE TO A WATER-RELATED DISEASE.
THE DRIVERS......2. SOCIAL DETERMINANTS

- Education
- Equality
- Urban development
- Demographic change
- Social innovation
- Nutrition
- Industrialization of food production
- Agriculture
  - Organic farming
  - Chemistry and pesticides
- Environment
- Physical activity
- Marketing and advertising
- Gender roles
- Working conditions
  - Unemployment
- Social networks

HEALTH & WELLBEING
THE DRIVERS......3. ADVANCES OF MEDICINE
What Global Health is **NOT**

Clean water, better living conditions and progress of medicine didn’t reach billions of human beings over the last century.
The unequal rise of «healthy» life expectancy
What Global Health is....not

Probability of dying prematurely from non-communicable diseases

Probability of dying from the four main NCDs* between the ages of 30 and 70
2012, %

- Yellow: <15
- Orange: 15–19
- Red: 20–24
- Dark Red: ≥ 25
- Grey: No data

Source: WHO

*Non-communicable diseases: cardiovascular diseases, cancer, chronic respiratory diseases and diabetes
What Global Health is... not
What Global Health is....not
What Global Health is....not

Ebola is back — and the top White House official in charge of pandemics is gone

There’s a new outbreak in the Democratic Republic of the Congo.

By Julia Belluz | @julioftoronto | julia.belluz@voxmedia.com | May 11, 2018, 11:40am EDT
## Potential Viral Pathogens

<table>
<thead>
<tr>
<th>Family</th>
<th>Prototype(s)</th>
<th>Licensed Vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paramyxovirus</td>
<td>Measles, Mumps, <em>Nipah</em>, RSV</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Togaviridae</td>
<td>Rubella, <em>Chikungunya</em>, WEVEE</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Reoviridae</td>
<td>Rotavirus</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Orthomyxovirus</td>
<td>Influenza A, B</td>
<td>Live-attenuated, whole-inactivated</td>
</tr>
<tr>
<td>Adenoviridae</td>
<td>Adenovirus 4, 7, 14</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Rhadnaviridae</td>
<td>Rabies</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Picornaviridae</td>
<td>Polio 1,2,3, Hepatitis A, EV68, 71</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Papillomaviridae</td>
<td>HPV 6, 11, 16, 18</td>
<td>Live-attenuated, whole-inactivated</td>
</tr>
<tr>
<td>Poxviridae</td>
<td>Variola</td>
<td>VLP</td>
</tr>
<tr>
<td>Hepadnaviridae</td>
<td>Hepatitis B</td>
<td>Live-attenuated</td>
</tr>
<tr>
<td>Herpesvirus</td>
<td>Varicella</td>
<td>VLP, (LDAV)</td>
</tr>
<tr>
<td>Flaviviridae</td>
<td>Yellow Fever, TBE, JEV, Dengue, Zika</td>
<td>Live-attenuated, whole-inactivated, Live-chimeric</td>
</tr>
<tr>
<td>Picornaviridae</td>
<td>Hepatitis E</td>
<td>VLP (German)</td>
</tr>
<tr>
<td>Filoviridae</td>
<td>Ebola, Marburg</td>
<td></td>
</tr>
<tr>
<td>Retroviridae</td>
<td>HIV</td>
<td></td>
</tr>
<tr>
<td>Coronaviridae</td>
<td>SARS, MERS</td>
<td></td>
</tr>
<tr>
<td>Paroviridae</td>
<td>B19, Boca</td>
<td></td>
</tr>
<tr>
<td>Caliciviridae</td>
<td>Noro</td>
<td></td>
</tr>
<tr>
<td>Polyomaviridae</td>
<td>JC, BK</td>
<td></td>
</tr>
<tr>
<td>Arenaviridae</td>
<td>Lassa, Machupo</td>
<td></td>
</tr>
<tr>
<td>Bunyaviridae</td>
<td>Hanta, Rift Valley</td>
<td></td>
</tr>
<tr>
<td>Astroviridae</td>
<td>Astrovirus</td>
<td></td>
</tr>
</tbody>
</table>

### Choose prototypic viruses within each family or each distinct genus
- Define structures of surface proteins and particles
- Determine extent of genetic variability
- Define tropism, entry mechanisms, receptors
- Study pathogenesis and establish animal models
- Isolate human mAbs and determine mechanisms of NT
- Develop assays for diagnosis and immunogenicity testing
- Define immune correlates of protection
Nipah Virus, Rare and Dangerous, Spreads in India

The infection, an emerging threat, has killed virtually all of its victims so far in India.

