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Priority actions for the non-communicable disease crisis

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Summary

The UN High-Level Meeting on Non-Communicable Diseases (NCDs) in September, 2011, is an unprecedented create a sustained global movement against premature death and preventable morbidity and disability from disease, stroke, cancer, diabetes, and chronic respiratory disease. The increasing global crisis in NCDs is a b development goals including poverty reduction, health equity, economic stability, and human security. *The* Group and the NCD Alliance propose five overarching priority actions for the response to the crisis—leadersh treatment, international cooperation, and monitoring and accountability—and the delivery of five priority in control, salt reduction, improved diets and physical activity, reduction in hazardous alcohol intake, and esse technologies. The priority interventions were chosen for their health effects, cost-effectiveness, low costs o and political and financial feasibility. The most urgent and immediate priority is tobacco control. We propos a world essentially free from tobacco where less than 5% of people use tobacco. Implementation of the prio an estimated global commitment of about US$9 billion per year, will bring enormous benefits to social and e development and to the health sector. If widely adopted, these interventions will achieve the global goal of rates by 2% per year, averting tens of millions of premature deaths in this decade.

Introduction

The spread of non-communicable diseases (NCDs) presents a global crisis; in almost all countries and in all ir women, and children are at risk of these diseases.[1] Worldwide, substantial gains have been achieved in ecor health, and living standards in the past century. This progress is now threatened by crises of our own creatic

finance and food insecurities,[2] and the crisis in NCDs, principally heart disease, stroke, diabetes, cancers, a respiratory disease.[3]

The UN High-Level Meeting (UN HLM) on NCDs in September, 2011,[4] provides an unrivalled opportunity to cr rights-based global movement to tackle NCDs,[5] analogous to the UN General Assembly Special Session on HI decade ago, which concluded that dealing with the disease was central to the development agenda.[6] Politic highest level, with international coordination and consensus for priority actions and interventions are crucia crisis in NCDs and to facilitate national action.[7] A successful meeting will generate high-level and sustained commitments to the priority actions needed globally and nationally to prevent and treat NCDs. It will ensure central to the long-term global development agenda.

In the interests of promoting a unified political message and a common voice, *The Lancet* NCD Action Group collaboration of academics, practitioners, and civil society organisations—and the NCD Alliance—comprising international non-governmental organisations (Union for International Cancer Control, International Union A and Lung Disease, International Diabetes Federation, and World Heart Federation)—propose a shortlist of pri NCDs: political leadership at the highest level, globally and nationally; immediate implementation of the pri building international coordination and consensus for priority actions and interventions; and establishment c reporting, and accountability mechanisms for assessment of progress.

In this report, we synthesise and expand the evidence reported in four series in *The Lancet* in the past 5 yea focus on what matters most for NCDs.[18–21] These reports, initiated by WHO and produced in collaboration w leading scientists, support WHO's action plan for the prevention and control of NCDs.[22] Here we address the -table discussions proposed in the UN Modalities Resolution at the UN HLM: the NCD crisis; priority actions; a cooperation. We conclude with a set of recommendations for the outcomes document from the UN HLM.

Panel 1

Summary of evidence reported in *The Lancet* Series

2005

A proposed global goal of a reduction in non-communicable disease (NCD) death rates of 2% per year was es million deaths from these diseases over 10 years, more than half from cardiovascular disease.[8]

2007

Many possible interventions were assessed, and three priority cost-effective interventions were identified— reduction, and treatment of people at high risk of cardiovascular disease.[9], [10] Scale-up of these three inter burden low-income and middle-income countries would easily achieve the global goal in these countries, ar implementation of the interventions was estimated to be about US$6 billion (2005 US$).[11]

2009

Attention was drawn to several cost-effective interventions for harmful consumption of alcohol, and the ne global and national responses.[12–14]

2010

NCDs were judged to be a development issue,[15] the interventions to prevent obesity were evaluated,[16] and high-burden countries was assessed.[17]

The NCD crisis

NCD burden

The global burden of NCDs is increasing (panel 2), and is a major barrier to development and achievement o Development Goals (MDGs). The underlying causes of these diseases are shared and modifiable risk factors; t causes of health inequalities.[25]

