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Box 1 Search strategy

Key word searches included terms such as ‘progress’, ‘success’, ‘outcomes’, ‘health’, ‘community’, ‘governance’ and their synonyms, as well as specific health areas of interest such as ‘maternal mortality’, ‘maternal deaths’, ‘maternal health’, ‘child health’, ‘child mortality’, ‘child deaths’ and terms related to ‘neglected tropical diseases’ (the latter are not discussed in this paper). Success was determined as evidence of positive outcomes and/or reported progress in any of the levels of the health system, as defined in the framework. The design sought to include findings from studies comparing two or more countries. Comparative case studies allow to identify and synthesise information about particular phenomena of interest (here, success in terms of a set of selected health indicators) across settings, and explain the pathways through which context influences these outcomes. (~Goodrick, 2014). Thus, comparative case studies seek to examine patterns across countries seeking to explain why and how these outcomes were achieved and generating plausible propositions (rather than generalisation).

In order to encompass as much as the evidence available on progress in these health areas as possible, we did not search for specific country income level, which is reflected in the results that include papers from low, middle and high-income countries. Findings from high-income countries are relevant given that they can help inform the broader debates in these health areas and generate lessons for middle and low-income countries. MEDLINE/PubMed, Web of Science, EMBASE, Global Health and Google Scholar were searched including peer-review and ‘grey’ literature as appropriate. The grey literature included policy papers and relevant working papers published by international institutions, Non-Governmental Organizations and think tanks. The initial search resulted in 56 hits, from which 38 were identified as possibly useful to the literature review. The abstracts of these papers were reviewed and then appropriate articles were read in their entirety. The bibliographies of relevant articles were also searched to find further sources. This process resulted in 26 papers including 12 peer-reviewed papers, 3 book chapters, and 11 reports. 10 compared low income countries, 2 - middle-income countries, 7 - high-income countries and 7 - a mix of countries from these income levels. Data was extracted from all included studies and thematic analysis was conducted by one researcher, with coding frames shared and validated through input from each author.

Box 2: Case study methodology

A total of 132 interviews were carried out across the 3 countries (see the Table below); the number of interviews per level in each country is shown in the table below. Micro level respondents included service users (both general patients and MCH services users, including women who had delivered babies at health centres), community health workers (~Female community health workers in Nepal), MCH service providers at community level and other community level key informants such as Village Development Committee (VCD) Chairman. Meso level respondents included MCH service providers at district level as well as NGOs/INGOs working on MCH at district level. Macro level respondents included key representatives and policy makers for of the Ministry of Health, NGOs/INGOs, donors and academics working on MCH. Phone interviews with relevant international informants with expertise in both MCH and the selected countries were also conducted. In the respective countries; additionally, international informants who had expertise both in MCH and the selected countries, were also included in this category and interviewed over the phone. Sample size varied in the different countries due to different numbers of key informants and officials with relevant information that were available at the three levels; differences in when the point of reaching data saturation point was reached, and pragmatic considerations such as resources and respondent availability of the different respondents. Sampling decisions were locally driven.
In each country local researchers with expertise in MCH worked alongside an international researcher to conduct in-depth and key informant interviews, supplemented by review of country-specific secondary data sources. Sampling was guided by key areas identified in the literature review, the analytical framework, and as well as respondents’ expertise in MCH interventions and knowledge of the policy environment. Interviews were conducted with policy makers and programme implementers at national (or macro) level. Phone interviews with relevant international informants with expertise both in MCH and the selected countries were interviewed over the phone.

