Success Factors for Women's and Children's Health

NEPAL

Ministry of Health and Population, Nepal

The Partnership for Maternal, Newborn & Child Health
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"Success factors for women's and children's health: Nepal" is a document of the Ministry of Health and Population (MoHP), Nepal. This report is the result of a collaboration between the MoHP and multiple stakeholders in Nepal, supported by the Partnership for Maternal, Newborn and Child Health (PMNCH), the World Health Organization (WHO), other H4+ and health and development partners who provided input and review.

Success Factors for Women's and Children's Health is a three-year multidisciplinary, multi-country series of studies coordinated by PMNCH, WHO, World Bank and the Alliance for Health Policy and Systems Research (AHPSR), working closely with Ministries of Health, academic institutions and other partners. The objective is to understand how some countries accelerated progress to reduce preventable maternal and child deaths. The Success Factors studies include: statistical and econometric analyses of data from 144 low- and middle-income countries (LMICs) over 20 years; Boolean, qualitative comparative analysis (QCA); a literature review; and country-specific reviews in 10 fast-track countries for MDGs 4 and 5a.[1, 2] For more details see the Success Factors for Women's and Children's health website:
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1. Executive Summary

Overview

Nepal has made significant progress in improving the health of women and children and is on track in 2013 to achieve Millennium Development Goals (MDGs) 4 (to reduce child mortality) and 5A (to reduce maternal mortality). This review provided an opportunity for the MoHP and other stakeholders in Nepal to synthesize and document how these improvements were made, focusing on policy and programme management best practices.

Under 5 child mortality

Nepal is also on track to achieve MDG 4 having successfully improved coverage of effective interventions to prevent or treat the most important causes of child mortality through a variety of community-based and national campaign approaches. These include high coverage of semiannual vitamin A supplementation and deworming; community-based integrated management of childhood illness (CB-IMCI); high rates of full child immunization; and moderate coverage of exclusive breastfeeding of children under 6 months, among others. However, the newborn mortality rate (NMR) is a serious concern having remained stagnant at around 33 deaths per 1000 live births (LB), accounting for 61% of child mortality in 2011. This is one of Nepal's challenges going forward.

Maternal mortality

Nepal reduced its maternal mortality ratio (MMR) by 80% from 850 to an estimated 170 per 100 000 LB between 1991 and 2011. Reductions in maternal mortality are associated with a fall in the total fertility rate, from 5.3 to 2.6. Total fertility fell during this period despite near stagnation in the contraceptive prevalence rate (CPR) between 2006 and 2011 and has partly been attributed to high rates of spousal separation due to migration to other countries for employment. The use of maternal health services has improved since 1996, with increases in the coverage and number of antenatal care (ANC) visits, and rates of institutional deliveries as well as deliveries attended by a skilled birth attendant (SBA).

Health sector initiatives and investments

Other factors include the political prioritization of maternal and child health, increased financial investment and the focused, coordinated and aligned efforts of government, national and international nongovernment organizations (NGOs), UN agencies and bilateral organizations. Community members have been central to achieving improved reproductive, maternal, newborn and child health (RMNCH) outcomes.

There has been a successful focus on increasing the use of health services for delivery care, ANC, family planning, and SBA through a combination of financial incentive programmes and policies, such as the National Policy for SBA. There has also been an important emphasis on community-based approaches to deliver maternal and child health promotion and services especially to address human resource shortages and the challenges of remote areas. Targeted free health care services and programmes to improve community engagement and empowerment have also been used to reach poor, marginalized, socially excluded and underserved populations.

Investments and initiatives outside the health sector

Women's educational status has been inversely linked with maternal and neonatal mortality in Nepal. In recent years, girls' enrolment in schools has increased, driven partly by targeted free education policies. Access to health care has increased through a rapid expansion of the road network, vehicle movement, communication through mobile phones, growing access to clean drinking water and sanitation, especially toilets in rural areas, and construction of health facilities. Recognizing the important contributing factor of undernutrition to child mortality, Nepal has made addressing undernutrition a national priority and has adopted a multisectoral approach to the challenge.

Political economy

Nepal has clear political commitment to RMNCH, a willingness to apply local context-specific approaches to address challenging problems as well as a progressive and flexible approach to the use of research to drive evidence-based health policy and address the challenges of reaching remote and marginalized populations.

