New Norms and Forms of Development

WORKING PAPER II

Maternal and Child Health Where does Nepal stand on MDGs 4 and 5?

Radha Adhikari



THE UNIVERSITY of EDINBURGH School of Health in Social Science



THE UNIVERSITY of EDINBURGH School of Social and Political Science



New Norms and Forms of Development

WORKING PAPER II

Maternal and Child Health

Where does Nepal stand on MDGs 4 and 5?

Radha Adhikari

MARCH 2016



THE UNIVERSITY of EDINBURGH School of Health in Social Science



THE UNIVERSITY of EDINBURGH School of Social and Political Science





This working paper series is part of the research project 'New Norms and Forms of Development: Maternal and Child Health - Millennium Development Goals Four and Five: Where does Nepal stand?' This collaborative project involves researchers from School of Social and Political Science and School of Health in Social Science at the University of Edinburgh; Kamuzu College of Nursing in Malawi; and Social Science Baha in Nepal. Funded by a grant awarded by the Economic and Social Research Council and Department for International Development (ESRC/DFID) in the UK, the project runs from 1 May 2014 to 31 October 2016. Web address: http://newnorms.soscbaha.org

Radha Adhikari is Research Fellow, School of Health in Social Science, University of Edinburgh.

First published in electronic format in March 2016.

© Radha Adhikari

School of Social and Political Science Chrystal Macmillan Building The University of Edinburgh 15a George Square, EH8 9LD, Edinburgh, United Kingdom

School of Health in Social Science The University of Edinburgh Teviot Place, Edinburgh EH8 9AG, United Kingdom

Kamuzu College of Nursing University of Malawi, P/BAG 1, Lilongwe, Malawi

Social Science Baha 345 Ramchandra Marg, Battisputali, Kathmandu – 9, Nepal Tel: +977-1-4472807 • Fax: +977-1-4461669 info@soscbaha.org • www.soscbaha.org

CONTENTS

Background: Maternal Child Health, MDGs and the World Development Context	4
Nepal: Country context	7
Challenges within health service provision in Nepal	10
Conclusion	11
Endnotes	12
References	13

BACKGROUND

Arising out of research for the study, 'New Norms and Forms of Development: Brokerage in Maternal and Child Health Service Development and Delivery in Nepal and Malawi, this working paper examines the Millennium Development Goals (MDGs) Four (reducing child mortality) and Five (improving maternal health) in Nepal within the broader context of global development goals. It provides a brief context for the MDGs and explores different global policy responses towards the achievement of MDG Four and Five targets. More specifically, it examines what has been happening with these targets in Nepal, what country-specific Maternal and Child Health (MCH) activities have been initiated, and whether the targets have been met, while critically questioning the achievements and current challenges related to health service provision in the country.

In 1980, an estimated half a million women died due to pregnancy and childbirth-related causes globally. Almost all (around 99 per cent) of them were impoverished women in low-income countries. By 2010, this number had come down to 300,000 but that figure was not as much as hoped for (Smith & Rodriguez, 2015). Even in 2015, maternal mortality remain unacceptably high, with almost 99 per cent of maternal deaths continuing to occur in low-income countries. It is clear that this is due to poverty and a lack of resources and consequent chronic under-investment in the health sector, including MCH services in low-income countries.

In order to address this challenge, the past three four decades have seen many efforts by women's rights lobbyists and international health policy experts aimed at bringing maternal health into the global health policy agenda. Smith & Rodriguez (2015: 2) write:

The World Health Organization (WHO) began to study the global maternal mortality problem systematically in the early 1980s, and with the United Nations Population Fund (UNFPA) and the World Bank sponsored the first international conference concerning the issue in 1987. The accompanying launch of the Safe Motherhood Initiative marked the emergence of a global health network, a group of individuals and organizations connected by a shared concern for reducing pregnancy-related deaths around the world...

