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The Millennium Development Goals: a cross-sectoral analysis and principles for goal setting after 2015

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Executive summary

The Millennium Development Goals (MDGs) represent an unprecedented global consensus about measures to reduce poverty. The eight goals address targets to increase incomes; reduce hunger; achieve universal primary education; eliminate gender inequality; reduce maternal and child mortality; reverse the spread of HIV/AIDS, tuberculosis, and malaria; reverse the loss of natural resources and biodiversity; improve access to water, sanitation, and good housing; and establish effective global partnerships. Progress in some goals has been impressive; however, global targets will not be met in some regions, particularly sub-Saharan Africa and south Asia. As we approach the 2015 target date, there is considerable interest in assessment of the present goals and in consideration of the future of development goals after 2015.

This Commission has brought together sectoral experts on different MDGs from the London International Development Centre to identify cross-cutting challenges that have emerged from MDG implementation so far. This interdisciplinary approach differs from previous MDG studies that have either examined individual goals or made broad sociopolitical assessments of the MDGs as a development mechanism. We used our analysis of cross-cutting challenges as the basis to identify a set of principles for future goal development, after 2015. We emphasise that this report is not an assessment of the MDGs; we focus deliberately on challenges with the implementation of the MDGs so as to inform future goal setting.

The MDGs are an assembly of sector-specific and often quite narrowly focused targets that have their various origins in development ideas and campaigns of the 1980s and 1990s. They were not derived from an inclusive analysis and prioritisation of development needs, and this is reflected in the absence from them of a range of key development issues. The variable progress recorded with goals and targets partly indicates a tendency over time to focus on a subset of targets that have proven easier to implement and monitor, or which have stronger ownership by international or national institutions, or both. Complexity and lack of ownership have been particular problems for new targets added later in the MDG process. We provide short analyses of each MDG for those seeking more depth and to set out the evidence for a cross-MDG analysis (webappendix).

Clearly the MDGs have had notable success in encouraging global political consensus, providing a focus

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See Online for webappendix

for advocacy, improving the targeting and flow of aid, and improving the monitoring of development projects. However, MDGs have also encountered a range of common challenges. Challenges with the conceptualisation and execution of the MDGs arise at the three discrete levels on which they are constructed: goals, targets, and indicators. The very specific nature of many goals, reflecting their diverse, independent origins, leaves considerable gaps in coverage and fails to realise synergies that could arise across their implementation; we draw attention to particular synergies between education, health, poverty, and gender. In some cases, targets present a measure of goal achievement that is too narrow, or might not identify a clear means of delivery. Other challenges encountered by several MDGs include a lack of clear ownership and leadership internationally and nationally, and a problem with equity in particular. Issues of equity arise because many goals target attainment of a specific minimum standard—eg, of income, education, or maternal or child survival. To bring people above this threshold might mean a focus on those for whom least effort is required, neglecting groups that, for geographical, ethnic, or other reasons, are more difficult to reach, thereby increasing inequity.

From our cross-sectoral analysis, we conclude that future goals should be built on a shared vision of development, and not on the bundling together of a set of independent development targets. By means of example, we conceptualise development as a dynamic process involving sustainable and equitable access to improved wellbeing, which is achieved by expansion of access to services that deliver the different elements of wellbeing. These elements can be defined in many ways, and would include those addressed in the MDGs. Instead of proposing a set of elements, and hence a new set of MDGs, we suggest a set of five principles by which development should be achieved. A holistic approach is needed to avoid gaps in the development agenda and ensure synergy between its interlinked components, each of which should address elements of human, social, and environmental development. Elements of wellbeing should be delivered to ensure equity of opportunity and outcome, recognising its complex and local nature, and addressing all communities while taking a deliberately pro-poor approach. This equity is a key feature of sustainability, as is a clear commitment to focusing productivity growth where it is needed. A broad development agenda arising from this process should be agreed internationally, but developed locally, to ensure ownership of goals and their monitoring across society nationally, regionally, and globally. This agenda should be based on a strong global obligation supported by effective international institutional frameworks.

Finally, we show how such principles can be applied to the development of future goals by selecting one element of wellbeing, health, and exploring the implications of each principle for its future improvement.

Part 1: a review of the MDGs—origin, implementation, and progress

Introduction

The eight Millennium Development Goals (MDGs) emerged from the United Nations (UN) Millennium Declaration in 2000, and are arguably the most politically important pact ever made for international development.[1] They identify specific development priorities across a very broad range, including poverty, education, gender, health, environment, and international partnerships. These goals have substantially shaped development dialogue and investment; some development agencies judge all their activities on the contribution to achievement of the MDGs.[2]

Overall, progress towards the MDGs has been described as "patchy"[3] and "uneven".[4] The broad conclusion is that few goals are entirely on track globally, and those that are show substantial variation, with least progress in Africa and often south Asia. Whereas MDG 1 (eradication of extreme poverty and hunger) is on course to be achieved and "remarkable improvements" have been made regarding aspects of MDG 6 (combating of HIV/AIDS, malaria, and other diseases), insufficient progress has been made towards achievement of MDG 2 (provision of universal primary education), MDG 4 (reduction of child mortality), and MDG 5 (reduction of maternal mortality).[4,5] Steps towards MDG 3 (promotion of gender equality and empowerment of women) have been labelled "sluggish"; "alarmingly high" rates of deforestation are hampering MDG 7 (ensuring of environmental sustainability); and Africa is "short-changed" by the aid flows included under MDG 8 (development of a global partnership for development).[4] Moreover, the global economic crisis has accentuated the urgency of the discussion, and progress is being jeopardised because of new financial constraints.[6]

As we approach the two-thirds mark for the achievement of these goals in 2015, attention is focused on acceleration of progress, and on whether these goals are the right model for international development after 2015. So far, analysis of the MDGs as models for international development has taken two forms. The first involves sector-specific assessment of progress towards individual MDGs, largely by sectoral experts.[7–11] The second involves broader analysis of the MDGs as instruments of development, largely by international development specialists.[3,12,13] We believe that an understanding of the MDGs and future improvements in goal setting benefits from consideration of all goals together, because they are so interconnected and because their individual implementation has identified many common issues. The purpose of this report is to identify challenges that have emerged in delivery of the MDGs that are common to different goals and to suggest how future goal setting can be improved to avoid these difficulties. We do not undertake to present a verdict on the MDGs, or a balanced assessment weighing advantages and disadvantages. We focus deliberately on problems with the MDGs to identify

better future approaches. We will not propose specific changes in MDGs after 2015, but will suggest a set of principles that might guide future goal development. This Commission is intended for a broad readership interested in all MDGs and for a more health-focused readership, who we hope will gain an improved understanding of the important relations between health and other MDG targets.

We begin part 1 of our report with a brief introduction to the MDGs, which is accompanied by a webappendix presenting analyses of the development and implementation of each MDG. In part 2, we present a cross-cutting comparison and analysis of MDGs 1–7. We restrict our analysis to these seven MDGs because they share a focus, across very different sectors, on action in and by developing countries, whereas MDG 8 is focused more on actions by wealthy countries. We derive from this analysis the common challenges facing the MDGs. In part 3, we use these challenges to develop and illustrate five principles for future development goal setting, with health as a theme.

Methods

This Commission was undertaken at the request of *The Lancet* by the London International Development Centre (LIDC)—a consortium of six University of London colleges (Birkbeck, Institute of Education, London School of Hygiene and Tropical Medicine, School of Oriental and African Studies, Royal Veterinary College, and the School of Pharmacy). LIDC is dedicated to novel, intersectoral, and interdisciplinary approaches to international development. The Commission was co-designed with *The Lancet*, coordinated by LIDC, and prepared by experts in three LIDC member institutions: the London School of Hygiene and Tropical Medicine, Institute of Education, and School of Oriental and African Studies, and their research partners in South Africa, Zambia, Malawi, India, and Thailand. This team brought specific, individual expertise with MDGs 1–7, from different development perspectives and backgrounds. To build a team approach, each expert was asked with her or his partners to write a critique of their MDG and to contribute ideas arising from this analysis towards the design of future development goals. All participants read these papers as preparation for a 2-day facilitated workshop that identified issues and challenges that cut across the MDGs and built a consensus about future development goal setting. During four subsequent, smaller workshops, this consensus was developed into a final document. Although overseas partners could participate only in the first main workshop, all contributed towards subsequent development and have made contributions to the final version, including specific case studies. Analyses of individual MDGs are provided (webappendix) for readers interested in more detail. They provide the evidence base for the cross-cutting analysis.

Background to the MDGs

The MDGs comprise a set of eight goals and associated targets and indicators. They represent the latest effort in a long process of development goal setting which had antecedents in the Universal Declaration of Human Rights, the Development Decade of the 1960s, and the many UN summits of the second half of the 20th century that set specific goals to reduce hunger, improve health, eradicate diseases, and school children.[14]

The immediate antecedent of the MDGs was the Millennium Declaration, presented in 2000 at the UN Millennium Summit.[15] The Millennium Declaration presented six values that were considered to be fundamental to international relations in the 21st century: freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility. Seven key objectives were identified to translate these shared values into actions: peace, security, and disarmament; development and poverty eradication; protection of our common environment; human rights, democracy, and good governance; protection of vulnerable people; meeting of the special needs of Africa; and strengthening of the UN. The second objective, development and poverty eradication, was translated into eleven resolutions, presented as development targets. Many of these targets had legacies that predated the Millennium Declaration and had arisen from sector-specific UN-sponsored and other world conferences and summits during the previous decades. Most had appeared as international development targets in the report of the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) *Shaping the 21st century: the contribution of development cooperation*.[16] The OECD's international development targets were particularly influential in the determination of the relevant text of the Millennium Declaration. With the addition of a few more targets, particularly for environmental sustainability, these became the MDGs. In turn these targets were linked post hoc with indicators, for the purposes of measurement, and with goals, for the purpose of conceptual simplicity. By 2001 the MDG framework comprised eight goals, 18 targets, and 48 indicators.[17] A few more targets and indicators were added later, creating the set presented in panel 1.

To understand the MDGs, the political context in which they arose has to be appreciated. Several recent analyses have provided a useful insight into how the MDGs represent an integration of different international development strategies and initiatives emerging over recent decades. Hulme,[19] for instance, suggests that the MDGs developed through an interaction between, on the one hand, a US-led, neo-liberal ideology (one that promotes economic growth based on free trade and markets) linked to results-based management and, on the other hand, a development approach of some other wealthy countries, multilaterals, and non-governmental organisation (NGOs) that focused on multidimensional

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Panel 1: **The Millennium Development Goals[18]**

Goal 1: eradicate extreme poverty and hunger

- Target 1A: halve, between 1990 and 2015, the proportion of people whose income is less than US$1 a day
  - Indicator 1.1: proportion of population below $1PPP per day
  - Indicator 1.2: poverty gap ratio
  - Indicator 1.3: share of poorest quintile in national consumption
- Target 1B: achieve full and productive employment and decent work for all, including women and young people
  - Indicator 1.4: growth rate of GDP per person employed
  - Indicator 1.5: employment-to-population ratio
  - Indicator 1.6: proportion of employed people living below $1 PPP per day
  - Indicator 1.7: proportion of own-account and contributing family workers in total employment
- Target 1C: halve, between 1990 and 2015, the proportion of people who suffer from hunger
  - Indicator 1.8: prevalence of underweight children younger than 5 years
  - Indicator 1.9: proportion of population below minimum level of dietary energy consumption

Goal 2: achieve universal primary education

- Target 2A: ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
  - Indicator 2.1: net enrolment ratio in primary education
  - Indicator 2.2: proportion of pupils starting grade 1 who reach last grade of primary
  - Indicator 2.3: literacy rate of 15–24-year-olds, women, and men

Goal 3: promote gender equality and empower women

- Target 3A: eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015
  - Indicator 3.1: ratios of girls to boys in primary, secondary, and tertiary education
  - Indicator 3.2: share of women in wage employment in the non-agricultural sector
  - Indicator 3.3: proportion of seats held by women in national parliament

Goal 4: reduce child mortality

- Target 4A: reduce by two-thirds, between 1990 and 2015, the mortality rate in children younger than 5 years
  - Indicator 4.1: mortality rate in children younger than 5 years
  - Indicator 4.2: infant mortality rate
  - Indicator 4.3: proportion of 1-year-old children immunised against measles

Goal 5: improve maternal health

- Target 5A: reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
  - Indicator 5.1: maternal mortality ratio
  - Indicator 5.2: proportion of births attended by skilled health personnel
- Target 5B: achieve, by 2015, universal access to reproductive health
  - Indicator 5.3: contraceptive prevalence rate
  - Indicator 5.4: adolescent birth rate
  - Indicator 5.5: antenatal care coverage (at least one visit and at least four visits)
  - Indicator 5.6: unmet need for family planning

Goal 6: combat HIV/AIDS, malaria, and other diseases

- Target 6A: have halted by 2015 and begun to reverse the spread of HIV/AIDS
  - Indicator 6.1: HIV prevalence among population aged 15–24 years
  - Indicator 6.2: condom use at last high-risk sex

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human development—eg, health, education, and gender equity, treating these as both development goals and development means. The emerging goals are biased towards a human development approach—"five and a half of the eight MDGs are about enhancing human capabilities"[19]—and there is a strong emphasis on basic needs. However, they also incorporate neo-liberal thinking about economic growth into their important poverty goal (MDG 1), and their overall results-based framework focused greatly on international development partnerships. Manning[3] observes how the early neo-liberal leanings of the goals were tempered by recognition of the need for buy-in by developing countries and by NGOs, leading to the inclusion of goals more focused on human welfare and development, such as health and education.

In addition to their integration of different development challenges and approaches, the MDGs also provided a novel, target-oriented framework for the international development community. Gore[13] suggests that in tempering earlier neo-liberal approaches to development with human development objectives, the MDGs represent a switch from a "procedural conception of international society" to a "purposive conception". The former involves "an association of States joined together through their common respect for a set of rules, norms and standard practices which govern the relationships between them" whereas the latter involves "an association of States joined together in a cooperative venture to promote common ends".[13] With this target focus came an important shift from maximalist views of development (in which development involves poorer countries achieving aspirations of equality with richer countries) to minimalist standards (of proportions of people crossing poverty thresholds or accessing particular services or avoiding mortality or morbidity); and from societal and national change to changes for individuals within nation states. The emphasis on specific and minimalist targets, and the way in which it narrowed the development agenda and placed particular responsibilities on developing country governments, has generated many of the challenges facing implementation of the MDGs.

Our study is based on the comparison of experiences across the different MDGs. To facilitate this comparison, we provide analyses of each MDG: how it was developed, how it has been implemented, and what this information tells us about its success so far. This analysis is provided in the webappendix, which we recommend readers consult for a deeper understanding of MDG performance. We use the analyses of MDGs 1–7 as the evidence base for our analysis in part 2 of this Commission.

These MDG analyses show that the MDGs and their targets all have their origins in development initiatives that predate the Millennium Declaration. For the most part, the MDGs constitute an assembly of often very narrowly focused and sector-specific development ideas and campaigns from the 1980s and 1990s. Their targets

are often so narrow as to neglect important development issues in the same sector—eg, tertiary education, reproductive health, and a range of gender issues. At their conception, therefore, the MDGs were not a plan derived bottom-up from a broad, intersectoral conceptualisation of development and prioritisation of development needs, although superficially they might seem to have been.

These summaries also show that progress has varied between goals and between targets. Although some goals were set up with a range of targets and indicators, subsequent attention and monitoring for any goal has usually focused on a subset of these targets and indicators, sometimes only one. This narrowing process could be an indication of differences in ease of target implementation and monitoring, and in the level of ownership by international and other institutions, with little ownership or overlap in ownership reducing progress. Generally, efforts to improve MDGs by adding new targets at a later date have not been very successful, owing to the complexity of these targets and their indicators or to limited ownership, or both.