Governance and leadership

Nepal has made modest progress in strengthening voice and accountability, but has achieved limited change in terms of rule of law and control of corruption from 2002 to 2011. Social auditing is used to devolve authority and improve accountability to communities served, especially the poor and marginalized. However, governance and leadership within the health system remain a challenge.

Challenges and future priorities

To sustain progress on MDGs 4 and 5A, the following challenges need to be addressed:

1. inequity remains a huge issue in Nepal, and further progress in RMNCH will require targeted interventions to reduce health differentials and reach underserved populations;
2. the NMR has stagnated recently and now needs more focused attention;
3. as more women deliver in health facilities, the quality of facility-based care needs to be improved to prevent avoidable deaths;
4. undernutrition among pregnant mothers and their children needs to be tackled;
5. the gap in human resources for health, including deployment and retention issues, need to be reduced and addressed.

2. Introduction

Nepal is one of 10 low-and middle-income countries (which also include Bangladesh, Cambodia, China, Egypt, Ethiopia, the Lao People's Democratic Republic, Peru, Rwanda and Viet Nam) with a high maternal and child mortality burden that in 2012 were on the fast-track to achieve MDGs 4 (to reduce child mortality) and 5a (to reduce maternal mortality).[1]

The primary objective of this document and accompanying review process was to identify factors both within and outside the health sector that have contributed to reductions in maternal and child mortality in Nepal – focusing on how improvements were made, and emphasizing policy and programme management best practices and how these were optimized and tailored to Nepal's unique context. Methods used for the Success Factors review in Nepal included:

- A literature review based on peer-reviewed and grey literature, policy documents, programme evaluations and sector strategies and plans;
- A review of quantitative data from population-based surveys, routine data systems, international databases and other sources;
- Interviews and meetings with key stakeholders to inform and help validate findings and to identify factors based on local knowledge and experience;
- A review of the draft document by stakeholders and local experts to finalize findings.

It was recognized that it can be difficult to establish causal links between policy and programme inputs and health impact. For this reason, plausibility criteria were used to identify key policy and programme inputs and other contributing factors that could be linked to potential mortality reductions. These criteria included, the potential impact of the policy or programme on mortality reduction, that it had been implemented long enough to have influenced mortality, and it had reached a large enough target population to explain national-level reductions in mortality.[2] Following this, stakeholders reviewed the identified policies and programmes to reach consensus on the key inputs that could have likely influenced mortality. Research is needed to better quantify how policies and programmes contribute to improved health outcomes. More data in this area would enable the analysis to be further refined.

The first draft was developed by local and international experts. Interviews and group meetings with stakeholders were conducted between March and April 2014 to further review, revise and achieve consensus on findings. The resulting document was presented to the MoHP in May 2014. A final draft was developed and approved by the MoHP in June 2014.

3. Country Context

Overview

Nepal is a landlocked country, with three ecological zones: mountain, hill and *Terai* (plains). There are significant disparities in health, education, wealth and access to care between Nepal's 126 distinct ethnic/caste groups, and between people living in different regions.[3]

The country of Nepal was founded in the 18th century, and enjoyed relative stability under a succession of monarchs until the country underwent a violent struggle for democracy in the 20th century. Nepal has experienced considerable political instability since democracy was introduced in 1990. In 1996, a Maoist revolution broke out leading to a decade long armed conflict, which ended in 2006 when Nepal was declared a federal democratic republic. An Interim Constitution was formed in 2007, but the country remains politically unstable.

Nepal is a low-income country with a gross domestic product (GDP) per capita (purchasing power parity, PPP, Int $) of US$ 1276 in 2012 (see Table 1). The poverty rate has declined from 42% to 25% in the past 15 years,[4] partly owing to the inflow of remittances. Life expectancy in Nepal has increased steadily in the past 20 years to 67 years for males and 69 years for females.[5]

"The future safety of Nepal's women, and our ability to continue to reduce MMR, depends on how far we are able to effectively improve quality of maternity care in all health facilities, including private health institutions".

~ Interview, Maternal health professional, Kathmandu.