By Emily Baumgartner

June 4, 2018

A rare, brain-damaging virus that experts consider a possible epidemic threat has broken out in the state of Kerala, India, for the first time, infecting at least 18 people and killing 17 of them, according to the World Health Organization.

The Nipah virus naturally resides in fruit bats across South and Southeast Asia, and can spread to humans through contact with the animals’ bodily fluids. There is no vaccine and no cure.

The virus is listed by the W.H.O. as a high priority for research. Current treatment measures are insufficient, according to Dr. Stuart Nichol, the head of the viral special pathogens branch at the Centers for Disease Control and Prevention.
What Global Health is...not

Prevalence of hepatitis B infection, adults 19-89 years, 2005

Prevalence of anti-hepatitis C virus


What Global Health is....not
What Global Health is...not
Measles immunization coverage (% of children ages 12-23 months) (2016)
Measles mortality

Measles
Both sexes, Under 5 years, 2016, Deaths per 100,000
What Global Health is....not
What Global Health is... not
What Global Health is....not
Global Health Inequalities

At least 30 million people die **prematurely** (half of them before the age of 5) in developing countries for lack of adequate access to basic health care. They die for causes that are very often **preventable or treatable**.

Despite the convergence on the concept of health as a human right, there still exist intolerable global inequalities in accessing health and health services and in terms of life expectancy and morbidity and mortality from **communicable and non-communicable diseases**.

The persistence of inequalities in terms of health - **not only between rich and poor countries, but also between different regions in the same country** - is also a contradiction to science, given the growing geographic interdependence of the **biomedical causes and of the social determinants of health and diseases**.
Marginalised groups and vulnerable populations are the worst affected, deprived of information, money and access to health services that would help them prevent and treat disease.
## HIV prevalence in young pregnant women in rural Vulindlela, South Africa (2005-2008)

<table>
<thead>
<tr>
<th>Age Group (Years)</th>
<th>HIV Prevalence (N=1237)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤16</td>
<td>10.6%</td>
</tr>
<tr>
<td>17-18</td>
<td>21.3%</td>
</tr>
<tr>
<td>19-20</td>
<td>33.0%</td>
</tr>
<tr>
<td>21-22</td>
<td>44.3%</td>
</tr>
<tr>
<td>23-24</td>
<td>51.1%</td>
</tr>
</tbody>
</table>
GENDER (IN-)EQUALITY

Gender Inequality

Data Source: Human Development Index (2014)
Main map shows an equal population projection (gridded population cartogram)

www.viewsoftheworld.net
HEALTH IN THE SLUMS
THE GREAT ESCAPE is a movie about men escaping from a prisoner-of-war camp in World War II. The Great Escape of this book is the story of mankind’s escaping from deprivation and early death, of how people have managed to make their lives better, and led the way for others to follow.
MIGRANTS
The causes of poor health for millions globally are rooted in political, social and economic injustices.
Only 1% of people owns 50.4% of the global wealth; 2.4 billion adults own only 1%

Global Wealth Report - Credit Suisse.
Chapter 2: the HIV response as a model for Global Health
AIDS: a devastating impact in just a few years

40 million died

40 million live with HIV
Trends in Annual Rates of Death from Leading Causes of Death Among Persons 25-44 Years Old, USA
Antiretroviral Therapy for HIV Infection in 1996

Recommendations of an International Panel

Charles C. J. Carpenter, MD; Margaret A. Fischl, MD; Scott M. Hammer, MD; Martin S. Hirsch, MD; Donna M. Jacobson; David A. Kaszeta, MD; Julio S. G. Montaner, MD; Douglas J. Richman, MD; Michael S. Saag, MD; Robert T. Schooley, MD; Melanie A. Thompson, MD; Stefano Vella, MD; Patrick G. Yeni, MD; Paul A. Volberding, MD; for the International AIDS Society-USA

Objective.—To provide clinical recommendations for antiretroviral therapy for human immunodeficiency virus (HIV) disease with currently (mid-1996) available drugs. When to start therapy, what to start with, when to change, and what to change to were addressed.

