Social policies during the MDG period: Lessons and implications for post-2015 *

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1. Introduction

Economic growth provides the foundation for attaining development goals when it is sustained, inclusive and equitable. However, studies have found that income alone is not a significant determinant of human development indicators. For example, as mortality rates fall, the bulk of under-five mortality is infant rather than child death, and infant deaths are more sensitive to the availability and adequacy of healthcare provision than general socio-economic conditions (White, 2004). Meeting development goals has thus typically required additional efforts that complement economic policy. The literature agrees that social policy, in particular, aims to improve human welfare and meet human needs for education, health, housing and economic security (Hartley, 2012; Vargas-Hernandez et al., 2011).

This paper shows that social policies have allowed countries, particularly in developing regions, to make progress over the MDG period. More specifically, these policies have helped to ensure that income gains accruing from growth, to the extent possible, go hand in hand with other key determinants of development goals at different levels (national, subnational, sectoral, and local). The paper identifies and discusses examples of such policies, although it recognizes the difficulty of knowing exactly whether the MDGs were their main motivators. Because many of the policies existed before the goals, their use is in most cases rather a confirmation of countries’ long-term policy commitment to poverty reduction and human development.

Social policies are grouped in three categories: social protection, sectoral policies and social promotion, following Cecchini and Martinez (2012, p.116). Social protection comprises key social assistance (SA) schemes such as transfers, subsidies, workfare and others. Sectoral policies contribute directly to build human capital, typically by investing in education, health, housing, public infrastructure, and so on. Social promotion improves conditions where human capital operates through micro-finance, technical assistance to micro-firms, promotion of production, labour intermediation, promotion of start-ups, and so forth. Emphasis is put on the first two categories for a number of reasons. SA policies form the most important non-contributory component of social protection in developing countries and precisely the one with the strongest focus on poverty reduction (ibid; Barrientos, 2010). By including workfare and food security interventions, SA programmes also contribute to achieving full and productive employment and decent work for all as well as reducing hunger, important aspirations of the MDGs. A number of MDGs were also clearly expressed as sectoral goals such that realizing them has also required sectoral policies. Social promotion initiatives are discussed only to the extent they have been integrated with SA and sectoral policies, which happens in a number of cases. Issues with regard to governments and institutions, in their capacity as the main actors implementing social policies at the country level (i.e., who they are, how they are structured and who they partner with) are discussed in Sánchez et al. (2015).

The policies identified below have proven effective to make headway towards the goals of: reducing poverty and hunger (MDG 1) (section 2); achieving universal primary education (MDG 2) (section 3); promoting gender equality and empowering women (MDG 3) (section 4); reducing child mortality (MDG 4), improving maternal health (MDG 5), and
combating HIV/AIDS, malaria and other diseases (MDG 6) (section 5). The last section draws lessons from the implementation of social policies in the MDG period and presents the implications for the post-2015 development agenda.

2. Social protection for reducing poverty and hunger

Globally the target of reducing extreme poverty (MDG 1) by half has been met in advance. Economic growth and the generation of jobs that has come with it have enabled many people in the world to get out of income poverty (United Nations, 2014a, p. 4). Social policy efforts that target the most vulnerable populations and build and promoted human capital have played a role, too. Even so, more social policy efforts are needed to continue reducing extreme poverty, especially in populous countries with large numbers of the extreme poor as well as in small, vulnerable and conflict-affected countries. With regard to the other area of concern in MDG 1, hunger, the proportion of undernourished people in developing regions has also decreased. Nonetheless, some countries have made little headway in the MDG period, especially in sub-Saharan Africa but also in Southern Asia and Oceania (ibid). There is scope and urgency for social policy interventions and programmes to continue contributing additional reductions in poverty and hunger beyond 2015.

Social protection is particularly necessary because the benefits of growth do not reach all, and people do not have the same capacity to overcome risks. ILO defines it as a set of public measures seeking to protect members of a society against economic and social distress caused by the absence or a substantial reduction of income from work as a result of various contingencies such as sickness, maternity, employment injury, unemployment, invalidity, old age, and death of the breadwinner (Bonilla Garcia and Gruat, 2003). Because of the proven effectiveness of these policies in reducing poverty, developing countries, especially those in the high and middle-income categories, have stepped up social protection spending per capita since the mid-1990s at an increasing rate (Figure 1). Unlike social sector spending (see below), social protection spending by and large increased steadily irrespective of the recent global financial crisis. Nonetheless, social protection spending per capita remains very low in low-income countries.

Social protection is mainly constituted by: (i) contributory schemes such as social insurance and (ii) non-contributory social policies or SA schemes such as transfers, workfare programmes, and others—sometimes also regarded as social safety nets. This section focuses on SA as this encompasses public actions designed to transfer resources to groups deemed eligible due to deprivation. Deprivation may be defined by low income or in terms of other dimensions of poverty (e.g. social or nutritional status). It covers non-contributory, tax-financed benefits, in cash or kind, sometimes universal but generally targeted towards certain categories assumed to be vulnerable (Norton et al., 2001). Moreover, the emphasis is put on developing countries. In developed countries the emphasis of SA policies has been on income maintenance and protecting living standards of everyone, especially workers. On the other hand, SA policies in developing countries have focus more on poverty reduction and

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1 The analysis of environmental policies (MDG 7) and the global partnership (MDG 8) goes beyond the scope of this paper.
providing support to the vulnerable and poorest. Developing countries’ expenditure on SA policies has been estimated to range between 0.1 and 2 per cent of GDP (Barrientos, 2010).

Figure 1
Social protection spending per capita in developing countries (2005 PPP)

![Social protection spending per capita in developing countries (2005 PPP)](image)

Source: UN/DESA, based on data from IFPRI’s Statistics of Public Expenditure for Economic Development (SPEED).

The main SA instruments are summarized in Table 1, where they are defined in terms of the areas/sectors covered, as well as the activity each of them entails, the selection criteria and objectives. The array of instruments is large enough to reduce poverty, contribute to economic growth by increasing consumption, and facilitate inclusive growth through the implementation of redistributive programmes and policies. In many instances, these instruments generate positive spill-over effects with regard to hunger, nutrition, health, education, employment, housing, agriculture, gender, energy, transportation and the environment. In fact, some of these instruments sometimes feature more prominently as part of sectoral efforts for education and health (or even social promotion) rather than social protection schemes, as will be further noted in other sections. Some initiatives take advantage of the high degree of potential integration among the three different categories of social policies. The Millennium Village Project, for example, is a notable example of an MDG-prompted initiative that has combined support for improved nutrition to reduce hunger and improved sectoral and social promotion policies to raise capital stocks as a way to ensure self-sustaining growth in African villages (see Box 1). The MDG Acceleration Framework (MAF) is another MDG-prompted initiative that has combined all three types of social policies in some of its actions plans, in order to unlock MDG progress at different levels (see Box 2). Moreover, the integration of different types of social policies has also been useful in social protection programmes that aim to reach out under-served populations. Such programmes include, for example, capacity development, basic infrastructure and improved income generation opportunities for indigenous peoples in Mexico with increase in federal budget allocation by almost 45 per cent; the Misión Guaicaipuro programme to ensure rights
to education, employment and health among indigenous peoples in Venezuela; the PRODEPINE project to support development in indigenous and Afro-Ecuadorian communities in Ecuador; among others (UN/DESA, 2014b).

Table 1
Social assistance instruments

<table>
<thead>
<tr>
<th>Areas/sector</th>
<th>Instrument</th>
<th>Activity</th>
<th>Criteria</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic security &amp; social development</td>
<td>Cash transfers</td>
<td>Distribution of income to targeted households and persons</td>
<td>Household income level; extreme poverty line; household composition; for CCT, school attendance, demand for health services</td>
<td>Reduce extreme income poverty in households (MDG1) with spill-overs on other MDGs</td>
</tr>
<tr>
<td>Food security</td>
<td>In-kind transfer (food-based)</td>
<td>Distribution of free food, food for work, food stamps, school feeding</td>
<td>Targeted to the poor and vulnerable (sometimes universal)</td>
<td>Reduce hunger and vulnerability among poorest households without economic capacity and with children</td>
</tr>
<tr>
<td></td>
<td>Subsidy</td>
<td>Sale of subsidized food to targeted households</td>
<td>Targeted to the poor and vulnerable (sometimes universal)</td>
<td>Reduce household poverty</td>
</tr>
<tr>
<td>Employment creation</td>
<td>Workfare</td>
<td>Public works, vocational training</td>
<td>Unemployed heads of household; rural workers; low skilled workers</td>
<td>Smooth seasonal income fluctuations in rural areas; reduce poverty caused by unemployment and underemployment in urban areas</td>
</tr>
<tr>
<td>Education</td>
<td>Grants</td>
<td>Scholarships, block grants, fee waivers</td>
<td>Targeted to poor households (sometimes include mid-income)</td>
<td>Reduce household poverty and facilitate investment in schooling, helping break poverty across generations</td>
</tr>
<tr>
<td>Health</td>
<td>Subsidy</td>
<td>For medical service visits, fee waivers for medical visits, medicines acquired, acquisition of family planning products, imported equipment, delivering of child nutrition products, micronutrient supplementation, midwife attention</td>
<td>Targeted to poor households (sometimes include mid-income)</td>
<td>Reduce household poverty and facilitate investment in health care, helping break poverty across generations</td>
</tr>
<tr>
<td>Energy &amp; transportation</td>
<td>Subsidy</td>
<td>For electricity consumption, fuel consumption</td>
<td>Targeted to poor households (sometimes universal)</td>
<td>Reduce household poverty and enhance access to electricity</td>
</tr>
<tr>
<td>Housing</td>
<td>Subsidy</td>
<td>To mortgages; one-time subsidy</td>
<td>Targeted to poor households (sometimes include mid-income)</td>
<td>Enhance access to sound housing</td>
</tr>
<tr>
<td>Agriculture</td>
<td>In-kind transfer (inputs-based)</td>
<td>Free distribution of seeds and/or fertilizer</td>
<td>Targeted to poor peasants</td>
<td>Foster income-generation and productive capacities</td>
</tr>
<tr>
<td></td>
<td>Subsidy</td>
<td>Subsidy for inputs distribution, fertilizer subsidy</td>
<td>Targeted to poor peasants</td>
<td>Foster productive capacities and development</td>
</tr>
</tbody>
</table>

Source: UN/DESA, based on Cecchini and Martinez (2012), Sumarto et al. (2010) and Smith and Subbarao (2003).
Box 1
What is the Millennium Village Project?

The Millennium Village Project (MVP) was introduced in 2004, following the realization that sub-Saharan Africa was unlikely to meet the MDGs by 2015. The first millennium village (Sauri) was set up in Kenya in August 2004, followed by 12 more villages across Africa. The MVP is based on the assumption that Africa’s poverty trap could be overcome and the MDGs achieved by means of raising the capital stock to the point of self-sustaining growth. It assumes that targeted public sector investments in millennium villages can be used to raise rural productivity, which would increase private savings and investments. This requires a “big push” of basic investments in natural assets (soil nutrients), human capital (skills and health), infrastructure (roads, power, and telecommunication), and financial stocks (household assets, collaterals, and micro-finance). The term “Big push” refers to (a) the combination of multiple interventions targeting a few and small-scale locations; (b) the relative massive mobilization of external resources (in relation to available domestic resources) and (c) the assumption that after the “push”, the system (community) will shift to another state in which further development would not depend on external support. These “massive” investments are expected to spur savings and to encourage private investment through two main channels: a) household savings and micro-finance, which become feasible as household income increases above subsistence, and b) additional external private investment as this is crowded in by new infrastructure.

The MVP of the village Sauri significantly boosted agricultural productivity, self-consumption, production margins, and total (surrogate) income. These outcomes are explained by a large allocation of productivity gains to self-consumption rather than to the market, which enabled a higher level of access to staple food. The awareness of the importance of using improved seeds and fertilizer created through training seems to have been important in inducing these changes. It is likely that in a village like Sauri, these interventions may have contributed to reducing hunger and improving nutrition of the villagers. However, the effects on cash income and wealth creation have been less significant such that the contribution in rising household capacity to consume basic items other than food may have been less pronounced.

Therefore, despite the sizeable and encouraging effects, the results call for a careful examination of the mechanisms through which agricultural productivity affects cash income, a relationship that the MVP assumes to be directly correlated, but which may not hold for all households in the affected villages. Nevertheless, an indisputable finding seems to be that the MVPs have significantly increased production of staple food crops, transforming food deficits into food surpluses—as found to be the case in approximately 80 projects in sub-Sahara Africa (Sanchez et al., 2009).

Source: UN/DESA, based on Wanjala and Muradian (2013).
Box 2
Social policies under MAF

UNDP developed and introduced the MAF in 2010 with technical inputs and collaboration from other UN agencies. The framework relies on concrete plans of action to identify and analyse bottlenecks that impede MDG progress at either the national or sub-national level and suggests possible high-impact solutions to overcome them. It was initially piloted in 10 countries and was subsequently endorsed by the UN Development Group (UNDG). A total of 58 countries had used in 2014 since its introduction. Besides national governments, the framework’s plans engage a wide range of other actors at the country level. The main aspect to highlight here is that some of the plans have combined the three categories of social policies as follows—most often plans focus only on one aspect of social policy:

<table>
<thead>
<tr>
<th>Targeted group/area and country</th>
<th>Social protection</th>
<th>Sectoral policies</th>
<th>Social promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>People with disabilities in Costa Rica</td>
<td>Conditional cash transfer programme (Manos a la Obra)</td>
<td>Academic and technical colleges</td>
<td>Centre for comprehensive services (personal and social life, occupational); technical training; employment through technology, tax incentives to employers, quotas in public employment; support to entrepreneurship</td>
</tr>
<tr>
<td>Women and mothers in Ghana</td>
<td>Maternity protection benefit package to guarantee minimum protection for pregnant and nursing mothers</td>
<td>Early warning system to prevent stock-outs of family planning products; voucher system for free transportation of women to birth centres; new midwifery schools; upgrading of health facilities. “Queen mothers” mobilize women to seek timely maternal care.</td>
<td>Trained community volunteers in rural areas to track maternal deaths, employment for new-born care, immunization and other basic services.</td>
</tr>
<tr>
<td>Women (health) in Indonesia</td>
<td>Almost universal coverage of basic health care such as antenatal care and skill birth attendance</td>
<td></td>
<td>Training of midwives and family counsellors; better staff management, incentives, accountability, engagement of retired specialists to cover shortfalls; ICT and mobile phones to access specialists and transmit patient information</td>
</tr>
</tbody>
</table>


2.1. Cash transfers

Cash transfers (CT) have proven to significantly reduce extreme poverty and make sizable progress on several developmental sectors related to gender, education, health, nutrition, and social cohesion (Barrientos, 2010). Many programmes start with an unconditional cash transfer (UCT) scheme. Increasingly countries, particularly middle-income ones, are attaching some kind of conditionality, thus turning their UCT programmes into conditional cash transfer (CCT) programmes. These programmes only transfer the cash to target populations who typically meet certain criteria with regard to enrolment in schooling or the demand for health services. The conditionality is directed to the outcome pursued (e.g.,
school enrolment), to the monitoring process (e.g., regular attendance to antenatal care) or to the specific group covered (e.g., children under 5). Adding conditionality has proven to be crucial to increase cost-effectiveness and maximize spill-over effects (Baird et al., 2013).

**UCTs**

A wealth of evidence shows that UCT programmes reduces income poverty; for example through that universal minimum pension schemes involving a cash transfer, as observed for a number of Latin American countries (Dethier et al., 2010). The synergies with other MDG areas beyond income poverty are also seen for a number of developing countries, including boosting child nutrition (Manley et al. 2012; Aguero et al., 2006); improving resilience among young people by reducing risky sexual behaviours and the overall number of adolescent girls who become pregnant (UNAIDS, 2014a); and fostering school enrolment and reducing child labour participation (Dethier et al., 2010).

Although the use of CCTs is increasing, UCTs are still vital in a few countries and particular populations. They are being used more and more to target older persons and their importance is rising quickly in Sub-Saharan Africa where 37 countries had them in 2013, up from 21 just three years earlier (The Economist, 2015). Weak government systems and institutional capacity favour the use of UCT programmes in many African nations because they do not require significant administrative costs and the rigorous monitoring and evaluation criteria that tend to characterize CCTs. In these countries scarce resources are rather invested in building necessary educational and health infrastructures.

**CCTs**

CCTs and UCTs share a characteristic: both boost recipients’ income contributing to reducing income poverty. CCT programmes have increased per capita consumption for the median household by between 7 and 29 per cent in a number of developing countries and those with the largest effects on consumption have also reduced poverty (Fiszbein and Schady, 2009). Consumption has also shifted in favour of better quality and more diversified food as a result of CCTs (Garcia and Moore, 2012).

Notably, the impact of CCTs on other development goals beyond reducing income poverty is generally more significant than that of UCTs because their underlying principle is relatively broader. CCTs also seek to enhance human capital by providing cash to families in exchange for their commitment to invest in education and health services. Unsurprisingly, then, CCT schemes have generally been more effective than UCT programmes in increasing the number of preventative health care visits (Akresh et al., 2012) and students enrolled and attending school (Baird et al., 2013). Inspired by the MDGs’ call for reducing extreme poverty and hunger, ambitious CCT programmes to provide not only
Cash but also food aid to the poor have been pioneered in several Latin American countries.\(^2\) Brazil’s *Bolsa Familia*, for example, the largest CCT programme in the world, has four sub-programmes (educational stipends to boost school attendance, maternal nutrition, food supplements and a domestic gas subsidy) that benefit around 50 million poor people, roughly three-quarters of those people living below the poverty line (Hall, 2006; Camargo et al., 2013). The programme has boosted the food security of mothers and children, improving the quantity and diversity of food consumed, while the growth and nutritional status of children has progressed compared with non-participants in the programme. *Bolsa Escola*, its largest component, has had a positive impact on school attendance, with 50 per cent of benefits reaching the two lowest income deciles (Graciano da Silva et al., 2011).