Women's health began to receive more policy attention after the 1976-1985 UN Decade for Women (Smith and Rodriguez 2015). The Alma Ata conference in 1978 and the 'Convention on the Elimination of All Forms of Discrimination against Women' in 1979 identified women's health as an issue requiring urgent attention. The Fourth World Women's Conference in Beijing in 1995 provided added impetus to women's health issues globally. All these efforts were consolidated further at the Millennium Summit in 2000, when maternal health was given considerable space in the global health and development agenda.

The issue of child health appears to follow a similar pattern as maternal health. In 1996, the World Health Organisation estimated that about 5 million neonates died per year, against the vast majority in low-income countries, and yet this area did not receive much-needed attention in global health field. Shiffman (2015) suggests that the attention of

The author would like to thank the research team, Address Malata, Deepak Thapa, Ian Harper, Jeevan Sharma, Pam Smith and Obindra B. Chand for closely and carefully reading earlier version and making valuable comments, also for suggesting very useful references.

global policy on child heath began only after 1999, and that has led to the growth of a global network of expert and policy advocates for child health. As with maternal health, the Millennium Project has given child health considerable priority.

MDG and MCH

In order to address longstanding issues of global poverty and inequity, in the dawn of the new millennium, world leaders decided to meet and develop some strategies to eradicate extreme poverty from the world, improve peoples' living standards, and provide basic education and health services for all, in particular for those living in low-income countries. In September 2000, the three-day Millennium Summit was held at the UN headquarters, and attended by leaders and political representatives from 189 countries. The Millennium Declaration of 'eight global development goals' was made, goals that are known as Millennium Development Goals.¹ The Declaration was adopted by 189 nations and 147 heads of state were its signatories.

One of the key characteristics of the Millennium Project and the MDGs has been its specific focus on setting quantifiable targets towards achieving the eight global development goals by 2015 (Attaran 2005). Three of the eight MDGs are directly related to health, namely, MDG Four: reducing child mortality; Five: improving maternal health; and Six: combating HIV/AIDS, malaria and other diseases. Member states were required to set out country-specific targets to meet these MDGs. Additionally, a proposed follow-up of the outcome of this resolution was passed by the General Assembly on 14 December 2000 to guide its implementation. Since then there have been a series of events and high-level policy dialogues and meetings at global, regional and national levels, some of which are outlined further down.

In 2005, in order to monitor the progress of the *health-related MDGs* and targets, a 'Countdown

to 2015' was set up and a series of high-level policy meetings and international conferences held. In academic and policy circles there has been a great deal of interest in planning and monitoring the progress made on achieving country-specific targets. All MDG-related initiatives and activities have been supported by foreign aid as there has been a tremendous policy push towards meeting all eight MDG targets in low-income countries. However, while most countries globally have made significant progress, the performance of some low-income countries remains unsatisfactory.

The MDGs aim to serve as a framework for sustainable development that contributes to economic development, while ensuring environmental sustainability. This document, as already noted, is concerned directly with the MCH-related MDGs (Four and Five). Globally, MDG Four aims to reduce under-five mortality by two thirds between 1990s and 2015² and MDG Five, to provide women universal access to reproductive health and reduce Maternal Mortality Ratio (MMR) by three quarters between 1990 and 2015.³ These are global guidelines and all countries were to set their own targets. The progress of MDGs Four and Five, and the current MCH situation in Nepal is discussed below.

MDG milestones and related development strategies

- 2000 Millennium Summit in the UN Headquarters: UN Declaration to reduce extreme poverty in the world. With eight development goals, time-bound targets were set, with the deadline being 2015.
- 2001 Abuja Declaration (WHO): Encouraged countries in the African Union to raise their annual health budgets to at least 15 per cent of total government expenditure.
- 2002 Millennium Project was commissioned by the UN General Secretary to set out concrete action plans to end extreme

poverty and hunger in the world.