Participants.—A 13-member panel representing international expertise in antiretroviral research and HIV patient care was selected by the International AIDS Society–USA.

Evidence.—Available clinical and basic science data, including phase 3 controlled trials, clinical endpoint data, virologic and immunologic endpoint data, interim analyses, studies of HIV pathophysiology, and expert opinions of panel members were considered. Recommendations were limited to drugs available in mid-1996.

Process.—For each question posed, 1 or more member(s) reviewed and presented available data. Recommendations were determined by group consensus (January 1996; revisions as warranted by new data were incorporated by group consensus [February-May 1996]).

Conclusions.—Recent data on HIV pathogenesis, methods to determine plasma HIV RNA, clinical trial data, and availability of new drugs point to the need for new approaches to treatment. Therapy is recommended based on CD4+ cell count, plasma HIV RNA level, or clinical status. Preferred initial drug regimens include nucleoside/nucleotide combinations; at present, protease inhibitors are probably best reserved for patients at higher progression risk. For treatment failure or drug intolerance, subsequent regimen considerations include reasons for changing therapy, available drug options, disease stage, underlying conditions, and concomitant medication(s). Therapy for primary (acute) infection, high-risk exposures to HIV, and maternal-to-fetal transmission are also addressed. Therapeutic approaches need to be updated as new data continue to emerge.

JAMA. 1996;276:146-154

From Brown University School of Medicine, Providence, RI (C. Carpenter); University of Miami School of Medicine (A. Fischl); Harvard Medical School, Boston, Mass (S. M. Hammer and M. S. Hirsch); The International AIDS Society-USA, San Francisco, Calif (D. Jacobson); Stanford (Calif) University Medical Center (D. Kaszeta); St Paul's Hospital, Vancouver, B.C. (J. S. G. Montaner); University of California, San Diego, and San Diego Veterans Affairs Medical Center (D. Richman); University of Alabama at Birmingham (D. Saag); University of Colorado School of Medicine, Denver (C. Schooley); AIDS Research Consortium of Atlanta (J. G. Thompson); Instituto Superiore di Sanita, Rome, Italy (M. S. Saag); Hospital Richier, Marseille, France (M. Vella); and University of California, San Francisco (P. Yeni). Financial disclosures appear at the end of this article.

Reprints: International AIDS Society-USA, 503 Kearney St, San Francisco, CA 94108

IMPORTANT ADVANCES in understanding the biology and treatment of human immunodeficiency virus (HIV) infection have occurred during the past 18 months. As a result, new scientifically sound approaches to therapy have been developed that offer new options for persons with HIV infection. The relevant recent advances fall into 4 major categories: (1) a better understanding of the replication kinetics of HIV throughout all stages of disease; (2) the development of assays to determine the viral load in individual patients; (3) the availability of several new effective drugs; and (4) the demonstration that combination therapy is more effective than zidovudine monotherapy.

In light of these advances, the recommendations of earlier state-of-the-art guidelines are no longer applicable to clinical decision making in 1996. Therefore, an international panel of clinical investigators experienced in HIV patient care was selected and convened by the International AIDS Society-USA to develop current recommendations for the clinical management of HIV-infected individuals.

The panel addressed 4 central questions about antiretroviral therapy: when to initiate therapy, which types of drugs to use, when to change therapy, and which types of drugs to use when a change in therapy is indicated. In addition, the treatment of primary HIV infection, prevention of vertical transmission, and postexposure prophylaxis were addressed. The recommendations are not solely based on the results of controlled clinical trials with well-defined clinical endpoints. Developing clinical guidelines in the HIV field at this time requires an approach firmly anchored in data from controlled, double-blind clinical trials when available, but must also include information from trials in progress and available virologic and immunologic endpoints, as well as extrapolations from studies of the pathophysiology of HIV infection. Clinical decisions must be made for best use of up to 8 available antiretroviral drugs, at a time when long-term studies with clinical endpoints have been completed for only a few possible combinations.