More broadly, a wealth of evidence for other Latin America shows clear impacts of CCT programmes in terms of reducing poverty and inequality, increasing school enrolment and attendance and preventive health care, and boosting children nutrition and health in general (Levy and Schady, 2013; World Bank, 2013c; Ranganathan and Lagarde, 2012; Hall, 2006). The role of CCTs in promoting gender equality and empowering women has also been apparent, with some of the outcomes including higher labour market participation rates and greater feelings of empowerment (Soares and Silva, 2010). Interestingly, as part of environmental conditional cash transfer (ECCT) programmes, governments are also providing direct transfers to communities and families with land titles in the Amazon basin in exchange for the protection of large areas of tropical forests and ecosystems. There is evidence that the *Bolsa Floresta* programme in Brazil has reduced the forest loss by 12 per cent faster in the reserves that have benefited from the CT (da Conceição, 2014).\(^3\)

The benefits of CCTs extend beyond Latin America. For example, the *Pantawid Pamilyang Filipino* Programme has become the cornerstone of the Government’s social protection strategy. It has substantially boosted enrolment in primary education as well as the long-term nutritional status of 6-36 months old children (World Bank, 2013b). In Pakistan, the Punjab Female School Stipend Programme has increased enrolment of eligible girls in middle school, while participating girls have also delayed marriage and have had fewer births by the time they are 19 years old (Alam et al., 2011). In Malawi CCT-based on school attendance have also contributed to change sexual behaviour with important outcomes, including a reduction in the prevalence of HIV, early marriage and teenage pregnancy among schoolgirls aged 13-22 years (Baird et al., 2009). Sub-Saharan countries have been piloting an innovative type of programme that incorporates a new variant on conditionality. It is known as community-based targeting and uses community members to identify worthy recipients. These programmes have been found effective to solving inclusion and exclusion criteria problems, while addressing poverty at a rate equal to, or better than, traditional CCT schemes (Davis et al., 2012).

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\(^2\) Some of the most known and recent incarnations of these programmes are the *Bolsa Familia* (Brazil), *Oportunidades* (Mexico), *Familia en Acción* (Colombia), *Subsidio Unitario Familiar* (Chile), *Red de Protección Social* (Nicaragua), *Jefes de Hogar* (Argentina), and *Bono de Desarrollo Humano* (Ecuador).

2.2. Examples of other social assistance programmes

Where CTs programmes are not widely used, smaller SA programmes are worth pursuing. Social protection spending may be low in sub-Saharan Africa, for example, but a new wave of SA programmes indicates there has been a move towards more regular programmes that provide income transfers as well as access to and utilization of social services in low-income countries of this region (Nino-Zarazua et al. 2010). In-depth assessments of these programmes are yet to come.

Subsidies have also been given to small African farmers to buy fertilizer and seed at a rate far below the market price. This strategy has guaranteed a return on investment of poor farmers in the form of more efficient grain output and a reduction of economic insecurity and vulnerability (Adesina, 2010). Programmes also provide subsidized “essential” goods to targeted households (for example, rice, wheat, edible oils, kerosene) aiming at food security. In India, for example, the Targeted Public Distribution System (TPDS) is the largest food security programme in the country, accounting for about 1 per cent of GDP in 2006 (Ihsan Ajwad, 2007).

In-kind transfers were one of the main forms of social assistance in Latin America until the 1970s and many countries still have them. Food programmes, in particular, have targeted poor households and school children by providing soup kitchens, basic staples or nutritional supplements to mothers and babies, food-for-work programmes for which participants self-select to work for low compensation (as in workfare) (Ferreira and Robalino, 2010). These programmes range from in-kind food rations that household members can collect in certain shops (Tortivale programme in Mexico), public clinics (Programa Nacional de Alimentación Complementaria in Chile), schools (School Cafeterias in Costa Rica; Peru’s Desayunos Escolares), to food stamps (Food Stamp Programme in Jamaica; Bono Escolar and the Bono Materno Infantil in Honduras). School feeding programmes often operate through public schools in poor neighbourhoods so they have important synergies with other MDGs. They tend to increase attendance rates and improved cognitive performance, particularly among undernourished children (see next section). By providing fortified foods some of these programmes have also contributed to eliminate inadequate intakes of nutritional supplements such as iron and zinc (Fiedler et al., 2012). Nonetheless, transfers in kind such as food have high operational and administrative costs related to procurement, transportation, and the logistics of distribution.

Workfare programmes provide a cushion against unemployment risk by offering monetary compensation for “emergency” or “short-term” work in certain sectors (e.g., agriculture, construction of public infrastructure, and so on). Wages are set at a level that, while helps participants and their households to avoid hunger, is low enough to prevent the programme form attracting other low-productivity workers from their main occupations. Even so, some of these programmes are very ambitious with regard to their coverage. For example, Argentina’s workfare programme Jefes y Jefas de Hogar had 1.2 million recipients

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4 These programmes include the Productive Safety Net Programme (PSNP) in Ethiopia, the Livelihood Empowerment against Poverty (LEAP) in Ghana, the scaling up of the Mchinji Social Transfer Scheme in Malawi and a large number of pilot programmes elsewhere.
by 2006 (equivalent to 6.4 per cent of the economically active population). The Rural Employment Guarantee Programme of India (NREGA) created about 2.5 billion work-days for 50 million households in the years between 2010 and 2014. Not only has this programme reduced extreme poverty but it has also scored human development benefits in the localities where it has been implemented (see Box 3).

**Box 3**

**Scoring human development benefits through employment creation**

On August 25, 2005, India’s Parliament enacted the Mahatma Gandhi National Rural Employment Guarantee Act (NREGA), a law guaranteeing the right of rural households to a minimum of 100 days of work. In many ways, this Act represented a milestone in social policy; its rights-based approach, social inclusion features, reliance on local self-government, and focus on livelihood security make it a very important public endeavour. Very importantly, it is an Act that also set important social goals beyond employment creation, such as empowering women and widening opportunities for marginalized population groups. Centred on employment creation, thus, NREGA really encompasses an array of policies with impacts in several human development dimensions.

The Act mandated the implementation of an ambitious, demand-driven employment creation programme aiming to benefit the rural poor with the income provided by jobs paying a socially acceptable wage and with projects to improve productivity in agriculture and alleviate land degradation. The Ministry of Rural Development reports job creation going from less than 1 billion workdays distributed among 20 million households in fiscal year 2006–2007, to about 2.5 billion work-days for 50 million households in the years between 2010 and 2014. Since then the programme size has diminished, although 1 billion workdays were still provided to 34 million households in 2014-2015 fiscal year (up to January 2015). A decade after its introduction, 28 prestigious development economists wrote a letter to India’s Prime Minister, requesting renewed commitment and support to the programme (see http://kafila.org/2014/10/14/letter-to-pm-on-nrega-from-development-economists/).

An array of research studies—using independent and programme generated data—reports important ancillary benefits of employment creation resulting in synergies with the MDGs. To begin with, the 2009–2010 National Household Survey data confirms that the programme is reaching the poor and has a positive impact on social inclusion, with regard to the participation of both deprived social groups and women. Local and regional studies—including social audits—confirm that income in villages has increased since the inception of the programme with a number of additional benefits (see, e.g., Dutta et al., 2012; Panda et al., 2009; Singh and Kauriyal, 2009; Hirway and Singh, 2006). In turn, added income in households has been used for food consumption, but also to cover education and health expenses as well as the repayment of household debt. It has also curbed distress migration among poor households. Other studies show that the programme is positively contributing to economic growth and redistribution (see Zepeda et al., 2013). Accordingly, while augmenting the programme’s direct benefits to poor people in rural areas it further extends benefits to the urban poor who are not included in the programme.

In an important synergy with MDG 3, the promotion of employment opportunities for women has been arguably one of the most important achievements of the Act, as different assessments show (see, e.g., Jandu, 2008; Indian School of Women’s Studies Development, 2008). The programme has had a women’s participation of about 50 per cent from the beginning. Since women’s involvement in paid labour is particularly low, a 50 per cent average participation in the Act is a remarkable accomplishment. Similarly important is the provision equating women’s and men’s wages, given that women’s wages tend to be significantly lower than those of males. Studies and social audits report that women have gained power, have made the decision to work on their own, and have improved their livelihood options (see, e.g., Kamath et al., 2008; Dreze and Khera, 2008).
Thus, NREGA has had notable human development effects; albeit these effects can become more prominent if areas in need of improvement are addressed. Research studies cited here by and large coincide that good outcomes are generally not ubiquitous. For example, reported increases in income vary from the very small to the significant, and can vary significantly across states. Estimates vary widely between those finding no visible reduction of distress migration and those finding a complete elimination of it. Similarly, women participate more in the economy, but studies also find that they still hand their wages to their husbands and that husbands arrange to directly receive the wages earned by their wives.

### 2.3. Limits and possibilities of social assistance

The examples of SA instruments and programmes presented above have unquestionable benefits. CTs are perhaps the instrument that has been more vigorously stepped up and contributed to reduce extreme poverty in the MDG period. Their potential flaws also need to be considered in deciding the convenience of using them beyond 2015. They may limit the scope for further development and engender economic and social issues if careful design, adoption, monitoring and evaluation processes are not taken into account. Excessive reliance on CTs to support social policy may also overlook necessary investment in basic long-term social infrastructure (Foguel and Barros, 2010; Valencia Lomeli, 2008).

It has also been argued that CTs in general may have an adverse effect on incentives to work, poor targeting, rising financing costs, favour informal over formal employment, political bias in client selection, inadequate monitoring mechanisms, lack of transparency and accountability, and persistent inequality and deprivation despite improvements in absolute poverty. Deciding who is poor is not an easy task and better record-keeping and technology are needed to reduce corruption, poor targeting and other inefficiencies. For example, the *Bolsa Familia* programme in Brazil and programmes in at least 22 other developing countries have started to list online the register of recipients to help reduce fraud, while 230 programmes in over 80 countries verify identities with biometric information, some keeping track of the recipients of social spending (The Economist, 2015).

In Bogotá, Colombia, a CCT programme boosted attendance during the school year but re-enrolment rates were low. A shift in the timing of the hand-out—with-holding a part of the regular payment until just before the start of the school year—boosted enrolment sharply again (The Economist, 2014).

Some of these shortcomings are also shared by some of the other SA policies with both financing and targeting being among the main concerns. The expansion of SA programmes in sub-Saharan Africa has often been almost entirely funded with international aid. As a result, their design often reflects the priorities of international organizations. Moreover, many of these programmes are short-term pilots, with limited reach and weak institutional capacity (Nino-Zarazua et al., 2010). SA programmes also risk promoting fragmentation of social assistance or become unsustainable in the medium-term, due to insecure financial support, especially in low-income countries (Bastagli, 2009).

Some SA programmes also lack the capacity to identify all the absolute poor and vulnerable populations they are meant to target. Significant overlaps between the programmes are a direct consequence of how the target group and eligibility criteria are
defined as well as the fragmented approach to social protection. An approach that would focus on the family as opposed to individuals could eliminate unjustified overlaps of programmes and would be more effective (World Bank, 2013a). Many workfare programmes (in Latin America and Asia, for example) have not yet been properly evaluated and are still affected by design problems, both in terms of targeting the most vulnerable workers and in the selection of investment projects and public works to which workers are assigned (Ferreira and Robalino, 2010). Likewise, although large workfare programmes—such as NREGA in India—have had a positive effect on incomes of rural workers, their good outcomes are generally not ubiquitous (see Box 3).

3. Interventions to ensure that girls and boys attain primary education

In their efforts to meet the targets for universal primary education (UPE), developing countries have, by and large, focused to a much greater degree on enrolment as opposed to completion. These countries’ enrolment rate went up to 90 per cent in 2012—from 83 in 2000, although most of the progress had been achieved by 2007 (United Nations, 2014a, p. 5). This masks wide disparities, though, as some developing countries already had UPE, in terms of access, prior to the MDG period (UNDPa, 2010). Some of these countries raised the targets for MDG 2 to include more years of education or other educational achievements (see Sánchez et al., 2015). At the same time, other countries, particularly those in sub-Saharan Africa, significantly lagged behind in meeting the goal early into the MDG period. While enrolment rates have improved in many regions, completion rates—embodied in the percentages of students who start first grade and go on to finish primary education—have mostly stagnated at around 73 per cent between 2000 and 2011 (UNDPa, 2010, p. 18). Gains in most regions were offset by falling completion rates in Oceania, sub-Saharan Africa and Western Asia. Many developing countries are on track to achieve gender parity in primary education. Still, overall, it appears that the world will not reach the goal of UPE by 2015 as progress seems to have stalled recently and the rate of out-of-school children has been stuck at 9 per cent since 2007 (UNESCO, 2014b). This shows there will still be challenges ahead for developing countries to achieve UPE beyond 2015.

In many developing countries, particularly those with significant populations still engaged in agriculture, children in rural areas are more likely to be out of school both as a result of limited nearby options for education as well as necessary participation in other activities, generally in the household or agriculture. Even when students are enrolled there are significant issues with children dropping out. For example, on the whole in sub-Saharan African countries, around one-third of children are not in school. Of those, over 40 per cent are dropouts, while the rest have never been enrolled in school (Majgaard and Mingat, 2012). Another significant contributing factor to keeping students out of school worldwide is conflict. In 2012 around 50 per cent of students who were not in school were in conflict-affected countries while only 22 per cent of all primary school aged students reside in those areas (United Nations, 2014a).
3.1. Education spending

Many countries have undertaken comprehensive programmes to improve education outcomes, which have sometimes been supported by first undertaking legislative reforms (see Sánchez et al., 2015). Public spending must have had to be scaled up to implement these programmes. As part of the Education for All (EFA) Fast Track Initiative, countries made commitments to devote at least 20 per cent of total government spending to education. The progress on this has been mixed, with a number of Global Partnership for Education (GPE) countries meeting or exceeding the targets in 2011 and 2012 (Government Spending Watch, 2013). Of the countries expected to meet the targets for MDG 2, they are split between GPE and non-GPE countries.

Overall, however, given the limited resources in developing countries, primary education appears to provide the maximum social outcomes per education dollar (Majgaard and Mingat, 2012). The increased spending on education programmes not only has enhanced enrolment but it has also resulted in millions of new teachers trained and tens of millions of children receiving free textbooks (Dundar et al., 2014). In sub-Saharan Africa, the region which lags behind the most in meeting the primary enrolment target, public spending accounts for 37 per cent of the variability in the primary gross enrolment rate (GER) (Majgaard and Mingat, 2012).

The quality of governance and institutions has critically determined success of MDG implementation, irrespective of the goal, as discussed in detail in Sánchez et al., 2015. As also noted in that paper corruption seriously constrains the achievement of development goals and seems to be more strongly correlated with the health and water sectors versus education. Education policies, in particular, seem to have resulted in high effectiveness of public spending in primary education. A decade into the MDG implementation period, higher public spending per student in primary education was highly correlated with higher primary completion rates across countries (see Figure 2). One difference and one similarity with respect to public health spending per capita are worth noting. The difference is that public spending per student in primary education seems to be effective, particularly across upper middle income countries, an observation not seen for health (see section 5).

The similarity is that low income countries and a number of lower middle income countries where public spending per student in primary education has not increased much, have at the same time reaped important improvements in primary completion. There are two potential explanations. These countries initially faced more challenging human development gaps than countries with higher incomes and therefore have seen improvements in education outcomes without having to spend much. The second explanation is that most of these lower income countries have benefited relatively more from official development assistance (ODA), an important share of which was not necessarily been tied to budget support early into the MDG implementation period, and hence has not been accounted for as part of public spending.
3.2. General factors in education and synergies

There are a wide variety of factors involved in boosting primary school enrolment and completion rates. In general, the most effective interventions appear to be a combination of: appropriate number and form of facilities, particularly infrastructure; well trained staff, who are incentivised and monitored to minimized absenteeism; the relevant amount of instruction for both students and teachers; elimination of school fees; provision of teaching materials; proper attention to each student’s needs and abilities; well fed and generally healthy students, well-educated families; involved communities; and proper attention to gender balance (Evans and Ghosh, 2008). Some important methods of improving access to schooling are constructing schools closer to the students, adjusting the calendar of schooling to accommodate other constraints such as planting periods, abolishing primary school fees which can be a significant deterrent to attendance of the poorest students, and finally methods of reducing the opportunity cost of schooling, which can be high for impoverished families (Majgaard and Mingat, 2012).

Given the starting position of many developing countries, particularly those in sub-Saharan Africa, it is logical that there has been greater focus in those countries on raising enrolment rates while less attention has been paid to increasing completion rates. In general, increasing enrolment in primary education at the appropriate age will be important for raising completion rates as the probability of completion is higher if children enter school at the official school starting age (UNESCO, 2014a).
Efforts towards meeting non-education development goals can also have important effects on enrolment and completion. The synergy between goals 1 and 2 by way of programme implementation, particularly through the use of CCT programmes, was noted in the preceding section. Health policies and programmes have been found to have important impacts on enrolment and later school achievement in both developing and developed countries (see, e.g., Burger, 2010, Barnett, 2011, Clarke et. al, 2008). Most of these programmes are examined below, some very particular ones not. For example, a very particular programme targeting disadvantage schools is seen in Ghana, where well-known interventions such as providing potable water and free meals are combine with the provision of deworming and eye-screening (Majgaard and Mingat, 2012, Box. 5.1). Overall, deworming has been found to be one of the most cost-effective interventions for raising school attendance (Dundar et al., 2014; Kabaka and Kisia, 2011; Evans and Ghosh, 2008). But it is not enough just to have these types of programmes in place if they are not executed properly. For example, India’s Integrated Child Development Services programme (ICDS), the world’s largest initiative for tackling nutrition for women and children, has seen its impact limited by a variety of factors. The programme provides preschool education for 3 to 6 year olds, and an array of health and nutrition interventions, but has been hampered by limited reach of the programme, lack of funding, weak political will, and lack of awareness among the target population (UNDP, 2010a). These relate to the governance issues discussed in Sánchez et al. (2015).

Looked at it the other way around, higher levels of education also contribute to better health outcomes, knowledge about childcare and nutrition, wellness practices to treat deadly childhood diseases and increased use of health services (see section 5 below). Education can also improve the likelihood of economic development and is associated with increased employment and higher labour market incomes (Montenegro and Patrinos, 2013; Majgaard and Mingat, 2012; UNDP, 2010b).