In each country local researchers with expertise in MCH worked alongside an international researcher to conduct in-depth and key informant interviews, supplemented by review of country-specific secondary data sources. Sampling was guided by the analytical framework and key areas identified in the literature review as well as respondents’ expertise in MCH interventions and the policy environment. Thus, based on prior expertise and policy documents, country researchers identified a preliminary list of key informants who were seen as critical to understanding the context of MCH in the three settings. Interviews were then conducted with this set of policy makers and programme implementers at national (or macro) level. Through using snowball sampling, these initial interviews led to the identification of additional further interviewees respondents through snowball sampling as well as of the location of the sub-national level locations (meso and micro) where the study teams seeking to explored. These sub-national level locations helped in identifying where information on how MCH programming takes place from the perspective of both implementers and users could be obtained and what had contributed to effective service provision and uptake. Thus in Rwanda, the sub-national location was Nyamagabe District; in Nepal, the sub-national locations included Lalitpur, Rupandehi and Dolokha Districts; and in Mozambique interviews were conducted in the larger Maputo Municipality and with respondents in the provinces of Tete and Beira (Sofala). Thus efforts were made to ensure that respondents included a mix of government, private and informal providers working at national, sub-national/district and community levels. Snowball sampling was used to obtain in-depth information on themes emerging during the analysis. Sampling decisions were locally driven, thus sample size varied across the three countries due to different emerging themes, configurations of policy makers, data saturation points, and respondent availability.

All interviews were recorded and fully transcribed, and notes of key points were taken down in a notebook. The data were analysed manually using a mix of inductive thematic analysis and deductive analysis, exploring the relevance of the key themes identified in the literature review. A detailed coding structure was developed jointly by the international and country teams and findings from the interviews were summarised following this set of codes and sub-codes with further addition and refinement of codes and sub-codes, identifying linkages and hierarchical relationships between these, to ensure that findings were adequately represented in the analysis. A number of steps to validate the analysis were also undertaken. Firstly, findings from the primary data collection were triangulated with findings from the secondary data; any discrepancies were discussed.

<table>
<thead>
<tr>
<th></th>
<th>Micro</th>
<th>Meso</th>
<th>Macro</th>
<th>Total</th>
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<tbody>
<tr>
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<td>9</td>
<td>11</td>
<td>38</td>
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<tr>
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<td>14</td>
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<td>5</td>
<td>13</td>
<td>20</td>
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<tr>
<td>Total</td>
<td>45</td>
<td>28</td>
<td>59</td>
<td>132</td>
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amongst the international and country teams, and a coherent narrative was constructed. The peer review of this preliminary analysis was then carried out by members of the ODI team researchers, not directly involved in these country studies and. This was followed by peer review by external experts with both subject- and country-specific knowledge. Finally, in-country consultative meetings were organised with key stakeholders to further examine findings comparing these with existing evidence and tacit knowledge, allowing also for the emergence of alternative interpretations.

Limitations of the study included that while being aware of the importance of other sectors in influencing health outcomes and processes, as also depicted in Figure 1, respondents were largely drawn from within the health sector, thus perhaps over-emphasising the role of and the health system and the dynamics surrounding it remained the dominant focus of the study. Additionally, despite the fact that mixed health economies exist in the study countries, it was decided that the focus of the study was on the public sector and government responses and programming around MCH. This emerged gradually during the research, as predominantly public sector respondents were identified via documents and snowball sampling, and it became clear that the major drive towards, rather than extend the analysis further given that UHC is primarily driven from the State, although we recognise that this may change in the future-role of the private sector within the community engagement driver and its linkages with other sectors. Further exploring that these dimensions would be beneficial to understand the extent of the role of the private sector in supporting the entire system reach UHC, need to be investigated further.

We are aware that the differences in the interview sample sizes of interviewees across the countries may have influenced the findings, and the views of groups such as those working at the lower levels are less represented. However, as we note, sampling previously mentioned, we sourced the interviewees finding through and, and, and, through the emerging findings and in-country experts’ interpretation and their view of what the country-specific drivers of progress are; these drivers were more common seen at the higher levels of the system of key sources and followed their direction advice for additional interviews as experts for the respective countries. Moreover, as is often common with qualitative data research, we ceased further data collection in the field when findings emerging from the interviews were reconfirmed by repetition, reaching saturation point. Additionally, we complemented the primary data collection was also complemented by with a country-level comprehensive literature reviews of relevant country-specific information, thus filling any the possible gaps.
Box 3: Health systems strengthening in context – a snapshot

**Political context.** All three countries have undergone challenging political transitions – the 15-year civil war in Mozambique (1977 to 1992) killed more than 1 million people (Hanlon, 2010); Nepal underwent political transition in 1990 and 1991 with a return to multi-party politics from absolute monarchist rule, followed by a civil war involving a Maoist insurgency between 1996 and 2006 (Engels et al, 2014); and decades of tribal tensions in Rwanda culminated in the early 1990s in a civil war and the genocide of about 1 million people (Rodriguez Pose and Samuels, 2011). These civil wars have shaped both the broader economy and the health sector.