The recommendations herein reflect the panel's agreement on the importance of plasma HIV RNA measurements for predicting risk of clinical progression as well as the recent demonstration from clinical trials of combination therapies that reductions in plasma HIV RNA...
Palella F et al, HOPS Study
YEAR 2000: difference in mortality between the rich north and the poor south
World AIDS Conference - DURBAN, 2000
COMMUNITY MOBILIZATION
FDA Approval of HIV Medicines

- **1981**: First AIDS cases reported in the United States

- **1987**: Zidovudine (NRTI)

- **1991**: Didanosine (NRTI)
- **1992**: Zalcitabine (NRTI)
- **1994**: Stavudine (NRTI)

- **1995**: Lamivudine (NRTI)
- **1996**: Saquinavir (PI)
- **1997**: Nevirapine (NNRTI)
- **1998**: Combivir (FDC)
- **1999**: Delavirdine (NNRTI)
- **2000**: Nelfinavir (PI)

- **2001**: Atazanavir (PI)
- **2002**: Emtricitabine (NRTI)
- **2003**: Enfuvirtide (PI)
- **2004**: Fosamprenavir (PI)

- **2005**: Kaletra (FDC)
- **2006**: Tenofovir DF (NRTI)
- **2007**: Atripla (FDC)
- **2008**: Maraviroc (CA)

- **2011**: Complera (FDC)
- **2012**: Stribild (FDC)
- **2013**: Truvada (FDC)
- **2014**: Atripla (FDC)

- **2015**: Descovy (FDC)
- **2016**: Tivicay (FDC)
- **2017**: Juluca (FDC)
- **2018**: Biktarvy (FDC)

**Drug Class Abbreviations:**
- CA: CCR5 Antagonist
- FDC: Fixed-Dose Combination
- PI: Protease Inhibitor
- INSTI: Integrate Inhibitor
- NNRTI: Non-Nucleoside Reverse Transcriptase Inhibitor
- NRTI: Nucleoside Reverse Transcriptase Inhibitor
- PK: Pharmacokinetic Enhancer
- PR: Protease Resistant
- PATAI: Post-Attachment Inhibitor

**Note:** Drugs in grey are not available in the United States and are no longer recommended for use in the United States by the HIV/AIDS medical practice guidelines. These drugs may still be used in fixed-dose combination formulations.
Box 4: Access to medicines and the Doha Declaration on TRIPS and Public Health

Measuring access to medicines is a complex task, but price is one key factor among others. The Doha Declaration on TRIPS and Public Health recognized concerns about effects on prices while noting the need for innovation. Since the Declaration was adopted in 2001, prices for many treatments have fallen significantly, in part due to generic competition and tiered pricing schemes (see graph below). Surveys also show a marked increase in the use of TRIPS flexibilities to promote access to medicines.

Falling prices of first-line combinations of some first-line anti-retroviral therapies for HIV-AIDS since 2000

“Each member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted” and “to determine what constitutes a national emergency or other circumstances of extreme urgency”.

Public health crises include “those relating to HIV/AIDS, tuberculosis, malaria and other epidemics” and “other circumstances of extreme urgency”.
HEALTH CARE INNOVATION

1. **Integrated models of care:**

   → from HIV, to HIV + TB, to HIV + TB + HIV Co-morbidities
   to HIV + TB + Co-Morbidities + Chronic Diseases (NCDs)

2. **Differentiated Models of Care:**

   → client-centered approach,
   
   → this model could easily also be applied to NCD care
Chapter 3:
The future of Global Health
What is Global Health?

A multisectoral area for study, research, and action that places a priority on improving health and achieving equity in health for all people worldwide, transcending the perspectives and concerns of individual nations, with specific attention to the poor, the marginalized and the underserved.
Advancing global health and strengthening the HIV response in the era of the Sustainable Development Goals: the International AIDS Society—Lancet Commission

Executive summary

Inspired by unprecedented improvements in human health and development in recent decades, our world has embarked on a quest that only a generation ago would have been considered unreachable—achieving sustainable health and development for all. Improving the health and well-being of the world’s people is at the core of the Sustainable Development Goals (SDGs), reflected in targets that call for ending the epidemics of AIDS, tuberculosis, and malaria, achieving enormous improvements in maternal and child health; and tackling the growing burden of non-communicable diseases (NCDs). Attaining universal health coverage is the means by which these ambitious health targets are to be achieved.