Table 1: Key country indicators* +

	INDICATOR	1990-1999	2000-2009	2010-PRESENT
Population	TOTAL POPULATION (millions)	18 (1991)[a]	23 (2001)[a]	26.6 (2011)[a]
	TOTAL FERTILITY RATE (births per woman)	4.8[9]	4.1[b]	2.6[10]
Health Financing	TOTAL HEALTH EXPENDITURE PER CAPITA (PPP, constant 2005 international $)	35 (1995)	43 (2000)	68 (2011)
	OUT-OF-POCKET HEALTH EXPENDITURE (as % of total expenditure on health)	70 (1995)	69 (2000)	55 (2011)
Economic Development	GROSS DOMESTIC PRODUCT PER CAPITA (PPP, constant 2005 international $)	747 (1990)	950 (2000)	1276 (2012)
	FEMALE PARTICIPATION IN LABOR FORCE (% of females age 15-64)	50 (1990)	50 (2000)	56 (2012)
	GINI INDEX (0 equality to 1 inequality income distribution)	0.35 (1996)	0.41 (2003)[c]	0.33 (2010)[c]
Health Workforce	PHYSICIANS (per 1000 population)	0.05 (1990)	0.05 (2001)	0.17 (2012)[d]
	NURSES AND MIDWIVES (per 1000 population)	N/A	0.46 (2004)	0.51 (2012)[d]
Education	GIRLS' PRIMARY SCHOOL NET ENROLLMENT (% of primary school age children)	60 (1999)	79 (2003)	97 (2012)
	ADULT LITERACY RATE (% of males (M) and % females (F) aged 15 and above)	49(M) 17(F) (1991)	63(M) 35(F) (2001)	71(M) 47(F) (2011)
Environmental Management	ACCESS TO CLEAN WATER (proportion of population using an improved drinking water source)	46 (1990) (33, pp 75)	73 (2000) (33, pp 75)	85 (2012) (33, pp 75)
	ACCESS TO SANITATION FACILITIES (proportion of population using an improved sanitation facility)	6 (1990) (33, pp 75)	30 (2000) (33, pp 75)	62 (2012) (33, pp 75)
Urban Planning/ Rural Infrastructure	POPULATION LIVING IN URBAN AREAS (% of total population)	9 (1990)	13.9 (2001)[e]	17 (2011)[e]
	ELECTRIC POWER CONSUMPTION (kilowatt hours per capita)	37 (1990)	61 (2000)	117.9 (2012)[f]
Human Development Index (Composite of life expectancy, literacy, education, standards of living, quality of life)	VALUE (reported along a scale of 0 to 1; values nearer to 1 correspond to higher human development)	0.34 (1990)	0.40 (2000)	0.46 (2012)
	COUNTRY RANK (2012)		157	
Good Governance (Reported along a scale of -2.5 to 2.5; higher values correspond to good governance)	CONTROL OF CORRUPTION (extent that public power is used for private gain)	-0.01 (1990)	-0.54 (2000)	-0.83 (2012)

**See Table 2 for data on coverage of key RMNCH indicators*

+Source: World Development Indicators, UNDP, World Bank (Worldwide Governance Indicators)[4]

a) *Central Bureau of Statistics[6]*

b) *Nepal Demographic and Health Survey 2001[7]*

c) *Economic Survey: Fiscal Year 2012/13, p xv[8]*

d) *NHSSP: Human Resources for Health Country Profile, August 2013, p 6[9]*

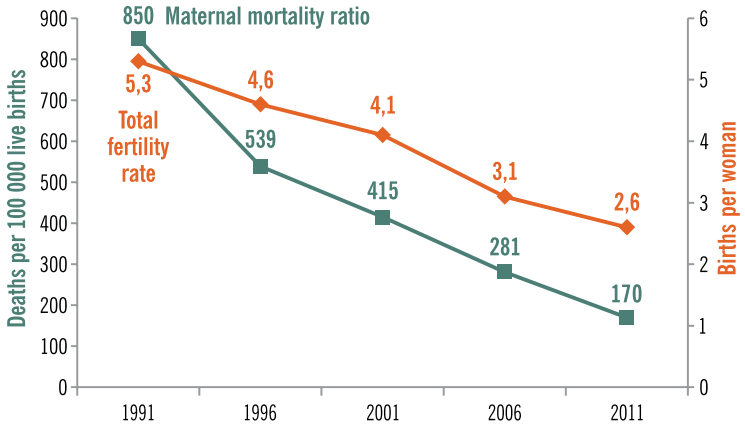
e) *National Population and Housing Census, 2011, p10[10]*