- 2004 At the G8 summit in Gleneagles, Scotland, the G8 countries pledged to increase their levels of Overseas Development Assistance (ODA) to Africa with many of them pledging to reach the target of 0.7 per cent of Gross National Income (GNI) devoted to ODA in total. The OECD (Organisation for Economic Cooperation and Development) secretariat estimated that the new pledges would increase aid from around USD 80 billion in 2004 to nearly USD 130 billion in 2010, an amount consistent with 2004 rates. This represents 0.36 per cent of the estimated GNI of the G8 countries in 2010.
- 2005 WHO report entitled 'Make every mother and child count' added emphasis to the already urgent issue of MCH service provision (MDGs Four and Five).
- 2005 Paris Declaration on aid effectiveness set the direction for funding modality in the MCH sector and other development activities.
- 2005 Jeffrey Sachs, American economist and adviser on MDGs to the UN Secretary-General Ban-ki Moon, presented his final recommendations in a synthesised volume: 'Investing in Development: A Practical Plan to Achieve Millennium Development Goals'.
- 2005 Countdown to 2015 announced at a multi-disciplinary and multi-professional conference in May of 2005. The idea was triggered by the Lancet publication on child mortality in 2003 and consolidated in 2005. It focuses on health-related MDGs, specifically, Four and Five with particular interest in 75 countries with poor MCH statistics, which together account for more than 95 per cent of the world's maternal, newborn and child deaths. Full reports on MCH service coverage and tracking of the progress made towards achieving MDGs Four and Five by 2015 have been published in 2005, 2008, 2010, 2012, 2013, 2014 and finally in 2015. These provide a

comprehensive picture of all progress made and full updates.⁴

- 2005 The 58th WHA (World Health Assembly) requested Member States to reaffirm the MDGs as critical for health development, and to develop nationally relevant 'roadmaps' that would incorporate their actions as a guide to accelerating progress towards achieving health-related MDGs.
- 2005 A high-level Forum on the MDGs in Asia and the Pacific met in Tokyo, in June 2005, and reviewed the progress made and the challenges faced by countries in Asia and the Pacific, and highlighted actions that could be initiated at the individual country level.
- 2007 MDG Five: two global targets were added. a) Maternal Mortality Rate (MMR) to reduce by three quarters, between 1990 and 2015 b) Universal access to reproductive health by 2015
- 2010 Summit on the MDGs, adoption of a Global Action Plan on keeping the promises: United effort to achieve the MDGs and the announcement of a number of initiatives against poverty, hunger and disease with a major push to accelerate progress on women's and children's health.
- 2012 Countdown reports from all 75 countries are collected (annually since) and progress has been monitored closely. Countdown to 2015 report, entitled 'Building a Future for Women and Children: the report 2012', suggests that the 75 Countdown countries have made varied levels of progress in achieving MDGs Four and Five, while some countries have made significant improvement in their MCH services.
- Final MDG meeting in September, and '17
 Sustainable Development Goals' to continue
 MDG activities have been decided.⁵

Nepal is one of the 75 Countdown countries which have been receiving increased amount of foreign aid and technical assistance to achieve MDGs Four and Five (and Six) targets. With September 2015 being the final date for achieving MDGs, the preceding few years a phenomenal increase in interest and activities around MDG achievements, focussing on what has been achieved so far and asking the 'what next' question. In September 2015, the idea of '17 Sustainable Development Goals (SDGs)' emerged from MDGs' concluding summit, and SDGs have taken over the role and functioning of MDGs.⁶ It is with this backdrop that this paper focuses on the situation and progress updates of MDGs Four and Five in Nepal (and the companion paper will discuss the same for Malawi).

NEPAL: COUNTRY CONTEXT

Since the 1990s, Nepal has been going through a major socio-political transformation. The decadelong 'people's war' (1996-2006) and volatile political situation has had a significant impact on development in all sectors. During the conflict, many health and development infrastructures were destroyed and health facilities disrupted (Devkota and Teijlingen 2010; Singh 2004). A major earthquake in April 2015 further damaged the country's fragile and already overstretched health system.