**Economic growth.** Despite challenging political and historical contexts, GDP per capita in the case study countries has grown steadily but remains lower than in their respective regions (see Figure 1). Poverty, however, remains pervasive in the case study countries, notwithstanding the fact that Mozambique in particular went from being the world’s poorest country, to achieving 20 years of relative stability, improved security and rapid growth (Rodriguez Pose et al., 2014).

**Official development assistance (ODA).** The study countries have benefited from a higher share of official development assistance (ODA) for health than their regional average. Although the level of national investment in health has grown in the study countries in recent years, external assistance continued to be critical. This external assistance accounted for 53.2% of the health budget in Rwanda in 2010. However, funds were often targeted to donor priorities such as MCH (Figure 2). The share dedicated to the health systems was approximately 10%, and despite fluctuations, this level was sustained or increased over

![Figure 1: GDP per capita (constant 2005 international dollars PPP) in case study countries and regions, 1990-2010*](image1)

![Figure 2: Levels of ODA to health sector in case study countries, 2004-2012 (source OECD, 2014)](image2)

*In World Development Indicators, health spending is measured in constant 2005 international dollar PPP, hence GDP is also measured in these units for the sake of consistency.
time. While the share of external resources in total health expenditure remains low, it is an important source for health care initiatives and indicates sustained donors commitment to supporting health initiatives.

Maternal health. The three study countries saw large declines in maternal mortality (Figure 3). Rwanda demonstrates fluctuations, with worsening in the 1990s during the civil war and genocide and sharply decreasing in the aftermath. The maternal mortality ratio (MMR) also fluctuated in Mozambique, although at lower levels than Rwanda, with decreases since 2007. Nepal began with a lower maternal mortality ratio than the other study countries, the decrease has been gradual since 2000. When set in a regional context, the MMR Rwanda moved below the average after mid-2000s; Nepal and Mozambique show mixed results – both had periods when the MMR was below the regional averages for significant periods, followed by subsequent recent increases. The impact of the HIV/AIDS pandemic and other factors may in part explain this.

The percentage of births performed by a skilled health worker is another important predictor of good maternal and child outcomes (Figure 4). Data show that three case study countries have significantly improved over time. Both Mozambique and Rwanda surpass the 50% average for sub-Saharan Africa in 2010 with respectively 55% in 2008 and 69% in 2010. Nepal, however, remains below the regional average for South Asia. In 2011, it matched the 2000 regional level with around 36% of births involving skilled attendance.

*All data presented here derive from and are an elaboration of world development indicators (WDI) (2014) unless otherwise indicated. All regional averages exclude high-income countries and are averages across countries (rather than weighted by their respective populations). We compute regional averages only when at least half of countries in the region have data. Interagency and IHME MMR estimates were used and top performers were identified in each; in both cases, MMR is computed based on a regression model that includes three key predictors: per capita GDP, the general fertility rate and skilled birth attendance.
**Child mortality.** All study countries (Figure 5) have seen a sustained reduction in under-five mortality and especially pronounced since 1990. Rwanda experienced a sharp increase in 1994 largely due to the conflict but after 1997 the rate decreased dramatically. Child mortality rates in these three countries have remained consistently below regional averages, especially in Rwanda. Importantly, the improvements in child mortality have been equally distributed in the society in Nepal and Rwanda decreasing in all quintiles since the mid-1990s. In Mozambique the poorest sections benefited in particular (Figure 6).

**Figure 5: Child mortality rate (per 1000) in the case study countries and their respective regions, 1990-2010**
Figure 6: Child mortality (per 1000) by country and wealth quintile, 1990-2010