3.3. Interventions and approaches to raising enrolment

The approaches to raising enrolment may start by undertaking legislative reforms—in most cases to guarantee free and compulsory education. Further initiatives include: (i) increasing the number and distribution of schools to ensure that they are accessible to students, (ii) ensuring adequate staffing and training, (iii) eliminating school fees, (iv) provision of teaching materials, and (v) school feeding programmes. Interventions geared towards girls as well as health and nutrition related programmes are also important for education outcomes; these are discussed in subsequent sections.

**School infrastructure**

The most common intervention to raise enrolment undertaken in many countries has been the construction of more school facilities to get closer to the school age population. Botswana, Nepal, and Tanzania, for example, have all constructed thousands of new classrooms, particularly with the intention of reducing the distance that students have to travel to school.
UNDP, 2010c, UNDP, 2010b). More broadly, a survey of studies of interventions to improve enrolment in developing countries found the greatest impact from the construction of new schools and related infrastructure (Petrosino et al., 2012).

The construction of “community schools” which are typically partly or fully funded through grants from the government, has been an important intervention. Albania, Bangladesh, Benin, Mauritania, Nepal and Zimbabwe all have variations on community schools, including community budgeting, school rehabilitation and management (UNDP, 2010a). Construction of these schools have been found to be less expensive and faster than construction programmes by the Ministry of Education or by contract management agencies and have helped with both primary and secondary school enrolment (Majgaard and Mingat, 2012, Boxes 1.1 and 1.3). In some cases, such as in Bangladesh and Nepal, committees that are directly responsible to parents, students and local citizens manage the schools. Those community schools have better grade progression rates, more parental involvement and fewer out-of-school children than they did previously. More than 40 per cent of Nepal’s public schools are now under community management (Dundar et al., 2014, Box 9.2). Village-based community schools in Afghanistan increased enrolment by 42 percentage points (and relatively more for girls) and raised test scores for all children in the village (Burde and Linden, 2012). Not only have community schools helped to boost enrolment, but they have contributed to reaching underserved populations, including indigenous children, in low and middle income countries across developing regions (UNDG, 2010; DeStefano et al., 2007).

Improving the accessibility or adequacy of school infrastructure for students in general and girls in particular is another critical measure to boost enrolment. The provision of appropriate sanitation facilities at schools, for example, raises girls’ enrolment and ensures that they continue on with their education. Research has shown that latrine construction benefits all children at primary levels, but that gendered latrines become much more important at older ages (Adukia, 2014). In addition, appropriate facilities are important for enrolment and completion of students with disabilities (WHO, 2011). For example, special needs of physically challenged children are being addressed in Bangladesh through more accessibility (i.e., construction of ramps in schools), as reported in the country’s MDG Report (MDGR) for 2012.

**Adequacy of staffing, training and retention programmes**

The next important element to providing primary education is the appropriate number of staff to provide instruction and operate the institutions. Efforts to boost the number of teachers in many developing countries have been mixed as a result of factors such as school placement, teacher salaries and the conditions of training programmes. Students in rural schools, who are frequently also the poorest in developing countries, often face conditions with fewer and less qualified teachers. An illustration of the issue comes from Botswana, where one year 300 more teachers graduated than there were available teaching posts and yet the country still had difficulty staffing remote schools (UNDP, 2010b). Examples of programmes to tackle this issue include the establishment of training institutes in provinces (Central African Republic), progressive financial incentives to attract qualified teachers to otherwise underserved
locations (The Gambia), direct hiring by local schools to select teachers from the local communities (Lesotho), and self-selection by candidates willing to serve in rural areas (Malawi) (Majgaard and Mingat, 2012, Box 3.1). Ethiopia is working to improve the qualifications of the existing teachers through improvements in on-the-job training as well as summer programmes for teacher training (UNDP, 2010a).

More broadly, programmes to hire teachers have been successful in increasing primary school coverage in a number of African countries (see Majgaard and Mingat, 2012, Box 4.1). Some of these initiatives seek contract teachers to address a lack of civil servant teachers as enrolment rates rose (Niger), recruit volunteer teachers (Senegal and Ghana) and involve parents’ associations in the hiring of teachers (Madagascar). In many instances of these programmes or similar programmes the government has subsequently taken steps to attempt to integrate these teachers into the civil service (ibid; UNDP, 2010c). Other successful ways of improving teacher coverage, particularly of under-served groups, have been seen for other countries, including: recruiting women and representatives of other marginalized groups, including disable people (Nepal); establishing programmes whereby teachers are selected to travel with migratory pastoralists (Ethiopia); training teachers on adapting to diverse student needs (Lao PDR), and using mobile classrooms to reach street and working children (Egypt) (UNDP, 2010b; UNDG, 2010).

Even when teachers are assigned to schools there are serious problems with teacher absenteeism. Some useful interventions to deal with this issue are community involvement in teacher monitoring and performance-based incentives that hold teachers or school principals into account for students’ learning outcomes. The Gambia introduced “cluster monitoring” supervision units to regularly check teacher attendance records at a group of area schools resulting in a substantial rise in teacher attendance (Majgaard and Mingat, 2012, Box 5.4). School Based Management (SBM)—a system of decentralization of control to local schools—has been shown to increase the accountability of teachers to schools (Barrera-Osorio et al., 2009). Evaluations of the programmes that have SBM components, such as EDUCO in El Salvador and PROHECO in Honduras show relevant changes in teacher behaviour and consequently improved student outcomes (Rogers and Vegas, 2009). The use of social audits focused on educational attainment and literacy rates in India through a collaboration of government and citizen’s organizations have been an important tool in monitoring the effectiveness of education at a lower cost than more extensive surveys (UNDP, 2010a).

Teachers’ salaries can make a substantial difference in both ensuring that teachers are properly placed in the schools that need them as well as ensuring that those teachers perform effectively (Banerjee and Duflo, 2010). Performance-based incentives for teachers and administrators have been shown to reduce teacher absenteeism and also boost teachers’ actual teaching time while at school (Majgaard and Mingat, 2012). In India, individual performance incentives resulted in significant improvements in student outcomes (Dundar et al., 2014, Box O.8). There is some mixed evidence on pay for performance programmes in Latin American countries some with success (see Rogers and Vegas, 2009).
Elimination of school fees and other costs

Free primary education has a measurable impact on years of schooling (Bhalotra et al., 2014). It helps by reducing opportunity costs for families to send their children to school and frees up other resources to satisfy other basic needs. Accordingly, the reduction or elimination of school fees, particularly for poorer citizens, has helped to boost enrolment in many countries. Nonetheless, there are a variety of different possible costs associated with education beyond just school tuitions, any of which can be problematic for poorer families to bear. Costs for educational materials such as textbooks and other writing materials, school uniforms, and food provided outside the home can add up to insurmountable barriers. Botswana, Burundi, Ethiopia, Ghana, Kenya, Mozambique, Malawi, Nepal, Tanzania and Uganda had all eliminated school fees at the primary level by 2010 (UNDP, 2008; UNDP, 2010a; UNDP, 2010c). Burundi and Mozambique, for example, saw considerable progress after dropping school fees in 2004, with enrolment rising from 54 to 95 per cent between 2004 and 2010, and from 70 to 88 per cent between 2004 and 2008, respectively (UNESCO, 2014b). The elimination of school fees in Mozambique also included capitation grants to local schools to purchase learning materials as well as free textbooks for all primary school students, which helps to offset some of the revenue local schools may have lost (UNDP, 2010a; UNESCO, 2014b).

Evidence also points to provision of textbooks as one of the most cost-effective methods of raising student outcomes (Fehrler et al., 2009). The ideal ratio is one textbook per each student and, unsurprisingly, this appears to have the best impact on learning (Majgaard and Mingat, 2012). Provision of textbooks and other school related resources have been undertaken by a number of countries to aid poor students who otherwise might not be able to afford them. For example, Burkina Faso, Ghana and India have all taken steps to increase the provision of free textbooks (Majgaard and Mingat, 2012, Box 5.1; UNDP, 2010b). Improving the availability and quality of educational materials features among the effective interventions that have helped Chile become a leader in educational achievement in Latin America (ODI, 2014). As part of its decentralization programmes, Kenya devolved school management, including the supply of free teaching materials, to local schools (UNDP, 2010c).

School feeding programmes

There is strong evidence for the effects of school feeding programs on raising enrolment, although the effect on academic achievement is still inconclusive. A total of 24.7 million school feeding beneficiaries in 63 countries were reached out by the World Food Programme (WFP) in 2012—of which approximately 46 per cent were girls. As a result, a greater number of parents were able to send their children to school (United Nations, 2014b). The Food for Education (FFE) programme in Bangladesh has boosted school participation rates (Meng and Ryan, 2008) and other feeding programs have increased enrolment, especially by girls, in Burkina Faso and increased attendance rates in Uganda (World Bank, 2012a).
Overall school feeding programmes have obvious synergies with the hunger reduction targets of MDG 1. Research has observed that school feeding programmes do add additional calories to children’s consumption, rather than just offsetting other consumption and thereby contribute to reducing hunger (Alderman and Bundy, 2012). The same research also points to spill-over effects for other children in a family, with increased consumption by younger children as some resource shifting occurs. School feeding programmes are also shown to have important effects on overall nutritional status as the meals are often fortified and contribute valuable micronutrients. Some school feeding programmes also have synergies with MDG 3 as they have also been shown to boost girls’ enrolment and completion rates (Gelli et al., 2007).

3.4. Further efforts beyond 2015

Going into the post-2015 period there are a number of further actions that will be relevant for raising education levels and quality in developing countries, and additional investments that can still bear fruit. Further efforts to boost early childhood development (ECD) programmes will be important as there are important synergies with educational attainment and, in particular, early childhood nutrition. Pre-primary education will be a valuable way of not only improving general education levels, but also for boosting the effectiveness of subsequent primary education. A possible solution to already stretched education budgets can be found in community based pre-primary education, which some countries (Cape Verde and Guinea) have provided at a much lower cost than traditional publicly funded programmes (Majgaard and Mingat, 2012). In general, it will be important for each developing country to address the necessary next level of education, secondary or tertiary to ensure that current students have the appropriate educational opportunities to further their learning. There will also need to be efforts to continue to reach out to underserved populations; for example, Panama has established adult literacy programmes in indigenous areas, Costa Rica has established schools targeted towards indigenous people, and Venezuela’s Misión Guaicaipuro programme has taken steps to ensure rights to education for indigenous people (UN/DESA, 2014b).

In addition, in order to continue to boost enrolment, it will be important to assess the reasons for students not being in school. Because these can vary from country to country, this will necessitate various levels of adaptation of programmes to reach those students (ibid). Overall the focus on expansion of education has overshadowed issues of distribution, particularly for girls, rural students, children with disabilities and living in indigenous populations. In Pakistan and Afghanistan, for example, girls are still lagging in educational outcomes and access (Dundar et al., 2014). In addition, the issue of adult literacy has been overlooked, with the vast majority of the focus on childhood education. This ties in with the issue of quality as there are still many students completing primary education who have not reached important literacy and numeracy benchmarks (Unterhalter, 2014). In general, it will be important for each developing country to address the necessary next level of education, secondary or tertiary to ensure that current students have the appropriate educational opportunities to further their learning.
Finally, there are policy implications from the associations between education and the labour market, which will be of paramount importance in the future. Some of the important rewards of past investments in education will only be realized after 2015. Investments in education (and health) help build human capital, which can potentially enhance labour productivity and economic growth. However, this fruition process takes time, as children need to go through more than one educational cycle before they become economically active. Similarly, improved child and maternal health care today can lead to healthier students and workers only after several years have passed. Such payoffs may take long to materialize, especially in countries that were not investing much before the MDG period. Many middle-income countries had already invested in education before the MDG period. Bhutan, for example, had made significant progress in improving the levels of human development in the 1990s. Most low-income countries stepped up human development investments more clearly in the MDG period, so they may only see the payoffs in the post-2015 period.

Sánchez and Cicowiez (2014) have found that the delayed impact of MDG-related investments (in four developing countries) could result in additional GDP growth of 0.2-1.0 percentage points between 2016 and 2030 (on an annual average basis), with important employment repercussions. At the same time, these authors find that the inability of the economies to adjust to absorb the increased stock of better-educated workers could limit the economic gains. It is important to address such demand side constraints in the post-2015 era because they push down the skill premium, thus providing a disincentive to invest in education. At the same time, they can result in high rates of (youth) unemployment and pronounced skill mismatches in the labour market that act as catalysts of underemployment. In the absence of corrective policies, these changes can potentially have negative repercussions such as rising inequality of income and opportunities, persistent poverty and even social conflict. An example of a programme to offset these outcomes from mismatches between education and the labour market is Ghana’s National Youth Employment Programme (NYEP) (UNDP, 2010c). Some further possible suggestions to address them include proper dissemination of information regarding the labour market. Alignment of higher education programmes with employers’ needs can produce more employable graduates as well as ensuring that students have relevant expectations about the labour market. Public funds can be an important method for connecting post-primary education with areas that are short of skilled workers (Majgaard and Mingat, 2012). In Kyrgyzstan the Second Education Project is working to improve the relevance of the education system to the state of the economy (UNDP, 2010b).

4. Measures that promote gender equality and empower women

Many regions have improved gender balance in key areas and are close to achieving gender parity in primary education (United Nations, 2014a, p. 20). Even so there are still some rather large gaps between male and female enrolment at higher levels of education, particularly in sub-Saharan Africa, and substantial differences in the share of women employed outside the agricultural sector across different regions. Women are also much more likely to have part-time employment compared to men and are seriously unrepresented in the political realm.
The initiatives at the national level described below, covering legislative changes, education, the labour market, the political real, and other issues, still hold most potential for helping countries address said gender gaps after 2015.

4.1. Legal changes to enshrine and protect gender equality

Frequently efforts for gender equality have come in combination with legal changes either meant to roll back previous restrictions or to enshrine legal protection for certain rights that women may have had difficulty securing before. Many of the legislation changes that accompanied the adoption of the MDGs refer to gender (see Sánchez et al., 2015). As a consequence, a number of countries such as Albania, Armenia and Bhutan have had legal structures in place, ostensibly to move towards gender equality during the MDG period. Although the outcomes of such laws and strategies have been some progress, many disparities remain (UNDP, 2010a). It is also critical to ensure that new laws emerging from these efforts are reinforced.

The outcomes go beyond gender equality. In Morocco, the Family Code has raised the legal age of marriage to 18, which can have important impacts on outcomes for health goals by way of reducing early childbearing (see section 5). In addition, the new code addressed issues of property sharing and inheritance and legalized the initiation of divorce proceedings by women. Considerable effects have been demonstrated when legal structures have allowed women more autonomy in employment or life circumstances. For example, when the family laws in Ethiopia were changed to raise the minimum age of marriage and allow women to work outside the home without the possibility of denial by their spouse, economic participation by young single women age 15-24 increased considerably. Overall there were significant changes in women’s employment, such as working in occupations that employed more educated workers, in paid and full-time jobs and generally in occupations that were outside of the home (Hallward-Driemeier and Gajigo, 2013).

4.2. Gender equality in education

In general there has been relatively good progress on raising enrolment rates for girls in many regions, as a result of a variety of interventions including those specifically designed for this. Some examples of these measures include: schools targeted to girls; proper infrastructure, such as gendered sanitation facilities and schools in closer proximity to the villages where girls live; scholarships targeted towards girls; and dormitory facilities for girls, particularly at the secondary stage and above.

A comprehensive study of education initiatives geared towards girls by Unterhalter et al. (2014) found that interventions such as CT programmes and scholarships for girls have been supportive of better gender equality in education when they have effectively reached girls that are likely either to not enrol or to drop out. Moreover, not only have scholarships for girls been observed to have helped raise attendance rates and test scores for girls but they have also helped raised boys’ test scores and boosted teacher attendance rates (Majgaard and Mingat, 2012, Box 3.3). In Malawi, a CCT targeted towards girls has boosted enrolment,
raised re-enrolment of dropouts and subsequently reduced the dropout rate of enrolled students (ibid, Box 3.2).

Unterhalter et al. also reinforce the idea that school proximity is especially important to girls, with important examples from community schools as these require less travel time. A key issue related to proximity is the overall security situation for girls, particularly those traveling to schools. Girls as well as parents and teachers that advocate for gender equality continue to face considerable risks to attending schools in many regions, particularly in conflict countries (UN OHCHR, 2015). For example, parents in Afghanistan cited fears about sending girls to school as a result of lack of security, in particular attacks targeting girls attending schools (UNESCO, 2009). Schools that required less travel time, such as community schools, reduced security risks and raised parents’ likelihood of allowing girls to attend. The construction of girl’s dormitories in secondary schools has also helped raise enrolment and retention rates in Ghana (UNDP, 2010b). “Girl-friendly schools” that at the same time provide school meals to children from poor and vulnerable communities have helped Egypt become one of the few countries where girls are more likely to complete primary education than boys (UNDP, 2010c). These girl-friendly schools also had facilities that were close to villages, primarily female teaching staff, class hours that allowed girls to participate in household activities, and free tuition.

Another key aspect of girls’ education is the appropriate teacher training that has a basis in gender equality, which has been shown to help reduce drop-out rates and educational outcomes. Overall female teachers are shown to have significant impacts on girls’ learning which will be important to recognize in efforts to recruit more teachers in the post-2015 period. The development of girls’ clubs has also had relevant impacts on a variety of issues including education, reproductive health, gender based violence and general issues of gender equality.

Community involvement has also been important to prompt girls enrol in schools. In Benin, for example, where “Mother’s Clubs” have helped raise educational awareness and boosted girls’ educational registrations (UNDP, 2010b). Nepal has implemented the Welcome to School (WTS) initiative to enrol thousands of new students, over half of which were girls. This involved efforts between the government, communities and various forms of media to increase awareness and outreach (UNDP, 2008).