Panel 2

Increasing burden of non-communicable diseases (NCDs)

- Two of three deaths each year are attributable to NCDs. Four-fifths of these deaths are in low-incom income countries, and a third are in people younger than 60 years.[23]
- Overall, age-specific NCD death rates are nearly two-times higher in low-income and middle-income high-income countries.[24]
- NCDs often cause slow and painful deaths after prolonged periods of disability.
- In all regions of the world, total numbers of NCD deaths are rising because of population ageing and risks, particularly tobacco use.
- In addition to the longstanding challenges of curtailing infectious disease, this double burden of disea strains on resource-deficient health systems.

Shared risk factors and their causes

The main risk factors for NCDs for individuals are well known and are similar in all countries.[26] Tobacco use, saturated and trans fats, salt, and sugar (especially in sweetened drinks), physical inactivity, and the harmfu alcohol cause more than two-thirds of all new cases of NCDs and increase the risk of complications in people use alone accounts for one in six of all deaths resulting from NCDs. Every day more than 1 billion people smo because of their addiction to nicotine, and about 15 000 die from tobacco-related diseases; tobacco use acc health inequalities, as assessed by education, in male mortality.[27] Tobacco use has fallen in many high-incor in men, but is now rising rapidly in many low-income and middle-income countries with a prevalence of mor adolescents in some countries. This rise is due to the tobacco industry's uncontrolled activities and persisten and weaken tobacco control policies.[28], [29]

Consumption of foods high in saturated and industrially produced trans fats, salt, and sugar is the cause of a deaths or 40% of all deaths every year from NCDs.[30] For example, overconsumption of salt causes up to 30% hypertension.[31] Physical inactivity causes about 3 million or 8% of all deaths per year from NCDs. Alcohol cor 2·3 million deaths each year, 60% of which are due to NCDs, and has adverse health, social, and economic e for the people who drink.[32], [33]

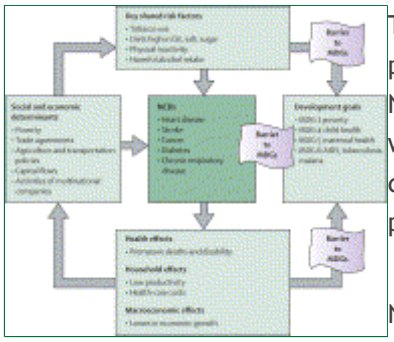
Changes in the social and economic environment have resulted in the risk factors for NCDs becoming widesp shows that the choices for tobacco and alcohol use, diets, and physical activity are influenced by forces tha control of individuals, especially children. Agricultural subsidies, and trade and capital market liberalisation reduced prices and increased availability of unhealthy products, and to the increasing rates of risks now not people, leading to a rapid rise in the proportion who are overweight.[34]

Figure 1 Full-size image (66K) Download to PowerPoint

Associations between poverty, non-communicable diseases (NCDs), and development goals[15]

MDG=Millennium Development Goal.

NCDs: a barrier to development



The burden of NCDs is increasing in low-income and middle-income countri poverty and becoming a major barrier to development and achievement of NCDs disproportionately affects individuals who are poor thus increasing in who are poor live in settings where policies, legislation, and regulations to do not exist or are inadequate. Additionally, reduced access to comprehens prevention and treatment of NCDs arise because of financial reasons and w

NCDs also cause poverty. Most are chronic and can lead to continued exper poor households in cycles of debt and illness, perpetuating health and ecor India, one in four families in which a family member has cardiovascular disease has catastrophic expenditure these families are driven into poverty.[35] NCDs diminish household earnings and a family's ability to provide f children; and expenditure on tobacco contributes to household poverty.[36]