Although on their face, the SDGs reflect an unprecedented level of global solidarity and resolve, the trends that increasingly define our world in 2018 are inconsistent with both the sentiments that underlie the SDGs and the ethos that generated such striking health and development gains in recent years. Democracy is in retreat, and in many countries the space for civil society is declining and the human rights environment deteriorating. Official development assistance for health has stalled, as an inward-looking nationalism has in many places supplanted recognition of the need for global collaboration to address shared challenges. The loss of momentum on global health ignores the urgent need to strengthen health systems to address the steady growth of NCDs, which now account for seven of the ten deaths worldwide.

Recent trends in the HIV response are especially concerning. Although the number of new HIV infections and AIDS-related deaths have markedly decreased since the epidemic peaked, little progress has been made in reducing new infections in the past decade. Without further reductions in HIV incidence, a resurgence of the epidemic is inevitable, as the largest ever generation of young people age into adolescence and adulthood. Yet where vigilance and renewed efforts are needed, there are disturbing indications that the world’s commitment is waning. Allowing the HIV epidemic to rebound would be catastrophic for the communities most affected by HIV and for the broader field of global health. If the world cannot follow through on HIV, which prompted such an extraordinary global mobilization, hopes for achieving the ambitious health aims outlined in the SDGs will inevitably dim.

At this moment of uncertainty for the future of the HIV response and for global health generally, the International AIDS Society and The Lancet convene an International

Key messages

- The HIV epidemic is not on track to end, and the prevailing discourse on ending AIDS has bred a dangerous complacency and may have hastened the worsening of global resolve to combat HIV.
- Existing HIV tools and strategies are insufficient, and although dramatic gains can be made through maximizing existing prevention and treatment strategies, the HIV epidemic is likely to remain a major global challenge for the foreseeable future.
- Tens of millions of people will require sustained access to antiretroviral therapy for decades to come; vigilance will be needed to prevent a resurgence of the epidemic as the largest ever generation of young people age into adolescence and young adulthood, and intensified efforts are required to address HIV among populations and settings that are being left behind.
- Allowing the epidemic to rebound after achieving such remarkable progress would not only cost the human and financial costs of HIV, but it would potentially demoralize the global health field and diminish support for similarly ambitious global health undertakings.
- A rejuvenated global effort on HIV is essential; to renew and strengthen the global HIV response, the world’s impressive commitment to the scaling up of HIV treatment services must be matched by a similarly robust commitment to expanded access to HIV prevention.
- The HIV responses must make common cause with the broader global health field to herald a new era of global solidarity for health, and specific action is urgently needed to respond to the rapidly rising health toll associated with non-communicable diseases, including taking health into account in the development of public policies of all kinds. HIV services should where feasible, be integrated with broader health services, in co-located sites where possible, with the aim of improving both HIV-related and non-HIV-specific health outcomes; greater integration of HIV and global health must preserve and build on key attributes of the HIV response, including participatory community and civil society engagement and an irreducible commitment to human rights, gender equality, and equitable access to health and social justice.
- The new era of global health solidarity should focus on the development of robust, flexible, people-centred health systems to end non-communicable diseases, develop effective measures to address the steady rise of non-communicable diseases, achieve universal health coverage, provide coordinated services tailored to the needs of health service users, and effectively address the social and structural determinants of health.

www.thelancet.com published online July 13, 2018 http://dx.doi.org/10.1016/S0140-6736(18)32403-5
The Sustainable Development Goals and SDG #3

Health in the SDG Era

3. Good Health and Well-being

Ensure healthy lives and promote well-being for all at all ages
SDG 3 - TARGETS

TARGET 3.1: Reduce maternal mortality
TARGET 3.2: End all preventable deaths under 5 years of age
TARGET 3.3: Fight communicable diseases
TARGET 3.4: Reduce mortality from non-communicable diseases and promote mental health
TARGET 3.5: Prevent and treat substance abuse
TARGET 3.6: Reduce road injuries and deaths
TARGET 3.7: Universal access to sexual and reproductive care, family planning and education
TARGET 3.8: Increase health financing and support health workforce in developing countries
Figure 2: Links between nine SDGs and NCD target 3.4