4.3. Gender equality in the labour market
The evidence for the general effects of women’s empowerment on development is mixed (Duflo, 2012). The implication is then that efforts to boost gender equality may need to be taken on and maintained for their own sake on the basis of human rights as they may require special interventions. There have been significant gains in women’s labour force participation and employment rates globally (World Bank, 2012b, p. 10); although these rates are lower in LDCs than more developing countries. Furthermore, gender wage gaps have narrowed as well. These are results from some successful strategies, including actions by government ministries geared towards empowering women, general investments in education, women’s
employment organisations, government employment programmes that hire significant proportions of women, and efforts to balance women’s work and other obligations. In spite of the progress, two important issues for many women in developing countries are that either they are in more positions of vulnerable employment than men, or their work in childcare, agriculture, trade, home production and other occupations such as waste picking is not considered to be part of the formal sector (ILO, 2012).

Increases in mothers’ education levels are associated with improvements in income (Montenegro and Patrinos, 2013; Majgaard and Mingat, 2012) and child welfare and child health (see section 5), albeit correlations between these outcomes can sometimes be difficult to confirm. There are significant connections between education and employment, as noted in section 3. An interesting finding from Mexico is that general investment in education, without a specific gendered focus, had effects on reducing gender inequality in education and it subsequently increased female labour force participation rates (Creighton and Park, 2010). In the review by Unterhalter et al. (2014), they also found that in some developing countries income and earnings gaps were considerably narrowed by higher levels of women’s educational achievement, particularly secondary education or more. But it is important to note that these gains are not automatic and dependent on other cultural and social conditions.

Programmes in India such as Self Employed-Women’s Association (SEWA) (Blaxall, 2004) and NREGA (section 2, Box 2) had considerable impacts on women’s employment. Other examples of successful employment programmes targeted towards women include the Rural Maintenance Programme (RMP) in Bangladesh that organizes ‘Road Maintenance Associations’ comprised of groups of destitute women, covering an average of 60,000 women per year (UNDP, 2010a). Moreover, other steps taken by Bangladesh’ government to promote women’s economic equality include the withdrawal of a ban on women’s employment abroad and building capacity in the Ministry of Manpower Development and Export for providing security to women workers in the mid-2000s—as described in Bangladesh MDGR for 2005. South Africa’s Expanded Public Works Program (EPWP) has targeted a certain quantity of jobs towards women and has also mandated equal pay for equal work (ibid; Devereaux and Solomon, 2006). In Egypt there has been a significant increase—almost 70 per cent—in the number of women members in six Farm Associations (FAs) targeted by the Pro-poor Horticulture Value Chain in Upper Egypt (SALASEL) Joint Programme (United Nations, 2014b).

An issue to be considered with regards to employment programmes is the nature of the recruitment process. For example, Rwanda had far better success attracting women to programmes that had information and recruitment programmes specifically geared towards women (Devereaux and Solomon, 2006). In addition, the nature of the work to be undertaken and whether there is the perception of gendered work roles matter as well. An example comes from Argentina’s Jefes y Jefas de Hogar Desocupados Programme which was an expansion of the social safety net in response to the economic crisis of 2001. This unemployment programme was originally targeted towards male household heads, but had a 69 per cent female household heads participation rate owing to the fact that many of the jobs were more
attractive to women, for example working in community kitchens (Devereaux and Solomon, 2006).

There are also issues with women’s time constraints such as expectations about childcare and housework that are often not taken into consideration when initiating these programmes geared towards women. A potential solution was implemented in Ethiopia as part of the Employment Generation Scheme whereby women were allowed to work shorter hours in order to allow them to complete other tasks, although this could potentially enshrine gender differences in wages (ibid). Community childcare centres in Colombia were shown to have significant impacts on women’s labour force participation rates, particularly for low income women (ILO, 2012). At the same time, there are significant gender disparities that remain in many countries, despite improvements in economic conditions.

The introduction and expansion of access to cleaner more reliable fuels has created income-generating opportunities for women in Burkina Faso, Ghana, Mali and Senegal. In addition, as a further synergy between MDGs 2, 3 and 7, these new fuel sources have saved women considerable time that they used to spend fetching, procuring and transporting fuel, which can now be used for education, formal employment or other entrepreneurial activities (UNDP, 2010b). The cisterns programme as part of the Fome Zero programme in Brazil has freed women from the duty of fetching water from distant sources and freed up time for education (and other activities) (UNDP, 2010c).

4.4. Women’ political representation

The importance of women’s representation in political office is demonstrated by evidence that women parliamentarians are a critical component of adequately addressing gender issues as parliaments with higher percentages of women are more likely to address women’s issues (Ballington, 2008). Nonetheless, women face a number of initial constraints to entering politics: gender discrimination, psychological barriers on the part of candidates, a lack of political will to change gender balances, a lack of political networks, incumbency issues, security issues, and post-conflict democratic concerns.

The most effective and relevant interventions to raise the representation rates have included quotas for women in various levels of government and special groups or wings within political parties devoted to women’s issues. An important constraint on women’s political representation in many countries is a lack of financing for campaigns and other political operations (UNDP, 2007). There are a number of strategies to overcome the lack of funding such as fundraising networks geared towards women candidates; internal party funds dedicated to women candidates; subsidies to women candidates either from the party or from national political organizations; limits to campaign or nomination expenditures; allocation of public funding to political parties with specific portions to women candidates; allocation of specific funds to training women; and examination of party budgets through a gendered framework (UNDP and National Democratic Institute for International Affairs, 2012).

There are generally two strategies for quotas: for candidates or for reserved seats within the legislative body. The former usually manifests itself as party quotas for the number
of women candidates on party or electoral lists and 50 countries have legislated such quotas (ibid, p. 24). Some countries, such as Armenia, have also had some success in boosting the number of women in parliament by first working to implement voluntary quotas at the party level, which then subsequently led to changes in legislative quotas. In other countries parties have also established internal quotas for women, particularly for governing boards or other executive committees. There have also been steps to create women’s wings within parties such as the Women’s Secretariat of the FLMN in El Salvador and the National Secretariat for the Political Promotion of Women in the National Action Party (PAN) of Mexico.

4.5. Remaining issues in gender equality

An aspect to keep in mind for post-2015 implementation is that improvements in some facets of gender equality do not always translate into broad gender equality across all areas. For example, Mongolia has performed well on gender equality in education, but has not performed nearly as well on measures of economic and political equality despite already possessing laws enabling women’s representation in government (Khan and Aslam, 2013). Moreover, Mozambique has performed relatively well on the political front but still struggles with a low rate of female literacy. On the other hand, Vanuatu has comparatively high rates of female literacy, but had no female parliamentarians as of 2014 (according to World Bank data).

In a number of African countries, customary laws—which often accord fewer rights to women in areas of adoption, marriage, divorce and inheritance—operate alongside statutory legal structures. Even with laws in place that aim to ensure equal legal status between genders there may be social pressures to follow customary laws (The Huairou Commission and UNDP, 2014). Grassroots women’s groups in a number of African countries have undertaken important steps in improving women’s land and inheritance rights. The efforts include the engagement of communities to change perceptions and ensure that women’s claims are adequately addressed (Lawry et al., 2014).

Practices, beliefs and traditions also create certain perceptions associated with health service personnel that act as constraints to improved maternal health. In Afghanistan, for example, women’s need for skilled attendance at delivery and access to emergency care when pregnancy-related complications occur is not fully met because of the inadequate number of qualified female staff, especially in rural areas. This limitation is emphasized in the country’s MDGR published in 2008. A combination of historical, social and cultural reasons makes it difficult to recruit and retain female health workers in the country. Achieving greater gender equality amongst doctors and nurses will thus contribute to improving reproductive health and should feature prominently in efforts seeking the achievement of education and gender goals.

5 For example: Australia’s Labour Party, Cambodia’s Sam Rainsy Party, Germany’s Christian Democratic Union, India’s Bhartiya Janata Party, Mexico’s Party of the Democratic Revolution, Morocco’s Socialist Union of Popular Forces, and South Africa’s African National Congress.
There are some useful examples of existing projects that could help to meet the expanded targets for gender equality in the proposed SDGs such as successful interventions related to ending violence against women, including sex trafficking and sexual and other types of exploitation. Programmes in Bangladesh, Colombia and Uganda have helped to improve awareness of gender-based violence and coping mechanisms, to sensitize elected representatives to the issues (United Nations, 2014b; Abramsky et al., 2014). In Malawi a programme has worked to address gender-based violence against women with HIV/AIDS, as well as communication strategies and HIV risk awareness (UN Trust Fund to End Violence Against Women, 2014). Interestingly, soap-operas (Latin America) as well as documentaries, radio programmes and online platforms (Cambodia) have been used to expose and prompt dialogue on the dangers of sex trafficking, exploitation and other human rights violations against women (ibid).

5. Integrated and effective health interventions

Most countries across all regions of the world have reduced child and maternal mortality in the past decades. The fight against HIV/AIDS, malaria and other diseases has also saved millions of lives. Developing countries, in particular, have made notable headway towards the health MDGs, although they will have to address unfinished business beyond 2015. The progress is the result of the scaling up resources to implement numerous policies and programmes in the MDG period, some of them prompted by the MDGs themselves, others not. Many of these policy interventions are well-known because of their simplicity, effectiveness and affordability; a minority are costly but highly effective.

This section identifies interventions used in the MDG period, which, if implemented adequately, still have potential to continue helping countries addressing unfinished MDG business and paving the way towards renewed development policy efforts in post-2015. Public health spending is the preamble to the discussion of interventions as this is perhaps the most direct measure of the amount of public resources that a country’s government devotes to obtaining good health outcomes. Good governance and strong institutions are also a necessity for both spending well and implementing adequate policies (see Sánchez et al., 2015).

5.1. Health spending

Policies for meeting health goals rely on public health spending. Countries that record low public health expenditure per person by and large tend to perform relatively worse in any of the indicators associated with the MDGs (see, Figure 3, for an example using the infant mortality rate). Efforts to increase health spending vary from country to country but, overall, the trend has been that countries have scaled up health spending per capita in the MDG period. In fact, some countries have agreed on concrete spending targets at the regional (Africa) and global (prompted by WHO) levels.

6 More than half (70) of a sample of 129 developing countries increased public health expenditure per capita (at constant 2005 US$) during 2000-2007, compared with 1995-1999, according to estimations from the World
An encouraging trend in the MDG period is that in many emerging market and developing economies health spending by regional and local governments is outpacing health spending by central government spending (Fan and Glassman, 2014). This suggests that local governments in developing countries have become more important players for the implementation of health policies during the MDG period (see Sánchez et al., 2015). Their participation alone or in partnership with other actors has been a necessary bridge between policies and the poor. A comprehensive survey analysis spanning 64 developing countries indicates that the poor have in fact benefited more from health policies (Wagstaff et al., 2014). Even so, relative inequalities in the MDG health indicators are still appreciable. At the end of the MDG period, the poor faces higher risks of malnutrition and death in childhood and lower odds of receiving key health interventions such as immunizations (ibid). There are two additional worrisome aspects of health spending to consider.

The first is that some countries do not spend enough to meet health development goals. The aforementioned regional and global targets for health spending are not being met by a number of countries (see, Government Spending Watch, 2013, p. 33). This further

Bank’s WDI. Most countries reduced this expenditure in 2008-2012 as a result of the global financial crisis. On the whole, however, the balance is positive since most of these countries (123) increased public health spending per capita in the 2000-2012 period.

The Heads of State of the African Union committed themselves to allocating a minimum of 15 per cent of government expenditure to health, at a Special Summit on HIV/AIDS, Tuberculosis and Other Infectious Diseases held in Abuja, Nigeria, in 2001. Three years later the WHO Commission on Macroeconomics and Health estimated that the cost of essential interventions to avoid preventable deaths was $30–40 per capita in 2004, on the basis of spending levels in low-income countries with good health outcomes, which became a benchmark that countries have pursued.
corroborates the findings of other studies which provide estimates that additional public spending requirements to meet a number of MDG targets, including for health, would range from less than one per cent of GDP to a high of 10 per cent of GDP (see Sánchez and Vos, 2013; Sánchez et al., 2010).

The second is that public health spending may have become ineffective in producing good outcomes in some countries. The efficiency of public health spending is largely associated with aspects of quality of governance and institutions (see Sánchez et al., 2015), but there are other considerations to make in regard to the policies themselves. Upper middle income countries mainly, but also some lower middle income countries to a lower extent, have increased public health expenditure per capita in the MDG period. Interestingly, low income countries and a number of lower income countries where public health spending per person has increased relatively less have witnessed most improvements in health outcomes in the MDG period. Figures 4 and 5 show this has been the case using the absolute reduction in child and maternal mortality rates in part of the MDG period.

Figure 4
Public health spending and child mortality, absolute change between 2000 and 2011

Source: UN/DESA, based on the UN Statistics Division database for MDGs and the World Bank’s WDI for public health expenditure.
This evidence does not necessarily suggest that low income countries spend more efficiently than all other countries. Low income countries in most cases tend to perform less satisfactorily in terms of social indicators while perceptions of corruption are also higher for those countries (see Sánchez et al., 2015). Corruption is a malpractice of governance that seriously limits the quality of public services. Inefficiencies in health spending affect all countries, irrespective of their income. Nonetheless, where governments have more space to spend, such as in the higher income countries, there is generally also more opportunity for inefficiencies to occur and become obvious. In the 2000-2010 period inefficiencies in health care subtracted more than two and a half years of healthy living from the average lifetime in advanced economies, and to some extent less in most other countries (Coady et al., 2014).

The difference in the efficiency of public spending across countries, as depicted in Figures 4 and 5, is associated with the starting point from which countries scaled up efforts for the MDGs. Child and maternal mortality rates were already quite low when many middle income countries adopted the MDGs. These countries were not in such a favourable starting situation by chance; they undertook simple, effective and affordable health policies, such as those identified below, many years ahead the adoption of the MDGs. The key point is that the effectiveness of said policies in continuing improving health outcomes seems to have weakened during the MDG period, if not before, in these countries. These policies are presenting diminishing marginal returns in these countries. The upshot is that some reallocation of public health spending in these countries is necessary to complement existing health policies with new, innovative effective interventions.

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8 Studies of health care systems worldwide suggest that 20 to 40 per cent of total (public and private) health spending does little to improve people’s health in countries irrespective of their income (WHO, 2010).
Because low income countries and some lower middle income countries started MDG implementation facing more serious human development challenges, they have found more room to use simple, effective and affordable health policies with significant improvements in health outcomes, without having spent as much as countries with higher incomes. Furthermore, lower income countries have also benefited relatively more from ODA and an important share of this has not necessarily been tied to budget support, especially early into the MDG period. Private health spending has also become critical for achieving the health goals, especially in the poorest countries where the public sector is unable to shoulder most of the burden of directly providing the needed services for development alone. This issue is also noted in Sánchez et al. (2015).

5.2. Child mortality

Effective and low-cost policies already exist to confront these deadly childhood diseases, but they need still need to be scaled up in a number of countries, especially to reach those segments of the population being left behind. These policies exist as a result of a long-term process that started in the 20th century and escalated markedly in the 1950s, 1960s and 1970s with disease control, through the introduction of ‘vertical mass campaigns’ that targeted a specific disease using a particular technology (UNICEF, 2007). The success of several of these campaigns, particularly smallpox, paved the way for the design of the Expanded Programme on Immunization (EPI), launched in 1974. This was followed by approaches of comprehensive primary health care—to broaden the concept of health-care provision beyond the control of specific diseases)—and selective primary health care—to focus on addressing a subset of key diseases by employing low-cost interventions that are referred to as GOBI.9 EPI, GOBI and other programmes to control diarrhoeal diseases and acute respiratory infections led by WHO made an undeniable contribution to reducing child deaths in the 1980s. The 1990s saw a renewed focus on integrated approaches to health-service delivery by which cost-effective solutions that addressed specific health challenges were combined with community participation, intersectoral collaboration and incorporation into general health-system delivery. Dominant frameworks such as the Integrated Management of Childhood Illness (IMCI) since the 1990s and the Accelerated Child Survival and Development initiative since the 2000s, among others, have been adopted in more than 100 countries covering millions of people, becoming prominent during the MDG period.

Globally the annual rate of reduction in under-five mortality has accelerated steadily since 1990 and much more rapidly since 2005, but it will take until 2028 to reach MDG 4 at the current rate (United Nations, 2014a). Achieving this goal should be a focus of efforts in the post-2015 period, especially in sub-Saharan Africa and Southern Asia where four out of every five deaths of the world’s children under age five continue to occur.

In 2012, the main causes of death among children under five in the world were pneumonia (17 per cent), complications during birth (15 per cent), diarrhoea (9 per cent), and

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9 GOBI stands for growth monitoring for undernutrition, oral rehydration therapy to treat childhood diarrhoea, breastfeeding to ensure the health of young children and immunization against six deadly childhood diseases.
malaria (7 per cent) (UNICEF, 2013a). The share of child mortality from diarrhoea and infectious diseases (malaria, measles and others) has declined between 2000 and 2012. As a result, the share of child deaths in the neonatal period has increased, thus remaining a critical area requiring most effort to continue averting child deaths (UNICEF, 2012, p. 16).

The main interventions that have enabled progress towards the goal of child mortality reduction in the MDG period can be grouped as follows: (i) immunization to prevent deadly diseases, (ii) interventions to reduce child undernutrition, (iii) measures to curb ambient and household air pollution—in a synergy with goal 7, and (iv) antibiotic and rehydration therapies to treat pneumonia and diarrhoea. There are other important synergies to consider. Interventions for meeting the other health goals have also been critical to avert child deaths (see below). Furthermore, fast progress in reducing child mortality has also to a large extent been the result of engaging multiple sectors outside health (Kuruvilla et al., 2014). As noted above, efforts geared towards reducing poverty and hunger (section 2) and education (section 3) also generate positive synergies for reducing child mortality.

**Immunization to prevent deadly diseases**

Immunization against deadly childhood diseases is at the forefront of simple and universal health interventions. It helps children become immune or resistant to an infectious disease, typically by the administration of a vaccine. There is vast evidence for different countries indicating that the use of vaccines substantially reduces the burden and the number of deaths caused by deadly childhood diseases such as diarrhoea, pneumonia and measles (Black et al., 2002; Kyaw et al., 2006; Madhi et al., 2010; Richardson et al., 2010; Glass and Grenfell, 2003). Countries that have increased the coverage with the measles containing vaccine (MCV1) between 2000 and 2012, for example, have by and large witnessed reductions in child mortality in the same period (see Figure 6). The benefits seem to be more concentrated in a number of lower middle and low income countries. Polio has been practically eradicated through effective interventions, largely immunization, and other communicable diseases have been better controlled through vaccination, including tuberculosis, diphtheria, tetanus, pertussis, poliomyelitis, and hepatitis B, among others.