Household costs of NCDs have a substantial macroeconomic effect. The loss of productivity reduces a society force, resulting in reductions in overall economic output. For every 10% rise in mortality from NCDs, the yea is estimated to be reduced by 0·5%.[37] On the basis of this evidence, the World Economic Forum now ranks N global threats to economic development.[38] If development efforts are to be successful, they must include al households in cycles of illness and poverty, irrespective of their cause. For example, progress towards reduc tuberculosis is impeded by coexisting epidemics of HIV and NCD.[39] Tobacco is an important risk factor for th tuberculosis, largely because it is so widely available—eg, it accounts for up to half of all deaths from tuber importance of prenatal and early life exposures to the later development of obesity suggests that efforts to should be included in maternal and child health, and nutrition programmes.[41]

Priority interventions for NCDs

Selection criteria

The priority interventions chosen for immediate attention need to meet rigorous, evidence-based criteria: a health (reduction in premature deaths and disability); strong evidence for cost-effectiveness; low costs of in political and financial feasibility for scale-up. There are many possible interventions for NCDs.[42], [43] Howeve available evidence for the effectiveness and effect of interventions is to lower the prevalence of the major population-wide methods directed at everyone, and to target treatment to people at high risk of NCDs, part cardiovascular disease. Not all interventions are cost effective or affordable in terms of resources and equit implementation and scale-up of interventions in all countries must also be considered. Panel 3 shows the cri which interventions should be chosen.

Panel 3

Criteria for immediate priority interventions

- Cost-effectiveness reported for many countries, and estimated either to save costs or to cost less tha per disability-adjusted life-year averted
- Implementation costs are known and affordable in most countries, and evidence for the effect on po been assessed and the intervention is likely to make a large contribution to the achievement of the g reduction in death rates of 2% per year
- A range of projects or case studies has demonstrated successful implementation
- Interventions are feasible to scale up—economically, politically, and programmatically—in most coun

We propose five immediate priority interventions—four population-wide and one for clinical services (delive
and technologies)—which are highly cost effective in low-resourced countries, and will avert premature dea
from NCDs in the population. The feasibility for scale-up depends on many factors: the political situation; re
health-system capacity; community support; the power of commercial interests; experiences of other count
international commitments and support. Our assessment of feasibility is subjective since no overall method
recognised.

These five recommended cost-effective interventions have been addressed in *The Lancet* Series (table)[9], [10],
affordable in almost all countries. Drugs for diabetes and cancer have not yet been formally assessed in the
multidrug combination for cardiovascular disease. The recommendation for palliative care is based solely on
considerations.

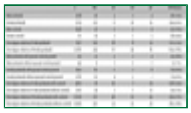


Table **Table image**

Estimated costs of five priority interventions for non-communicable diseases (NCDs) in three countries[16]

Interventions with a high impact on health and high feasibility, such as tobacco control and salt reduction, a
whole populations and will have the greatest benefits, be pro-poor, and reduce inequalities. These interven
priority for full implementation in all countries. Population-wide interventions have advantages over targete
people will be exposed to their positive effects; the costs of implementation are very low; extensive health-
strengthening is not needed; and those already suffering from or at high risk of NCDs will also benefit.

Accelerated tobacco control

The priority for immediate action is to achieve a suggested global goal by 2040 of a world essentially free fr
less than 5% of the population use tobacco. Full implementation of four of the Framework on Tobacco Contr
would avert 5·5 million deaths over 10 years in 23 low-income and middle-income countries with a high burc
important outcome from the UN HLM will be renewed resolve to accelerate the full implementation of all as
(panel 4). This action will have immediate health and economic benefits because reduction in exposure to t
direct and second hand, will reduce the burden of cardiovascular disease within 1 year and thus health expe

Panel 4

WHO Framework Convention on Tobacco Control (FCTC)

The FCTC, the first international health treaty adopted by the World Health Assembly in 2003, has been rat
170 countries. FCTC emphasises methods that are both effective and cost effective:[44]

- Reduce demand for tobacco products by methods such as raising tobacco taxes, legislation of health
free work and public places, and a complete ban on all forms of tobacco promotion; and
- Supply-side intervention, especially to control the illicit trade in tobacco products

The FCTC is a new approach to international health cooperation, which is crucial to the success of the FCTC
leadership, commitment, and political will among all stakeholders. In 2009, only 10% of the world's populat
key FCTC methods.[45]

A top priority of the UN High-Level Meeting on Non-Communicable Diseases is to strengthen political resolve
implementation of all aspects of the FCTC and other methods needed to achieve a world essentially free of
<5%).