As one of the poorest countries in the world with a very difficult terrain and significant cultural diversity, and a not so insignificant population of 27 million (2011), Nepal faces serious sociopolitical challenges that affect health service provision, particularly for those living in remote and economically deprived areas. There are also socio-cultural factors that significantly impact MCH service delivery and utilisation (Justice 1986; Hussain et al 2011). The shortage of appropriately qualified health-care professionals, general lack of health facilities, and other resource constraints are major barriers in health service provision. Despite such adverse circumstances, there are studies and reports that indicate that Nepal has made remarkable progress in achieving its health-related MDGs.7

Major milestones and summary of activities related to MDGs Four and Five in Nepal

- 2002 Clinic-based and safe abortion service was legalised. Until then, unwanted pregnancies were terminated, very often by untrained people, using unsafe techniques, putting mothers' health at risk. Legalisation of safe abortion has been considered a major achievement in women's health progress reports and policy documents.
- 2005 In order to encourage women to attend health facilities during childbirth, maternity incentives for women attending health facilities to give birth was piloted in a few districts with financial assistance from the Department for International Development/ UK (DFID).
- 2008 The maternity incentive scheme was upscaled to a nation-wide programme (with continued financial support from DFID) and is currently a government programme called *Aama Surachaya* (translated as 'security for mothers').
- 2009 The Government of Nepal passed a bill granting free universal maternal health services to all women in Nepal.
- 2010 Reports suggest that MCH-related MDGs targets were on track and that Nepal has been one of the few of the 75 Countdown

countries to meet MDGs Four and Five targets well within time.

2015 'Countdown to 2015' suggests that Nepal has successfully achieved its MDGs Four and Five targets.

Reducing Child Mortality: MDG Four in Nepal

In Nepal, there have been several large-scale, nationwide child health programmes since the 1980s when the government, external development partners (EDPs), and health policy-makers considered diarrhoeal disease to be one of the major causes of child morbidity and mortality in the country. In the 1990s, diarrhoea-prevention programmes received policy attention in the health sector and with support from the UNICEF made tremendous efforts in diarrhoea prevention and management. Other major child health initiatives since the 1990s have been micronutrient programmes such as the Vitamin A and the community-based nutrition programmes.

Malnutrition and the resultant stunting (due to food scarcity and lack of knowledge) has been another major cause of child morbidity and mortality in Nepal. Currently, the Suaahara (good nutrition) project, funded by the US Aid for International Development (USAID), aims to reduce malnutrition and improve maternal and child health in the country. Other child health interventions initiated specifically to meet MDG Four include the Helping Babies Breath (HBB), Kangaroo Mother Care, and child nutrition and vaccination programmes.

The Child Health Division within the Ministry of Health (MoH) is responsible for child health services in Nepal. International and national NGOs such as Save the Children Nepal and national and international charity organisations are working in collaboration with the Child Health Division and the Ministry of Health and Population of Nepal to provide child health services. Nepal's MDG Four target of reducing underfive mortality from 135 (in 1990) to 45 by 2015 has been achieved. Smith et al (2014) suggest that Nepal is one of the few countries to make steady improvement in child health services with remarkable achievements in reducing overall child mortality (as suggested by MDG Four). They also suggest that Nepal has been receiving consistent political attention and making progress in newborn health services since 2002. Donor support towards child health service provision has been crucial.

Improving Maternal Health: MDG Five in Nepal

In line with the global target of MDG Five, which was to improve maternal health by reducing the Maternal Mortality Ratio (MMR) by three quarters between 1990 and 2015, Nepal's target to bring MMR down to 193 by 2015 from the earlier rate of 770 in 1990. For this to be achieved, the government has been able to expand its MCH service facilities and allocate additional resources in the MCH sector, albeit with the support of foreign aid.