Part 2: a cross-cutting analysis of the MDGs

Positive contributions of the MDGs

In this section, we use our studies of individual MDGs as the evidence base from which we build a cross-cutting analysis. When appropriate, we relate our conclusions to other reviews of the MDGs that have used a range of approaches.[2,3,12,13,15,20–24] The performance of individual MDGs so far suggests that they have made four important positive contributions: encouraging global political consensus, providing a focus for advocacy, improving the targeting and flow of aid, and improving the monitoring of development projects.

Endorsed by 189 governments, the MDGs represent an unprecedented consensus on international development. In this context, they have been more successful than have some of the UN's earlier development initiatives, such as the Development Decades of the 1960–90s or the resolutions about Least Developed Countries and Small Island Developing States.[3] In a 2005 survey of 118 countries, 86% had reportedly acted in response to the MDGs.[25] The MDGs are claimed to be "the first global development vision that combines a global political endorsement with a clear focus on, and means to engage directly with, the world's poor people".[1]

The survey of individual MDGs (webappendix) shows how the MDGs have helped advocacy of particular development agendas. For popular agendas, such as those to reduce poverty (MDG 1) and infectious diseases (MDG 6), MDGs provided additional leverage, whereas for relatively neglected agendas such as child survival (MDG 4) and gender (MDG 3), their effect was to reinvigorate these campaigns. In the case of gender, for example, the Fourth World Conference on Women in Beijing in 1995 had led to the establishment of gender

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- Indicator 6.3: proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS
- Indicator 6.4: ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years

- Target 6B: achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it
  - Indicator 6.5: proportion of population with advanced HIV infection with access to antiretroviral drugs
- Target 6C: have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
  - Indicator 6.6: incidence and death rates associated with malaria
  - Indicator 6.7: proportion of children younger than 5 years sleeping under insecticide-treated bednets
  - Indicator 6.8: proportion of children younger than 5 years with fever who are treated with appropriate antimalarial drugs
  - Indicator 6.9: incidence, prevalence, and death rates associated with tuberculosis
  - Indicator 6.10: proportion of tuberculosis cases detected and cured under directly observed treatment short course

Goal 7: ensure environmental sustainability

- Target 7A: integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
  - Indicator 7.1: proportion of land area covered by forest
  - Indicator 7.2: CO_2 emissions, total, per head and per $1 GDP (PPP)
  - Indicator 7.3: consumption of ozone-depleting substances
  - Indicator 7.4: proportion of fish stocks within safe biological limits
  - Indicator 7.5: proportion of total water resources used
- Target 7B: reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss
  - Indicator 7.6: proportion of terrestrial and marine areas protected
  - Indicator 7.7: proportion of species threatened with extinction
- Target 7C: halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation
  - Indicator 7.8: proportion of population using an improved drinking water source
  - Indicator 7.9: proportion of population using an improved sanitation facility
- Target 7D: by 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers
  - Indicator 7.10: proportion of urban population living in slums

Goal 8: develop a global partnership for development

- Target 8A: develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction, both nationally and internationally)
- Target 8B: address the special needs of the least developed countries (includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for HIPC and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction)
- Target 8C: address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the 22nd special session of the General Assembly)
- Target 8D: deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

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Official development assistance*:
- Indicator 8.1: net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income
- Indicator 8.2: proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)
- Indicator 8.3: proportion of bilateral official development assistance of OECD/DAC donors that is untied
- Indicator 8.4: ODA received in landlocked developing countries as a proportion of their gross national incomes
- Indicator 8.5: ODA received in small island developing States as a proportion of their gross national incomes

Market access:
- Indicator 8.6: proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty
- Indicator 8.7: average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries
- Indicator 8.8: agricultural support estimate for OECD countries as a percentage of their gross domestic product
- Indicator 8.9: proportion of ODA provided to help build trade capacity

Debt sustainability:
- Indicator 8.10: total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)
- Indicator 8.11: debt relief committed under HIPC and MDRI initiatives
- Indicator 8.12: debt service as a percentage of exports of goods and services

- Target 8E: in cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
  - Indicator 8.13: proportion of population with access to affordable essential drugs on a sustainable basis
- Target 8F: in cooperation with the private sector, make available the benefits of new technologies, especially information and communications
  - Indicator 8.14: telephone lines per 100 population
  - Indicator 8.15: cellular subscribers per 100 population
  - Indicator 8.16: internet users per 100 population

PPP=purchasing power parity. GDP=gross domestic product. CO_2=carbon dioxide. HIPC=heavily indebted poor countries. ODA=official development assistance. OECD=Organisation for Economic Co-operation and Development. DAC=Development Assistance Committee. MDRI=Multilateral Debt Relief Initiative. *Some of these indicators are monitored separately for the least developed countries, Africa, landlocked developing countries, and small island developing States.

mechanisms and approaches to mainstreaming of gender issues within several ministries. Their achievements were fragile,[26,27] until the MDGs stimulated donors to include gender equity in aid packages.[28–30]

The MDGs are generally thought to have improved the targeting and flow of aid and other investments, supported by the way in which donors have linked the MDGs to their strategies for aid provision[6] and by evidence of an increase in resource mobilisation.[21] According to OECD figures, between 2000, when the Millennium Declaration was adopted, and 2006, total development assistance for health has more than doubled from US$6·8 billion to $16·7 billion, most of it focused on infectious diseases (MDG 6).[31] Large increases in donors' financial commitments to education, which can fairly transparently be linked to MDG 2, were recorded after 2000.

However, the cases of health and education also show how difficult it is to establish a cause and effect relationship between the MDGs and an increase in aid. The late 1990s and early 2000s saw the conceptualisation and creation of several independent initiatives in health and education, including the International Finance Facility for Immunisation; the Global Fund to Fight AIDS, Tuberculosis and Malaria; Business Alliance Against Chronic Hunger; and the initiatives following the Education for All conferences in Jomtien (1990) and Dakar (2000), whose objectives overlapped with those adopted subsequently in MDG 6 and MDG 2. The contribution of the MDGs, in these cases, might best be viewed as reinforcing, rather than driving, the targeting and mobilisation of resources.

Finally, the MDGs have stimulated an improvement in monitoring development programmes through data collection and analysis: "Once the MDGs gained currency, a cascade of statistical and analytical work got underway".[23] Although we have noted that across the MDGs there are profound questions about the quality of the data obtained from such monitoring, few would disagree that it has been beneficial to evaluation, and probably to investment.

Challenges posed by the MDGs

Set against these positive contributions are several shortcomings that emerge consistently across our analysis of individual MDGs. Characteristically, most of these weaknesses present themselves as the flip side of the MDGs' more positive elements. Thus, the parsimony of the MDGs, which has probably facilitated their acceptance and use, makes them at the same time limited in scope, whereas their quantitative targets and precise indicators, for all their value in providing measurable outcomes, often fail to capture some crucial elements of goal achievement. We have to accept that all goal setting involves such trade-offs.

However, the value of focusing on shortcomings of the MDGs lies in our potential to improve them, or replace them with something better. Ineffective MDGs pose two risks: they might not achieve their intended effect, and they could lead to negative effects by ignoring or impeding more effective development and poverty reduction. Our analysis identifies challenges with the MDGs in four areas: conceptualisation, execution, ownership, and equity. Other studies have also identified cross-cutting issues,[12,22] which we will discuss as appropriate.

Conceptualisation and execution

We consider first how well the MDGs have been developed at different levels—goal, target, and indicator—which has obvious consequences for how well they have been executed at each level. For instance, an indicator for which accurate data cannot be obtained is poorly conceived and prevents execution of the target.

In table 1 we show some difficulties relating to conceptualisation and execution, drawn from our individual analyses of the MDGs presented in the webappendix. This list is illustrative and not meant to be comprehensive.

Problems with the conceptualisation and execution of the MDGs arise at the goal, target, and indicator levels. This feature is shared by different MDGs, and some goals have problems at more than one level. Broadly speaking, problems associated with the level of goals seem to relate to their being too narrow and fragmented, leaving gaps in which other important development objectives are missing. Problems at the target level often relate to their being incomplete or partial relative to the ambition of the goal, imprecise, or without a process of delivery. These problems tend to amplify the vertical nature of some goals, widening the gaps between them and reducing connectedness. Between 2005 and 2008, MDGs 1, 3, and 5 added targets aimed specifically at filling such gaps. Problems with indicators tend to be associated with measurement, ownership, or leadership. New indicators added during the course of the MDGs are especially prone to these problems.

Problems with goals

As we noted in part 1, the MDGs represent a subset of a broader development vision expressed in the Millennium Declaration. Goals were never developed for several key objectives of the Declaration, including peace, security and disarmament, and human rights. The elements taken into the MDGs were in fact the specific targets associated with only one objective of the Declaration, that of development and poverty eradication. Some of these goals, being themselves derived from specific targets, were very narrow in conception: education goals focused mainly on primary education, whereas health goals focused only on three aspects of health associated with maternal mortality, child mortality, and specific diseases. For goals that were more broadly defined, such as poverty reduction, gender, or environmental sustainability, the few targets assigned to them did not capture their breadth. The consequences of building goals around targets were two-fold. First, very substantial gaps existed in the coverage of goals, with targets failing to address important development needs for that sector. Second, because narrow goals and targets were so fragmented, the potential linkages and synergies that exist between different sectors proved difficult to exploit.

Gaps in goals could have contributed to under-investment in areas that are key to realisation of the MDGs' overall development vision. For instance, considering that most of the world's poor people are rural farmers, and that agricultural production and its distribution are key factors in reducing hunger, the absence of agricultural targets from MDG 1 is striking. Did this leave us unprepared for the food price crisis of 2007 and the need to make food security a global agenda? The focus of MDG 2 on primary education and enrolment has led in some countries to a so-called policy myopia, and a neglect of both learning level achievement and of secondary and post-secondary education, with important implications for economic growth. MDG 3's very narrow scope failed to capture several intrinsic women's rights issues such as freedom from violence and adult literacy, which are two areas of extreme inequality. In some cases, these gaps have been addressed by additional targets, but these late additions, relative to original targets, tend not to have leadership or easily measured indicators (table 1).

Urban and Sumner[32] identify the lack of attention to tackling climate change (which receives little mention in MDG 7) as one of the fundamental criticisms of the MDG framework. Similar to the examples above, its limited emphasis in the MDGs could be indicative of political sensitivity or lack of effective advocacy, but it also draws attention to the extent to which development priorities change over time, and the challenges facing a fixed set of development goals.

Fragmentation and lack of synergy

The gaps created by the fragmentation of goals and targets not only emphasise the omission of important development needs, but also fail to realise efficiencies and even synergies arising from the potential links between goals. The narrow focus of the three health goals, MDGs 4, 5, and 6, tends to encourage vertical organisation of planning, financing, procurement, delivery, monitoring, and reporting without sufficient linkage or integration with the broader health system.[33] A lack of integration and efficiency can be seen internationally, with UN agencies or departments competing for attention and funding (some of which predated the creation of the MDGs); nationally with different rewards and incentives for staff in different programmes; and at the level of service delivery, for which particular programmes might have more generous space, equipment, or staffing levels than others, although the extent of this problem varies substantially across settings. Few of the technical interventions needed to achieve these three MDGs are logically or most cost-effectively delivered on their own.[34] Most health-service delivery is multipurpose and depends on horizontal systems, including the physical infrastructure, personnel, procurement and governance policies, and audit and monitoring systems.

We are not saying that health systems do not need specific specialised services to address particular diseases such as HIV/AIDS, but that such services, although necessary, are not sufficient to ensure sustainable health improvement into the future, with the exception of health improvement related to the very few diseases that can be eradicated, such as smallpox. Although investment in vertical health programmes could bring resources, such as new health centres, that benefit health systems overall,

	Problems with goals	Problems with targets delivering goals	Problems with indicators delivering targets
Goal 1: halve hunger and poverty	Poverty too narrowly conceived as income-based	..	..
Target 1A: halve, between 1990 and 2015, the proportion of people whose income is <US$1 a day	..	Target not clearly associated with a mechanism that delivers outcomes	Accuracy and bias in measurement of poverty incidence
Target 1B: achieve full and productive employment and decent work for all, including women and young people	..	Late addition to targets	Little monitoring; ambiguous indicators; lack of data; problems of national ownership
Target 1C: halve, between 1990 and 2015, the proportion of people who suffer from hunger	..	..	Indicators do not measure hunger well, methodological difficulties
Goal 2: achieve universal primary Education	Overemphasis on primary education, ignoring importance of post-primary education	..	..
Target 2A: achieve universal primary education	..	Enrolment does not measure learning; literacy does not measure wider range of cognitive skills or depth of understanding	Enrolment indicators overestimate numbers attending school; completion indicator underestimates drop out and lack of learning; literacy indicator difficult to measure
Goal 3: promote gender equality and empower women	Gender equality promoted as so-called social vaccine, ignoring women's rights issues (corrected with MDG 3 Plus)	..	..
Target 3A: eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015	..	Early date for target limited achievement; overemphasis on educational gender parity indicators missed equality issues; general lack of national ownership and engagement by national governmental organisations; MDG 3 Plus indicators were a late addition	Educational parity indicator: measurement problems shared with MDG 2 above; no indicator for non-enrolment aspects of discrimination relating, for example, to attainment or personal choice; other indicators do not reflect large numbers of women employed in the informal sector, women's wage levels, or access to decision making. MDG 3 Plus: lack of national ownership; unclear international leadership; data quality problems for specific indicators
Goal 4: reduce child mortality	Separation of child and maternal health goals reinforced fragmentation of effort; uncoordinated international leadership	..	..
Target 4A: reduce by two-thirds the mortality rate in children younger than 5 years	..	Unrealistic target based on extrapolation of trends derived from poor-quality data	Problems in measurement; systematic under-representation of neonatal mortality
Goal 5: improve maternal health	Separation of child and maternal health goals reinforced fragmentation of effort; uncoordinated international leadership	..	..
Target 5A: reduce by three-quarters the maternal mortality ratio	..	Maternal mortality ratio was too narrow a view of maternal health, and excluded family planning; limited national ownership	Problem in measurement of mortality, partially addressed by new indicator on skilled birth attendants
Target 5B: universal access to reproductive health	..	Late addition; focus only on contraception and pregnancy; target levels not set (eg, for contraceptive prevalence)	Measurement of indicator for unmet need for contraception problematic

(Continues on next page)

their focus on particular diseases means that other national needs might be unsupported. For example, a study in Mali found that a campaign to treat neglected tropical diseases disrupted basic health services at health centres because of staff absences; and in 14 of 16 health centres staff were overburdened by the additional requirements of the campaign.[35] Similarly, vertical programmes bring investment in accounting and procurement services that could strengthen national health systems generally, but which could in practice be limited to servicing specific disease programmes, running in parallel to weak national systems. In countries where human resources are scarce, such as most low-income countries, staff move to where salaries, incentives, and working conditions are best. Thus although allocation for disease-specific funding might increase human resources in health systems, human resources might be drawn into specific programmes, neglecting other parts of the health system.

Effective health systems need both vertical and horizontal components, and the MDGs have focused investment on the former, with the result that global health initiatives (GHIs) established with mandates to address specific diseases (such as The Global Fund to Fight AIDS, Tuberculosis and Malaria; or the US President's Emergency Plan for AIDS Relief [PEPFAR]) or tightly focused objectives (such as the Global Alliance for Vaccines and Immunisation) have had a variable effect on improving national health systems.[36] Several of these GHIs are now working to broaden their remit to address the horizontal aspects of health-system strengthening more directly.

The narrowness of MDG goals and targets also does not realise efficiencies and synergies between sectors.