Salt reduction

Reduction in salt consumption is the other top priority because it will lead to lower blood pressure, one of t for stroke and heart disease. Reduction of population-wide salt consumption by only 15%—through mass-mec reformulation of food products by industry—would avert up to 8·5 million deaths in 23 high-burden countries the long term, the reduction in salt consumption will have a greater effect since reduced intake will attenu associated blood pressure rise, and any small risk of iodine deficiency can be addressed by other means.[48] S countries such as China, where much of the salt is added during cooking and eating, will be a useful strategy consumption of processed foods rises in many countries, a change in the industry norms to reduce the additi have important benefits in the future,[50] although government regulation might be needed. Our suggested gl worldwide salt intake to less than 5 g (or 2000 mg sodium) per person per day[51] by 2025.

Promotion of healthy diets and physical activity

Policies to promote physical activity and the consumption of foods low in saturated and trans fats, salt, and sugar-sweetened drinks—will lead to wide-ranging health gains, including prevention of overweight (especial cardiovascular disease, and some cancers,[52] and improved oral and periodontal health. These policies might themselves through their reduction of health-care costs in the future, especially in low-income and middle-i The main interventions include fiscal methods that increase the price of foods high in saturated and industri fats and sugar; food labelling; and marketing restrictions of unhealthy food products, especially to children The food industry in all countries should start to reformulate processed foods and stop the promotion of unh children. Strong government encouragement, including regulatory and fiscal measures, will be needed to en Obesity prevention should be included in maternal and child health and nutrition programmes.[41] Modificatio environment to promote physical activity also has the potential to prevent obesity, and although it would be initially,[54] could rapidly advance as a co-benefit of climate control methods.[55]

Reduction of harmful alcohol consumption

Policies that affect the price, promotion, and availability of alcohol reduce alcohol-related harms.[13] Enforce reduces drink-driving, and interventions for at-risk drinkers are also effective. In countries with high amount production and consumption, an important goal is to increase the proportion of alcohol that is taxed; it requ policing of illegal and informally produced alcohol. The imposition of a tax based on alcohol content is an es to increased taxes. In most countries, and globally, alcohol marketing and sponsorship are widespread and, legislative responses are needed to reduce harmful consumption of alcohol.

Access to essential drugs and technologies

Universal access to affordable and good-quality drugs for NCDs is an important issue for all countries, and es and middle-income countries. This issue also arises in the treatment of HIV infection and AIDS; an integrated for the treatment of all priority diseases with special attention to reducing inequalities.

The best evidence-based clinical approach for NCDs in low-income and middle-income countries is a multidr people identified opportunistically in primary care as being at high risk of cardiovascular disease, or for pati already had a clinical event.[10] WHO has produced risk assessment charts[56] that can be further simplified by for a blood sample.[57] Scale-up of this intervention would, over 10 years, avert 18 million deaths from cardio 23 high-burden low-income and middle-income countries at a cost of about US$1·08 per person per year.[10]

Other drugs that have not yet been formally assessed for their effect on population health are also recomme essential for survival and treatment of people with type 1 diabetes; children and young people in many part because they have no access to insulin.[58] Improved control of blood glucose, by behaviour change or low-cos development and progression of disabling complications in people with type 2 diabetes.[59]

Many cancers are treatable with effective off-patent drugs that can be manufactured generically at affordal cancers remain untreated in many low-income and middle-income countries is unacceptable.[60] Liver cancer prevented with the hepatitis B vaccine. The cost has fallen substantially, and the vaccine is cost effective ir populations and in countries where the infection is widespread. The prevention of cervical cancer is now pos papillomavirus vaccines, although the high cost and the challenge of delivery to adolescents are drawbacks.[relieve pain and reduce suffering should be available for people with cancers that are not treatable, yet it i in many parts of the world.[62]

The prevalence of asthma is increasing worldwide. Inhaled drugs for asthma control offer hope, although the of these drugs is an issue. An Asthma Drug Facility has been established to provide access to affordably price asthma inhalers in resource-constrained settings.