The black lines connecting the SDGs show the strength of relationships between SDGs, based on a count of common keywords in each SDG target and indicator. SDG = Sustainable Development Goal. NCD = non-communicable diseases. Adapted from LeBlanc 2015.®
• 500 million people worldwide lack health care, including access to essential medicines, vaccines, diagnostics, medical devices, and health technologies that prevent and treat diseases

• Where innovation exists, access is often hindered by economic constraints, which leads to needless deaths or pushes entire families into poverty simply for accessing the health services they need.
Access to medicines: lessons from the HIV response

Just two decades ago, HIV/AIDS treatments were prohibitively expensive and accessible in only a few affluent countries. But remarkable reductions in costs have enabled treatment expansion that has reduced mortality and transmission. Today, first-line HIV drugs cost less than US$100 per person per year, a 99% reduction from more than $10,000 in 2000. The number of people receiving HIV treatment doubled in just 5 years, from 9 million in 2011 to more than 18 million today.

In a world facing growing inequalities, the HIV response has lessons for low and middle-income countries (LMIC)—but also for high-income countries—on access to care and treatment for communicable diseases and for non-communicable chronic diseases, a global pandemic that dwarfs the HIV epidemic in scale.

The transformative power of the HIV response was underpinned by moral rather than technical arguments. A unique coalition of activists, scientists, celebrities, and religious and community leaders from all over the world argued that no one should be denied life-saving treatment because of area of residence or income. The moral imperative was operationalised by activism for more urgent drug discovery, regulatory approval, and voluntary and compulsory licensing, followed by shifts towards large-scale generic production. Economies of scale underpinned a drive towards more efficient, cheaper production, and drove prices down. Major donors such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the US President’s Emergency Plan for AIDS Relief bought generic drugs. The Clinton Health Access Initiative negotiated price-volume discounts.
A New Deal to Close the Gap in Health Innovation and Access

The rising costs of health technologies and the lack of new tools to tackle health problems like disease outbreaks and antimicrobial resistance is a growing problem. Catalyzing innovation, especially for rare diseases, diseases of the poor, and the development of new antibiotics has proven very difficult without market incentives.

The twin challenges of innovation and access constrain health outcomes and hinder social and economic development in rich and poor countries.

The Imbalance Between Human Rights, Intellectual Property Rights and Public Health Objectives is Leaving People Behind
Implement Additional Models for R&D Funding

Where there no market incentives, the costs of R&D must be delinked from the end prices of health technologies so that the governments and companies that invest in innovation can be fairly rewarded, and at the same time, people who need medicines can access them at a fair price. By supplementing the existing market driven system with innovative finance mechanisms, we can increase investment in needed technologies.

Public-Private Partnerships and Product Development Partnerships (PDPs)
Sharing the resources and strengths of the private and public sectors can accelerate innovation and allow investments to be made in health technologies that may lack a clear market incentive.

Grants and Prizes
Upfront contributions can lower the risks of investing in health technologies for diseases that affect people with low purchasing power. Rewards for projects that have reached certain milestones can incentivize investments on more economically ambitious or ambiguous ventures.
TARGET 3.8

ACHIEVE UNIVERSAL HEALTH COVERAGE
Universal Health Coverage (UHC) means that ALL PEOPLE can obtain the quality health services they need without suffering financial hardship.
Investing in Health is very cost-effective

Fewer children die as more money is spent on health

The arrows show the change for all countries in the world, from 1995 (earliest available data) to 2014 (latest available data). [Not all countries are labelled]
- Child mortality is the share of children that die before their 5th birthday.
- Total health expenditure is the sum of public and private health expenditures. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

World Region:

- East Asia & Pacific
- Europe & Central Asia
- Latin America & Caribbean
- Middle East & North Africa
- North America
- South Asia
- Sub-Saharan Africa
Macroeconomics and Health: Investing in Health for Economic Development

Report of the Commission on Macroeconomics and Health

Presented by Jeffrey D. Sachs, Chair to Gro Harlem Brundtland, Director-General of the World Health Organization on 20 December 2001

Figure 1. Health as an Input into Economic Development

- Economic Policies and Institutions
  - Governance
  - Provision of Public Goods

- Human Capital, including:
  - Education, on-the-job training, physical and cognitive development

- Technology, including:
  - Scientific knowledge relevant for production
  - Innovations in the domestic economy
  - Diffusion of technology from abroad

- Enterprise Capital, including:
  - Fixed investments in plant and equipment
  - Teamwork and organization of work force
  - Investment opportunities
  - Ability to attract labor and capital

- Economic Development:
  - High Levels of GNP per capita
  - Growth of GNP per capita
  - Poverty Reduction
The Challenge of Financing Global Health:

*competing with emerging new priorities*

*financial crisis, conflict situations, migration, security, natural and human-made disasters*
Let's be honest: the World is rich.