	Problems with goals	Problems with targets delivering goals	Problems with indicators delivering targets
(Continued from previous page)			
Goal 6: combat HIV/AIDS, malaria, and other diseases	Vertical focus on specific so-called killer diseases led to duplication and excludes other targets; lack of integration with improved health services	..	..
Target 6A: halt and reverse spread of HIV/AIDS	..	..	Measurement of prevalence problematic since antiretroviral therapy is successful in keeping more people alive with HIV infection
Target 6B: universal access to HIV/AIDS treatment	..	Late addition; recent gains will be reversed unless political and financial commitment are sustained	..
Target 6C: halt and begin to reverse incidence of malaria and other major diseases	..	..	Measurement of short-term responses (eg, bednets, treatments) does not guarantee necessary longer-term effect on malaria epidemiology
Goal 7: environmental sustainability	A collection of unconnected targets, some general, some precise, lacking integration with other MDGs and weak on climate change	..	..
Target 7A: integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	..	Target not clearly associated with a mechanism that delivers outcomes	Lack of monitoring and data for trends in natural resources; limited national ownership
Target 7B: reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	..	Target not clearly associated with a mechanism that delivers outcomes	Lack of monitoring and data for trends in natural resources; limited national ownership
Target 7C halve proportion of people without sustainable access to safe drinking water and basic sanitation	..	Less emphasis placed on sanitation than on supply of water	..
Target 7D: achieve a significant improvement in the lives of at least 100 million slum dwellers	..	..	..

Please see the webappendix for a detailed analysis of each MDG, from which this table is drawn.

Table 1: **Goals and targets for MDGs 1–7, with observations on difficulties with conceptualisation and execution**

For example, by targeting largely primary education, MDG 2 underdevelops secondary and tertiary education, for which opportunities to create substantial improvements in incomes and in health are greatest. These educational levels also generate the skilled workers that are needed to promote and service the non-education MDGs—in health, agriculture, water and sanitation, and environmental sustainability—and teachers for the achievement of MDG 2.

Similarly, the little focus on nutrition within the MDGs fails to exploit the synergy of increasing household food security, improving children's capacity to participate in and benefit from education, and increasing resilience to maternal and infant disease threats. Table 2 shows some of the links between education, health, poverty reduction, and gender goals, from which it will be clear that many are unrealised in the present MDG framework because of the narrowness of MDG targeting.

The interactions between education, poverty reduction, health, and gender are complex. Primary education provides access to higher levels of education, which raises earnings,[37,38] while higher levels of female education lead to improvements in child health care.[39] These findings indicate clear gains in poverty reduction through investments in education. But education's relations with poverty, health, and gender are reciprocal. Children from poorer households enrol in fewer years of education, and in many systems poor girls enrol in fewer years than do poor boys.[9] Better child health and nutrition improve educational outcomes.[40,41] These gender interactions are typical of those across the MDGs. Jones and colleagues[42] have shown how the failure to disaggregate data for men and women for poverty and sustainable development masks the gender dynamics of poverty, making the point that all stakeholders should "champion the importance of gender equality as a cross-cutting issue that needs to be considered in all pro-poor policy and programming, including those aimed at MDG achievement".

In the present MDG process, some positive interaction will inevitably arise from the independent pursuit of different MDG goals and targets, but even this interaction will need local interventions in poverty reduction, health, education, and gender equality coming together for the same groups of people. This convergence is made less likely by the reality that goals are compartmentalised into responsibilities of different line ministries nationally, subnationally, and locally, which means that the potential for simultaneous actions in the same location, working with the same communities and households, is unlikely.

However, precedents for such synergy can arise from targeted interventions in the same communities. For example, the Mid-day Meal programme reaches 120 million primary school children every school day in India and provides a cooked meal. The introduction of this nutrition programme has greatly raised school attendance[43] and, in conjunction with agricultural services, can stimulate farm input and output markets and agricultural development.

Environmental sustainability should be a cross-cutting goal with potentials for synergy across sectors. However, MDG 7 targets 7A and 7B are not expressed in a way that links them to human welfare and development, making such linkage difficult. This shortcoming could be addressed with the concept of ecosystem services, whose development in the Millennium Ecosystem Assessment paralleled the implementation of the MDGs. The role of ecosystems services is reflected in the need for sustainable provision of water, soil, and biodiversity services to support agriculture and achievement of MDG 1 targets, and the importance of environmental factors to improved health. For example, 24% of the global disease burden is estimated to be associated with environmental factors, and 25% of all deaths in developing countries are linked to environmental risks.[44]

The fragmentation of the MDGs has probably resulted in several lost opportunities to improve development outcomes. At its heart, of course, is the longstanding fragmentation of most human knowledge and activity into so-called sectoral "silos"—such as health, education, environment, etc—and even into separate silos within sectors, as seen clearly with health targets spread across MDGs 1, 3, 4, 5, 6, and 7. At the intergovernmental and intragovernmental level, this isolation is reinforced by a long tradition of institutional ownership and disciplinary identities that are embedded in professional qualification systems, societies, and journals. By simply gathering together established goals and targets of these different development communities, the MDGs could not hope to achieve the desired integrated approach that is appropriate to complex problems in international development. Worse, by fostering traditional and institutional ownership of different MDG goals, the MDGs reinforced their isolation.

Problems with targets and their indicators

We now consider the extent to which MDG targets and indicators have been designed to deliver its goals effectively. The use of a results-based framework is regarded as one of the strengths of the MDGs, and has certainly appealed in an aid context with the desire of donors to see measurable returns on investment. A focus on measurable MDG results does, however, mean that indicators are selected that capture neither the complexity of the target, because of the need for parsimony, nor the qualitative nature of much development progress. As indicated in the review of individual MDGs (webappendix) and table 1, this problem is common to many MDGs.

MDG 2 provides a particularly clear example of how specific targets can be met without achieving their full intent. For this goal, the measurable target identified for achievement of universal primary education is to ensure that, by 2015, all boys and girls are able to complete a full course of primary schooling. This target is accompanied by three indicators, of which only the first, the net enrolment ratio, has been consistently measured, because the others are more difficult to assess. Hence progress on MDG 2 has been represented by changes in this ratio. However, this measure entails a very narrow view of primary education. In some contexts, enrolment in education, even in the last grade of primary, can mean

	Effect on education	Effect on health	Effect on poverty and hunger reduction	Effect on gender equality
Improvement in education	..	Encourages good health practices, delays marriage, reduces fertility and child mortality, and improves maternal health; primary education provides access to secondary and post-secondary education and skilled health workers	Improves agricultural productivity and off-farm employment opportunities; primary education provides access to secondary and post-secondary education and generates a skilled workforce	Improves learning and progression for all children
Improvement in health	Increases initial enrolment, daily attendance, progression, and learning achievement	..	Increases fitness and productivity and reduces costs of health care	Improves wellbeing for women and girls, enabling them to participate fully (ie, politically, economically, culturally, and socially)
Improvement in poverty and hunger reduction	Increases initial enrolment, daily attendance, progression, and learning achievement	Improves nutrition and creates resources to pay for health care	..	Improves women's health and status, and, therefore, their capacity to contribute to establishing gender-equitable social relations politically, economically, socially, and culturally
Improvement in gender equality	Improves relationships developed in schools between girls and boys; effectively teaches social values and creates a safer environment for all children	Improves treatment given to women and men; protects women against health risks associated with gender-based violence; improves care for mothers of newborn children and nutrition for families	Improves nutrition and work opportunities for women and men; ensures care economy adequately supported	..

Table 2: **Positive, reinforcing links between education, health, gender, and poverty and hunger reduction**

little more than having one's name recorded in an enrolment register. The ratio does not indicate regular attendance, participation in learning opportunities, or the achievement of learning outcomes that are useful, relevant, or enduring as the child develops into adolescence and adulthood. Nor do measures or indicators of targets indicate what types of actions might have been, or could be, taken to increase performance, such as teacher supply, teacher education, language policy reform, curriculum reform, or provision of learning materials. Panel 2 shows some of these challenges, with a particular example from India.

Once targets are seen to be achieved, attention may be directed elsewhere. If target achievement falls short of goal achievement, then it is possible that further progress will not be made against that goal. In panel 3, we show this risk with an example of MDG 3 from South Africa.

In conclusion, targets and their indicators frequently fall short of being meaningful measures of MDG achievement—for instance in MDG 2 with the net enrolment ratio as a proxy for education, in MDG 1 with income as a proxy for poverty reduction, and in MDG 3 with gender equity in schools as a proxy for societal change in gender equity. This criticism might seem rather severe—specific targets and indicators were never meant to measure all progress against a complex goal. Rather, they were meant to be indicative of progress. The risk, however, is that once targets and indicators become established, their indicative function is forgotten, and they become the end, not the means, of the MDGs. Such goal displacement, in which targets and indicators become more important than achievement of goals, is a common feature in management.

A feature of MDG targets that has often been seen as a virtue is their caution not to prescribe how a target or its indicators should be achieved, although some are a partial means to a goal. This approach has mostly worked, insofar as a target for disease reduction or education, for example, is adopted by a particular development community which will identify or already have in place strategies for achieving it, as was the case for MDG 2. Nevertheless, this ownership of targets also fosters territorial attitudes.

However, too little detail has proven to be a problem for other MDGs. MDG 1, for example, with its goal of halving poverty and hunger, does not have any indicators concerned with service access or with policy interventions. As with other goals, it has results-based outcome targets, relating to proportions of people above income thresholds, in employment, and underweight at a particular age, but no targets for mechanisms contributing to these outcomes—ie, it has no output targets. MDG 7 has a similar problem in that it has targets that encourage policies which reduce the loss of biodiversity and other natural resources, as outcomes, but it has no output targets in terms of policy interventions. Targets with these problems have less chance of effective execution than do others, since they are based only on observation of outcomes.

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The results-based nature of the MDG framework means that availability of good quality data is necessary to the use of specific indicators that monitor progress towards targets and goals. But national information systems are still weak in many countries, and data, if available, are likely to be of poor quality. This problem is compounded by technical difficulties for some of the MDGs' indicators that might not be easy to measure yearly. For example, the number of children eligible to be enrolled in school forms the denominator of net and gross enrolment ratios. These ratios should be calculated every year, but population estimates are typically taken in a census once a decade.

Our cross-MDG comparison suggests that, for most MDGs, only a few of several indicators are regularly measured and others fall away as yearly reporting progresses. The reasons are usually associated with the issues discussed in this section surrounding difficulty of measurement, but leadership is also an issue. Where commitment to national or international measurement is limited, then indicators are rarely measured. Lack of measurement is a particular problem with more recently added targets, for instance in MDGs 1, 3, and 5, perhaps for reasons that they are either more complex or less broadly owned than others.

Finally, criticism of the use of targets and indicators has to be tempered by the positive effect of the MDG process in stimulation of a culture of assessment, leading to investment in data collection and in monitoring and assessment in many countries, as well as regionally and subnationally. The MDGs have also inspired valuable research in the area of development effectiveness, which will benefit future goal setting.

Ownership

The MDG framework seemed to represent an important political consensus; that 189 countries signed up to one development plan was of huge symbolic significance. It also offered the potential to ensure national ownership

Panel 2: difficulties with targets for MDG 2 in India

The target for MDG 2 aims to have all children completing a full course of primary schooling. For India, estimates suggest that close to 95% of children aged 6–14 years are enrolled in school.[45] The Indian Government has a policy of automatic promotion from one grade to the next each year, which implies that it is not difficult for enrolled children to move from grade 1 to grade 5.

But is enrolment a good measure for understanding who is in school regularly? Several studies have shown that despite very high enrolment, regular attendance in school is an issue of major concern in some states. Government data from 2006 show that in 11 of the 20 major states, average attendance in primary school was less than 80%.[46] When measured very carefully, findings from the SchoolTELLS study showed that for the school year 2007–08, in the schools sampled for the study, only 25% of enrolled children in Bihar and 44% in Uttar Pradesh attended school regularly.[47] The visit of researchers from Assessment Survey Evaluation Research (ASER) in 2009 to a school on a random day indicated that attendance was lower than 80% in ten of 20 major states, with numbers below 60% being recorded in populous and educationally underperforming states such as Uttar Pradesh and Bihar.[45] In poor regions, despite incentives such as free school meals, uniforms, scholarships, and textbooks, children are not regularly in school. Stable and regular attendance patterns are an essential condition for effective teaching and learning. Closer tracking of attendance needs to be a high priority for state governments in India.

No national longitudinal study has been done in India that follows successive cohorts of children from the first year until the last year of primary school or beyond, so the primary school completion target is difficult to measure accurately. With the assumption that a large majority of children actually do complete primary schooling, assessment of what benefits the achievement of this target would represent is crucial, given that the MDG goal does not include a universal learning target. For the past 5 years the ASER survey has been measuring basic reading levels across India. ASER 2009 reports that only 52·8% of rural children in India in standard five can fluently read text at standard two level.[45] The situation for mathematics is even more dismal. Less than 40% of children in standard five can do a numerical division problem (three digit by one digit division) correctly. Most states in India expect children to reach this level by the end of standard three or four. Therefore by the time that an average rural Indian child completes the primary stage she or he is at least 2–3 years academically behind where she or he is expected to be. At least half of all children in India are leaving primary school not being able to read fluently or do basic arithmetic operations. Where does this evidence point us? What needs to be done to ensure a meaningful completion of primary school? Criteria for measurement of progress towards the completion goal have to include methods and mechanisms to assess children's and teachers' attendance in schools regularly. Next, clear learning goals need to be articulated. It is against these benchmarks of enrolment, attendance, survival, and learning that the MDG 2 goal of completion needs to be measured.

around global commitments. However, despite the widespread support for the MDGs internationally, to ensure ownership of the MDG process—including development and implementation—at different levels and by different stakeholders has been problematic.

Multilateral and bilateral agencies were heavily involved in the early development of the MDG framework as it emerged from OECD DAC and UN processes. Although they were brought in at the later stages of the process, and were signatories to the MDG framework, thus agreeing to work towards their implementation, the involvement of developing countries in the initial development of the framework was small. As a result, meaningful national ownership by developing countries has been mixed and often weak. We will consider ownership of the MDGs at three levels—by the international development community, by civil society, and by national programmes in developing countries—and the problems associated with each.

Ownership by the international community

Implementation difficulties for some MDGs are indicative of the institutional structure around the MDGs and, in some cases, lack of or confusion around ownership between different UN and multilateral agencies. For instance, the absence of ownership of MDG 3 internationally has made it particularly difficult to implement. Reactions have been mixed nationally, although the decision of the Commission on the Status of Women in 2009 sought to link together the Beijing Platform of Action and advancement of MDG 3 through the work of the UN Division for the Advancement of Women.[55]

Territorial issues with leadership have also affected implementation. This effect is most noticeable with health, for which the various health MDGs, by design, were mapped onto the institutional structure of health interests. The HIV/AIDS, tuberculosis, and malaria professional groups, NGOs, and research community's link to MDG 6; the maternal health community to MDG 5; and the child health community (with another strong professional group, the paediatricians) to MDG 4. A further, important, interest group that strengthens the position of MDG 6 relative to the others is that of the pharmaceutical industry, which has clear financial interests in funding streams that are associated with the purchase of relatively costly drugs and commodities such as antiretroviral drugs, and received particular mention in MDG 8.

In principle, institutional ownership should improve leadership, but this effect might not arise when ownership is too fragmented or when it is contested. For example, within the UN agencies, the ownership of maternal health is split, causing a scarcity of leadership for MDG 5. Within WHO, the lead technical agency, maternal health is split between Making Pregnancy Safer, the Human Reproduction Programme, and (for newborn babies) the Department for Child and Adolescent Health. Among agencies with funds for implementation, both UNICEF and the UN Population Fund (UNFPA) have a role, which can be crudely defined as UNICEF being concerned with antenatal and postnatal care, and UNFPA with delivery care. In practice, activity depends on strengths in country. UNICEF adopts a community focus, and UNFPA staff traditionally have reproductive rather than maternal health expertise. The World Bank has played less of a lead in recent years, and a global fund does not specifically address maternal health. An attempt to pull together groups within the Partnership for Maternal Newborn and Child Health has been only partly successful so far, and did not always receive full backing by the UN agencies themselves.