f) *A year in review - fiscal year 2012/2013[11]*

4. Key Trends, Timelines and Challenges

Nepal has seen an 80% decline in maternal mortality since 1991 and is currently on track to achieve MDG 5A[12] having achieved an estimated MMR of 170 per 100 000 LB in 2011 from 850 in 1991[13, 14] according to national data. Global estimates are similar, reporting a 76% reduction from 790 to 190 per 100 000 LB between 1991 and 2013.[14] The reduction in Nepal's MMR has been driven partly by a fall in the total fertility rate (TFR), from 5.3[15] to 2.6 (see Figure 1).[4, 16] The TFR fell during this period despite near stagnation in the CPR between 2006 (44.2%)[16] and 2011 (43.2%),[16] and has partly been attributed to high rates of spousal separation due to migration to other countries for employment (three fourths of youth in rural areas). The use of maternal health services has improved since 1996, with increases in the coverage and number of ANC visits (50% for four ANC visits), rates of institutional deliveries as well as deliveries attended by a SBA (36%) (see Table 2).

Figure 1: Trends of total fertility rate & maternal mortality ratio



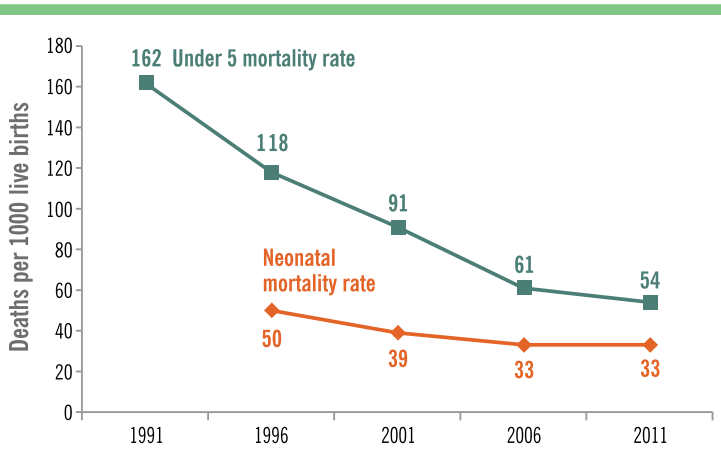
Source for TFR: NFHS 1991, NFHS 1996, NDHS 2001, NDHS 2006, NDHS 2011.
Source for MMR: UNDP 1992, NFHS 1996, NPC 2002, NDHS 2006, WHO/UNICEF/UNFPA/WB 2012.

Table 2: CoIA indicators for maternal and child health

CONTINUUM OF CARE STAGE	INDICATOR	MOST RECENT AVAILABLE	SOURCE
Prepregnancy	DEMAND FOR FAMILY PLANNING SATISFIED (% of women age 15-49 with met need for family planning)	65	NDHS 2011[10]
Pregnancy to postnatal	ANTENATAL CARE (% of women attended at least four times during pregnancy by any provider)	50.1 (2011)	NDHS 2011[10]
	SKILLED ATTENDANCE AT BIRTH (% of births attended by skill health staff)	36 (2011)	NDHS 2011[10]
	ANTIRETROVIRALS FOR WOMEN (HIV-Positive pregnant women to reduce mother-to-child transmission)	20.1 (2013)	NCASC 2014[53]
	POSTNATAL CARE FOR MOTHERS (% of mothers who received care within two days of childbirth)	45 (2011)	NDHS 2011[10]
Newborn to childhood	INFANT FEEDING (Exclusive breastfeeding for first six months)	70 (2011)	NDHS 2011[10]
	IMMUNIZATION (Children ages under 12 months receiving DTP3)	92.8 (2012)	Annual Report, DoHS, FY 2012/13[18]
	PNEUMONIA (Antibiotic treatment for pneumonia)	42.6 (2012)	Annual Report, DoHS, FY 2012/13[19]