Because it is among the most cost-effective health interventions, since 2000 immunization has received increasing funding from multilateral, bilateral, and other funding sources. At the global level some bilateral donors have increasingly used the GAVI Alliance to strengthen low income countries’ health systems and immunization programmes. At a country level there has been a move away from a project-based approach to the use of broad-based funding mechanisms to support the health sector as a whole.

The main challenge at the end of the MDG period is that immunization cannot reach all the target populations. In 2012 a fifth of children under the age of five were still not covered with MCV1 in a number of countries (United Nations, 2014a, p. 27). Many of these children reside in the poorest, most marginalized populations that are hard to reach. Fortunately, some efforts have succeeded in overcoming the barriers to expanding immunization to such populations. One example is that of the national immunization days
NIDs, which originated as one-day mass polio vaccination campaigns, especially to prevent the spread of polio by immunizing all children under the age of five. NIDs have proved very successful over the years in helping to reduce and in some cases eradicate polio in countries like Pakistan, Bangladesh, India, Angola, Sierra Leone, Somalia, Nigeria, and others. In 2013 polio affected 416 people down from 350,000 cases in 1988, and in 2014 the disease was only spreading between people in Afghanistan, Nigeria and Pakistan. NIDs are effective because they allow reaching out massively to the target population and allow for economies of scale as skilled professionals can supervise a team of volunteers, especially for oral polio vaccine. Because they are mass in nature, however, this intervention cannot be replicated on a regular basis; they are considered supplementary to routine immunization.

Figure 6
Child mortality and coverage with measles containing vaccine (MCV1) in selected countries, absolute change between 2000 and 2012

Source: UN/DESA, based on the UN Statistics Division database for MDGs.

The importance of strengthening immunization delivery at the district level, including through identifying and solving local problems, organizing regular outreach vaccine delivery services, and involving communities to ensure adequate functioning of immunization services have also been underscored (WHO, UNICEF, World Bank, 2009). Another strategy is the use of “integrated child health events” which are aimed to integrate immunization activities with other services provided by the health system. Thus, any contact that a health worker has with a child or mother at a health facility is also an opportunity to check immunization status and, if need be, to administer vaccines.

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10 WHO Fact sheet N°114 (October 2014).
Interventions to reduce child undernutrition

MDG 1 aspires to reduce hunger as this is critical to prevent malnutrition, one of the causes of child death. Issues of child nutrition are extensively discussed here (not in section 2) for two reasons. Children can become malnourished for reasons unrelated to hunger; for example, when the food they ingest lacks the right nutrients, vitamins and minerals. More importantly, poor nutrition begins to have irreversible outcomes since the first days of children’s lives. When this is the case, millions of children are, sometimes forever, stunted, thus becoming more susceptible to dying from diseases such as diarrhoea or pneumonia, as the evidence shows (see, e.g., Black et. al, 2008; cited in UNICEF, 2013b, figure 2). Moreover, children can carry nutritional deficiencies with them at school age which frequently affects education outcomes as well. As they enter adulthood, these children are more likely to become overweight and more prone to non-communicable disease. When they become economically active, they are often less productive and earn less than their non-stunted co-workers.

The World Health Assembly, the decision making body of WHO agreed on a new target for stunting in May 2012—that of reducing the number of stunted children under the age of 5 by 40 per cent by 2025. The UN Secretary-General has also included elimination of stunting as a goal in his Zero Hunger Challenge, launched in June 2012. Data from UNICEF show that 165 million children under 5 were afflicted by stunting in the world around 2013, although the majority of them lived in a handful of countries. Governments in some of these countries have reviewed national programmes and strategies to increase the focus on prevention and integrated programmes. By 2010 more than 30 countries in Africa, Asia and Latin America had joined the Scaling Up Nutrition (SUN) movement to build national commitments to accelerate progress to reduce stunting and other forms of undernutrition, as well as obesity. Other countries such as Ethiopia have introduced country-wide programmes to address child nutrition services in one overarching strategy (UNICEF, 2013b, p. 29).

Global and country efforts have borne fruit. Child mortality rates have declined all across the developing world over the past 40 years, although efforts to reduce them further should continue to be made beyond 2015. This reduction in child mortality has been found to be negatively correlated with undernourishment (Iqbal et al., 2014). The nutritional status of children is directly influenced by food but also by other factors such as: the provision of adequate health services in general; a healthy environment, with access to safe water and basic sanitation and a cleaner air (see below), and good hygiene practices; early and exclusive breastfeeding, among other appropriate maternal care practices (see below); and, micronutrient supplementation.

The availability of clean drinking water and sanitation, in particular, has been shown to help prevent infections and diarrhoea, thus leading to better nutritional outcomes for a given nutrition supply (Charmarbagwala et al., 2004). Policies to improve it are then expected to contribute to avert child deaths. The relative risk of diarrhoea and pneumonia mortality among infants 0–5 months old who are not breastfed has been observed to be, respectively, 10 and 14 times higher compared with infants of the same age who are exclusively breastfed (Black et. al, 2008; cited in UNICEF, 2013b, figure 3). Alas, globally, less than 40 per cent of
infants are exclusively breastfed. Many countries have increased rates of exclusive breastfeeding through interventions such as: legislative changes, distribution of breastfeeding related training materials to paediatricians, establishment of mother-baby lactation centres, and significant efforts to improve awareness through outreach campaigns via a variety of media sources (UNICEF, 2013b, pp. 40-41).

Micronutrient interventions also directly influence nutrient intake and the presence of disease. Administration of vitamin A to children who needed it has long been well known for its effectiveness in reducing: total mortality and complications from measles infections (Villamor and Fawzi, 2000); morbidity for children of human immunodeficiency virus (HIV)-infected women, with gains seen particularly for diarrhoea among HIV-infected children (Coutsoudis et al., 1995), and child mortality in general (UNICEF, 2013b). Zinc supplementation is also effective, safe and low-cost in preventing and treating diarrhoea and pneumonia, and reducing mortality in early childhood (Terrin et al., 2013; Brooks et al., 2005). It is estimated that only 69 per cent of potentially targeted children were reached by supplementation of vitamin A in 2013 (UNICEF, 2013b). Thus, scaling up micronutrient interventions will remain critical beyond 2015. Combining facility-based services and community participation has proven to work to reach targeted children. The participation of female community health volunteers (Nepal) and efforts to fill vacancies of supervisors and front-line workers as well as boosting their skills and improving their motivation (Maharashtra, India) are measures of programmes succeeding in increasing the coverage of Vitamin A (UNICEF, 2013b, pp. 31-32). Integrated child health events such as NIDs have helped support high coverage of vitamin A supplementation in Zimbabwe, Nepal, Nigeria and a number of other LDCs (UNICEF, 2007, p. 32).

Curbing ambient and household air pollution

Air pollution causes deadly respiratory diseases such as pneumonia; hence, reducing it can save children’s lives. Global estimates from WHO attribute 3.7 million deaths to ambient air pollution in 2012, of which 127,000 deaths (3 per cent) corresponded to children under five years of age, and 88 per cent occurred in low- and middle-income countries. In principle, many of these deaths could have been prevented by reducing air pollution. More specifically, exposure to indoor air pollution from household use of solid fuels is a potentially preventable source of increased pneumonia risk in children, but one that, where relevant, could be curbed through specific interventions. The study by Niessen et al. (2009) for 40 developing countries—that accounted for 90 per cent of pneumonia child deaths—revealed that solid fuel use contributed 30 per cent to the burden of childhood pneumonia. The same study finds that the use of low-emission biomass chimney stoves and cleaner fuels are cost-effective and can lower pneumonia incidence by 50 per cent (the attributed burden for indoor air pollution). The concern is that chimney stoves may not completely eliminate indoor pollution if there is substantial leakage into the room with some smoke returning into the house from outside. It has been found that because of this problem physician-diagnosed pneumonia has not been


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significantly reduced for children under 18 months (Smith, 2006; Smith et al., 2011). The use of stove or fuel interventions producing lower average exposures than chimney stoves (e.g. improved smokeless stove) needs to be expanded in countries where populations are heavily exposed to biomass fuel air pollution. The cost of investing in cleaner fuels or new stoves could be offset by spill-over effects such as time saved looking for firewood or other biomass fuels.

**Antibiotic and rehydration therapies**

In the event of disease—because the aforementioned preventive practices were not fully utilized or could not reach out to all the potentially affected populations—treatment because a necessity. Both oral and parenteral antibiotic therapies are cost-effective and safe in the treatment of severe pneumonia on children below five years old (Rojas-Reyes and Granados, 2009; Wardlaw et al., 2006). However, only one third of children with pneumonia received the antibiotics they needed by late 2014. Wardlaw et al. (2006) identify various factors preventing the expansion of the coverage of antibiotic interventions. Firstly, the magnitude of the problem of childhood pneumonia has been overlooked. Secondly, large-scale implementation of antibiotic treatment is still viewed as costly because of the weak health systems and poor supply and logistic chains in many developing countries. Thirdly, concerns have been raised about the low-technical level of community health workers administering antibiotics to children with pneumonia. Lastly, although there have been efforts to include community-based approaches—such as IMCI, these programmes have often been small-scale and fragmented, with the community and health-facility components not adequately integrated.

Rehydration therapy with intravenous fluids (in the case of severe dehydration or shock) or oral rehydration substances (ORS) is the critical intervention to treat diarrhoea. ORS in particular, cost a few cents per treatment and using them is among the most cost-effective interventions in treating diarrhoea. The important reduction in the number of deaths attributable to diarrhoea among children aged less than 5 seen before the MDGs were adopted was largely explained by the implementation of programmes earmarked to control diarrhoeal diseases through oral rehydration therapy (ORT) and other key interventions (Victora et al., 2000). Even so, not all children in the developing world with a diarrhoeal disease receive the appropriate treatment; globally, the WHO observed by April 2013 that there were nearly 1.7 billion cases of diarrhoeal disease every year. Therefore, measures to overcome the constraints to expanding ORT to treat diarrhoea should add to those seeking to expand the coverage of antibiotic interventions against pneumonia in post-2015.

**5.3. Maternal health**

There has been progress in maternal health at the global level but the 75 per cent reduction from 1990 to 2015 that is needed globally to meet the maternal mortality target of MDG 5 is

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12 WHO’s Fact sheet №331 (November 2014).
unlikely to be met without additional efforts (United Nations, 2014a, p. 29). Most maternal deaths take place in sub-Saharan Africa (62 per cent) mainly, and Southern Asia to a lower extent. On the other hand, maternal death is a rare event nowadays in other developing regions, indicating that there is an array of effective interventions ensuring that mothers benefit from an adequate care before, during and immediately after childbirth. These interventions are discussed here; they essentially seek to: (i) improve maternal nutrition; (ii) promote attendance of mothers-to-be to antenatal check-ups; (iii) address staffing issues; (iv) enhance physical infrastructure; and, (v) integrate family planning and reproductive health in policymaking.

The synergy between education and maternal health was discussed above. Investing in maternal health, on the other hand, has been found to improve women’s earnings (in a synergy with MDG 3) and children’s educational outcomes (in a synergy with MDG 2) (Canning and Schultz, 2012). These synergies can in turn be instrumental in reducing poverty (MDG 1). A key aspect to consider is that because maternal and child health are closely intertwined cost-effective health-care solutions have been put together as part of an integrated maternal, new-born and child health (IMNCH) strategy in a number of developing countries (WHO, UNFPA, UNICEF and WB, 2010). Additional investments of US$5 per person per year addressing women’s and children’s health, including interventions for HIV/AIDS, malaria and nutrition (MDG 6), in 74 countries with 95 per cent of the global maternal and child mortality burden, could yield high rates of return producing up to nine times the economic and social benefit by 2035 (Steinberg et al., 2014). Because of the benefits of IMNCH strategies, Global Fund-supported country programmes to maximise IMNCH outcomes gained momentum after 2011, with the UN MDG summit of September 2010 culminating in important pledges to address women’s and children’s health together (Jayakumar, 2011, p. 3). No doubt, IMNCH strategies should feature prominently during the implementation of the post-2015 development agenda.

**Nutrition interventions**

Maintaining an adequate nutrient intake during pregnancy is extremely important to avert maternal deaths. It can be achieved through adequate food as well as the supplementation with iron, folic acid or multiple micronutrients, as well as protein-energy supplementation.

The provision of weekly iron and folic acid supplements (WIFS) to women of reproductive age (WRA) reduces the risk of anaemia during women’s pregnancy. It also improves child survival because the likelihood that a baby is born with anaemia will be lower. A review of eight of 10 WIFS programmes in six different developing countries report reductions in anaemia prevalence rates, ranging from 8.9 to 56.8 per cent over an intervention period of 6 to 16 months (WHO, 2011). In many instances the traditional approach of accessing non-pregnant WRA and adolescent girls through health clinics proved unfeasible such that WIFS were introduced through such institutions as schools or factories, or by mobilizing women’s unions or community groups. Programmes like these will only succeed in having an impact if they are expanded to universal coverage of women. A national nutritional anaemia-control programme targeting adolescent girls in Maharashtra (India), for
example, performed poorly in urban-slum areas where coverage was lower compared with tribal and rural areas (see, e.g., Deshmukh et al., 2008).

Supplementing multiple micronutrients during pregnancy also brings invaluable benefits. Compared to iron-folic acid supplementation alone, supplementation with multiple micronutrients during pregnancy has been found to reduce low birth weight by about 10 per cent (Fall et al., 2009). Balanced protein-energy supplementation during pregnancy also holds great potential; its effectiveness in reducing the prevalence of low birth weight among undernourished women has been demonstrated in a review of sixteen intervention studies (Imdad and Bhutta, 2012).

Pregnant women typically face serious constraints to improve their nutrient intake in the poorest countries. Many interventions to promote maternal health and foetal growth are delivered by the health system but community-based programmes have become very important to reach the key populations. Preventive maternal and neonatal health interventions at the community level have been found to be extremely cost-effective in sub-Saharan African and South East Asian countries (Darmstadt et al., 2005). These interventions include community-based education and communication programmes as these encourage appropriate behaviours to improve maternal nutrition. However, even if community level interventions are available, the MDGs for maternal and child health will not be achieved without universal access to clinical services (ibid). Shortages of skilled personnel, deficient health facilities and other factors seriously constrained clinical services in developing countries (see below). Following the logic of the “integrated child health events” can be useful, too, in order to ensure that any contact that a health worker in this case has with a pregnant woman also serves to check her nutritional condition and, if need be, administer the required supplements. Another opportunity to promote adequate maternal nutrition is through antenatal care visits (see below).

**Regular attendance to antenatal check-ups**

Antenatal check-ups are provided by skilled health personnel. Adequate access to them is necessary to ensure a healthy evolution of pregnancy and to prevent, detect or predict potential complications during pregnancy or childbirth. The WHO recommends a minimum of four antenatal care visits to ensure the well-being of mothers and newborns; when this minimum is reached or surpassed, countries tend to have lower maternal mortality rates (see Figure 7). However, only 52 per cent of pregnant women had such number (or more) of antenatal care visits during pregnancy in 2012, albeit an increase from 37 per cent in 1990.
Different aspects of the quality of antenatal care have been found to be perceived as factors that would translate into delivering healthy babies prompting women to attend antenatal check-ups (Ekott et al., 2013). Overcoming health infrastructure deficits is then critical to ensure that pregnant women attend at least four antenatal check-ups (see below). In the meantime, solutions need to be formulated and implemented, taking advantage of the fact that most women innately worry about the progress of their pregnancy. It has been found that attendance to antenatal care increases in countries such as Tanzania and Kenya with the use of an antenatal attendance card that facilitates prompt care in case of complications later in the pregnancy or ensures women can attend a health facility to deliver (Pell et al., 2013; Mrisho et al., 2009). Furthermore, the existence of adequate monitoring systems and the integration of maternal and child health care are indispensable to engage women in antenatal care. An effective measure has been the move from using manual records to IT-based Mother and Child programmes, has proved resourceful in significantly reducing maternal and child mortality in some countries (see Box 4).
**Box 4**

**An innovative IT-based mother and child programme in Oman**

Antenatal check-up services and follow-up for mother and child health in Oman used to be done manually. A manual record of these services was stored on the so-called “green card” which was strictly kept with the doctors and health institutions. The necessary medical follow-ups were not closely monitored and, as a result, pregnant mothers’ health was affected. Women were also required to provide all personal data for every pregnancy in the green card. Since medical check-ups were scheduled manually with no appointment systems, women’s waiting time at the medical centre or clinic for check-up tended to be long. There was no standardized manner in which pregnant women were educated about the check-ups required during their pregnancy. A different department managed immunization programmes and there was no mechanism to access information on a child from birth. The units providing health care did not access this information and treatment of diseases was not done in a holistic manner.

A new IT-based mother and child programme was introduced in 2006. This allows providing systematic antenatal and post-natal care at all medical centres and monitors pregnant women more closely as birth approaches. The birth history and antenatal care for mother and child are recorded and the records are made available throughout pregnancy from a primary healthcare centre to the hospital. If there is missing information, the doctor is alerted to the missing activities and follow-up actions are taken. With a mandatory process along with a structured tests and immunization programme, the development of the child is carefully and systematically monitored and assessed as well. The checklist embedded within the system also enables healthcare givers to provide better post-natal care, including birth control if required. An electronic appointment system is used to schedule appointments at appropriate time. Patients are managed better because the system automatically sends text message reminders within 48 hours for immunization and examination appointments. Some of the information generated is also shared and linked with other health programmes such as school health and nutrition, which provides better monitoring of the children’s health.

These measures have contributed to reduce the mortality rate of children under the age of 5 years from 35 to 12 per 1,000 live births between 1990 and 2009 and the infant mortality rate from 29 to 9.6 per 1,000 births in the same period. Oman has also been successful in reducing the maternal mortality rate in childbirth from 22 per 100,000 live births in 1995 to 13.4 in 2009. Because of this success, the United Nations awarded and distinguished the programme as one of the two best innovative practices in public governance in 2013.