UNICEF and WHO have also had a complex relationship over involvement in, and ownership of, MDG 4. By the time that they became involved, other organisations had taken the lead in a field that was traditionally theirs. Discord between WHO and UNICEF seems to have worsened during the 1990s, with WHO taking a lead role in the development and implementation of Integrated Management of Childhood Illness (IMCI), while UNICEF moved into the technical leadership role that was traditionally occupied by WHO.

The MDG process has largely been seen as donor driven, and issues of concern to civil society have been neglected from the agenda. This view is evident in MDG 2 with the narrowing of the Education For All agenda to the MDG agenda of Universal Primary Education, and in MDG 3 for which issues of concern to the global women's movement, including violence against women, reproductive rights, and adult literacy, were not included in the targets. In this case, there was a struggle between gender and women's right activists as to whether to ignore the MDGs altogether and continue mobilisation around the Beijing Platform or whether to engage tactically with the MDG process and try to secure commitment that MDG 3 would not be overlooked.[56]

The mismatch between civil society agendas and those in the highly selected MDGs has implications for the ways in which civil society mobilises around the MDGs, and plays a part nationally in holding governments to account on their commitments. When particular MDGs do not include issues of concern to civil society they are unlikely to be a main focus of their advocacy efforts, nationally or globally.

The MDG discourse seems to have been used most successfully by the international community to drive for funds. Advocacy has been beneficial and effective when what is wanted nationally coincides with international advocacy efforts. This has been particularly the case in health, with the renaissance of child survival prompted by MDG 4, and with the supportive role of MDG 6 in mobilising funding for reversing the spread of HIV/AIDS.

The domination of wealthy countries and their development communities in the MDG process also generates a problem of representation and asymmetry in the process of development of the MDG targets, whereby those with the money chose the targets. Although targets for poor countries are emphasised, the MDGs that by their nature involved wealthy and poor countries, MDG 7 and MDG 8, fell short of setting specific targets. Poverty rather than inequity is regarded as the challenge, thereby relieving wealthy countries of having targets of their own.

National ownership

In 2003, the UN Development Programme (UNDP) pronounced "Governments, aid agencies and civil society organizations everywhere are re-orienting their work around the Goals".[1] Indeed, many low-income countries have made an effort to link their own national development strategies to the MDGs, which can provide impetus for the achievement of both. Panel 4 shows how the Government of Malawi has made use of the MDGs. Other national plans that were able to be incorporated into the MDGs included Vision 2025 in Tanzania and Vision 2020 in Rwanda.[22]

However, in view of the importance that donors put on the MDGs, governments might feel pressure to show progress against their specific targets, whatever their national priorities might be. The MDGs are frequently mentioned by ministries in the poorest countries, and are often referred to in poverty reduction strategy papers.[22,25] Fukuda-Parr's analysis of 22 such papers has shown how almost all of them mentioned the MDGs, but the focus in most countries was selective.[22] Developing countries could be merely seeking to satisfy donor expectations in their reference to MDGs in poverty reduction strategy papers, and local documents might amount to "little more than political correctness".[3]

China presents a particularly clear case of the discrepancy between how donors and developing countries regard the MDGs. The UK Department for International Development's priorities regarding China are couched in MDG discourse, particularly MDGs 2, 6, and 7, yet there is an explicit recognition that the Chinese Government does not approach the country's development in the same way.[59] China does not have an overarching document such as a poverty reduction strategy paper that describes how it aims to reduce poverty and achieve the MDGs. Many of the same sectors covered in the MDGs appear in China's 5-year plan for 2006–11, yet the targets differ. For example, ambitions include average education for citizens to be increased to 9 years, and 100 million rural residents to be provided with access to safe drinking water.[60] The MDGs are an irrelevance to China's own development strategy. In

some cases the inflexible nature of the MDG framework, and the focus on targets rather than broader goals, has contributed to countries distancing themselves from a global agenda that is seen as irrelevant to their particular developmental situation.

For low-income countries, however, the donor resources associated with the MDGs can be attractive to governments that are struggling to meet their own strategic targets. For example, the provision of antiretroviral treatment for HIV/AIDS—an element of MDG 6—has been favoured by donors such as PEPFAR, but not always as a priority in country-led health strategies. Panel 5 shows how the national health strategy of Zambia has shifted to improve incorporation of this and other MDG targets. Although this approach could be seen as donor-driven distortion of national strategy, it also is indicative of a pragmatic national desire to develop beneficial health strategies that have a high chance of successful implementation.

If particular issues are not already regarded as priorities for governments, they might simply not be taken up, other than to fulfil obligations for reporting of, or responding to, donor priorities. This has been a particular problem with MDGs 3 and 5 because of the low status of women. Finally, the mismatch of global goals with national circumstances or priorities could create perverse incentives that misdirect time and resources. Countries that are faced with a range of locally challenging or inappropriate targets might be inclined to focus on those actions that will contribute most to their overall MDG progress results. These actions might be directed towards population groups who are quick to respond, raising issues of equity that we will explore in the next section.

A particular problem with MDG ownership is the extent to which global goals have been inappropriately interpreted as national ones. Each MDG, apart from MDG 8, has a global target to be achieved by 2015, usually set as a relative level of progress from the level in 1990 based on historical global trends. These global targets are also set without adjustment as country-level targets. They were never intended as national targets, but they have been consistently applied in this manner, ignoring local context and the intercountry difference in technical feasibility and financial affordability. The application of global goals to poor African countries which were never expected individually to meet them generates defeatism and negativity locally, and "Afro-pessimism" on an international scale.[24]

The linear extrapolations on which several MDG targets are based might possibly fit the averaging that is inherent in setting global goals, but they could be entirely inappropriate as a measure of national progress. For example, the capacity to reduce child mortality rates in any country is more likely to be S-shaped than linear.[69] Initial efforts in the presence of high mortality rates need much effort for modest improvements. Then as services in health systems are established, there is a phase during which substantial improvements are possible with rather less input. Finally, there is a phase in which much greater effort and resources are needed to make further improvements. The assumption that a similar effort in any country will produce a similar reduction in child mortality was naive, since experience with child mortality reduction shows that for most African countries to achieve MDG 4 will be almost impossible.

Panel 3: Achievement of MDG 3 in South Africa

Internationally, the MDGs act as a powerful public relations exercise. While governments have their own national goals and targets developed and responsive to a national political dynamic, pressure to meet the international development goals is particularly strong because it exposes government performance in a global arena. This pressure has the advantage of holding national political leaders to account against clearly quantifiable targets, but can also lead to governments manipulating statistics or to complacency by which targets seem to be met.

One problem with ticking off the indicator for a target as a success is that it may blunt initiatives to fulfil wider dimensions of the goal. A focus on quantity might aim to include as many people as possible in the benefits associated with a particular target. However, losing qualitative dimensions means that important aspects of realising the full dimensions of the goal are lost.

Some aspects of this effect are illustrated in a study of South Africa's response to MDG 3. The indicators associated with the target for MDG 3—to eliminate gender disparity in primary and secondary education—have been met.[9,48] South Africa has achieved gender parity in primary net enrolment ratio, the proportion of boys and girls who complete 5 years of primary schooling, and in literacy rates in young adults. More young women are in secondary and tertiary education than are young men. But these achievements against the indicators provide only a small insight into the broader goal.

Interviews undertaken with officials in the national Department of Education and a provincial Ministry in 2008 and 2009 as part of the Gender, Education and Global Poverty Reduction Initiatives research project indicated that South Africa was proud of having met the quantitative targets for gender parity, but that for several officials this was sufficient achievement on gender issues, and that other areas should get more priority.[49] Schools are assumed to promote equity simply by having achieved parity, and so their complicity in perpetuating inequitable gender relations often goes unacknowledged. As a result, data from the Gender, Education and Global Poverty Reduction Initiatives project indicate that teachers and government officials locate the source of gender problems in the family, both in terms of blame and responsibility for finding solutions.

However, several studies document how, despite policy declarations which stress the importance of gender and race equality, South African schools are sites of gender discrimination.[50] This discrimination is manifest in school regimes that do not question, but in fact reproduce, norms associated with male achievement and female subordination. The difficulties for teachers in using the curriculum to question and change these assumptions are compounded by employment practices, which often make it difficult for women, who make up a large part of the teaching profession, to gain promotion.[51] Although the HIV epidemic offered many opportunities for schools to engage in reflection on questions of sex and gender, and some creative engagements emerged, it was often very difficult to challenge deeply-held assumptions. Many studies identify practices of gender-based violence in schools or associated with teachers and the policy challenges that these entail.[52–54] Clearly education policy concerned with promotion of greater equality needs to recognise the ways in which schooling encourages inequitable gendered relations and the ways in which policies and practices might themselves constitute gender relationships. Working with the MDG framework means that a country can have fulfilled the target, but this does not always achieve the spirit of the goal.

Equity

The issue of equity arose in the analysis of most MDG sectors. It is a central issue that has its roots in the initial formulation of the MDGs as poverty reduction and development goals targeted at poor countries, rather than global goals created for all countries. Issues of inequity within the MDG framework are not obvious, but they could be the most serious shortcoming of the MDGs because they associate the MDGs with minimally ameliorating major areas of need for a proportion of the population, rather than diminishing the major gaps between wealthy and poor people, both within and between countries, in ways that benefit everyone.

In this context, inequity means inequality that is unfair. Fraser[70] developed an expansive notion of gender equity that goes considerably beyond equality. She associates equity with practices that confer dignity for all, and that are against poverty, exploitation, marginalisation, and misogyny. Additionally, these practices entail fairness in relation to income and leisure time. This definition alerts us to inequity as a process that entails not simply assessing amounts of a particular health, income, or education goods, but also paying careful attention to the relationships associated with distribution. The MDGs enable us to focus on access to minimum levels of provision in health, education, or earnings, but they do not go far enough to address unfair social relations associated with crossing a line of minimum adequacy.

Part of the difficulty in making targets go far enough is the way in which inequity is measured. Inequity is usually described in economic terms, most frequently as wealth quintiles, based on possessions owned by the household.[71] This is a convenient approach that can be applied to information such as the Demographic and Health Survey (DHS) data to analyse income or consumption. In many settings, wealth quintiles effectively indicate other inequities within a society. They draw attention to differences in key markers of access and outcome between those who do and do not have material assets, which provide a mechanism to examine differences between countries in terms of how these assets are distributed. Some specific measures of inequalities in wealth have been developed, such as the Gini coefficient which measures the extent to which distribution of wealth is uneven. Other measures are the ratio of the incomes of the richest 10% or 20% of the population compared with the poorest 10% or 20%.[72]

The use of wealth quintiles as a means to measure equity has featured explicitly in only one MDG target, MDG 1 target 1A, for which indicators include measurement of a poverty gap ratio (between lowest and highest wealth quintiles) and the share of the poorest quintile in national consumption. However, wealth quintiles have been used extensively in analyses of health-related MDGs undertaken by the World Bank, UNICEF, and others,[73,74] and very recently in work into the distribution of education enrolment rates.[9] But wealth, income, or consumption are not the only features of inequity. Factors such as geography and ethnic origin might be more important in identification of inequities, both in access and outcome of health interventions.[75] In rural Papua New Guinea and Ethiopia, the most important determinant of access to health care, and health outcomes, may be geography. Asset indices do not always predict health outcomes. In some settings, geography, ethnic origin, or other factors might be more dominant factors. But the absence of measures that capture these other factors across different societies means that these features of inequity in distribution are overlooked.

Importantly, asset indices cannot inform us about the gender dynamics of wealth distribution within a household or a community.[76] Many household studies in developing countries show how little access women have to household resources.[77] This deficit comes into sharp focus when the household is faced with an emergency, particularly a health emergency. The outcome of such an emergency, especially when children are involved, is strongly affected by the extent of women's empowerment within a community.[76] Several studies in high-income countries show that inequality is often associated with other social ills. Wilkinson and Pickett[78] associate inequality in income with a range of aspects of ill health, such as low life expectancy, mental health problems, and obesity, and markers of social dislocation such as violence and imprisonment. They argue that societies with large gaps between rich and poor people have adverse consequences for everyone, including those who earn well. Their work and many other large-scale review studies on equalities[79] suggest that inequity means much more than inequality in income levels.

The notion of equity has a universal assumption in that it benefits all people, not just the disadvantaged sections of society. Preservation of inequity or lack of distribution for some, while addressing sufficiency or better for others, is not the way to maximise benefits for a society. Many of

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Panel 4: National implementation of MDGs in Malawi

Malawi has been orienting its development activities towards the achievement of the MDGs. This shift is evident from the development strategies that have been formulated by the government, the articulation of the development strategy in the budget process, and the commitment to monitor progress on the indicators of the MDGs.

The MDGs in Malawi are implemented through a medium-term development strategy known as the Malawi Growth and Development Strategy for 2006–11; its overall goal is to reduce poverty through sustainable economic growth and infrastructure development. The strategy focuses on six key priority areas: agriculture and food security; irrigation and water development; transport infrastructure development; energy generation and supply; integrated rural development; and prevention and management of nutrition disorders and HIV/AIDS.[57] There is a clear articulation about how the focus on these six priority areas is to contribute to the achievement of the MDGs. The budget framework is also fully aligned to the strategy, and by implication to the achievement of the MDGs, by being framed in such a way that it reflects expenditure allocations to pro-poor sectors in Malawi.

Since 2006, Malawi has been monitoring its progress towards the achievement of the MDGs and assessment of the possibility of achieving the targets by 2020. The Government of Malawi, through the Ministry of Planning and Development Cooperation, publishes the Malawi MDGs report every year. The most recent 2008 Malawi MDGs report documents remarkable progress in many areas and projects that some of the goals are likely to be achieved by 2020. Progress has been registered in eradication of extreme poverty (MGD 1); reduction of child mortality (MGD 4); and combating of HIV/AIDS, malaria, and other diseases (MDG 6); while daunting challenges remain in improving maternal health, achieving universal primary education, promoting gender equality, and empowerment of women. In terms of achieving the MDGs, the recent assessment shows that Malawi is likely to meet the 2020 target for MDGs 1, 4, 6, and 7, while MDGs 3 and 5 are unlikely to be met and MDG 2 is potentially feasible.[58]

The very substantial progress that has been made in MDG 1 in reduction of the proportion of the population in extreme poverty from 53·9% in 2000 to 45% in 2006 has been achieved because of several interventions—eg, the implementation of the agricultural input subsidy, introduction of social support programmes for vulnerable groups, pro-poor allocation of public expenditures, and macroeconomic management leading to positive economic growth rates in the past 5 years. These interventions have been assisted by good weather and high tobacco prices, and high political will to implement pro-poor programmes. The implementation of the agricultural input subsidy has enabled the country to produce more food, with the stunting and wasting of children younger than 5 years falling from 6·4% and 6·8%, respectively, in 2005, to 4·9% and 5·8% in 2007. Poverty reduction and food security have been at the centre of the political and development agenda of the country, and MDG 1 has added impetus to the implementation of programmes aimed at reducing poverty in the country.

the targets associated with the MDGs focus on improving conditions for some, but not addressing wellbeing for all. This inequity is the case for all targets that focus on changing the proportion of people experiencing a particular hardship—eg, reducing the maternal mortality ratio or the proportion of people living on less than $1 a day. Even when these MDG targets are achieved, a proportion of the population would remain below a line of adequacy and the inequities within a society would not be resolved. Reduction of the number of people living on $1 a day or less will relieve some people from extreme poverty, but only just. If action is directed only at those near the threshold, the effect might be to increase inequity, pulling those accessible populations across the poverty line, thereby widening the gap between them and those still below the threshold. The fundamental inequities in income distribution will remain and will continue to erode the foundation of society.