Shortage of an appropriately trained workforce health services in rural Nepal has long been a major factor affecting the delivery of healthcare services, including women's health services. Many health facilities in remote districts have no regular staff. Since 2006, in order to improve staffing levels, there has been a major policy push towards training Skilled Birth Attendants (SBAs)-a special workforce to provide MCH services. This is an additional specialist training for health professionals and the government's aim was to deliver it to 7000 nurses and doctors by 2015. In addition to SBA training, an increasing number of Female Community Health Volunteers (FCHV) have been trained each year to provide basic healthcare across the country (KC and Bajracharya 2012; Dixit-Devkota et al 2013; Pandey et al 2013).

As a result of widening MCH facilities, antenatal service coverage by healthcare professionals has

increased. The use of 'modern' contraceptives amongst married women has also doubled from 26 per cent in 1996 to 44.2 per cent in 2006 (Hussain et al 2011). Moreover, a recent study of maternity services across the country suggests that the referral for Emergency Medical Obstetric Care (EmOC) from rural areas to urban-centre hospitals has risen. There has also been a four-fold increase in institutional births, assisted by trained health professionals, from 9 per cent in 1996 to 35 per cent in 2011. This has been accompanied by a significant increase in caesarean sections from 2.7 per cent (urban 8.4 per cent, rural 1.9 per cent) in the 2006 (Nepal Demographic Health Survey (NDHS) to 4.6 per cent (urban 15.3 per cent, rural 3.5 per cent) in the 2011 NDHS (MoHP Nepal 2011).

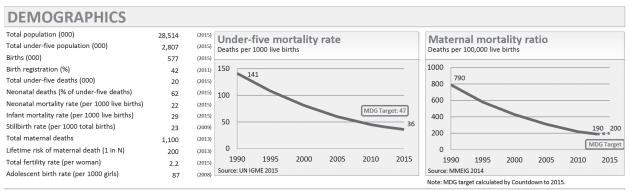
In 2002, clinic-based abortion or termination of pregnancy, whether performed medically or surgically, was legalised in Nepal for the first time. Before this, many unwanted pregnancies were terminated by untrained people, using unsafe techniques, with women dying as a consequence. Even after abortion was legalised, abortionrelated deaths remain significant. Suvedi et al (2009) suggest, for instance, that approximately 7 per cent of maternal mortality between April 2008 and April 2009 was due to unsafe abortion. Nevertheless, a number of women's health clinics, run by various organisations (state-funded, privately-funded and charitable) currently offer contraception as well as safe abortion facilities. For example, in the non-governmental sector, Marie Stopes International (MSI) was established in Nepal in 2002. By 2012, MSI was providing abortion services at 52 clinics, located mostly in urban and semi-urban areas. MSI claims that 65,000 unsafe abortions were prevented in 2012 alone (MSI 2015). There are a number of players who provide MCH services, including women's reproductive health services. These include the government of Nepal, INGOS, national and local NGOS, private health care providers and charitable health care organisations. These actors are involved in service delivery, capacity building, advocacy and policy as well as health research.

Compared to the women's health service situation in the mid-1990s, women's reproductive health services in general have improved and strengthened, and a range of healthcare technologies have become more accessible, in both the government and the private sector. It is evident that there has been a marked improvement overall in women's health service coverage, and research findings suggest that the demand for clinic-based abortions, contraceptive services and institutional births, too, is increasing. Official figures indicate that there has been significant success in reducing the MMR in Nepal: from 770 maternal deaths per 100,000 live births in 1990 to 170 in 2011 (Dixit-Devkota et al 2013; Pandey et al 2013; KC and Bajracharya 2012; Hussein et al 2011).