- Notional value of global financial markets: > 70 times the value of world GDP
- World GDP: $78 trillion
- Global Health Response needs: $134 - 371 billion
- Global Fund needs: $13 billion - 5th replenishment
We know how to get the money

- Decrease military expenditures
- Regulatory measures for curbing financial speculation & illegal capital flows;
- Regulation of tax havens
- Progressive tributary instruments for redistribution of wealth
- *Financial Transaction Taxes to invest in sustainable development*
We know *how* to get the money

- Regulatory measures for curbing financial speculation & illegal capital flows;
- Regulation of tax havens
- Progressive tributary instruments for redistribution of wealth
- *Financial Transaction Taxes to invest in sustainable development*
Advancing global health and strengthening the HIV response in the era of the Sustainable Development Goals: the International AIDS Society—Lancet Commission

Linda-Gail Bekker, George Allore, Stefan Bards, Javser Cipadene, Dorothy Chikulanda, David Dowdy, Martí Dybul, Sergio Fai, Kate Fauci, Geoff Garnett, Anne Henley, Emanuela Hlabisa, Mathew Gulak, Leigh Gudensberg, Adriana Pancido, Jef Nnabum, Fetsile Nosike, Michael Ory, Rebecca Pan, Eunice Struthers, Faucet G. Stevens, Njisana Tshunzi, Yousuf Zafar

Executive summary

Inspired by unprecedented improvements in human health and development in recent decades, our world has embarked on a quest that only a generation ago would have been considered unachievable—achieving sustainable health and development for all. Improving the health and well-being of the world’s people is at the core of the Sustainable Development Goals (SDGs), reflected in targets that call for ending the epidemics of AIDS, tuberculosis, and malaria; achieving enormous improvements in maternal and child health; and halting the growing burden of non-communicable diseases (NCDs). Attaining universal health coverage is the means by which these ambitious health targets are to be achieved.

Although on their face, the SDGs reflect an unprecedented level of global solidarity and resolve, the trends that increasingly define our world in 2018 are incoherent with the goals that underlie the SDGs and the ethos that generated such striking health and development gains in recent years. Democracy is in retreat, and in many countries the space for civil society is declining and the human rights environment deteriorating. Official development assistance for health has stalled in many of the nations that have made some progress in reducing maternal and child mortality in many places supplanted recognition of the need for global health gains by a complacent neglect of the health needs of children.

The loss of momentum on global health ignores the urgent need to strengthen health systems to address the myriad of NCDs, which now account for seven of every ten deaths worldwide.

Recent trends in the HIV response are especially concerning. Although the number of new HIV infections and AIDS-related deaths have markedly declined since the epidemic peaked, little progress has been made in reducing new infections in the past decade. Without further reductions in HIV incidence, a resurgence of the epidemic is inevitable, as the longest generation of young people born into adolescence and adulthood. Yet where vigilance and sustained effort are needed, there are disturbing indications that the world's commitment is waning. Allowing the HIV epidemic to rebound would be catastrophic for the communities most affected by HIV and for the broader field of global health. If the world cannot follow through on HIV, which promised such an extraordinary global mobilisation, hopes for achieving the ambitious health aims outlined in the SDGs will inevitably dim.

At this moment of uncertainty for the future of the HIV response and for global health generally, the International AIDS Society and The Lancet convened an International Commission to explore how the global response to HIV and AIDS can be strengthened.