The MDG approach has led to a social policy that has focused on the easiest way to bring particular groups just above a poverty line relating to income levels, school enrolment, etc. This approach has been beneficial for some populations, but still leaves problems of marginalisation, poverty, inequality, and little dignity for many people whose specific circumstances often disappear in aggregated reporting on MDG achievement. For example, in India in 2005, children achieved an average 7·5 years in school, nearly completing a cycle of primary and elementary education. Children from the richest quintile, both boys and girls, completed on average 11 years of schooling, whereas boys from the poorest quintile completed 5 years of schooling, and girls completed only 3 years.[9] Thus, although India was on track to meet the MDG 2 target, inequities in educational opportunities were being perpetuated between different population groups, and between the sexes. For MDG 7, improvements in access to improved sanitation are substantial, but are also strongly associated with the wealthiest quintiles of the population.[4] Health interventions associated with MDGs 4, 5, and 6 are mainly applied through established health services, tending to favour the same individuals who have been covered by previous interventions. They might live near the road or the health post, have relatives who have been trained as health workers, or have access to information. Those who are both geographically and socially far away from the rest of the population do not receive the intervention. A district level study[80] of child mortality in Tanzania since 1988 draws attention to the fact that in a poor African country that has made admirable progress towards child survival, there is substantial variability in the progress made, and the districts that were doing well in 1988 improved at a greater rate than did the poorer districts. Thus the improved child survival that Tanzania has recorded has been at the expense of worsening geographical inequity.[80]

In education, many countries have expanded access to primary education through abolishment of school fees (eg, Mozambique, Ghana, Ethiopia, Kenya); however, this intervention has not always meant that all costs associated with schooling are lifted from poor parents or that high-quality education is delivered. Indeed, in many countries the poorest children have the least qualified and supported teachers. Often the language of instruction at school used by teachers is not the same as that which children speak at home. Families struggle to meet the hidden costs of schooling—eg, costs associated with clothing, transport, or additional tuition.[9] Free education is not necessarily associated with improved equity since other factors, such as attitudes of blame,

distancing, or marginalisation, maintain existing inequities.[81] Although some countries have worked to improve the provision of education to the poorest groups through a focus on improved teacher quality, better learning materials, and social assistance, realisation of this policy remains a challenge, particularly in schools for the poorest children.[82–84]

Thus the MDGs promote an approach that might systematically exclude individuals at highest risk, achieving improvements on indicators by focusing on those populations that are easiest to reach. This is not a new occurrence. Even before the appearance of the MDGs, for example, most countries that made substantial gains in child survival between the 1980s and the 1990s achieved these gains at the expense of increasing inequity, since successive interventions targeted and excluded the same groups of children as before.[85,86]

The approach underpinning the MDGs and their targets for poverty, education, gender, health, and the environment is the attainment of a specific minimum standard for a proportion of the world's people. There are other possible approaches that would be more equitable. For example, the target might be fully adequate provision for all, taking account for particular heterogeneities, or it might be narrowing of the gap between the most privileged and the most deprived, ensuring that no group is below a level of adequacy. A deliberate, pro-poor or human rights approach can be taken, actively addressing inequities and realising rights for the poorest people. Some countries, such as Peru, have deliberately adopted a pro-poor approach to child-survival strategies.[87] Unfortunately, such countries are the exception.

In conclusion, the present MDG framework does not address inequity by maintaining a concern with just adequate provision for some, ignoring the needs of those who are too hard to reach and not addressing the difficulties of inequality in societies that seem to have deleterious consequences for everyone, not only the poorest people. More equitable MDG targets would not only help those near the threshold, but could direct improved, rather than minimal, resources at the poorest groups.

Part 3: framing of future development goals

Introduction

The MDGs have had a substantial effect, both with respect to focusing resources and efforts on important development objectives, and also more generally in raising public and political interest in the development agenda, engaging for the first time a wide range of sectors and disciplines in a concerted effort. As we approach the UN Summit on Sept 20–22, 2010, the two-thirds mark towards the target date for the MDGs, attention is focused on the achievement of existing goals. But there is also much interest in what happens after 2015. Many different views have been expressed about that future. Sumner[88] has suggested three broad options: (1) continue with the same MDGs, with or without a timeline (Sachs has argued for 2025);[89] (2) create new targets, perhaps locally defined, with or without a timeline; or (3) combine the MDGs with something new (ie, an inner core of the existing MDGs, but add new and locally defined targets as an outer core).

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Manning has responded to what happens after 2015 by emphasising the need to move beyond conflating development with aid and to recognise the effect of global factors and changing international power structures.[3] The Chronic Poverty Report of 2008–09 argues for a new development agenda to include access to basic social protection for all poor and vulnerable people by 2020, universal access to post-primary education by 2020, and leading to the elimination of absolute poverty by 2025.[90]

In the final section of this report, we apply our cross-MDG, cross-sectoral comparison to consider the future of development goals. Hence we focus on what might come after the MDGs, in view of the MDG experience. This is not to belittle in any way the importance of trying to achieve the existing MDGs in the next 5 years. Our premise is that, whether or not present MDGs are continued, modified, or replaced after 2015, we should move forward having learned the lessons of the previous 15 years, and addressed any weaknesses that have become apparent in MDGs. In part 1, we examined individual MDGs and identified their specific challenges, which we used in part 2 to draw out common challenges that cut across the goals. We found that the core challenges relate to reducing gaps and fragmentation in the MDGs, enhancing their integration, improving targeting and indicators, and ensuring equity and ownership. The reasons for fragmentation, incoherence, and gaps in the existing MDGs lie in their origins; although they included goals from a range of sectors, a common, cross-sectoral vision of development was not the basis for their formulation. Rather, as we have noted in part 1, the specific goals that emerged from the MDG

Panel 5: The Zambian national health goals and MDGs

The Zambian Fifth National Development Plan is the means by which the government ensures progress toward the attainment of MDG goals, with progress tracked and reported by the Ministry of Finance and the UN Country Team. A review of the National Health Strategic Plan (NHSP) shows the great extent to which the MDGs have affected health planning.

In 1992, Zambia began implementing Health Sector Reform, with the vision to "provide the people of Zambia with equity of access to cost-effective, quality healthcare as close to the family as possible" guided by the NHSP. Although the 2001–05 NHSP reaffirmed the health vision, principles, and overall health goals of the Health Sector Reforms,[61] the theme adopted for the 2006–10 NHSP was entitled "Towards the Attainment of the Millennium Development Goals and National Health Priorities", indicating close alignment with the MDGs.[62] This alignment is reflected in the fact that seven of the 12 national health priorities focused on public health priorities whereas five directly addressed the three health MDGs.[63] However, although these priority areas were specifically singled out for special attention, the NHSP did include other health-care interventions.

Zambia's strategic alignment with the MDGs has benefited from the increased donor support for HIV/AIDS, tuberculosis, and malaria that was received in the first decade of the 21st century. The availability of financial and technical resources from donors such as the Global Fund, the President's Emergency Plan for AIDS Relief (PEPFAR), and the World Bank's Zambia National Response to HIV/AIDS (ZANARA) programme, among others, underpinned to a large extent the progress that has been documented towards attainment of MDG 6 directly. Particularly striking has been the progress made towards achievement of universal access to treatment for HIV/AIDS for all those who need it. By the end of 2008, 200 435 adults were estimated to be receiving antiretroviral drugs, representing 66·3% of the estimated need.[63] However, although the prevalence of HIV fell slightly to 14·3% in 2007[64] compared with 15·6% in 2002,[65] the results of the 2009 epidemiological synthesis study suggest continued transmission of infection, with 1·6% of the adult population becoming newly infected every year.[66]

This finding implies that to get close to attainment of the 2015 targets there needs to be a renewed focus on prevention of new infections. The National Prevention Strategy articulates the key drivers of the epidemic in Zambia and will guide the prevention efforts in the next 5 years.[67] Overall, the 2008 National Progress Report on the MDGs suggests that, with the exception of MDG 7, the country is likely or potentially likely to attain the MDGs by 2015.[68] However, continued reliance on external donor support implies that the sector is vulnerable to the global economic climate, as has been experienced in 2009. The ability to maintain any gains in health indicators after 2015 needs planning that will target the long-term sustainable development of the economy.

formulation process were largely targets established in independent, earlier sectoral initiatives, grouped together and edited for political sensitivity, to maximise broad international support. Looking forward, we consider that any project after 2015 should be built on a coherent and shared approach to development, which can guide action across different sectors including, but not confined to, addressing poverty, inequity, and environmental degradation, and improving gender equity, education, and health.

Definition of development

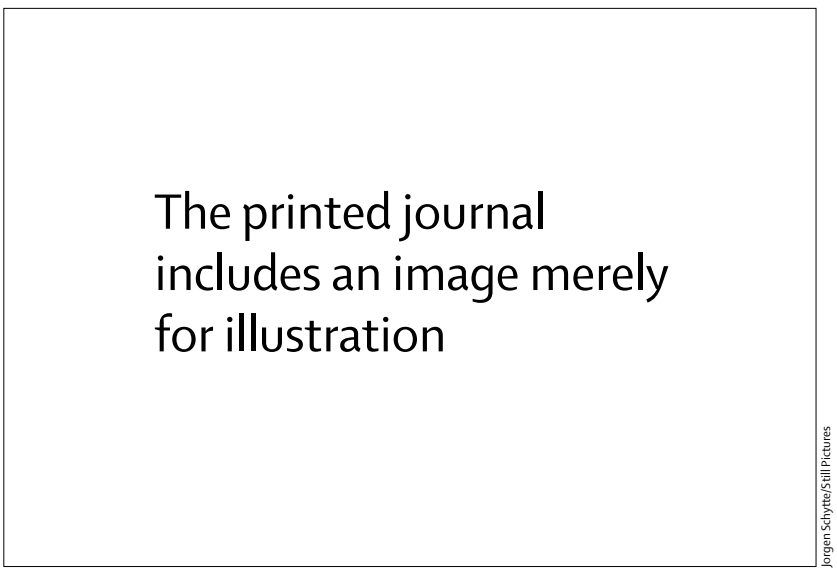
Development is an ambiguous, multifaceted, and contested notion that in different contexts and to different people can describe aspirations, outcomes, or processes concerned with wider political, social, or economic change. Different development approaches vary in their emphasis on these different elements of development—eg, on economic growth, modernisation, or structural change—and in their understandings of the natures of, and relations between, means and ends. Anand and Sen draw attention to helpful distinctions between ends (eg, wellbeing, freedom, and capabilities or expanded choices) and means (eg, wealth and economic growth),[91] in line, for example, with Habermas's[92] differentiation between human forms of communication and solidarity on the one hand and highly rationalised demands for economic efficiency on the other. They also emphasise the importance of considering universal intergenerational and intragenerational distribution together, to examine the potential for both complementary synergies (eg, in investments in maternal health and in education) and the competition for resources (eg, between present and future consumption) in discussions of sustainable development. Development invokes concerns with normative aspiration, process, and practice, which generally entail assessment.

We have already considered how different elements of the MDGs are compatible with, and indeed are derived from, different conceptualisations of development. The MDGs are fragmented not only in their implementation but also in their underlying conceptualisations of development and overlapping of means and ends. Thus economic growth is considered in MDG 1 (or at least in the dominant concept that economic growth is the key driver of poverty reduction); MDGs 2–6 are more concerned with basic needs and human development (although MDG 3 focuses on a particular end regarding one aspect of equity); MDG 7 is concerned with both environmental sustainability and basic needs (of sanitation and urban dwellings); whereas MDG 8 mainly addresses structural issues in international trading and financial systems and relations (although targets measure these in terms of Official Development Assistance [ODA] flows, tariffs and subsidies affecting trade, and debt relief). While this approach captures a range of development perspectives, it generates a poorly aligned mixture of means, ends, and sometimes competing ideas about normative aspiration (eg, economic growth *vs* sustainability), which has made the MDG project less useful than it could have been, since opportunities to link the goals together coherently have been missed and a rigorous approach to assessment has been overlooked.

Building on both our cross-sectoral analysis of the MDGs and other multidimensional understandings of development concerned with economic growth, livelihoods, entitlements and capabilities, equity, environmental and ecosystem services, and institutions,[93,94] we put forward an overarching conceptualisation of development that derives from an assessment of existing choices, and a clearer articulation of the relation of ends

and means. Hence, we are seeking to make operational some of the ideas that Amartya Sen outlines in *The Idea of Justice*.[95] Sen's argument is that elaboration of a vision of global justice at the present moment, when there are no appropriate institutions to deliver this vision, might be deemed an exercise in ideal theory; however, it is nonetheless important to focus on the choices that are actually on offer in a globally inter-related world, the plurality of principles and interpretations that might play a part in view of the different histories and contexts of people, and the permissibility of partial resolutions (ie, that making some things a bit better rather than waiting for the best resolution) could be an important step. Sen also emphasises public reasoning and attention to assessment of human lives in terms of capabilities—ie, reasoned values and the significance accorded by these factors.

Drawing from this method of assessment of existing human relationships, and identification of means and ends, we define development as a dynamic process involving sustainable and equitable access to improved wellbeing. This conceptualisation needs brief elaboration. There are many elements of wellbeing and increasing published work on its application and measurement.[92,96,97] Sen views wellbeing as a combination of the aspiration that "human lives can go much better" and an understanding that improvement can be brought about through a strengthening of human agency, a person's capability to pursue and realise things that he or she values and has reason to value.[98] Unlike conventional economics that equate wellbeing with happiness, Sen's capability approach suggests that aspects of wellbeing have to consider the things that we really value (whether they make us happy or not) and levels of deprivation, whether or not people report they are happy despite severe want. By suggesting that wellbeing is linked with capabilities—that is the freedom to enjoy various combinations of beings and doings—Sen draws attention to the significance of how different people necessarily have need of and make use of resources in diverse ways.[97] To consider heterogeneity as part of any evaluation of the freedom people have is therefore crucial. Social arrangements for development are thus to be assessed not in the space of resources (inputs) or of outcomes (happiness) but in relation to wellbeing, agency, and capabilities—that is the freedom to promote and achieve functionings that people value. In adoption of an understanding of wellbeing that derives from Sen's ideas, we define wellbeing as the freedoms and capability to make choices and act effectively with respect to, for example, health, education, nutrition, employment, security, participation, voice, consumption, and the claiming of rights. For each of these elements of wellbeing, there are important considerations of quality and quantity of achievement, of diversity in aspirations between different communities, of equity, and in some of these aspects (most notably those concerned with material consumption) of the need to recognise satisfaction from sufficient (as opposed to maximised) achievement, as diminishing marginal returns to consumption are overtaken by increasing marginal costs (including social costs). This approach helps access to improved wellbeing to be both equitable and sustainable. In this section we will discuss the nature and implications of equity and sustainability, but note here their importance as intrinsic features of our development notion.



Jorgen Schytte/Still Pictures

Jorgen Schytte/Still Pictures

Sustainable and equitable improvements in wellbeing are achieved by expanding access to services that deliver the different elements of wellbeing. The classification of services provided by the Millennium Ecosystem Assessment[99] is particularly useful, since it makes a distinction between moderating (or regulating), provisioning, supportive, and cultural services. This typology has wider applicability beyond the provision of

ecosystem services by natural capital (eg, forests, soils, wetlands, oceans). Thus physical capital (eg, infrastructure and equipment), human capital (eg, knowledge, skills, labour), and social capital (eg, institutions, relationships) all generate moderating (or regulatory) services that provide stability, promote resilience, and reduce systems' sensitivity to change. Similarly, these different types of capital also generate provisioning or productive services (producing goods and services for direct or indirect consumption), supporting services (supporting conditions necessary for and underpinning systems' existence and functioning), and cultural services (which provide communicative, aesthetic, recreational, or spiritual benefits). Finally, development has to be explicitly and fundamentally seen as a dynamic process of change. This view involves a plurality of perspectives with several stakeholders, who interact as individuals within and between households, organisations, communities, and nations, with differing resources and aspirations. Embedded and emergent properties in systems operating at these different scales mean that changes and transformations within them are interdependent and highly complex.[93]

This conceptualisation of development extends beyond that implicit in the MDGs, for which MDGs 1–6 in particular are focused on poverty reduction and the achievement of limited, indeed minimalist, standards of welfare,[13] with little emphasis on wider notions of development or on the condition of people who are not afflicted by extreme poverty. Our notion addresses issues that need commitment and action across countries of low, middle, and high income. In view of the arbitrary nature of the cutoff points in many classifications of poor and non-poor people, and the moral arguments that all people have an equal right to aspire to much more than escape from narrow and arbitrarily defined levels of poverty, we believe that development goals should extend beyond, but include, minimalist poverty reduction and survival goals.