Priority actions for the NCD

Key to progress

Although policies, strategies, plans, and calls to action are common in international and national reports,[16], implementation has been slow. The reason for the delay is partly the pressing nature of other global health time for the messages about the global burden and preventability of NCDs to be developed and effectively d achieve visibility on the global health agenda is difficult, but recognised ways for making progress do exist.[1]

A prerequisite for delivery of the five immediate priority interventions is a set of priority actions (figure 2; p include, both nationally and internationally: sustained political leadership at the highest levels; support for health systems, particularly in primary health care; international cooperation; and monitoring systems and a mechanisms for measurement and reporting of progress.

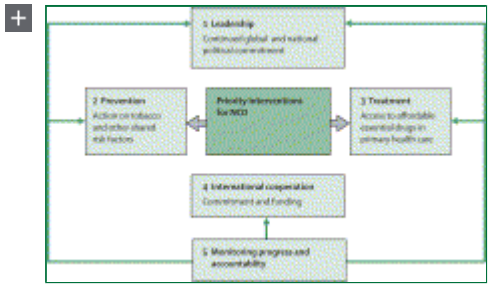


Figure 2 Full-size image (40K) Download to PowerPoint
Five priority actions by countries and international agencies for the non-communicable disease (NCD) crisis

Panel 5
Five recommendations for action by countries and international agencies for the UN High-Level Meeting on Diseases (NCDs)

Leadership

The most important outcome of the UN High-Level Meeting on NCDs will be sustained and strong high-level a framework of specific commitments to tackle the NCD crisis with the aim of reducing NCD death rates by

Prevention

- Accelerate implementation of the WHO Framework Convention on Tobacco Control to achieve a worl from tobacco by 2040, where less than 5% of people use tobacco
- Reduce salt intake to less than 5 g (2000 mg sodium) per person per day by 2025

- Align national policies on agriculture, trade, industry, and transport to promote improved diets, incr activity, and reduce harmful alcohol use

Treatment

- Deliver cost-effective and affordable essential drugs and technologies for all priority disorders
- Strengthen health systems to provide patient-centred care across different levels of the health syste primary care

International cooperation

- Raise the priority of NCDs on global agendas, and increase funding for these diseases
- Promote synergies between programmes for NCDs and other global health priorities, including sustai mitigation of climate change

Monitoring, reporting, and accountability

- Identify ambitious targets and a transparent reporting system
- Assess progress on the priority actions and interventions
- Report regularly to the UN and other forums on progress on these national and international commit

Leadership

The first key action for success is strong and sustained political leadership at the highest national and intern commitment will be the most important outcome of the UN HLM. Individual champions and politicians will a leadership role. The health sector has a leading role in responding to NCDs, but many other government sec finance, agriculture, foreign affairs and trade, justice, education, urban design, and transport, have to be p government response, along with civil society and the private sector. Core funding for programmes for NCDs the governments and be included in costed national health plans.[66]

Prevention

The response to the crisis in NCD requires a strong focus on primary prevention, which is the only approach future generations are not at risk of premature death from these diseases. Tobacco control and salt reductic priorities. These population-wide approaches are highly feasible, cost effective, and will have an immediate in the short term[67] and are cheap to implement—about US$0·20 cents per person per year in China and India control is supported by the widely ratified FCTC; salt reduction can be largely achieved by reformulation of salt substitution. The other population-wide interventions will have enormous health benefits; however, opp interests will need to be overcome.[68]

Treatment services

Implementation of the immediate priority treatment interventions needs a functioning health-care system a approach.[69] Many health services are inadequate in terms of governance arrangements and health planning financing; health workers with appropriate skills; essential drugs and technologies; health-information syste services delivery models for long-term patient-centred care that is universally accessible. A key requiremen approach to health-systems strengthening to deliver services for all common diseases during the lifetime, wi model of delivery.[70] A welcome shift is towards strengthened primary health care as part of a service hub th support needed to deliver these critical prevention and treatment services for NCDs.[71] For example, opportu adults attending primary health-care facilities[10] and the application of WHO's charts for assessment of cardi with advice for tobacco cessation, are realistic first steps in countries with functioning primary health-care