Nepal is also on track to achieve MDG 4 having attained a rate of 54 under 5 child deaths per 1000 LB from 162 in 1991 according to national data. Global estimates indicate that the rate has reduced by 70% from 142 to 42 per 1000 live births between 1991 and 2013.[13] Nepal has successfully improved coverage of effective interventions to prevent or treat the most important causes of child mortality through a variety of community-based and national campaign approaches. These include high coverage of semiannual vitamin A supplementation and deworming; CB-IMCI; high rates of full child immunization; and moderate coverage of exclusive breastfeeding of children under 6 months. However, in the past few years especially between 2006 and 2011, the NMR has remained stagnant at around 33 deaths per 1000 LB. This compares to a rate of 32 in India (2011) and 36 in Pakistan (2011).[4] The NMR is a serious concern in Nepal, accounting for 72% of the infant mortality rate (IMR) and 61% of the under 5 mortality rate (U5MR) in 2011 (see Figure 2) and is one of its challenges going forward.

Figure 2: Trends of under 5 mortality rate & neonatal mortality rate



Source: NFHS 1991, NFHS 1996, NDHS 2001, NDHS 2006, NDHS 2011.

Typically, a history of conflict negatively affects health indicators. However, Nepal made progress in most health indicators despite its decade-long armed conflict. Attempts to understand this have provided a number of possible explanations including the fact that in most instances the former rebels did not purposely disrupt delivery of health services; pressure was applied on health workers to attend clinics and provide services in rebel base areas; the conflict created an environment for improved coordination among key actors; and Nepal's public health system adopted approaches that targeted disadvantaged groups and remote areas, particularly community-based approaches for basic service delivery with a functional community support system through female community health volunteers (FCHVs), women's groups and Health Facility Operational Management Committees (HFOMCs).[17]

5. Health Sector Initiatives and Investments

Health financing:

Total health expenditure per capita increased from $ 35 in 1995 to $ 68 in 2011 (PPP, Int $)[4] and there are ambitious targets to increase the proportion of total government allocation on health to 10% by 2014, from 7% in 2011.[20, 21]

There has also been substantial financial investment from the donor community, particularly since 2004 when a sector-wide approach (SWAp) was adopted to finance health care and improve aid effectiveness. This has increased coordination and alignment between external development partners (EDPs) and government health priorities and plans. In 2011, EDPs contributions made up 39% of Nepal's MoHP services budget.[21] Health EDPs meet monthly to coordinate, plan and share information. National-level joint annual reviews bring all partners together with the government to review progress and plan together in alignment with national priorities.

Health workforce:

In recent years, there has been some growth in the health workforce, partly prompted by ambitious targets to increase the availability of SBAs.[22] Shortages in the health workforce have been somewhat alleviated by task-shifting,[23] but there are still large human resources gaps. The use of nearly 50 000 FCHVs to provide community-based care in Nepal has further relieved the burden.[24]

Outcomes monitored using evidence:

In the absence of functioning vital registration systems, Nepal uses data from censuses, studies and surveys to monitor mortality rates and inform programme design.[25, 26] A national health management information system tracks service use, enables monitoring of results and shaping of priorities and plans. Disaggregated data are used to assess progress against targets. Areas of poor performance are flagged during annual reviews so that action can be taken. Maternal death reviews have also been used to understand the causes of institutional deaths in selected referral hospitals[22] and there are efforts to link findings to government policy decisions.[27] Perinatal death reviews as well as an updated process for maternal death surveillance and review have also been implemented in some hospitals and are now being scaled up across the country.

Political prioritization of essential health interventions:

Political prioritization of maternal, newborn and child health and the focused efforts of EDPs have been central to improving RMNCH.[28, 29] Nepal's progressive policy environment has developed rapidly since the introduction of the National Health Policy in 1991 (see Table 3). A series of effective programmes have since been implemented at different levels of the health system. Several of these key policies and programmes are described here.

The *Aama* (meaning Mother) programme provides free delivery care and financial incentives to pregnant women from all households to access a variety of maternity services, including ANC, delivery in a facility and postnatal care (PNC). It also provides payments to health facilities (see Health Sector Spotlight).