Our notion also differs from the MDGs in another way. Gore[13,100] has suggested that the development of the present MDGs represented a switch from a procedural approach to development (involving common respect for rules, norms, and practices governing relations) to a distinctly purposive approach, involving the achievement of specific, agreed outcomes. Our notion incorporates both of these elements—it is purposive in that it identifies elements of wellbeing as targets to be achieved, and it is procedural in that it places strong emphasis on equitable, sustainable, owned, and scaled processes. Importantly, it adopts a holistic, maximalist approach while recognising that minimalist standards have a role.

However, this broader conceptualisation of development could threaten a core feature of the MDGs that has allowed them, individually and collectively, to achieve a high degree of international consensus and commitment. Only by limiting the scope of the MDGs and accepting gaps resulting from the omission of politically sensitive issues could parsimony and broad agreement be reached. Further, this agreement was reached building on some of the optimistic realignments of the 1990s in the aftermath of the end of the Cold War as a centralised process led by more powerful players with a pragmatic acceptance of the lowest common set of goals and indicators, defined to allow sometimes loose and sometimes narrow interpretations. However, any future project to develop the MDGs will be located in a very different global political economy characterised by the events after Sept 11, 2001, the emergence of a new security agenda, the effects of the financial crises, the emergence of China and India as significant economic and geopolitical players, and extreme caution about what global agreements can achieve in view of the failures of the Doha round on trade agreements and the Copenhagen conference on climate change.

Building on a broader notion of development should therefore recognise this history and address the dilemma posed by likely trade-offs between a comprehensive set of development goals, and comprehensive commitment to these goals. This approach will not be easy, but several development issues make the MDGs' focus on a set of goals aimed at increasing the material consumption of poor people less tenable. We draw attention to, for example, a growing acceptance of the need to address population growth, to recognise and restrict the environmental effect of human activities, and to understand the limitations of growth based on capitalism and neo-liberalism as a system for delivery of sustainable development. These issues have been ones for which comprehensive agreement is difficult to obtain from states with different ideologies and political systems, but they can no longer be avoided. Unterhalter and Carpentier[101] set out this challenge in terms of a so-called development tetralemma faced in the pursuit of mechanisms and systems that simultaneously promote equity, growth, democracy, and sustainability (in which a tetralemma is defined as analogous to a dilemma, but involving a set of four crucially important options for which each is necessary but not sufficient for sustainable development, and they cannot all be achieved together). Almost all present political and economic mechanisms and systems can only achieve some of these at the expense of others; hence they are compromised even in their initial achievements. Experience of the Copenhagen negotiations in December, 2009, on climate change targets and measures shows the difficulties in getting international agreements on complex and politically sensitive issues affecting international and inter-generational investments and concerned with countries' differing and evolving domestic aspirations and perceptions of rights and responsibilities.[102,103]

Guiding principles for development goals

We suggest that a more comprehensive concept for development should and can form the basis of a

development project after 2015, if that project follows five guiding principles. We derive these principles from our development notion above, and from our analysis in part 2 of the MDGs' strengths and weaknesses. They are: holism, equity, sustainability, ownership, and global obligation. We examine each of these in turn, but emphasise that they are not independent of each other, but closely interwoven.

Holism

By holism we mean the need to avoid gaps in a development agenda and realise synergies between its components. We emphasised in part 2 of this report both gaps in the MDGs and the way that their separation contributes to a failure to achieve integration and synergy between the elements that contribute to improved wellbeing. Figure 1 shows how this tenet can be viewed in terms of three core dimensions of wellbeing. It suggests that people's wellbeing and capabilities depend on human development (change in their individual human conditions and resources), social development (change in their social relations and resources), and environmental development (change in their access to and relations with natural and environmental resources). Progress on each of these areas is crucial for people's wellbeing, but they are also closely related to and dependent on each other. A formulation of development goals should start from these individual and interlinked dimensions. We also note that achievement of human, social, and environmental development as set out in figure 1 is dependent on underpinning development of physical capital and, in view of the global challenges noted earlier, population stabilisation. Neither of these are themselves core dimensions of wellbeing, but both are important for human, social, and environmental development.

The general identification of human, social, and environmental development as core dimensions for achievement of wellbeing is important for a holistic conceptualisation of development processes and outcomes, but it is too broad to be a practicable focus for development policy and action. For this approach we need to consider more specific elements that are necessary means and ends to achieve contributors to human, social, and environmental development and, as a result, wellbeing. These factors could be configured in many ways. By means of illustration, we present one set in figure 2.

Some of these elements clearly resemble existing MDGs. Some are presented differently to address some of the weaknesses that we have identified in the MDGs—eg, the lack of focus on learning, and the lack of the integration of health areas. Others represent areas excluded from the MDGs, such as human rights. An important feature of each of these elements is that it contributes directly or indirectly to human, social, and environmental development. The elements are holistic

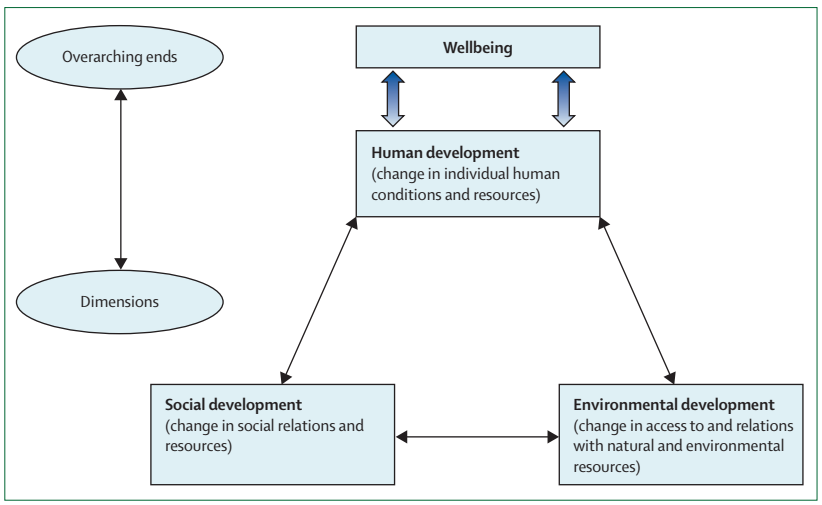


Figure 1: **Dimensions of development**

and interlinked and represent areas in which we can realistically in Sen's terms "do more and do better".[104] Access to water, for example, delivers human, social, and environmental elements of wellbeing, through water for drinking and sanitation, societal agreements on water sharing and use, and sustainable use of watersheds and management of pollution, respectively.

The absence of explicit reference to economic development or growth or to markets from figures 1 and 2 is not intended to suggest that economic growth is not important in development. Indeed it is crucial for funding investments in the delivery of services for most of the elements in figure 2, and underpins participation in and enjoyment of livelihoods (and employment) by which people both contribute to and access services from the local and wider communities of which they are a part. However, the dimensions and elements of development in figures 1 and 2 are higher level development ends, in whose pursuit economic development and growth are important means. Furthermore, the importance, nature, and extent of economic growth, and the roles of markets, governments, and other institutions (eg, civil society) in achievement of these ends are context specific. Thus growth is less important in more wealthy economies, where more attention might be needed for issues of sustainability and reducing the negative effects of material consumption on the environment. In poorer economies, however, economic growth is likely to be more important.

We present the elements in figure 2 as indicative. They might not describe all the essential elements contributing to wellbeing, or they could be configured or combined better—any changes or additions need to be considered in a similarly interlinked approach. Further, we do not propose these elements as a list of future MDGs. In view of experience so far, expansion of MDGs from eight to 13, and adding the targets and indicators that achieved the linkages intended, might considerably weaken the virtue

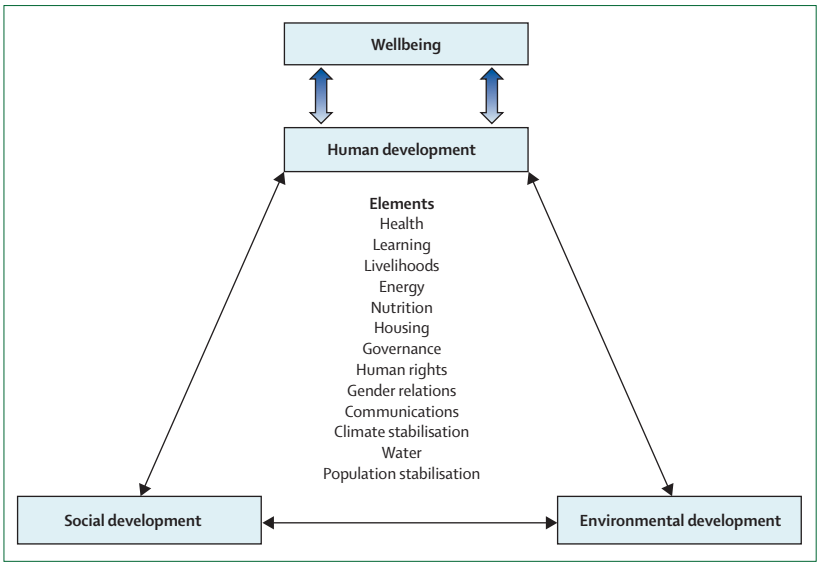


Figure 2: **A set of development elements that contribute to human, social, and environmental development and wellbeing**

of parsimony in attracting public attention and financial investment (although the pursuit of synergies might also allow some reduction in targets per goal).

Prioritisation would be a process with a strong political element, as with the existing MDGs. We emphasise here that any selection of priorities for targeting should be done through an approach that identifies the elements that deliver most human, social, and environmental development, and, in subselecting from these elements, recognise and accommodate as best as possible the gaps that will arise and the linkages that such gaps might threaten. We suggest that this approach would be better than assembling specific, independent goals to make a development agenda, as was done with the present MDGs, with retrospective filling in of gaps and making of linkages—a process that has had limited success because of complexity and lack of ownership.

Another aspect of a holistic approach to development goal setting concerns operational choices in delivery of services. In this approach, holism suggests that there has to be the opportunity for co-action across elements and synergies in relation to service access for individuals and communities. The absence of this, for example, with interventions in health in one part of a country and interventions in education in another, could contribute to marginal, sectoral increases in wellbeing, but fail to capture the added gains from joint investments in education and health in the same groups of people (eg, improved health services reduce children's absences from school and improve their participation and concentration at school, while education can improve uptake of health services).

However, we realise that one practical consequence of this operational application of the principle of holism might be a potential conflict with our principle of equity. Undertaking a series of intervention programmes addressing different areas for action in the same localities with the same households could yield large benefits for these households and communities. However, it would be unfair and inequitable if at the same time other poor localities missed out on all interventions because resources were insufficient. Thus, to continue with our example above, added investment in education in one part of the country and added investment in health in another might seem to be more equitable, but such equity might be achieved at the cost of losses in effectiveness and efficiency. Nonetheless, working with Sen's advocacy of partial resolutions submitted for public scrutiny might allow for these rationales to be assessed.[94]

Equity

The analysis in part 2 drew attention to inequity as a major problem arising from the formulation of some MDG goals, targets, and indicators. To go beyond these shortcomings, we see equity and fairness as a key principle for future development goal setting. Equity expresses some of the values associated with justice which we see as intrinsic to the notion of development that we have elaborated. Sen has argued that aspects of equality, whether these are related to rights to hold property, vote, or earn the same level of income, are a core component of ideas about justice in the contemporary world.[105] Although differences might exist with regard to what type of equality is valued or emphasised, equality in some space is a central aspiration, and the notion of equity distils the types of social relations entailed in ensuring this aim. Drawing on changing meanings of the word equity in English from the 14th century, Unterhalter[106] has identified three different levels of equity comprising equity from above, which needs a fair system of institutional arrangements; equity from below, which entails processes of participation and discussion; and equity from the middle, which ensures the efficient flow of services, information, and investment. All three are necessary and complement each other, emphasising aspects of holism discussed in the previous section.

Equity is often discussed in terms of equity of opportunity or outcome. Ensuring equity of opportunity is often associated with putting in place the institutional arrangements for managed provision of health, education, or employment services. In an economy, these services and opportunities provide employment or provide credit for investment in producing goods to generate income. In education, they include providing appropriately sited schools, making universal opportunities for school attendance, and access to the curriculum through an appropriate language policy and training sufficient teachers. In health, provision of these services means building sufficient health facilities, training staff, and ensuring a supply of drugs. For the environment, it means providing access to clean water and air, and harvestable natural resources resulting from the

responsible management of land and water. However, the mere provision of these institutional arrangements does not go far enough if there is inadequate attention to the quality of provision, or if the needs of the most disadvantaged groups are greater than the rest. Addressing equity in opportunity entails thinking about aspects of heterogeneity, providing services that recognise this and treat people, no matter what their different circumstances, with dignity.

Equity of outcome provides an alternative assessment of whether personal heterogeneities have been considered in relation to health, education, or poverty elimination. Processes that can help to secure this entail attention to participation in the evaluation of services, concern with affordability, and adaptability of services to meet diverse circumstances. A principle of equity in development goal settings needs, therefore, to address equity of both opportunity and outcome. Achievement of a level of wellbeing for all people will need the development of a more equitable world, built on more equitable societies in which there are adequate flows of information, understanding, resources, training, and respect to enable diverse individuals to attain a decent quality of life. The principle of equity applies across generations (including elderly, middle aged, and young people, children, and unborn babies, and thus incorporates sustainability) and within generations (eg, across nations, social groups, and gender).

Equity requires a focus on the needs of each community or country, and the particular historical, geographic, linguistic, or gender dimensions of inequity. A simple approach to this requirement in goal setting is to build into survey instruments the variables needed to analyse the true determinants of inequity in health, learning, food security, and other outcomes. These variables will usually be seen as economic (wealth quintiles), geographic (distance from a functioning service—eg, health facility or school), ethnic (belonging to a deprived or discriminated ethnic group), age-related (children, young families, elderly people), or associated with gender (touching on distributional issues inside the family and capacity to participate in the labour market or decision-making bodies). Information has to be disaggregated so that inequity in one parameter is not obscured by another. Once the most appropriate variable, or variables, have been identified for a specific country, they can be incorporated into access, process, and outcome indicators and can then be monitored, both as national averages, and as markers of trends to reduce inequities.

To ensure equitable outcomes, assessing equity also entails establishing processes for improved participation in collective public discussions and decision making concerning not only aspects of learning and health provision, but also all areas that affect people's wellbeing. These include global, national, and local economic policy and political issues at all levels, and are related to the principles of ownership and obligation.

Sustainability

Sustainability was not explicitly or implicitly addressed in the MDGs, apart from in MDG 7 from the perspective of environmental sustainability and sustainable development. These two different notions—the first relating to protection of ecosystem function and services, and the second to economic growth that protects the opportunities of future generations[107]—are important features of a comprehensive development concept. However, sustainable wellbeing is broader than both these ideas.

We define sustainability of a system that delivers an outcome, such as wellbeing, in terms of its capacity to persist, and to resist or recover from shocks that affect its productivity.[108] Sustainability is an important feature of the different development dimensions and elements identified earlier; economic and financial sustainability arises particularly from processes of social development, and from human and environmental development. Sustainable action should be a practice of all stakeholders who have power over the resources a system uses, and it will apply to all scales (eg, from households to nations, from fields and small stream catchments to river basins). Such sustainable action is hard to achieve, but is made easier when different services can substitute for each other to improve sustainability. For example, the sustainability of nutrition as an element of wellbeing can be supported by development of improved agricultural and environmental systems, by improved trade and the equitable distribution of foodstuffs, or by changes in personal livelihoods or behaviour that give individuals more reserves to survive periods of want. And sustainable wellbeing depends on children and young people learning how to learn in order to make full use of improved agricultural, environmental, and distribution systems, and to develop resistance to shocks in health and income in the future.