Universal coverage through removal of financial and other barriers to access, particularly for people who are but political commitment will be needed.[73] The financial protection strategies for efficient use of resources transfers to reduce the costs of accessing services, reduction of user fees, extension of prepayment, and risk that would benefit all health-care users.[74]

International cooperation

Until now, NCDs have been neglected by development agencies, foundations, and global health agencies. An to NCDs requires government leadership and coordination of all relevant sectors and stakeholders, reinforce international cooperation. International partners, including foundations, will play a special part in supportin NCDs by funding and aligning these diseases with other priority development programmes such as the MDGs

WHO is the lead international organisation for the prevention and treatment of NCD, but requires support fr organisations, including the World Bank, UN Development Programme, World Trade Organization, Food and Organization, UN Children's Fund, UN Programme on HIV/AIDS, UN Population Fund, Organisation for Econom Development (OECD), and the World Customs Organization. Increased resources, particularly from extrabudg by member states and donors, will be needed to support WHO's leadership. Cooperation between the interna agencies and donors may require the establishment of a multiagency task force reporting to the UN General

For the private sector, the World Economic Forum presents an opportunity for cooperation and alignment of global public health goals. These goals will need to be monitored independently. The recently formed NCD A 880 member organisations in 170 countries, is a positive initiative for cooperation among international non-g organisations to achieve common goals for NCDs. Additionally, the major development non-governmental or also become involved in tackling NCDs.

Monitoring, reporting, and accountability

A framework for national and global monitoring, reporting, and accountability is essential to ensure that the investments in NCDs meet the expectations of all partners.[76] Accurate and complete registration of deaths b national registration systems will be the most sustainable mechanism to monitor progress in prevention of N term for many low-income and middle-income countries. Sample Registration System and the National Disea Points system, as adopted by the Indian and Chinese governments, provide robust ways of monitoring causes adults.[77], [78] Regular representative population surveys are effective ways to monitor trends in key risk factc priority interventions; an example is the WHO STEPS approach to surveillance of risk factors for NCDs.[79]

Country-based institutional processes are needed for review of progress towards nationally and internationa NCDs as one component of a costed national health plan. We suggest, as have other groups for women's and that independent national health commissions should take responsibility for reporting progress in NCDs, mob developing policy, identifying best practices, building partnerships, identifying research priorities, and advo national progress should be monitored by an independently funded expert group or a multiagency taskforce, level taskforce for the global food security crisis.[81] This taskforce would report regularly to the UN General Secretary General, World Health Assembly, and other key leadership forums such as the G8, G20, and G70 g

Conclusions

Many possible actions for the prevention and treatment of NCDs could be discussed in the lead-up to the UN September, 2011. A clear and focused set of requests for consideration at the meeting will have the best ch The principles of simplicity and focus have informed this report, with the secure evidence base used to sele interventions for NCD, which will also have enormous ancillary benefits within the health sector and reduce

6). Prevention of NCDs is also inextricably linked with climate change and the need for low-carbon policies. agendas can achieve the synergies needed to overcome the barriers to change that result from vested intere The potential dividend from a low-carbon economy highlights the direct link between the UN HLM and the U Sustainable Development in 2012.

Panel 6

Examples of mutually reinforcing co-benefits of priority actions for non-communicable diseases

Heath benefits

Reductions in:

- Blindness, amputations, and other complications of diabetes
- Dental caries
- Domestic violence
- Infectious diseases—eg, tuberculosis
- Injuries, including road traffic injuries, and falls
- Maternal and infant mortality and morbidity
- Renal diseases

Other benefits

Reductions in:

- Carbon footprint and greenhouse gases
- Environmental pollution
- Poverty

Improvements in:

- Built environments
- Economic growth and productivity
- Local food production
- Social interaction

We recognise that many important issues are not explicitly addressed in our recommendations—eg, the early factors for NCDs before, during, and immediately after childbirth.[41] This evidence places the prevention of I development issue of great relevance to the agenda for women's and children's health. The immediate priori tobacco control, improved nutrition, and addressing cardiovascular risk factors—would all benefit maternal a have a positive effect on subsequent risks of NCDs. Indeed, all the proposals in this report will help to meet obligations to respect, protect, and achieve the right to health.