Source: UN/DESA (2014c).

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**Strengthening of the health personnel**

The availability of skilled personnel at hospital, clinics and other health centres features prominently as one of the key aspects of health infrastructure upon which the delivery of health services critically relies. The presence of female health workers can be critical in some countries (see section 4). There is vast evidence that skilled attendance at birth in developing countries has become an essential condition for safe delivery and reduces the likelihood of maternal mortality (Shah and Say, 2007; Buor and Bream, 2004). The reduction in maternal mortality between 1990 and 2012 is partly explained by an increase in the proportion of deliveries in developing regions attended by skilled health personnel from 56 to 68 per cent (United Nations, 2014a, p. 30). In spite of said progress, in 2012 40 million births in developing regions were not attended by such type of personnel and over 32 million of those
births occurred in rural areas. A comprehensive survey-based study found that Africa and Latin America were poorly covered by physicians and nurses/midwives (Manasyan et al., 2013). In Africa, for example, only 20 per cent of hospitals had full-time physicians.

The shortage of skilled health personnel is a characteristic of many developing countries’ health systems, especially the poorest, that needs to be addressed for continued headway towards the health goals beyond 2015. Low compensation and limited staff development opportunities seriously undermine the quality of social services in developing countries (see Sánchez et al., 2015); health services are not an exception. A meta-analysis of twenty studies for developing countries identifies seven major themes with potential to motivate and retain health workers; namely, financial rewards, career development, continuing education, hospital infrastructure, resource availability, hospital management and recognition/appreciation (Willis-Shattuck et al., 2008).

Even if skilled health workers could be motivated and retained, doctors to the greatest extent, but also nurses, midwives and community health workers are typically not in unlimited supply in developing countries. Efforts to initiate massive recruitment of health service providers may not bear fruit without first investing in traditional education. This intervention, in turn, needs to be preceded by analyses of the current workforce profile and skills mix for more adequately matching specific shortages.

Nonetheless, the payoffs of investing in education do materialize mostly in the long term (see section 3). Because it will take a considerable time to boost the supply of skilled health personnel in developing countries that most need it, complementary training interventions that bear fruit more quickly need to be undertaken to start the transition from MDGs to post-2015 goal implementation. Such training interventions do exist and yield good outcomes. The training of health workers, a major bottleneck in health service delivery in Africa, has been given prominence in at least 20 African countries during the MDG implementation period (Odusola, 2013, p. 15). Examples of training modalities include broad-based training programmes for doctors, midwives and nurses (Botswana, the Gambia, Sierra Leone and Malawi), a bursary scheme (Uganda), and support for schools of midwives and the training of midwives on emergency obstetric and new-born care (Zimbabwe). It has also been observed that shorter durations of training do not compromise the quality of care in developing countries and also allow for task shifting that eases staffing pressure without compromising care (Huicho et al., 2008). Countries have also expanded the health workforce in a short time by broadening the recruitment pool and offering flexible career opportunities and non-traditional entry points to health workers (Maeda et al., 2014). Community health workers in Brazil and health extension workers in Ethiopia, for example, have been found to require shorter periods of education and were quickly deployed.

Traditional birth attendants (TBAs) are another human resource constraint to consider in certain countries. They can be life-saving in some circumstances but present more risks for mothers and new-borns compared with skilled birth attendants, because they acquired their skills by delivering babies themselves or through apprenticeship to other TBAs. Cultural acceptance, cost and distance to hospital services are among the main reasons prompting women to use TBA services (Ebuehi and Akintujoye, 2012). Some countries no longer allow
TBAs to attend deliveries. An alternative approach may be to use TBAs’ strengths while overcoming their weaknesses; for example, by ensuring their roles become more complementary to those of trained medical personnel. TBAs can be trained in life-saving skills, in how to recognize early danger signs, and in encouraging pregnant mothers to deliver in waiting homes (see below) and also accompanying them during labour. Even in the most difficult contexts in African, such type of training has been possible as part of integrated maternal health efforts (Satti et al., 2012; Andemichael et al., 2010). Initial resistance by TBAs to become part of the system can be challenging but it can be effectively addressed through community intervention and incentives.

**Enhancement of the physical infrastructure**

Next to the human resource aspect of health infrastructure is the physical aspect. Decaying infrastructure of health facilities and a lack of basic equipment, medical supplies, and pharmaceuticals have even been observed to be a characteristic not only of low-income countries’ health systems but also in middle income countries (see, World Bank, 2010, p. xiii, for an example on Nigeria). These deficiencies have important implications. Far too many births, more than half in some countries, continue to occur outside health facilities (United Nations, 2014a, p. 25). A cross-sectional survey study for seven developing countries found that only 23.1 per cent of 160 basic EmOC facilities and 2.3 per cent of 218 comprehensive EmOC facilities delivered all the health services they were designated to provide (Ameh et al., 2012). Inadequacies in EmOC facilities are highly correlated with high levels of maternal mortality (Shah and Say 2007; Campbell et al., 2006). Another comprehensive survey-based study found that in Africa and Asia only 70 per cent of hospitals surveyed had performed caesarean sections in the last 6 months, and blood was unavailable in 80 per cent of African and Asian hospitals (Manasyan et al., 2013). Research also shows that developing countries that increased the rate of institutional deliveries (i.e., Tamil Nadu (India) or introduced a centralized EmOC facility and ambulance transfer system (i.e., Kabezi district, Burundi) averted an important number of maternal deaths (Taylor-Smith et al., 2013; Padmanaban et al., 2009). The enhancement of physical infrastructure in the health sector should therefore feature prominently among the development interventions beyond 2015.

Improving transport infrastructure is also critical to expedite the access to health facilities, especially in the face of emergencies and complications. Lack of time and transportation feature among the most frequently stated barriers to women giving birth in a health facility in developing countries (see, e.g., Lerberg et al., 2014). Additional public investments in public transport infrastructure that facilitate access to health centres are necessary. At the same time, governments need to rely on partnerships and local communities to ease the transportation constraint. Partnerships involving joint action of the private sector and NGOs in Africa are facilitating both provision of transport to reach remote locations and access to it through mobile phones (Odusola, 2013). Local communities are easing transport constraints in Africa, too, through the provision of subsidized or interest-free loans for pregnant women to attend check-ups or deliver their babies (ibid).
Even if transportation is available, the distance to the health facilities may restrict access to health services. One life-saving intervention to overcome this restriction, especially where pregnant women living in remote areas cannot easily reach hospitals or clinics, is through the establishment of maternal waiting homes. These facilities provide antenatal care with skilled birth attendants and EmOC, among other services, targeting mostly pregnant women living in remote areas with limited access to clinics. The provision of free food or free/subsidized transportation to the waiting homes is an important measure to prompt this particular population of women to stay at maternal waiting homes prior to their expected delivery dates. A number of studies point to the benefits of maternal waiting homes in Africa, including more deliveries attended by skilled personnel and willingness of pregnant women to seek antenatal care, resulting in a sharp reduction in maternal deaths (Andemichael et al., 2010; Ruiz, 2010; Satti et al., 2010). However, the high investment and operating costs associated with these homes, as well as the cost of maintaining qualified health professionals in these homes, have become issues of concern for sustainability (UNDP/RBA, 2011).

**Fertility and family planning**

Universal access to reproductive health was introduced as part of the aspirations of MDG 5 in 2005. Targets on contraceptive use, unmet need for family planning and the adolescent birth rate were adopted in 2007. Progress with regard to these targets has been seen across developing regions between 1990 and 2012, but important gaps remain (United Nations, 2014a, p. 31-32). The total demand for family planning in sub-Saharan Africa is well below that of any other developing region. Large differences in contraceptive use between urban and rural residents, rich and poor households, and the educated and uneducated have persisted in sub-Saharan Africa. The adolescent birth rate remains high in Latin America and the Caribbean and it has been only timidly reduced in sub-Saharan Africa.

Addressing these gaps should remain a priority of development policy after 2015; tackling them brings about invaluable benefits. Countries with high use of contraceptives, low unmet need for family planning and reduced adolescent birth rates tend to have lower mortality rates (see Figures 8-11). A wealth of research for numerous countries supports this observation (see, e.g., Ahmed et al., 2012; Cleland et al., 2012; Stover and Ross, 2010). The benefits start with the prevention of unintended and high-risk pregnancies which helps to reduce maternal mortality. Subsequently, evidence shows that providing universal access to sexual and reproductive health and reducing fertility rates increases parents’ chance of escaping poverty; allows families to invest more in their children’s nutrition, health, and education; and boosts incomes due to life cycle, distributional and intergenerational benefits (see, e.g., UN/DESA, 2014a; Kohler and Behrman, 2014; Sinding, 2005). The prevention of early childbearing is critical to avoid child malnutrition, missed opportunities at school and work, and the consequent intergenerational transmission of inequality and poverty, and the forestalling of social mobility, as a vast evidence for developing countries demonstrates (Rodríguez, 2013; Hindin, 2012; Hopenhayn, 2012; Miller, 2005).

Evidence points to reductions in abortion and maternal mortality rates in areas in Bangladesh with better family planning services. Unsurprisingly, higher levels of
contraceptive use in these areas led to lower levels of unintended pregnancy and thereby lower levels of abortion and maternal mortality (Rahman et. al, 2001). “Lady health workers” in Pakistan have been trained to deliver services related to maternal and child health, including family planning information and supplies. This programme raised contraceptive use by rural women by almost 50 per cent and an evaluation of that program found that doorstep delivery of contraceptives is central to achieving universal access to modern contraceptive methods in remote areas (Singh et al., 2009). Colombia has had success with promotion of family planning services over a long period in a combined effort between the Ministry of Health and the NGO Profamilia. They were able to reduce maternal mortality from 240 per 100,000 in 1969 to 68 in 2005 and raise contraceptive use among married women from about 20 per cent to 78 per cent between 1969 and 2007 (ibid).

Ensuring the use of contraception and meeting the need for family planning among adolescent girls are perhaps the best strategies to avoid early childbearing too. Beyond such specific interventions, other relevant interventions may include delaying the age of marriage and addressing sexual harassment and violence against women, one of the triggering factors of unwanted early childbearing. This implies overcoming sociocultural barriers as well as legislative changes and sound institutional and governance capacity to enforce such laws (see Sánchez et al., 2015).

Figure 8
Maternal mortality and contraceptive use in low- and middle-income countries, 2010

Source: UN/DESA, based on the UN Statistics Division database for MDGs.
5.4. HIV/AIDS, malaria and other diseases

Efforts to combat HIV/AIDS, Malaria, Tuberculosis (TB) and other diseases predate the MDG period but have been reflected in increased progress since the goals were adopted. They have involved significant collaborations between international organisations and
In spite of the progress, a variety of factors affecting health goals in general have also held back progress for MDG 6 in developing countries. These include: limited health systems, their lack of adequate health infrastructure, as well as an overall lack of necessary funds. Sub-Saharan African continues to suffer most greatly from HIV/AIDS and malaria and feels a serious burden from TB, particularly as co-incidence of HIV/AIDS and TB tends to be high. South and South-East Asia report the greatest prevalence levels of TB.

As shown below, the MDG experience shows that there are generally accepted, successful treatment and prevention regimes to combat these diseases, but these need to be scaled up in some countries. HIV/AIDS remains a serious issue for some regions, particularly in sub-Saharan Africa, resulting in considerable economic effects (Lovasz and Schipp, 2009) and making more difficult for countries to make headway towards other MDG targets (Fourie and Schouman, 2010). This comes as a result of reductions in human capital, diversions monetary and human capital resources, and reductions in overall output levels, among other issues.

**HIV/AIDS**

Some countries have had plans to combat HIV/AIDS even before the MDGs. Nonetheless, this early approach has not always translated into success in combatting the epidemic on its own. The increased efforts expended at both the national and international level as part of the MDG programmes appear to have made a considerable difference in ensuring that the most relevant interventions were incorporated into prevention and treatment programmes. As a result, new infections, the bulk of which occur in Southern Africa, are down 44 per cent between 2001 and 2012 (United Nations, 2014a, p. 35).

There have been three most relevant interventions: anti-retroviral therapy (ART), voluntary medical male circumcision (VMMC), and pre-exposure antiretroviral prophylaxis. It has been shown that the risk of transmission can be reduced by these three interventions by, respectively, 96 per cent, over 60 per cent, and for pre-exposure antiretroviral prophylaxis by more than 40 per cent among men who have sex with men and by 49 per cent among people who inject drugs (UNAIDS, 2013). The effectiveness of these measures, nonetheless, has relied extensively on their integration in a number of programmes, starting with those aimed at raising awareness about HIV/AIDS, and the inclusion of specific populations that are affected by the disease.

**Successful interventions**

The effectiveness of ART has been known for some time. Irrespective of their income level, countries with higher rates of ART provision have seen a correlation with lower death rates

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14 The World Health Organisation (WHO) along with UNAIDS, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the International AIDS Society, the Roll Back Malaria Partnership, the US Presidents Emergency Plan for AIDS Relief (PEPFAR), are just some of the major organizations that have come together to combat these three diseases.
from HIV—almost at the end of the MDG period (Figure 11). ART is an important factor in multiple aspects of MDG 6. It not only reduces death rates from HIV/AIDS, but it also reduces the likelihood of transmission of HIV as well as TB (ibid). Some evidence indicates proper treatment of pregnant women who are HIV positive involves the use of ART in order to reduce the levels of HIV virus in the blood, thereby effectively reducing the probability of transmission to the child (NIH, 2014; UNAIDS, 2013; Padian et al., 2011). A key factor in the successful reduction in symptoms and transmission that comes as a result of ART is the proper provision of the drugs and the proper adherence of patients to the drug regimens. Nonetheless, it has taken considerable efforts on the part of many actors to increase availability and access to ART, particularly because of the cost of providing ART.

**Figure 11**

**Rates of ART provision and overall HIV-related death across countries, 2013**

![Graph showing rates of ART provision and HIV-related death](image)

Source: UN/DESA, based on data from WHO’s Global Health Observatory (GHO).

In 2001 international drug companies began producing generic ART drugs under special terms in international trade law, significantly reducing the cost of providing ART. Two years later, in 2003, only 1 per cent of the affected population had access to ART. This prompted global actors to launch initiatives and increase funding (see, Baggaley et al., 2012). Based on the success that ART has had, universal access to it was formally adopted by the UN in 2006 as MDG target 6B, and more ambitious benchmarks for progress in fighting HIV/AIDS were introduced in a UNAIDS report in 2010 (Nattrass, 2014).

Countries have responded to the global efforts. The provision of ART has been expanded across a wide variety of countries, particularly those in sub-Saharan Africa, as a result of a reduction in costs related to the therapy. By 2012 there were 9.7 million people receiving ART in low- and middle-income countries. Overall, around 75 per cent of people receiving ART in 2013 were in sub-Saharan Africa where ART programmes have led to considerable increases in life-expectancy for people living with HIV/AIDS (UNAIDS, 2014b). However, there are still significant issues with access to ART in a number of
countries. In Botswana and Malawi the provision of low or no-cost ART treatments comes as a result of subsidization by governments or international organizations. Zambia began distributing free ART drugs as early as 2005, and made steps to decentralize drug distribution to the district level in order to improve coverage. The country also instituted programmes to provide ART at all provincial hospitals for further coverage expansion (see MDGR for 2008). In 2010 changes in recommendations by the WHO for starting treatment earlier expanded the number of people eligible for treatment by almost 5 million and subsequently led coverage statistics to fall (Avert, 2014).

While ART has proven the most successful medical intervention in terms of preventing the spread of HIV, other procedures have had a considerable impact and should be included in overall HIV/AIDS related prevention strategies. VMMC has been shown to reduce the risk of transmission of HIV by over 60 per cent and a significant number of sub-Saharan African countries have undertaken large scale programmes to ensure that this procedure is available in addition to increasing the number of procedures performed (UNAIDS 2014a, p. 44; Njeuhmeli, 2011). The procedure is cost-effective but there are still a significant number of men who do not have access to it (UNAIDS, 2013).

Another important intervention, which still has relatively limited application, is pre-exposure antiretroviral prophylaxis for men who have sex with men and those who inject drugs. By taking antiretroviral drugs prior to circumstances in which they were likely to be exposed to HIV, the HIV transmission rate has been found to fall by more than 40 per cent among men who have sex with men (Grant et al., 2010) and by 49 per cent among people who inject drugs (UNAIDS, 2013, p. 24; Choopanya et al., 2013). While the cost of these drugs makes this intervention somewhat more rare, the relative effectiveness rates as well as the existing medical infrastructure for distribution of ART related medicines makes this another strategy that is worth expanding further.

Awareness programmes

In order for the aforementioned interventions to be effective, it will be necessary to raise awareness about HIV/AIDS, its transmission vectors, testing procedures and their availability, treatment options and prevention methods. In the most critically affected areas in sub-Saharan Africa, for example, comprehensive knowledge about HIV/AIDS by young people between 15 and 24 is still below 40 per cent for young men and below 30 per cent for young women (United Nations, 2014a). Condom use is still well below targets among at risk populations.

Awareness starts at the top of the political leadership when it comes to HIV/AIDS (see Sánchez et al., 2015). In fact, there have been some notable efforts at the government level to raise the profile of HIV/AIDS related operations and ensure that they are given the necessary weight in government planning. For example, Zambia, acknowledging the stigma associated with HIV/AIDS in the country, encouraged policymakers and political and community leaders to initiate discussions about the disease (see MDGR for 2005). The country established a cabinet committee devoted to HIV/AIDS. In Malawi, the President is
also the Minister responsible for HIV/AIDS (UNAIDS and Malawi, 2014). Tanzania’s President as well as its parliamentarians have made efforts to maintain the focus on HIV/AIDS through repeated updates on the epidemic and acknowledgments of related issues. Community, religious and business leaders have also all spoken out in Tanzania to promote dialogue and limit risky behaviour (UNAIDS and Tanzania, 2014).