A broad but clear understanding of the role of productivity is crucial to understand sustainability. Productivity needs to be defined in terms of a system's delivery of the provisioning, supportive, regulating, and cultural services that we discussed earlier. Not only does productivity have to be viable in material terms (not depleting resources below stocks needed for the system to operate), it also has to be both viable and acceptable in social and economic terms. Therefore, all stakeholders with (formal or informal) control over resources need to have the ability and incentives to support the maintenance of the system. We draw attention to two implications from this tenet. First, growth in productivity is crucial for the sustainability of many systems, but not a necessary feature of all systems, and the nature and rate of growth needed in a system will vary with the aspirations of stakeholders, changing pressures on systems, and socioeconomic structures and relations. Thus increasing population and aspirations for substantial improvements in wellbeing for poor people makes strong demands for productivity growth, but

economic growth associated with increases in material consumption will not be as important for some advanced economies and their sustainability. This notion brings us back to our discussion in part 2 of this report of targets and the important, but widely misunderstood, distinction between global and national targets. Although the sustainability of the planet needs substantial reductions in productivity growth globally, the poorest countries might need to achieve high productivity growth to raise the incomes of the poorest. Second, both equity and ownership are needed in the management of systems and the returns that they offer to different stakeholders. Failure of crucial stakeholders to perceive that they or others benefit fairly from a system will lead to their withdrawal of resources from that system and its eventual collapse. The requirements of sustainability are therefore inextricably linked with our other principles of holism, equity, ownership, and global obligation.

Ownership

The principle of ownership arises from our analysis in part 2 (and particularly the lack of MDG ownership that might exist nationally), from our conceptualisation of wellbeing as including participation and voice, and from our consideration of the requirements for sustainability. Much of the discussion of ideas of global social justice focuses on the problems of attending to different local, national, regional, and global communities, and the politics of articulating and negotiating very different interests,[109,110] and our method for elaboration of this conception of development has taken as a starting point the acceptance of a plurality of societies in the world.

We have seen in our examples from different countries that MDGs have usually been incorporated into national development programmes where they fit local priorities. Alternatively, MDGs could stimulate a change in national priorities if donor funding for MDGs causes governments to change their strategies to take advantage of opportunities for external investment. These observations suggest a need for greater ownership of the process of goal development both nationally and internationally. Questions about who sets goals, how they are represented and legitimated, and what relationships they have with targets must be of central concern. National and local ownership and a new framework for international partnerships will be crucial for what comes next, both in terms of reflection on the nature of global obligation and the establishment of particular goals and targets.

We propose that the search for developmental goals after 2015 should begin from a comprehensive conceptualisation of development and the core development principles proposed to govern both the specifications of development goals and the processes by which they are specified. This process should be undertaken, and its product owned, by all countries by use of forms of open discussion and public scrutiny, as suggested by Sen,[95] and we emphasise therefore that our set of principles and elements of wellbeing are only examples of what these principles and elements might look like.

However, these goals might subsequently have to be narrowed or otherwise amended to achieve comprehensive commitment to the development agenda. Goal setting at this level should focus on the planning of national and local programmes by national constituencies. National priorities will differ, but all agreed elements of wellbeing should be considered, such that differences reflect local priorities. Priorities would need to be developed through an equitable process of discussion and deliberation with some agreed processes of how consensus was to be reached with regard to national priorities. Operationally, a process that is given sufficient time to include civil society participation (and appropriate accountability processes) would be needed. A focus on local priorities would be important to ensure that targets set are locally relevant, not only national aggregates, and that they do not aim too low.

National target setting would need an element of regional and global input, especially to address environmental development needs that are supranational, such as climate change adaptation and mitigation, and to address international issues such as the effect of trade or migration of skilled workers on human and social elements of wellbeing. A process to integrate local, national, and regional priorities to generate national, regional, and global targets will thus be needed, with mechanisms to reach consensus. Although brokering and negotiation between powerful players is one way to achieve this process, a better approach might be to adopt mechanisms that allow subsidiarity, opt outs, or variations in specification of targets between global, regional, national, and subnational jurisdictions—although of course these are not without their challenges.

Equally important for ownership is a mechanism to review progress towards targets that ensures national dialogue (involving governments and civil society) around the targets and the data associated with them. This mechanism could entail: independent national bodies established and tasked with monitoring progress with wide participation of a range of groups; national collection and review of data; external comparative analysis in partnership with multilateral bodies or international organisations; and national analysis and decision on action in the form of public, parliamentary, press, or other forms of debate and discussion. The changing international architecture of the UN would be an important backdrop to this process, with action to avoid the present fragmentation of development goals between different UN bodies, through strong central leadership. UN agencies could assist with the circulation of information, convening of meetings[26] for crucial reflection across countries, and identification of where particular resources for initiatives might be located. But the dynamism associated with other cross-national organisations of civil society would also be an important resource.

Global obligation

The experience of 10 years of work on the MDGs raises serious issues for debate about global justice, both as an important area of normative discussion and in terms of institution building and practical politics. Commitment to the MDGs implicitly or explicitly involved commitments to large transfers of resources from developed to developing economies and, in MDG 8, commitments to address inequities in structural relations between countries. However, despite delivery of the resources needed to achieve some MDGs, relations between developed and developing countries are largely characterised by unmet political and financial commitments from developed countries. These commitments can be attributed to a failure by political leaders and voters to recognise and own international development obligations.

The question of what the nature of our obligation is to people who are not citizens of our country raises a range of complex philosophical and political challenges.[111,112] In a particular country citizens share a government and many political, economic, cultural, and social relationships that make up everyday life. The areas of MDG focus—income, nutrition, education, health provision, water, and housing—are all areas that became the focus of state policy and practical intervention in the 20th century. Thus governments became a key locus of obligation for social protection.

But there is also a long history of civil society concern with people who live beyond national borders. Global ties of affiliation take in members (or intended members) of a particular faith community, and members of a group connected by attachment to a common language or set of practices. Links beyond local or national boundaries also have connected people affected by particular global economic injustices, such as slavery or racism, and those who have been outraged at its practices. Women, who are often discriminated against in their own societies, express the view that they share more with women in other societies than they do their own. This view is polemically captured in Virginia Woolf's statement written in the mid-1930s: "As a woman I have no country. As a woman my country is the whole world."

The question of the nature of global obligation in the contemporary world with regard to specific present MDG areas (eg, education, health, gender equality) has been much debated,[113–115] with positions ranging from the need to emphasise national priorities and processes to concerns to establish some intermixture of national decision making and global review that preserves a perspective on adequacy, fairness, and response to discrimination and deprivation. Reflections on the failure to reach a legally binding agreement on climate change at the UN Summit in Copenhagen, in December, 2009, suggest the difficulty of establishing truly global agreement regarding obligations beyond boundaries. Further, the focus of Copenhagen was on a subject, climate change, for which global inter-relationship of states was much more evident than can be argued for other aspects of human, social, and environmental development relating to health, livelihoods, learning, energy, etc. Yet nowadays all these elements have global dimensions that link national and local interests—a fact made particularly clear from the recent food security and financial crises. In view of the enormous difficulties of establishing an institutional architecture at the summit for any ambitious vision of global obligation with regard to climate change and its effects, what is the best that can be hoped for the notion of global obligation with regard to the MDGs?

We argue for the importance of a position on global obligation that values human rights with respect to human, social, and environmental development. Thus our concerns with wellbeing are not just limited to the obligations we have to citizens of our own country, but to individuals everywhere.[116] However, we would also argue that the expression of these values does not dictate a particular set of responses. Indeed, the form of the response will differ in different locales, given particular histories, and present form of social and political relationships. In looking forward to a future for development goal setting, we argue for maintaining and deepening the sense of global obligation that they represent. One way to achieve this would be to deepen levels of local and regional ownership of the process. In this way the powerplay and international politicking that was evident at Copenhagen might, to some extent, be reduced.

The challenge for taking forward the MDG vision entails not only developing and deepening the normative language of shared obligation on selected areas, but putting in place institutional frames and political processes that can help to build and support this process. Can UN reform address this institutional challenge for global obligation? In January, 2008, Ban Ki-moon outlined leadership on achieving the MDGs as an objective of UN reform. The Secretary-General stressed the importance of improving capacity, developing synergies, and building partnerships,[117] but the politics of achieving these aims has been very complex. The effects of the financial crisis and fiscal austerity on the aid budgets that might finance this development and on the local resources that might sustain it remain unclear. A further difficulty is that the UN's hopeful aspirations for human development co-exist in a globalised political economy that is marked by substantial inequality and exploitation.

Finally, ensuring that the framework is seen as a global framework, rather than just one affecting developing countries, is important in setting a future development agenda. It means that all countries, rich and poor, have obligations and subscribe to targets for which they are accountable.

The future of health development goals

In this final section we show the application of our proposed principles to one particular element of

wellbeing. We have selected health, since it has been a major feature of the MDGs, being the focus of MDGs 4, 5, and 6, and an element of MDGs 1, 7, and 8. We consider how each of the principles presented in the last section might apply to the development of future health goals. In many cases, what we propose can apply equally to other elements of wellbeing—eg, energy, learning; hence this approach is very much a procedural template for all development goals.

A holistic approach to health development

Application of our principle of holism to health development would, first, mean a greater focus on the broad health gains that can be realised through an integrated health systems approach, with a better balance between horizontal and vertical features of health action. Key areas of inequity would need particular attention, including those addressed by specific, present MDGs. But a more holistic approach is best built on a framework of reasonable health expectations over a lifetime, which would address present gaps and accommodate differences in health challenges in different countries.

Such a life course approach could identify the following stages and expectations:

- Pregnancy: access to antenatal care; adequate maternal nutrition; protection from exposure to dangerous infections and toxins.
- Infancy: a reasonable probability of survival coupled with access to a loving parental relationship; protection from death or disability attributable to malnutrition, vaccine-preventable and other infections, trauma, or other causes.
- Childhood: quality primary school education; safe space for play at home and school; protection from abuse in the home environment; cognitive and social development; adequate nutrition and protection from both hunger and obesity.
- Adolescence: reproductive and sexual health; increasing autonomy; self-respect; access to social security for those with learning difficulties; fulfilling potential.
- Adulthood: access to care, diagnosis, and treatment for major causes of death and disability (childbirth, non-communicable diseases, mental health, major infectious diseases); employment opportunities and a social welfare net.
- Elderly: social inclusion; dignity in dying; dementia and disability services.

These stages would be provided within the framework of a health system encompassing the building blocks of service delivery; health workforce; information; medical products, vaccines, and technologies; financing; and leadership and governance (stewardship).[118] A functioning health system is the sum total of all the organisations, institutions, and resources whose primary purpose is to improve health. It should provide responsive and financially fair preventive and treatment services, and population-based public health activities including community mobilisation in pursuit of health improvement. A new health development agenda would look for parallel requirements between various conditions, and seek to capitalise on synergies. For example, antenatal care services have high coverage in many settings, and are now being used to deliver malaria and HIV services. General support of cross-cutting issues such as financing, governance, accountability, and some elements of human resources and information systems can also include an emphasis on accountability for progress towards specific conditions.

A desirable feature of such a holistic approach with its emphasis on the life course and on the health system is its contribution to synergy with other elements of wellbeing. For example, there is implicit here a greater focus on prevention of poor health, which links with learning in childhood and adolescence in particular, and with the specific needs of women. Not only human, but also social and environmental dimensions of wellbeing, would be needed to address health over a life course—eg, the social capacity to provide for elderly people and the environmental capacity to ensure provision of healthy diets and reduced pollution, restricting chronic disease in adulthood.

From an operational point of view, holistic health targets and interventions would need to be linked with complementary targets and interventions for other elements of wellbeing, so that these synergies were realised. For example, in the case of learning targets which relate to health, that health and learning programme interventions reach the same groups of people is important. However, educators and health workers do not have to be working alongside each other. Rather, those who plan education and health interventions should work together on how to target different groups, balancing the value of coordinated action with the possibility that the groups most in need of health and education interventions might not be the same.

Some interventions need planning at the household, village or local community, region, or country level, and there may for some services be economies of scale in integrated (rather than simply coordinated) service delivery. Planning for learning and health, for example, will generally need collaborative planning involving more than one line authority but a clear division of labour for subsequent implementation. Ongoing monitoring and assessment of progress, however, would often benefit from some degree of joint action by representatives of more than one group, particularly for identification of the highest risk groups. Evaluation of inequities in this area and monitoring the effect of interventions on these inequities should be a joint activity.

The Countdown to 2015 initiative, a suprainstitutional collaborative effort of concerned individuals and partner organisations, provides a partial model for how linkages can be built. Together with the Partnership for Maternal, Newborn and Child Health, it attempts to bring together

the diverse technical health communities for the constituencies of maternal, newborn, and child health, using a continuum-of-care paradigm. Moreover, within MDGs 4 and 5, it tracks coverage levels for health interventions that are proven to reduce maternal, newborn, and child mortality. A range of indicators are assessed, from mortality effects, outcomes such as immunisation coverage, and health inputs (such as emergency obstetric care facilities per population), to policies such as legislation around maternity leave. Equity and health-system indicators are specifically addressed.

Equity and health

We have identified equity as relating to both intergenerational and intragenerational processes. Applied to health, intergenerational equity involves the recognition, for example, that maternal health contributes to child health, and child health and development to health later in life, including reproductive health. A so-called life course approach described above is one way, therefore, of embedding intergenerational equity in health development, since it places emphasis on actions in one generation that promote the health of subsequent generations. Environmental actions that protect health-related ecosystem services—eg, the provision of clean water and air—are particularly important for inter-generational equity because environmental change is so slow and difficult to reverse.

With respect to intragenerational equity in health development, our aim is to ensure that efforts to promote human development do not continue to leave behind the most vulnerable and marginalised individuals or communities. Therefore we advocate the use of our growing understanding of equity to focus on the most disadvantaged sections—the equivalent of a pro-poor approach. Wealth quintiles have found useful application to the MDGs, particularly with respect to poverty and health targets.[73,74] Analyses based on this approach have been instrumental in drawing attention to the extent to which recent progress in many areas has been at the expense of growing inequity. However, when applied nationally, results based on wealth quintiles do not always seem to make sense. Sometimes this situation arises because the key drivers of inequity are factors other than economic poverty, so economic poverty might understate the disparities that exist. At other times they point to fundamental problems with the data itself, such as systematic under-reporting. In some African countries, reported levels of neonatal and infant mortality are substantially lower in the poorest quintiles than some of the wealthier ones.[119] This effect is almost certainly due to systematic under-reporting in the poorest and most marginalised groups, who are likely to be suspicious of young data collectors coming from the cities. Adjustment for these effects would produce a more accurate, but less welcome estimate of child mortality for the affected countries.

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As we have discussed previously in this report, inequity has many dimensions. Economic inequity (or poverty in its narrowest definition) is the most important dimension in many settings, yet it is not always captured by analyses based on wealth. From the perspective of uptake of health services, what really matters is access to cash when it is needed to take care of an unexpected illness in the family. Furthermore, the cash must be accessible for the person taking care of the sick individual—eg, a mother taking care of her child, or a woman needing ongoing treatment for a chronic disease. Too often women do not have access to cash. Thus, gender becomes an important determinant of inequity. Systematic disempowerment of women is a pervasive barrier to development in all areas, most particularly health and education. In some settings, particular ethnic groups are also disadvantaged, and unless this inequity is highlighted and understood, such groups cannot be effectively targeted.