Our top priority is tobacco control, and we propose a goal to achieve a world essentially free from tobacco b prevalence of less than 5%. We are confident that once large countries, such as China, begin to take tobacco rapid progress will be achieved. Some countries will set an earlier date for achievement of this goal; the Ne Government has agreed to the goal of the country becoming a smoke-free nation by 2025.[84] The other top p salt reduction with a goal of 5 g per person per year by 2025. The Pan American Health Organization has alre goal of 5 g by 2020.

Actions can be initiated and strengthened to address the other modifiable risk factors based on the strategie endorsed by WHO member states. The success of these interventions depends on the ability of governments all forms, from powerful industries and their political supporters; hence the importance of a strong national civil society movement to press for change. The most challenging need relates to health-systems strengthen steps be taken, to develop primary health-care hubs at the lowest possible level of the health-care system v infrastructure and human resources.

The costs of the priority interventions for NCD are likely to be small—eg, the yearly cost to implement three interventions (tobacco control, salt reduction, and treatment of cardiovascular risk) in 23 high-burden count 2007 to be about $6 billion, implying a new global commitment of about $9 billion per year.[11] These estimat updated by WHO for 42 high-burden low-income and middle-income countries. Implementation of priority in need a new global fund. The two most important actions—full implementation of tobacco control and salt re affordable in all countries. To implement the other priority interventions, countries will need to find new re many would be well within their existing and growing health-care budgets, especially if they use existing res efficiently and develop innovative funding mechanisms such as health promotion foundations funded by addi tobacco taxes.

International partners and foundations have a special role in supporting intensified action on NCDs. They are the priority of NCDs in their development agendas, which will lead to increased funding and innovative appr complement available national resources. Support for NCDs has to be aligned with other priority developmer are addressing important global initiatives such as the MDGs. A key challenge is to ensure that NCDs are cent development era.

An ideal outcome of the UN HLM will be a sustained commitment to a set of feasible actions and interventio and timed targets and indicators can be developed, and progress can be readily measured. The recommende outlined in panel 5 are practical and can be achieved by all countries and international agencies. The UN HL in the way we approach global health issues, and it will place NCDs on the development agenda. The global take this opportunity, and sustain the momentum to achieve the goal of avoiding premature NCD deaths and improving global health in the years to come.

Contributors

RBe provided overall leadership and guidance on the development of the paper. RBe and RBo prepared the f drafts with major inputs from GA, VB, SE, RG, GG, AH, JH, RH, PJ, PL, RM, MM, PP, and DS. All authors cont successive drafts. Several authors contributed especially to specific sections: CA, NB, TC, RC, SC, AK, and JF especially to the sections on treatment; SC and NS on alcohol; PA, PJ, JM, and JW on tobacco use; AH on en DS on legal aspects; and HB and MR on health systems. MC and FS contributed especially to the table, RG to panel 6.

Conflicts of interest

PA has received grants from Wellcome Trust Clinical PhD Fellowship. SE has received grants from the Wellco royalties from McGraw Hill for editing a book. RH is the editor of *The Lancet*. TG has received consultancy p Health International and Inter-American Development Bank; and payment for lectures, including lectures on from Network for Continuing Medical Education. BN has received consultancy payments from Bayer, paymen including service on speakers bureaus from Allergan, and royalties for a book published by Karolinska Univer institute has received money for consultancy from Syngis, Servier, Bayer, Photothera, and Boehringer-Ingelh

or has grants pending from Corporate Partners, Pfizer, Wiley, Sanofi-Aventis, Varian Medical Systems, Roche Ingelheim, Novartis, Slender, Merck, Eli Lilly, Heng Rui, and Irmet. The other authors declare that they have interest.

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