At the same time, there is considerable evidence that awareness programmes—including school-based sex education interventions—can help reduce the risky behaviour that can lead to HIV transmission among youth as well as boost the use of preventative measures such as condoms (Fonner et al., 2014; Kirby et al., 2005). Proper teacher training can have considerable implications for the success of these awareness interventions (Sarma and Oliveras, 2013). In addition, research has shown that mass-media campaigns can be another effective tool in raising HIV awareness and promoting proper preventative behaviours (LaCroix et al., 2014). There have been a number of successful approaches to raising awareness across a variety of groups as well as promote proper behaviours for prevention, testing and treatment, an issue strongly highlighted in a number of recent UNADS country reports. These include, for example, radio and TV programmes (Botswana); nationwide prevention campaigns through the inclusion of community figures (Burkina Faso); marketing of condoms at the local level by community organisations (Central African Republic); peer-led education seminars and interventions for migrant populations (Lao PDR), and national call centres (India, Nigeria, the Philippines and South Africa) (UNAIDS progress reports various countries). There have also been special efforts to involve men in various processes such as prevention of mother-to-child transmission (PMTCT), issues of reproductive and sexual health and gender-based violence in the context of HIV (Nigeria and South Africa). In some cases (Tanzania) the awareness campaigns have been combined with testing for HIV (see below), resembling the logic of “integrated health events”. Some of these initiatives have increased testing coverage rates for not only HIV, but also for reproductive issues and for TB as well.

**Voluntary counselling and testing (VCT)**

In general, free VCT has proven to be a valuable method of reaching potentially affected populations and raising awareness with regard to prevention and treatment of HIV/AIDS. The importance of this strategy has been acknowledged since early in the MDG period and therefore there have been considerable efforts to expand coverage and uptake of free VCT services (Commonwealth Regional Health Community Secretariat, 2002). Proper testing of pregnant women to determine their HIV status is also the first step of PMTCT. Transmission from mothers to children is the most common way children become infected with HIV (Avert, 2014).

There is evidence that VCT can reduce HIV-related risks by changing sexual risk behaviours and is therefore an important factor in HIV prevention (Fonner et al, 2012). Over time there have been moves to integrate testing into standard clinical practice given the rise in the availability and use of ART as well as the increased effectiveness of ART in earlier stages of the disease (Baggaley et al., 2012). This has led to an increase in provider initiated
counselling and testing (PITC) whereby HIV related interventions are often done automatically as part of other health services or as part of general check-ups, following the logic of “integrated health events”. This strategy has led to increased uptake of testing and condom use (Kennedy et al., 2012). Uganda has noted this as a successful factor in their anti-HIV efforts, as has South Africa (UNAIDS and Uganda, 2014; UNAIDS and South Africa, 2012). Automatic testing initiated by Tanzania has also been an important factor in their HIV/AIDS programmes (UNAIDS and Tanzania, 2014). VCT has also been integrated into programmes for PMTCT and early infant diagnosis (EID) in Uganda (UNAIDS and Uganda, 2014). PMTCT initiatives are particularly important due to their synergies with MDG 4 and are also tied with ART programmes. In Zambia a programme to improve coverage of EID through distribution of test results via text message (SMS) has been successful in expanding coverage, particularly among rural populations. The programme has also helped to improve post-natal follow-up care through appointment reminders (UNAIDS and Zambia, 2014).

**Interventions tailored to specific populations**

Tailoring the interventions to the affected populations is a necessary factor in limiting the spread of HIV and helping those with the disease to more adequately live a longer life. An example of this is the development of drop-in centres for testing, counselling, treatment and other HIV/AIDS and sexually transmitted infection (STI) related medical interventions. Wellness Centres operated along the transport corridor between six East and South African countries are aimed at reaching sex workers, migrant labourers, and those involved in long-haul transportation. The centres also provide treatment for regular medical issues that these populations might encounter alongside HIV testing, which has helped to reduce stigma associated with the testing centres (UNDG, 2010). Similar centres have been operated since 1999 in Lao PDR and are targeted towards similar populations with the addition of specific programmes for transgender individuals (UNAIDS and Lao PDR, 2014). India has taken important steps to address issues of transgender people, including ensuring high rates of coverage of prevention services and HIV testing services. In addition, India and Nepal have issued court rulings that recognize transgender people as a third gender and instructed the government to formulate special programmes to support their needs. A third gender was also added to national identity cards in Pakistan, allowing them the right to vote and improving rights for transgender people (UNAIDS, 2014a).

Another important vector of prevention is the appropriate treatment of users of injectable drugs, who have a high prevalence of HIV/AIDS in many developing countries, relative to the rest of the population. Bangladesh is one of the few countries that has the necessary programmes meeting the recommended availability of needles and syringes per user of injectable drugs (ibid). In Nepal combined harm reduction therapy approaches have significantly reduced HIV prevalence in Kathmandu (ibid). In another direction China has vastly expanded the availability of opioid substitution therapy, an important aspect of harm reduction therapy.

As the death rate from HIV/AIDS has fallen, it has become more important for countries to put in place programmes that provide services and support for people living with
the disease. Legal empowerment and education of people living with HIV (PLWH) along with community efforts have been important for reducing discrimination through a variety of programmes including legal clinics in Kyrgyzstan’s (UNDG, 2010), PLWH associations in Yemen (UNAIDS and Yemen, 2013), and the use of traditional leaders to work to combat the stigma attached to PLWH in Zambia (UNAIDS and Zambia, 2014). In a similar vein, the Bar Hostess Empowerment programme in Kenya was developed to train local sex workers as paralegals, including learning about local and national laws and educating other sex workers about their rights (UNAIDS, 2014a). As part of a collaborative effort between Lao PDR, Thailand and Australia, a programme has undertaken nutritional assessments of PLWH, combined education and counselling as well as capacity development for HIV related service providers in Lao PDR for both nutrition and general HIV related procedures. These programmes resulted in better nutritional status of PLWH as well as raising overall HIV testing rates (UNAIDS and Lao PDR, 2014). Ecuador has introduced social protection measures to mitigate the negative effects of HIV/AIDS such as CT programme targeting caregivers of children under 14 with HIV/AIDS (UNAIDS, 2014a). CT programmes have been shown to have beneficial impacts as a method of reducing risky behaviours that may result in HIV infection (see section 2).

Malaria

Malaria remains a serious issue for many developing countries and led to over half a million deaths in 2013, of which 90 per cent occurred in Africa, with a high prevalence of deaths among children under five (WHO, 2014b). There has been considerable progress in combating the disease over the MDG period, though, with a 42 per cent decline in malaria mortality rates globally between 2000 and 2012 (United Nations, 2014a). Much work remains as, for example, only 44 per cent of the at-risk population in sub-Saharan Africa was sleeping under an insecticide treated bed-net (ITN) in 2012. But this still represents a significant and rapid improvement as only 3 per cent of that population was covered in 2004 (WHO, 2014b).

There are a number of recommended interventions for combatting and treating malaria that are agreed on by the WHO, such as, for prevention: free distribution of ITNs, indoor residual insecticide spraying (IRS), and intermittent preventive therapy in pregnancy (IPTp). Rapid treatment of fevers in young children including rapid diagnostic tests (RDTs) is recommended for both prevention and treatment. Artemisinin-based combination therapies (ACTs) have become the first-line treatment for uncomplicated *P. falciparum* malaria. Most country programmes are based on various ways of ensuring that these interventions are carried out successfully and reach the necessary populations.

In a synergy with MDG 4, sleeping under an ITN has been shown to reduce the incidence of malaria and mortality among children under 5 (Demombynes and Trommerlova, 2012; Lim et al., 2011). Those malaria-affected countries whose percentage of children under 5 sleeping under ITNs has increased have witnessed important reductions in child mortality during the MDG period (Figure 12). Although the benefits of ITNs are undisputable, there are issues with the particular methods of delivery. It is not entirely clear which method, such as continuous delivery of partially subsidised ITNs through existing channels, versus time-
dependent delivery of fully subsidized ITNs through special programmes were more effective (Willey et al., 2012). It is important to note that many of the malaria related initiatives, such as distribution of ITNs, are undertaken by or in collaboration with the Global Fund and it is likely that these programmes will continue to require support in the post-2015 period as well.

**Figure 12**

**Child mortality and children under 5 sleeping under ITNs, absolute change between 2000 and 2012**

![Graph showing the correlation between child mortality and percentage of children under 5 sleeping under ITNs.](image)

Note: For the percentage of children under 5 sleeping under ITNs data refer to the most recent year available for 1999-2001 to 2009-2012, respectively, focusing on malaria-affected countries. Source: UN/DESA, based on the UN Statistics Division database for MDGs.

IRS is another strategy that has proven effective in limiting (if not eliminating) the spread of malaria in many communities and regions (Pluess et al., 2010). This commonly involves spraying DDT or other insecticides inside houses in the affected areas, which both prevents mosquitoes from entering houses and helps to kill those that manage to enter. IRS has been particularly effective in areas with intermittent epidemics but there are still some concerns about the outcomes for high malaria transmission areas. A combination strategy of IRS and ITN use has been found to provide extra protection and should be implemented in high-risk areas (Hamel et al., 2011).

While there has been some success with general treatment of all febrile children under five in high malaria risk areas with anti-malaria drugs, there are concerns that over-prescription can reduce the drugs’ effectiveness (Maude et al., 2010). The use of RDTs for children under five is important as it could reduce the rates of over-prescription and lead to better overall treatment outcomes (Mukanga et al., 2012). It has greatly expanded over the course of the MDG period (WHO, 2013a). The issue is that the limited specificity of the clinical presentation of malaria motivates the need for RDTs for a majority of febrile patients, particularly in malaria prone areas. This improves the treatment of malaria and also reduces
the chances of over-prescription of anti-malarial drugs. In addition, it potentially aids in the
treatment of other illnesses when malaria is ruled out (WHO, 2013b).

As part of efforts to reduce the death rate from malaria, the use of ACTs has proven to
be particularly effective in many regions, although some countries in East Asia have seen a
rise in resistance to ACTs by certain strains of malaria, which could be problematic going
forward. Another issue is that there is limited data on progress for a number of countries on
indicators such as malaria deaths or children under 5 with fevers who are being treated with
malaria drugs. This is a particular issue for some of the countries with the most serious
burdens. The Ebola epidemic in West Africa has also had a significant impact on malaria
control efforts as resources have been understandably diverted toward more pressing needs
(Hayden, 2014).

Some examples of countries where various programmes have been implemented
include Sudan, which enacted a National Malaria Prevention and Control Programme
(NMCP) that included significant increases in the number of patients receiving ACT,
provided free diagnosis and treatment of severe malaria (supported by the Global Fund) and
increased accessibility to malaria services through an expansion of the number health
facilities. To deal with malaria transmission vectors there were also ITN distribution
programmes, changes to irrigation projects designed to combat mosquito breeding grounds
and spraying of residential areas with insecticide (UNDG, 2010). In Ethiopia and Senegal,
there have been significant ITN distribution and IRS programmes and significant increases in
malaria diagnostic testing (The President’s Malaria Initiative, 2014). In Rwanda, the National
Malaria Control Programme (PNILP), whose main interventions have been distribution of
ITNs, behaviour change communication and improvements in treatment, has led to a
significant reduction in deaths from malaria (Rwanda National Malaria Control Programme,
2008). An interesting feature of Rwanda’s PNILP is that regular large scale ITN distribution
campaigns have been combined with existing vaccination campaigns and antenatal care
programmes as a form of integrated health approach. Indonesia also integrated malaria
treatment and prevention programmes into maternal and child health services, which included
ITN distribution (UNDG, 2010). Zambia has also implemented malaria prevention and
control programmes including ITN distribution, IPTp, IRS and prompt treatment of malaria
symptoms (Republic of Zambia Ministry of Health, 2010). Because malaria can have
significant effects on pregnant mothers and their children, the WHO continues to recommend
IPTp as a preventive measure, although this has been limited to Africa given the malaria
prevalence and the types of malaria parasites (WHO, 2012). There are also concerns about
rising rates of resistance by malaria parasites against the most common treatments given
during IPTp (ibid), which may have to be addressed during the post-2015 period. Finally,
because of the important opportunities for synergies between all health-related MDGs, a
number of operations have included ITN distribution in IMNCH strategies (Wallace et al.,
2012).
**Tuberculosis**

There has been gradual progress in reducing TB cases over the MDG period. It is estimated that 37 million lives were saved between 2000 and 2013 through improvements in testing and treatment (United Nations, 2014a, p. 39). Nonetheless, TB remains one of the deadliest communicable diseases with an estimated 9 million infected in 2013 leading to 1.5 million deaths (WHO, 2014a, p. 1). Interestingly, 360,000 of those deaths were of people who were also infected with HIV, reflecting the relative co-incidence of the two diseases. More than 50 per cent of cases were concentrated in the South-East Asian and Western Pacific Regions, with another quarter of cases in Africa. India and China account for a substantial number of overall cases—24 and 11 per cent, respectively.

In a similar vein to malaria, the treatments and strategies for TB tend to be much more generally applied across countries. These interventions have been relatively successful at the global level with mortality down by an estimated 45 per cent between 1990 and 2013 and prevalence down by 41 per cent over the same period (WHO, 2014a). The Directly Observed Treatment Scheme (DOTS) is at the heart of efforts to stop TB, including case detection (by sputum smear microscopy). Another example of a successful intervention includes the introduction of GeneXpert system for TB diagnosis in South Africa. This system is able to diagnose TB and Rifampicin resistance (a good indicator of drug resistant TB) simultaneously, has a much higher rate of TB detection than traditional microscopy and culture for smear-positive samples, and there is some indication of better detection of drug resistant TB as well (UNAIDS and South Africa, 2012). Universal (or almost full) coverage of DOTS has been achieved through national programmes in countries such as Zambia, India and Bangladesh. Zambia has significantly increased TB testing for HIV patients and India has trained more than 600,000 health care workers to carry out tests along with over 10,000 dedicated lab workers examining the samples. While expansion of DOTS has been successful in many countries in reducing mortality rates, this will not lead to an eradication of the disease; only expansion of immunization programmes can accomplish that (Enarson and Billo, 2007). While vaccination has proven quite effective for children, as noted earlier, it has far less effect on pulmonary TB in adults meaning that continued investment and expansion in other prevention and treatment programmes will be necessary (Jamison et al., 2006).

**Strengthening of the health personnel to combat diseases**

The investments in physical infrastructure and human resources the health sector of many countries still need, as noted above, also possess significance in efforts to combat the diseases embedded in MDG 6. The human resource aspect is especially relevant in creating awareness about HIV/AIDS and providing counselling and testing; needlessly to say, it determines the effectiveness of the interventions for prevention and treatment. The HIV epidemic has taken a

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15 DOTS is a standardized treatment regimen using a regular, uninterrupted drug supply, observed by a healthcare worker or community health worker; and a standardized recording and reporting system to assess treatment results.

considerable toll on the healthcare sector, particularly healthcare workers in sub-Saharan Africa, with increased caseloads and higher burnout rates and subsequently higher attrition rates (Tawfik and Kinoti, 2006). This has contributed to critical shortage of healthcare workers in Africa, further exacerbating the difficulties of dealing with the substantial health related challenges (Naicker et al., 2009).

Therefore, interventions already noted, both to improve the services provided and reduce rates of absenteeism and attrition, are particularly important for improving outcomes for meeting MDG 6. Paying providers based on their performance in Rwanda, under the pay-for-performance (P4P) scheme, helped to boost the rates of uptake of HIV counselling and testing and at a relatively minimal cost per patient (de Walque et al., 2013). There have been some encouraging spill-over effects from overhauling health systems to expand ART programmes in Malawi and Ethiopia, leading to a strengthening of the health personnel at a variety of levels and an improvement in health outcomes in general (Rasschaert et al., 2011).

Because the necessary investments in traditional education to boost the supply of skilled health workers take time to bear fruit, as noted above, short-term training initiatives also become critical to combat HIV/AIDS or malaria. South Africa has had success with nurse initiated management of patients on ART; nurses have been trained and authorized to administer ART and monitor patients (UNAIDS and South Africa, 2012). The aforementioned programmes for combatting malaria have also included training for malaria treatment to doctors and medical assistants (Sudan), training on malaria case management services for thousands of extension workers (Ethiopia), and home-based care programmes with trained community health workers for helping to increase the numbers of people treated quickly (Rwanda).


The social policy efforts identified and discussed above are cost-effective in most cases; when they are not, they are still effective but possess cost issues that can be addressed. They exist as a result of a long-term process that predates the MDGs in most cases, but countries stepped them up more vigorously for MDG implementation. The evidence presented indicates the numerous ways in which these social policies have been critical to make headway towards poverty reduction and human development in the MDG period. These are policies that still hold great potential to address unfinished MDG business and further enable progress for broader development goals after 2015.

Some overarching principles emerge from the review of these policies’ implementation in the MDG period, irrespective of the goal, that will be important to keep in mind in shaping development policy going forward into the post-2015 era. Firstly, no single social policy approach is applicable in all circumstances. Therefore, policies will have to be tailored to overcome constraints to each country’s and community’s systems, including those of human capital, physical infrastructure, financial, socioeconomic or capacity nature, as well as the urgency of achieving results and other timing issues. Secondly, the potential of social policies seen in the MDG period will only continue to be fully exploited if they reach the poorest and most vulnerable populations that most need them. Thirdly, in some particular
contexts the best known social policies may no longer be effective as when they were introduced—as has been the case for some health policies during the MDG period. Monitoring the effectiveness of social policies on a regular basis will thus be critical; when the best practices are not producing marked improvements in outcomes, they will need to be complemented with other, more innovative policies. Fourth, communities play a critical role in implementing integrated solutions across different social sectors and goals and in making sure they can reach critical populations. Communities will have to be key actors at the forefront of the post-2015 development agenda implementation. Fifthly, social policies, intentionally or not, in most instances also result in progress towards more than one goal at the same time. The implication is that continued implementation of these policies will be akin to the idea of pursuing a coherent, integrated and indivisible set of goals for sustainable development beyond 2015. Additional lessons that are more specific to goals 1 through 6 and the implications for post-2015 are summarized as follows.