Countdown to 2015: Progress made and challenges faced by Nepal in achieving MDGs Four and Five targets

Statistics of Maternal Mortality Ratio (MMR)

Globally, the Millennium Project has been all about setting country-specific targets and achieving them, and this has been very evident in Nepal. Statistics and numbers are essential for the health system to be able to evaluate service effectiveness, make future plans and justify resource allocation. It is also important to understand how statistics is produced in Nepal and by whom. The Central Bureau of Statistics, a Nepal Government authority, conducts a census every 10 years, the last one in 2011. Other sources of health statistics include the Nepal Demographic Health Survey conducted by the Family Health Division within the MoHP, which also produces its own healthrelated statistics. Additionally, regular records are collected at village, district and national levels; these too are used in health service planning. These organisations produce the different data as part of their organisational functioning and often these



Source: http://www.countdown2015mnch.org/documents/2015Report/Nepal_2015.pdf

do not match. As Attaran (2005) points out, health statistics globally, including MCH statistics, can be notoriously varied and unreliable.

That has been the case in Nepal as well with regard to the data on MMR. According to official figures, Nepal has made remarkable progress in reducing MMR, and is one of 10 Countdown countries (out of the 75) to meet the set MDGs Five target. Official reports have it that the MMR had come down 170 since 2010, and that was the figure on which Nepal's progress has been celebrated. However, these statistics of success are not entirely reliable since the results of Census 2011 provide a different figure of 480 for the national MMR, which appears to undermines the purported success achieved by Nepal so far.⁸ While MMR statistics of course are notoriously liable to under-counting or miscounting, even if the decline has been as dramatic as the official figures suggest, innovations and the wider accessibility of reproductive healthcare technologies alone cannot account for improvements in women's reproductive health outcomes. Other factors, such as education, urbanisation and nutrition, also affect women's health in general, and their reproductive health specifically. It is likely that various factors, such as availability of contraceptive devices, have also played a key part. The role of and the contribution made by private sector providers are among other possible factors in MMR reduction but which are not fully explained/understood.

CHALLENGES WITHIN HEALTH SERVICE PROVISION IN NEPAL

Despite Nepal 'officially' meeting of MDGs Four and Five, a number of challenges related to health service provision remain. To begin with, there is a lack of satisfactory health infrastructure in rural areas, and access to modern health services is a major issue in many parts in Nepal. There are also geographical and regional variations, with implications on maternal and child health. There are places where people have to walk for days to get to the nearest health facility. Nepal's national statistics on the MDGs do not properly capture these issues (Hussain et al 2011).

A decade-long 'people's war' (1996 to 2006) affected people's everyday lives in most parts of the country. During this time, health infrastructure in many districts was damaged and health posts and primary health centres vandalised. Health workers were forced to work in extreme fear, and many professionals were too scared to accept rural positions. Because of this, health service provision in rural areas either remained non-functional or under-performed. This has had a major impact on the regular functioning of health service and has stunted progress in the public health system. Even after the fighting ended in 2006, the political situation remains very unstable, causing great concern around proper planning for equitable access to health service, particularly for people in rural Nepal (Singh 2004; Armon et al 2004).

It is vital for all health system to have enough number of suitably trained professionals at all level to deliver equitable, effective and quality health service. In Nepal, however, there is an overall shortage of Human Resources for Health (HRH). Mal-distribution of the national stock of health workforce is rampant. Most health professionals prefer to live and work in Kathmandu Valley and other major urban centres. There is thus an oversupply of the health workforce in major cities, leading to un-employment and underemployment, while at the same time rural health facilities suffer from understaffing (Adhikari 2014; Mahato et al 2013). The situation has been exacerbated negatively by the internal (i.e., from the government to the non-governmental sector, and rural to urban) and international migration of health professionals (Adhikari 2014).

There has been a concentrated effort by the government and non-governmental organisations to train suitable healthcare professionals and retain them in rural areas. For example, the government has a policy of two years compulsory service in rural areas for those who study on government scholaships (Mahato et al 2013). Similarly, the Patan Academy of Health Science has begun training medical doctors with a specific focus on serving the rural population.