In some countries, geographical barriers become an important determinant of access to health and education services. Such barriers could be mountains (eg, in Ethiopia, Papua New Guinea), desert (eg, in Niger), or the sea (eg, in many small island communities in the Pacific). In large countries such as the Philippines, inequity can be determined differently in different regions.

To address inequity in health development, therefore, we need to improve understanding of inequities within and between communities, both nationally and subnationally. In some settings socioeconomic factors will be the main determinants of inequity, in terms of education, health, and other areas. In other settings, geographic factors, ethnic origin, or gender can be important determinants of inequity. Simple methods are needed to enable countries to decide which factors are most important for them, and to monitor inequities in

Panel 6: Development of health goals in Thailand beyond the MDGs

Thailand has achieved almost all the MDG targets well before the 2015 commitment, and introduced a concept of MDG Plus—a set of country-specific targets going beyond the international MDG targets. All MDG Plus targets were taken from the agreed targets in the national plans and strategies of line ministries in consultation with all relevant partners. MDG Plus is equity sensitive by going beyond national average goals, making the global MDGs a floor instead of a ceiling. By adopting goals and targets that are customised to local needs and priorities, MDG Plus has become a central theme in Thailand's multisectoral human development movements.[122]

In 2002, the MDG poverty target of halving, between 1990 and 2015, the percentage of people living in poverty was reached.[123] MDG Plus aimed to bring down poverty incidence further to less than 4% by 2009, and the continuing trend of poverty reduction suggests this target was achievable despite the unforeseen global economic crisis of 2008–09. Additionally, the percentage of people living below the food poverty line and the prevalence of the underweight in children younger than 5 years have exceeded the 2015 targets since the early 2000s. MDG Plus gave special attention to children in northern highland provinces, where there are higher rates of malnutrition, and shifted focus from protein and energy deficiency, which were not problems, to micronutrient deficiency and in particular iodine, iron, and vitamin A in school children.

There are several lessons on how Thailand achieved the health-related MDGs and moved beyond them. The commitment of successive governments since the 1970s in investing in the health of the population, and consistent favourable economic growth, were the main determinants of the development of health-system infrastructure.[124] Huge investment in the district health system, and efforts to protect poor and underprivileged people from catastrophic health-care costs through targeting approaches from 1975, replaced by a policy of universal coverage in 2002, contributed substantially to health achievement in both level and distribution.[125,126]

Functioning primary health care was an outcome of the national policy of extending rural health services to all subdistricts and districts, and of the policy from the 1970s of compulsory rural health services for all medical and nursing graduates. District health systems serve as a close-to-client service hub that is accessible to the vast majority of rural poor people, as reflected in various indicators: 98% coverage of antenatal care that facilitated rapid nationwide scaling up of the Prevention of Mother-to-Child Transmission of HIV programme within a year in 2001, 73% prevalence of modern contraceptive use, and 98% immunisation coverage of DTP3 (third dose of diphtheria toxoid, tetanus toxoid, and pertussis vaccine).[127] Universal access results in very small rich–poor and urban–rural gaps of use of maternal and child health services,[128] which is a key contributor to MDG 4 and MDG 5. In 2009, more than 150 000 people living with HIV were enrolled in the universal antiretroviral programme provided by district health providers.

Empirical evidence shows the equitable outcomes of the universal coverage scheme launched in 2002. For example, the tax-financed universal coverage scheme is progressive, with rich people contributing a greater share of their income than poor people. The comprehensive benefit package, free at the point of service, has produced a very low incidence of catastrophic health expenditure and impoverishment.[129] Recent inclusion of renal dialysis in the package has fostered poverty reduction.[130] Without the extensive district health system, the universal coverage policy would be mere rhetoric, in which citizen rights were ensured only on paper and poor people would be unable to access and use services.

In conclusion, Thailand benefited from rapid economic growth and government commitment to human development to achieve the MDGs early. Efforts are in place to ensure that development is achieved universally through locally defined MDG Plus goals and targets. Lessons from Thailand show that the MDGs were achieved through sustainable health-system development. Wide geographical coverage of functioning primary health care at district and subdistrict levels, and the adoption of the universality principle, are major contributors to the achievement of the health-related MDs in Thailand.

health, education, and other areas by monitoring one or more of the key determinants, as interventions are being implemented. Monitoring of inequities in both opportunities and outcomes will enable countries to understand whether existing or future programmes are reducing or indeed increasing inequity. For example, in some countries, a detailed analysis of factors associated with child mortality would likely show that, although socioeconomic factors have a role, with low risk recorded in the wealthiest quintile, a more important determinant of mortality risk is living in an area with no effective health services. On the basis of such an analysis, the government might then elect to monitor intervention coverage and mortality in a representative sample of such areas to ensure that as mortality is reduced nationally, the equity gap between the highest risk and lowest risk groups is also narrowed. Structured yearly surveys might be needed to monitor progress.

Some countries have consistently adopted a pro-equity approach. For example, Peru targeted the implementation of the Integrated Management of Childhood Illness (IMCI),[120] the WHO/UNICEF strategy to manage sick children, to the highest risk groups[86]—an approach that they have taken with other interventions such as the introduction of a vaccine for *Haemophilus influenzae* type b. Other countries have by contrast chosen to implement IMCI in areas already served by well functioning health systems.

A final and challenging feature of equity in health development is the issue of how to distribute scarce resources among a population—eg, for vaccination. Generally, the small number of children living in a very remote area will have high risk of vaccine-preventable disease, particularly diseases for which effective health care would greatly reduce the risk of mortality, specifically diarrhoeal disease and pneumonia. These issues are even starker when the health services in question are not preventive services that can be delivered through mobile services, but rather treatments that need to be accessed at unspecified times. Here the costs of reaching remote areas with fixed services can be particularly high, as reflected in the wide quintile gaps seen for delivery care compared with immunisation, for example.[121]

Short of 100% coverage, there are no absolutes. A country might be faced with a real choice of either spending the available funds trying to get 100% coverage, or accepting that 80% is quite good, and electing to use the available funds to introduce a new vaccine, such as that for rotavirus. The utilitarian approach would argue that the net benefits are greater if the new vaccine is introduced into the 80% of people already covered, whereas the rights-based approach would argue that the 20% of children have a right to routine vaccines and should be the first priority. At higher levels of coverage this dilemma might become even more difficult as the cost of immunising a small number of unimmunised children might become very high, if, for example, a

helicopter is needed to reach some small isolated settlements. This dilemma is familiar to health officials in developing countries. Although there might be no right or wrong answers, a real analysis of the costs and benefits of various approaches would empower countries to make more reasoned decisions.

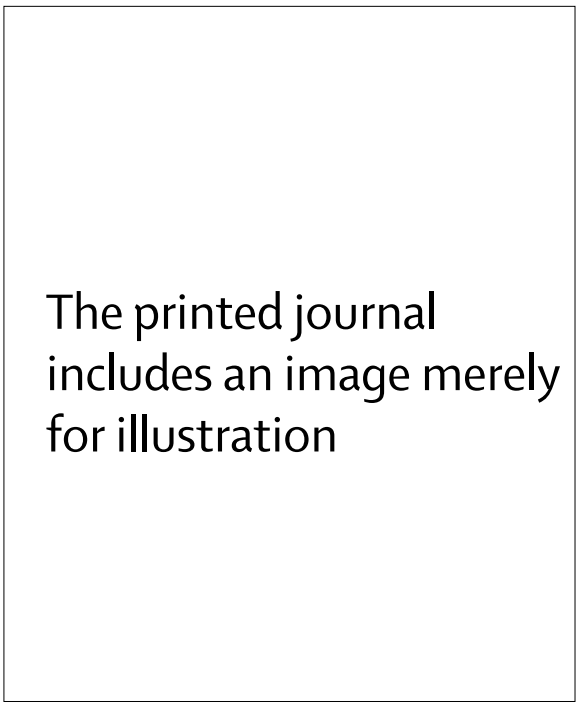
Ownership and health

The ownership processes that we suggested above, involving integration of local, national, and regional priorities to generate national, regional, and global targets, would apply well to health and to other elements of wellbeing. On the basis of agreed health objectives in the life course, decisions could be made nationally about how these would be prioritised, on the basis of national needs and opportunities, through a process involving, ideally, local government and civil society.

Goal design and setting would benefit in some cases from support to national programmes to analyse and understand the determinants of poor health outcomes, providing such programmes with the instruments needed for truly evidence-based decision making to set priorities in health. Thus, in the area of child survival, decisions would then be less easily dominated by pressure from special interest groups, or the particular preferences of funding agencies. When a reasoned analysis based on real and valid data has indicated the most suitable approach for a country to take, donors and outside pressure groups will need to take notice. The same support would help nations to develop their own, most effective and appropriate indicators and methods to monitor progress. Useful models for such national ownership and development of health goals can be found in the experiences of governments that have made use of, and improved on, existing MDGs. Panel 6 shows an example of such a model in Thailand.

Global obligation and health

Exercising global obligation in health development would need a commitment by wealthy countries to supporting poorer countries to improve health-service provision and thereby improve global equity of access to improved health outcomes. Donor funding would be an element, and is an important feature of the present MDGs. We suggest that more attention needs to be focused on the interactions between wealthy and poor countries that constrain poor countries from improving their own health outcomes. These interactions include addressing patterns of training and employment of health workers internationally that leaves poorer countries paying for training of health workers who then settle in wealthier countries. They also include strengthening of science and innovation systems in poorer countries so that they might play a more equitable part in developing and benefiting from new health services and technologies. This support for developing countries might mean a greater local role in public-private partnerships for medicines development, particularly in the use of local natural resources and indigenous knowledge for development of new treatments. Or it could mean strengthening disease surveillance systems and their ownership by poorer countries to reduce their disproportionate burden of infectious diseases while improving global health security to prevent future disease pandemics.



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Most interventions such as these would be of mutual benefit to all countries, improving access by all to health care and medicines. Their achievement could involve targeting based less on thresholds for specific outcomes in poorer countries and more on demonstrable adoption and successful implementation of policies that support equitable outcomes for all countries. In this context, work done by the World Bank on environmental policy targets for MDG 7 might be a useful model.[44]

Sustainability and health

To achieve the holistic expectations considered above throughout the life course needs several interlinked systems to function effectively. It also needs sufficient reliable and continual funding. Over the past 17 years, there have been various attempts to calculate the costs of scaled up health care, including the Essential Health Care Package approach introduced in the World Bank's World Development Report 1993, the Commission on Macroeconomics and Health[131] that addressed the health development finance needs for countries below a gross national product of $1200 per head, and the 2009 High Level Taskforce on Innovative International Financing for Health Systems that was concerned with all low-income countries. The Commission on Macroeconomics and

Health estimated a 2002 cost of $38 per head for a scaled up set of essential interventions for low-income countries in 2015, and calculated that $4 per head on average would need to come from external funding. The Taskforce undertook a much more comprehensive costing, and estimated a 2005 cost of $54 per head for scaled up services in 2015, with around $9 to come from external financing on the assumption that donor countries lived up to their commitments to development assistance.[33,34,132]

Both sets of analyses made assumptions on desirable levels of domestic support to health that greatly exceed present levels of government health expenditure. In view of present rates of economic growth and continuing population expansion, sustained development assistance for health and considerable additional domestic finance are needed if we are to move towards the collective national and international aspirations for health even over the next decades. Most health expenditure in low-income countries still comes from private, mostly out-of-pocket payments (mean of $13 per head in 2006), with domestic government budgets contributing an average of $12, and development assistance making a smaller but important contribution of $6.[33] The goal of the above health intervention and system strengthening initiatives is to plan, design, and build an efficient, equitable, and responsive health system without the distorting effects and special pleading of particular interest groups. Sector-wide approaches to financing encourage all interested partners, both domestic governmental and external investors, to pool their resources so that one health plan can be implemented, monitored, and reported upon. The challenge that has arisen in some countries is that when domestic budgets are tightened, and external donors do not meet their expected contributions, there are not enough resources for all. In this situation the fixed recurrent costs, particularly salaries, still have to be met, and as a result funds for services and commodities are unavailable, leading to shortages and stock-outs even for those activities that are seen as key priorities within the plan. Thus, proponents of specific interventions—such as vaccination for children, or completion of tuberculosis treatment to prevent emergence of costly drug resistance—have good grounds to advocate for protected funding for a few key programmes. And so we rapidly fall back into the same discussion of disease-specific programmes in tension with broader system-wide strengthening of the building blocks of the health system.

To escape this dichotomy, we need to move the debate beyond the financial sustainability of individual countries' health budgets. Sustainability has to be linked to global obligation and solidarity that allows rational planning with the assumption that funding will be predictable, reliable, and increasing every year. The declarations made by governments of both rich and poor countries have to be upheld. Sub-Saharan African countries have committed to increase expenditure on health to 15% of general government expenditure, and almost all rich countries have committed to raising their development assistance to 0·7% of their gross national income as well as giving commitments to specific goals such as universal access to treatment for HIV, which remains a target for MDG 6 for this year.[33] Unless governments deliver on these commitments, aspirations for the holistic interpretation that we put on health and development will remain mere dreams.

Sustainability for the health sector can also be considered in terms that go beyond financial security, to guide investment towards areas that lead to stronger human, physical, and social capital and that build systems more likely to resist or recover from the shocks that affect their productivity.[108] For example, large amounts of external investment flow into expensive technical assistance, whereas a more sustainable approach might see that investment channelled into building local and regional expertise that could eventually replace the external support.

The Global Fund now supports a large proportion of the millions of people living in the poorest countries who are taking antiretroviral therapy, and there is increasing concern about maintaining donor commitments to universal access in view of the economic uncertainties. Countries are encouraged to submit proposals that show the potential for sustainability. This criterion is expanded to encompass, among other criteria, proposals that show high-level, sustained political involvement and commitment, strengthening the various elements of national health systems, and strengthening of civil society and community systems in its different components (eg, management capacity, service delivery, and infrastructure), with an emphasis on key affected populations.

The so-called killer diseases of MDG 6 are all infectious diseases, which leads to one further aspect of sustainability and health—namely, the possibility of eradication of infectious pathogens. A strong case can be made for disproportionate and unsustainable investment if there is a realistic chance that in the longer term such investment will lead to eradication of a disease and consequent gains in wellbeing (and reductions in ongoing costs). The eradication of smallpox from the world and the recent success in elimination of severe acute respiratory syndrome from human populations are notable triumphs led by WHO. However, expensive campaigns against poliomyelitis that disrupt community health services have seen recent set-backs, and the shift from control to elimination of malaria has been argued in Africa to be "at best irrelevant and at worst counterproductive".[133] For HIV there are ambitious mathematical models suggesting that major investment in testing and early treatment could lead to overall savings in the future by reducing transmission.[134] Thus sustainability for infectious diseases might have a different tenor to sustainability for health in general, for which we need to plan for ongoing and expanding costs that can be met only by a concerted and planned effort to draw on both domestic and external

finance, including from innovative sources.[34] This is especially the case as the non communicable disease burden rises as the epidemiological transition proceeds.

Conclusions

In application of our development principles to health elements of wellbeing, we would envisage future health development goals that are focused on sustainable health systems, built around delivering health objectives across the life course. This objective would involve close linkage with learning, economic, social, and environmental elements necessary to achieving these objectives, which themselves could involve other goal development processes based on elements of improved wellbeing. From a procedural perspective, these health objectives would be agreed by international consensus, and how they were then developed into goals would be a process led at the national level, building through dialogue to a set of regional and global goals. We suggest that such goals avoid threshold-based targets and indicators that might increase inequity and instead aim to generate wellbeing for all, while taking a proactive, pro-poor approach. Global cooperation would emphasise supporting countries to achieve goals in more diverse ways than simply donor funding. Sustainability would be incorporated through a high degree of national ownership and ongoing investment in human, social, and physical capital.

Contributors

Members of the *Lancet*-LIDC Commission contributed to the development of the structure of the report, writing and commenting on drafts. All authors have seen and approved the final version of the report.

Conflicts of interest

We declare that we have no conflicts of interest.

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