### 6.1. Lifting the poor out of poverty through social protection

The emergence of effective social assistance programmes in developing countries has been an important feature of the shift in social protection during the MDG period. For middle-income countries, in particular, the impact on poverty and vulnerability of the extension of social protection currently underway has been of paramount importance. More broadly, countries with stronger social protection and assistance institutions show lower rates of poverty and vulnerability, and are more resilient in the face of economic and social transformation. Social protection policies, nonetheless, have faced two broad challenges: (i) how to consolidate the often myriad small social assistance programmes into a single one that can standardize practices, reduce duplication and improve efficiency, and (ii) how to ensure the integration of non-contributory social assistance programmes into the contributory part of a social protection system in order for social assistance to have a longer-term focus. The post-2015 development agenda will have to address these challenges, since it recognizes the need to implement nationally appropriate social protection systems and measures for all, while achieving substantial coverage of the poor and the vulnerable. For the first challenge, it will be important to keep in mind the experiences of countries that have created a unique registry system for all policies in order to improve efficiency. An approach focused on families as opposed to individuals could eliminate unjustified overlaps of programmes and would be more effective. For the second challenge, extension of social protection programmes to include informal workers will be important to improve coordination and sustainability.

More specifically, in the case of low-income countries mainly, the extension of social assistance programmes has faced serious financing constraints for long-term sustainability in the MDG period. Alternative sources of resource mobilization will be needed to achieve substantial coverage of the poor and the vulnerable in post-2015. Capacity constraints are also an issue in low-income countries. Transforming time-limited interventions into well-supported and resourced institutions will also be a challenge. Overall, the future of social assistance in the least developed countries is promising but insecure, so it will require additional financial and technical support from global partners.
Cash transfers have been the most innovative and effective instruments of social assistance for the past twenty-five years in developing countries. CT programmes were successfully scaled up in the MDG period to reduce extreme poverty while also positively affecting other MDG areas such as education, health, nutrition, gender, and the environment. Other instruments of social assistance such as subsidies and in-kind transfers have improved their efficiency and importance but they have paled before the impact of cash transfers. A relevant conclusion from the MDG implementation period is that CTs cannot be considered as silver bullets for promoting human development outcomes without: (i) tailoring the design of CT programmes to specific conditions, and (ii) supplementing them with supply-side interventions.

The stage of development and institutional capacities of targeted populations are very important for designing the most adequate type of CT programmes. Although the tailoring of CT programmes is context-driven, well-designed community-based targeting schemes and unconditional or low-conditionality programmes could be better suited to reduce poverty and generate positive spill-overs for other development goals in the least developed countries. Programmes with an important degree of conditionality in these countries can constrain resources badly needed for basic long-term social infrastructure because they tend to be more costly. At the same time, more sophisticated conditional programmes with improved monitoring and evaluation mechanisms will be more effective in middle-income countries.

Supplementing CT programmes with supply-side interventions will be critical to maximize their impact. For example, a number of studies suggest that better learning outcomes for children brought into school by CCTs are mixed (Levy and Schady, 2013; World Bank, 2013a). It is equally significant that while CCT programmes improve enrolment rates, they can also be factors leading to larger student-teacher ratios, thus handicapping the quality of education (Hasan, 2010). In this case, then, increasing the number of teachers becomes a necessary intervention to translate larger enrolment rates into good education outcomes.

6.2. Raising access and outcomes in education through broad spectrum interventions

General interventions have been shown to have positive educational outcomes in the MDG period. Even so, there is still unfinished business in the achievement of universal primary education. There are still gains to be had from many of these interventions, which can facilitate that continued progress. Even countries that will not meet the targets soon should continue using said general interventions through the post-2015 period. This will require spending more and better in education.

There is evidence for the effectiveness of spending on completion rates in the MDG period. It appears that spending in primary education can still bear fruit for developing countries irrespective of their level of income. Given that relatively modest increases in expenditures can impact completion, there is room for considerable improvement despite limited resources, particularly in sub-Saharan Africa. Scaling up primary education spending should feature in the post-2015 efforts towards ensuring that all girls and boys complete free,
equitable and quality primary (and secondary) education. These expenditures will become part of a virtuous cycle between education and development as increased spending begets educational improvements, which raises output and therefore results in increased government revenue. It will be necessary to improve infrastructure, human resources, and make education more affordable and relevant for productive use.

The construction of many more schools has had a positive impact in the MDG period, especially in LDCs; because there are still important deficits in this regard, it should continue to feature prominently among development efforts going forward. The upgrading of existing schools and related facilities, especially sanitation facilities and accessibility, will help to further improve enrolment and completion, bringing more girls and children with disabilities into schooling. At some point there are likely to be diminishing marginal returns from some of the most effective strategies, such as new school construction, necessitating shifts in strategy. That point will not be reached soon in many countries that still face rapid population growth rates or where parts of the population may remain unreached for some time.

At the end of the MDG period many developing countries still require the presence of effective teachers in the classroom. Post-2015 efforts will require further expansion of teacher training programmes, recruitment efforts and community involvement to reduce the student teacher ratio below the generally accepted maximum level (40 to 1). Training programmes that operate concurrently with teaching opportunities can help to raise the level of education of both teachers and students and will result in more immediate effects. For those countries that are already closer to the appropriate number of teachers, further interventions to raise the skills of both existing teachers and those currently in training will make a significant difference. In all areas continued and expanded efforts to retain effective teachers can be accomplished through competitive salaries and proper structuring of incentives and advancement opportunities. Finally, further efforts to strengthen monitoring and evaluation systems such as including administrators and community representatives in monitoring has proven effective in ensuring teachers perform their required duties.

The reduction or elimination of school fees, particularly for poorer citizens, has helped to boost enrolment as part of many countries’ to pursue the MDGs. Any remaining school fees will have to be eliminated if all countries are to achieve universal, free and equitable primary education in post-2015. The new development agenda will posit universal secondary education as a goal. The implication is that fees will also need to be eliminated at that level, where they are still more common. In addition, further efforts must be made to eliminate other costs to education such as textbooks, uniforms and other related materials. The provision of free textbooks and the proper ratio of textbooks to students have been shown to have considerable impacts on educational achievement. Furthermore, there will need to be continued efforts to reduce opportunity costs for school attendance by adjusting the school schedule and location to accommodate local circumstances.

The connection between adequately fed children, proper nutrition and educational attendance and outcomes during the MDG period presents a strong case for the continuation of school feeding programmes in countries at all levels of development. These interventions help to bring children to school and help them continue to attend as children with proper
nutrition are less likely to be burdened by diseases and infections that would keep them out of school. School feeding programmes also have important spill-over effects on nutrition status for other family members, particularly siblings. Furthermore, these interventions have synergistic effects with other interventions, freeing up income for other purposes, including learning materials.

In their efforts to achieve universal primary education, developing countries have, by and large, focused to a much greater degree on enrolment as opposed to completion. Greater focus on completion will be necessary in post-2015, which calls for extra efforts to gather data about out-of-school students. Without better knowledge of the conditions preventing children from attending, it will be difficult to introduce proper measures to address those constraints. In addition, monitoring of currently enrolled students through tests of literacy and subject knowledge must be expanded to ensure that they are learning and retaining the material. These types of interventions and practices will be an integral part of meeting the education goals after 2015 and ensuring the best outcomes for the efforts being made.

One of the legacies of the MDGs is the important investment in human capital. Nonetheless, there have been at the same time insufficient creation of skilled jobs, which in many developing countries has resulted in youth unemployment and skill mismatches in the labour market. The post-2015 development agenda should call for expanding programmes to make connections between education and the labour market. Applicable training programmes that give job seekers the knowledge and skills demanded by the labour market have been successful at the individual level. And at the institutional level aligning the educational system with the labour market has produced graduates that have the skills that will be needed for the existing and new industries. In addition, policies that stimulate structural change towards technologies and activities that absorb larger amounts of skilled labour will be necessary. There will need to be expansions of these efforts in tandem with the expansion of efforts to increase secondary enrolment as the education system and the economy as a whole must be made to match each other.

6.3. Strengthening existing efforts to improve gender equality

With regard to gender equality the MDG experience shows important facts. First, women’s political participation can increase investment in human development priorities and inclusion in decision making can have important impacts on sustainable projects. Second, women’s access to land and agricultural outputs has important implications for food security. Third, increased participation by women in the labour force has important effects on economic growth which feeds back into the achievement of other development goals. Gender equality will continue to be an important component in sustainable development beyond 2015 but strengthening the connection will require additional efforts.

Policy makers must make efforts to be aware of potential feedback from policies as this can mitigate potential benefits or benefit some groups while putting others at a disadvantage, as has been observed during the MDG period. This will be important because it represents a potential pitfall in developing new policies to meet a wide range of simultaneous,
perhaps integrated development goals. Attention must be paid to potential conflicts in the outcomes of policies, be it between men and women, boys and girls, or even within families where different priorities may develop as policies are implemented. This will require increased monitoring and evaluation of programmes in order to determine the effects and outcomes and assess if there are detrimental feedbacks. In addition, it must be recognized that broad approaches to targeting gender equality will be necessary as improvement in one area, such as political representation, may not automatically lead to advances in other areas, such as literacy.

Women contribute significant time and effort to activities that are very important to the general health and well-being of the society as a whole, such as child-rearing and agricultural activity. Unfortunately, a wide variety of these types of activities continued to be classified as ‘women’s work’ in many societies during the MDG period and therefore have been stripped of important attributes of work and employment. The new development agenda should then call for further steps to ensure that women’s activities, regardless of the sphere of activity, are valued appropriately. Appropriate space must be made to both include these as legitimate activities and to ensure that other informal activities are recognised as valid.

Quotas for women’s representation in all levels of government did not increase enough during the MDG period. Bridging this gap will be especially important in post-2015 as there are relevant feedbacks between the number of women in government and the way women’s issues are addressed. Furthermore, these quotas need to be adequately enforced and women need the appropriate support to operate successfully in the political sphere. This includes not only political support but also social and financial.

Frequently efforts for gender equality in the MDG period have come in combination with legal changes generally to enshrine legal protection for certain rights that women may have had difficulty securing before. In order to continue advancing women’s economic empowerment in post-2015, it will be necessary to combine efforts between legal changes to ownership and inheritance and accompany them programmes to ensure that these changes are adopted into the wider culture. This must be accompanied by the appropriate legal enforcement and record keeping to properly establishing women’s property rights. This will be imperative particularly as women’s activity expands and they are able to expand their holdings and titles.

6.4. Integrating health policies with more effectiveness

Because maternal and child health are closely intertwined, health policies resulted in more headway towards the MDGs when they featured together as part of an IMNCH strategy. This strategy should address key health challenges, integrate family planning into primary health care, and tackle environmental concerns with regard to the quality of drinking water and sanitation and indoor air pollution. A key lesson is related to improving the effectiveness of IMNCH interventions. While there have been some promising developments with these operations, there are still a number of issues to work out in terms of ensuring that all interventions are undertaken with the proper training and planning. It will be critical that
some interventions do not detract from others, for example by reducing vaccination rates owing to higher costs of integrated interventions, longer service delivery times or other logistical issues. These issues will need to be addressed going forward to increase the efficiency of IMNCH strategies. Overall, though, IMNCH should continue to be a valuable strategy for improving achievements on a variety of development targets simultaneously.

One of the main challenges policymakers have faced at the end of the MDG period is that existing cost-effective policies do not reach all the target populations, even in upper-middle-income countries. Many of the children, women and people exposed to serious health hazards reside in the poorest, most marginalized populations that are hard to reach. The efforts that have succeeded in overcoming the barriers to expanding cost-effective policies suggest that massive outreach combined with integration of policies will be critical for universalizing coverage. More specifically, two complementary strategies that paid off in the MDG period should be continued beyond 2015. The first consists of organizing “massive one day events” that seek out population groups not adequately covered by routine health programmes. This strategy has led to very good results with regard to immunization, provision of nutritional supplements, and other services. It will be worth pursuing in the post-2015 period because, while it permits massive outreach to target populations, it also allows for economies of scale (i.e., skilled professionals can supervise a team of volunteers providing simple health solutions). However, because of the scale of these events they are limited to one day and cannot be replicated on a regular basis so they need to be implemented as a supplement to routine health services. The other strategy is “integrated health events” which should become part of a broader IMNCH strategy. The underlying principle is that any contact that a health worker has with a child or mother at a massive one day event or health facility is also an opportunity to check immunization status, nutritional condition and, if needed, administer vaccines, nutritional supplements, and so on. These integrated events should also be a platform to provide ITNs in malaria-affected countries, antenatal check-ups, testing for a number of diseases, counselling for HIV-positive patients, and other health services as much as possible.

The shortage of skilled health personnel was not adequately addressed in many developing countries in the MDG period, especially in the poorest countries. Not only skills count but also the fact that, because of a combination of historical, social and cultural factors, in some countries women’s need for skilled attendance at delivery and access to obstetric care has not been fully met because of the inadequate number of qualified female staff, especially in rural areas. Motivating and retaining health workers has been important to address the shortage. Nonetheless, the lesson is that even if health workers can be motivated and retained, the critical move to overcome the existing human capital deficit is through increasing the supply of new skilled workers. Efforts to initiate massive recruitment of health service providers will not bear fruit without first investing in traditional education. Post-2015 efforts geared at ensuring equal access for all women and men to affordable quality technical, vocational and tertiary education, including university, should take into account the need to close important deficits of skill health personnel, including those of skilled women. The implication is that traditional education will have to be complemented with short-oriented, broad-based training programmes for doctors, midwives and nurses, especially in the poorest
countries. Broadening the recruitment pool and offering flexible career opportunities and non-traditional entry points to health workers will also be important. Community health workers and health extension workers should feature as critical actors for the provision of health services because they typically require shorter periods of training and can be deployed quickly. Because these efforts towards recruitment of quickly trained workers will not be sufficient in the poorest countries, pooling other resources will be a necessity. Traditional birth assistants could be trained to adjust their roles to be complementary to those of trained medical personnel, particularly in the poorest countries where the deficit of health workers will remain greatest for some time.

As the end of MDG period approaches, health facilities are still either non-existent or possess decaying infrastructure even in middle income countries. Investing more in public hospitals, clinics, and so on, is a necessity that was broadly acknowledged even before the MDGs. What has become more apparent during the MDG period is that building infrastructure is still a necessity but it goes beyond traditional health facilities. For example, addressing transport infrastructure deficits needs to be at the forefront of policymaking going forward. Investments in transport infrastructure will be critical to expedite access to health centres in order to prevent, for example, maternal death and disability, especially in the face of emergencies and complications during pregnancy. This intervention, in turn, can contribute to avert deaths and injuries from road traffic accidents—one of the aspirations of the SDGs. But efforts need to go beyond investing more in public transport infrastructure. The MDG experience shows there has been success when governments have relied on partnerships and local communities to ease transport constraints and target those populations that most need medical attention while also incentivizing their demand for these services. The use of subsidized or interest-free loans for pregnant women to attend check-ups or deliver their babies, for example, could feature among the interventions for easing this constraint going forward.

At the same time, the MDG experience shows that investments in health facilities cannot be neglected. Two interventions that may be promising for the implementation of the post-2015 development agenda are maternal waiting homes and drop-in centres for testing, counselling, treatment and other medical interventions. Maternal waiting homes will be important as long as the distance to health facilities remains an important constraint, especially to pregnant women living in remote areas with limited access to clinics but demanding key services such as antenatal care, birth attendance, and EmOC. The development of these homes should be accompanied by measures aimed at creating more demand for their services such as the provision of incentives including free food, free/subsidized transportation, and others. On the other hand, when operated along important transport corridors connecting countries, drop-in centres can become an effective mechanism to reach sex workers, migrant labourers, and those involved in long-haul transportation. The centres should provide testing and treatment for HIV/AIDs, in particular, but they should also cover regular medical issues that said populations might encounter, such as malaria or upper respiratory infections. The challenge is that, as in the case of any investment in health infrastructure, the investment and operating costs of these interventions, as well as the cost of
maintaining qualified health professionals in these homes, may be high and can hamper sustainability.

More broadly, two additional issues arising from the MDG experience are the cost and effectiveness of the health policies themselves. On the one hand, some policies are costly but they are effective. On the other hand, some policies are not that costly, but their effectiveness is reaching their limits. In the first case, for example, the use of antibiotics and ART therapy are effective for combating pneumonia and HIV/AIDS, respectively, but their use is not easily disseminated widely in some countries where they are perceived as costly interventions. Ensuring that essential medicines and vaccines are affordable for all will be critical to achieve universal health coverage after 2015. This will depend on two important factors that hold the most potential to reduce the cost: support research and development of vaccines and medicines, on one hand, and improvements in the supply and logistic chains in developing countries, on the other. With regard to the latter, the MDG experience shows that such improvement is critical to allow large-scale implementation of antibiotic treatments to combat pneumonia. Moreover, ART provision has improved across the board owing to a reduction in costs related to the therapy, but a large part of the provision of low or no-cost ART treatments comes as a result of subsidization by governments or international organizations. Further steps towards the production and distribution of generic ART will help with general provision in many countries by allowing expansions of coverage without adding extra stress to government or international organizations’ budgets. This will require more countries to take advantage of existing provisions in the WTO TRIPS agreement that allow for local production of ART or purchase of generic ART (Wise, 2006).

With regard to the second consideration on cost and effectiveness, some of the simple, effective and affordable health policies of the MDG period seem to have encountered limits in upper middle-income countries mainly, but also in lower middle income countries to a lesser extent. In most cases these countries had undertaken these policies many years before they adopted the MDGs; lower income countries had not. Higher middle income countries should continue the use of the well-known policies in pursuing their development goals after 2015. But, at the same time, in order for them to break the ineffective cycle of health policies, they will also need to reallocate resources for undertaking newer, innovative effective interventions, tailored to their specificities. Even in the context of high-income developing countries simple innovative policies (such as, for example, the move from using manual records to IT-based Mother and Child programmes) have proved useful in significantly reducing maternal and child mortality.

Last but not least, tailoring health interventions to specific populations will be critical to achieve health goals after 2015. More specifically, as the death rate from HIV/AIDS continues to fall after 2015, it will be critical to put in place programmes that provide services and support for people living with the disease. These programmes should be aimed at reducing discrimination and combating the stigma associated with the disease, including through: legal empowerment and education of people living with HIV; training of local sex workers as paralegals, including learning about local and national laws and their rights; nutritional assessments and procedures; community efforts; legal clinics; and social
protection measures to mitigate the negative effects of HIV/AIDS such as a programme for cash transfers.

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