In an attempt to address the HRH shortage in the country, from the mid-1990s the government of Nepal allowed and encouraged private sector to take part in HRH training (Mahato et al 2013). After 2000, HRH training in the private sector started to grow, and within a decade Nepal had begun producing more nurses, doctors and other categories healthcare professional than the government had the capacity to employ them. Health workforce management has become a major health service challenge in the country, but country's volatile political situation and frequent changes in government has prevented long-term planning and workforce management.

CONCLUSION

Nepal has been accepting external assistance for development since the early 1950s. Over this period, the country has been fully embracing global development goals and this includes the MDG targets. Despite major socio-political, geographical and economic challenges and a decade long people's war which lead to an unstable political system, Nepal has been successful in meeting its health-related MDG targets. The country-specific major MCH initiatives include legalisation of clinic-based (safe) abortion, maternity incentives scheme for women attending institutional births, improvement in emergency maternal and neonatal referral system, overall expansion of maternal and child health services, and maternal and child nutrition. With the strengthening of service delivery mechanism, Nepal has actively trained health professionals to provide MCH services across the country. However, service expansion and new initiatives have created a demand for more resources, which has in turn put a strain on a health system that is already over-stretched.

Nepal's progress in improving maternal and child health and reducing mortality since 1990 has been presented globally as a success story. According to the official Countdown to 2015 site, MMR has declined from 770 per 100,000 live births in 1990, to 170 in 2010. Similarly, child mortality has improved, from 135 in 1990 to 48 in 2010. The success story has featured in a number of authoritative policy reports, and academic and research forums globally. Foreign aid and on-going commitment made by EDPs as well as the Nepal government's commitment towards achieving MDGs have been key to these successes (Smith et al 2014). Further, since the 1990s, there have been phenomenal changes in gender and socio-political dynamics in Nepal. The female literacy rate has improved and women's participation in public sector jobs has increased. Women's access to maternity and reproductive health services has expanded, clinic-based abortion service has been legalised, and the birth rate has continued to decrease. Also, as noted in the background section above, women' participation in overall development has played a crucial role in improving health in the family as well as maternal and child health. All these changes in the socio-political context have certainly contributed towards meeting MDGs Four and Five targets. However, this success has come with some challenges, particularly regional variations in accessing MCH services, and the questioning of maternal and child health statistics. Equitable health service provision means that these issues cannot and should not be ignored.

ENDNOTES

- 1 Eight MDGs were: eradicate extreme poverty and hunger; achieve universal Primary Education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria, and other diseases, ensure environmental sustainability and develop a global partnership for development. http://www.un.org/millenniumgoals/
- 2 http://www.who.int/topics/millennium_development_goals/child_mortality/en/ accessed on 9/2/2016
- 3 http://www.who.int/topics/millennium_development_goals/maternal_health/en/ accessed on 9/2/2016
- 4 All progress reports are available at the 'Countdown to 2015' website: http://www.countdown2015mnch.org
- 5 http://www.un.org/sustainabledevelopment/sustainable-development-goals/
- 6 http://www.mhtf.org/topics/post-2015-whats-next-for-maternal-health/
- 7 http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8624.pdf
- 8 The Kathmandu Post first reported this apparent discrepancy although it provided a figure of 418 in place of 480. http:// kathmandupost.ekantipur.com/news/2015-01-27/reduced-children-maternal-mortality.html accessed on 29/11/2015. See 'Maternal Mortality' (Chapter 7, pp. 141-158) of *Population Monograph of Nepal, Volume I (Population Dynamics)* (Central Bureau of Statistics, Kathmandu, 2014), for a detailed discussion on the issue.