Key messages

- The HIV pandemic is not on track to end, and the prevailing discourse on ending AIDS has led to a dangerous complacency and may have hastened the weakening of global resolve to combat it.
- Existing HIV tools and strategies are insufficient, and although dramatic gains can be made through mainstreaming prevention and treatment strategies, the HIV epidemic is likely to remain a major global challenge for the foreseeable future.
- Ten millions of people will require sustained access to antiretroviral therapy for decades to come, vigilance will be needed to prevent the emergence of the epidemic as the largest wave of young people aged into adolescence and young adulthood, and intensified efforts are required to address HIV among populations and settings that are being left behind.
- Allowing the pandemics to continue after achieving such remarkable progress would not only increase the human and financial costs of life, but it would potentially undermine the global health and diminish support for similarly ambitious global health and development goals.
- The unprecedented global effort on HIV is essential to renew and strengthen the global HIV response, and the world’s commitment to the scaling-up of HIV treatment services must be matched by a similarly robust commitment to expanded access to HIV prevention.
- While the HIV epidemic is not on track to end, the broad global health goals, which are also being threatened by an array of other factors, are needed for the scale-up of HIV treatment services.
- The HIV epidemic is not on track to end, and the world’s commitment to the scaling-up of HIV treatment services must be matched by a similarly robust commitment to expanded access to HIV prevention.

Beyond the silos: integrating HIV and global health

This week, we publish a new International AIDS Society (IAS)/Lancet Commission report, Advancing global health and strengthening the HIV response in the era of the Sustainable Development Goals. Under the leadership of past IAS President, Chris Beyrer, and current IAS President, Linda-Gail Bekker, this Commission engaged an international group of experts in HIV and across other global health domains to examine the future of the AIDS response in the context of a more integrated global health and sustainable development agenda.

The Commission has several key findings. First, the HIV/AIDS community has made a serious error by pursuing "the end of AIDS" message. As the Commission shows, the world is not on track to end AIDS. Although at the peak of the epidemic the incidence of HIV infections began to decrease and AIDS-related mortality fell, there has been no meaningful progress in reducing new infections during the past decade. With 20·9 million people on antiretroviral therapy, the reality is that there is a large community of people today living with HIV in 2015-16, an estimated 367 million children.

This community will continue to increase in size and, as the burden of infectious and non-communicable diseases converge, they will need special attention and care through all their lifetime.

Second, as the global community realises efforts on HIV, more of the same is not enough. In terms of HIV/AIDS funding, current trends point to a worrying decline. A study by the Institute for Health Metrics and Evaluation found that between 2000 and 2015, US$26.6 billion was spent on HIV/AIDS worldwide. Global HIV/AIDS spending peaked at US$4.7 billion in 2013, and fell to US$4.9 billion in 2015. Development assistance for HIV/AIDS reached its peak in 2012, at US$12 billion, but has since declined by almost a quarter. The decline is in stark contrast with the upward growth in development assistance for HIV/AIDS between 2000 and 2012. Given how many low-income and middle-income countries are dependent on development assistance for health to fight HIV/AIDS, further reductions will make these countries even more vulnerable in the longer term. In addition to this, it is time to question the notion of AIDS exceptionalism. The Commission acknowledges the exceptional approach to HIV might not be sustainable. We strongly agree, and would go further. The AIDS exceptionalism framework is now hurting the AIDS response, not helping it.

Third, and perhaps most importantly, it is now time to end the siloed and vertical response to AIDS, and, in the words of the Commission, to "make common cause with the global health field". This conclusion raises many questions about the existing instruments to address the AIDS epidemic—namely, UNAIDS, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the US President’s Emergency Plan for AIDS Relief (PEPFAR). We invite these major institutions that are instrumental in driving the AIDS response to reconsider their purpose and their future. We encourage their respective leaderships to reassert their missions and to move towards a broader global health purpose, while at the same time sharpening their commitments to HIV/AIDS. With an upcoming replenishment in 2019, the Global Fund should continue to push hard for extra funding for HIV/AIDS. But the Global Fund should also think about how to broaden its response to include wider aspects of global health. This approach would support the idea that investing in the AIDS response is a means to building stronger health systems, getting to universal health coverage, and deepening access to services beyond HIV/AIDS.

UNAIDS has made an exceptionally important contribution to the AIDS response, but it is now in a leadership controversy and an investigation into its workplace culture. On the ground that no crisis should
The concept of “public goods”

non exclusive: anyone can use them

non competitive: their use will not limit others to use them
Progress of medicine and essential medicines should be considered as global public goods and be accessible to all humans living on our planet.
Thank you

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