REFERENCES

- Adhikari, R. (2014) Vacant hospitals and underemployed nurses: a qualitative study of the nursing workforce management situation in Nepal. *Journal of Health Policy and Planning*, Oxford, Available at: http://heapol. oxfordjournals.org/content/early/2014/02/25/ heapol.czu009.full?keytype=ref&ijkey=4pPQP h0duOyUUk6
- Armon, J., C. Berry, D, Duncan with R. Calder,
 S, Clapham and M. Harvey (2004) Service
 delivery in difficult environment: the case
 of Nepal Department for International
 Development (UK), Policy division, Asia
 Policy Division, Nepal Country Office,
 Unpublished report
- Attaran, A. (2005) An immeasurable Crisis? A criticism of the MDG and why they cannot be measured. Plus Medicine: available online at: http://journals.plos.org/plosmedicine/ article?id=10.1371/journal.pmed.0020318
- Devkota, B & ER Van Teijlingen (2010) Understanding effects of armed conflict on health outcome: the case of Nepal, *Conflict and Health* 4:20 doi: 10.1186/1752-1505-4-20
- Dixit-Devkota, M., DP. Prasai, SR. Upreti, S. Aryal, G. Shakya, M. Dariang, G. Ghimire (2013), Responding to Increased Demand for Institutional Childbirths at Referral Hospitals in Nepal: Situational Analysis and Emerging Options, Family Health Division Nepal.
- Hussein, J. J. Bell, M. Dar Iang, N. Mesko3, J. Amery and W Graham (2011) An Appraisal of the Maternal Mortality in Nepal, Open access, *Plos One.* www.plosone.org May 2011 | Volume 6 | Issue 5 | e19898
- Justice J. (1986). *Policies, Plans and People: Culture and Health Development in Nepal.* Berkeley: University of California Press.
- KC, A. & K. Bajracharya (2013) States of Midwives in Nepal: HRH to improve maternal and Neonatal Health and Survival, *Journal of Nepal Health research Council* January: 11(23):

98-10, also available at: http://jnhrc.com.np/ index.php/jnhrc/article/view/366/365

- Mahato, R.K, J Ghimire & RP Gupta (2013) Human Resources for Health in Major National Policies and Plans of Nepal, Journal of Nepal Health Research Council 2013 May;11(24):158-62
- Ministry of Health and Population (MOHP) [Nepal], New ERA, and ICF International Inc., *Demographic and Health Survey* 2011 (2012), Ministry of Health and Population, New ERA, and ICF International, Calverton, Marylan: Kathmandu, Nepal.
- MSI (Mary Stopes International) Nepal (2015): Home page, available online at: http://www.msinepal.org.np/index. php?option=cms&id=1, accessed on 29/11/2015
- Pandey, JP., MR. Dhakal, S. Karki, P. Paudel, MS Pradhan (2013) Maternal and Child Health in Nepal: The effects of Caste, Ethnicity and Regional Identity , further analysis of the 2011 Nepal Demographic and Health Survey, Nepal Ministry of Health and Population, New ERA, and ICF International. Also available online at: http://www.measuredhs.com/pubs/pdf/FA73/ FA73.pdf
- Shiffman. J. (2015) Network, advocacy and the emergence of global attention to newborn survival, *Health Policy and Planning* 1-15 doi: 10.1093/heapol/czv092
- Singh, S (2004) Impact of long-term political conflict on population health in Nepal, CMAJ. JAMC 7; 171(12): 1499–1501 doi: 10.1503/ cmaj.1040777 available online at http://www. ncbi.nlm.nih.gov/pmc/articles/PMC534599/
- Smith. SL., J. Shiffman & Abigail Kazembe (2014) Generating political priority for newborn survival in three low-income countries, Global Public Health: *An International Journal for Research, Policy and Practice*, 9:5, 538-554, DOI: 10.1080/17441692.2014.904918

Suvedi B.K., Pradhan A., Barnett S., Puri M., Chitrakar S.R., Poudel P., Sharma S., Hulton L. (2009) Maternal Mortality and Morbidity Study 2008/09: Summary of Preliminary Findings. Kathmandu, Nepal. Family Health Division, Department of Health Services, Ministry of Health, Government of Nepal.