Table 3. Nepal milestones of key health sectors and sectors outside of health: acts, policies, programs, strategies, plans and frameworks

Pre 1990

1935 *Muluki Ain*

1949 Fundamental Rights Act

1956 Nepal Civil Service Act

1962 Constitution of Nepal

1964 Nepal Citizenship Act; Smallpox Control Act; Infectious Disease Act; Nepal Medical Council Act

1966 The Food Act

1971 National Education Committee Act; Education Act

1972 Infectious Disease (First Amendment) Act

1974 Food (First Amendment) Act

1975 First Long-Term Health Plan

1976 Narcotic Drugs (Control) Act; Birth, Death and other Personal Event Registration Act

1977 Expanded Program on Immunization

1978 Drug Act

1979 National Immunization Programme

1982 Disaster Management Policies in Nepal; Natural Calamity (Relief) Act; Disabled Persons Protection and Welfare Act

1983 Control of Diarrheal Diseases

1986 Trafficking in Human Beings (Control) Act

1987 Nepal Medical Council (First Amendment) Act; Solid Waste Act; Control of Acute Respiratory Infection

1988 Drug (First Amendment) Act; Ayurveda Medical Council Act; Female Community Health Volunteer (FCHV) Programme

1989 Crime Against State and Punishment Act; Higher Secondary Education Act; Nepal Drinking Water Corporation Act

1990 Municipality Act; District Development Committee Act; Village Development Committee Act; Communication related Act; Nepal Medical Council (Second Amendment) Ac

1991-2000

1991 Nepal Health Research Council Act; Nepal Agriculture Research Council Act; National Health Policy; Food (Second Amendment) Act; Pesticides Act; Birth, Death and other Person/Private Incidence Act

1992 National Dairy Development Board Act; Children's Act; Food (Third Amendment) Act; Education (Fifth Amendment) Act; Water Resources Act and Regulation,; Mother's Milk Substitutes (Control of Sale and Distribution) Act

1993 National Blood Policy; The Civil Service Act; Higher Education (Third Amendment) Act; Council for Technical Education and Vocational Training Act; Immigration (First Amendment) Act; Primary Health Care Outreach Strategy

1994 Nepal National Policy on Sanitation

1995 National Drug Policy; National Mental Health Policy; National HIV and AIDS Policy

1996 Nepal Nursing Council Act; Policy on the participation of NGOs in Water Supply and Sanitation Programme

1997 Human Right Commission Act; Nepal Agriculture Research Council (First amendment) Act; Nepal Health Professional Council Act; Nepal Health Service Act; Second Long-Term Health Plan 1997-2017

1998 Drinking Water Regulation; Safe motherhood policy; FCHV Strategy

1999 Education (Sixth Amendment) Act; Iodized Salt (Production, Sale and Distribution) Act; Human Body Organ Transplantation (Regulation and Prohibition) Act; Nepal Health Service (First Amendment) Act; Ayurveda Medical Council (First Amendment); Nepal Veterinary Council Act; Slaughter House and Meat Checking Act; Nepal Medical Council (Third Amendment) Act; Local Self-Governance Act; Local Self-Governance Regulations; CB-IMCI

2000 Child Labour (Prohibition and Regulation) Act; Drug (Second Amendment) Act; Nepal Drinking Water Corporation (Second Amendment) Act; Nepal Pharmacy Council Act; National Adolescent Health and Development Strategy; National Reproductive Health Research Strategy

2001-2013

2001 National Plan of Action (Education) 2001-2015; National Ethical Guidelines for Health Research in Nepal

2002 Nepal Nursing Council (First Amendment) Act; Insurance (Second Amendment) Act; Education (Seventh Amendment) Act; National Academy for Upliftment of Aboriginal and Ethnic Group Act; Prevention of Corruption Act; National Academy of Medical Sciences Ordinance; National Safe Motherhood Plan (2002-2017); Nepal's National HIV/AIDS Strategy; Abortion legalized

2003 Local Self Governance (First Amendment) Ordinance; Poverty Alleviation Ordinance; National Safe Abortion Policy; National Health Research Policy of Nepal; Strategic Plan for Human Resources for Health; Nepal Health Sector Strategy; National Guidelines for Counselling, Testing and Referral

2004 Education (Eighth Amendment) Ordinance; National Nutrition Policy and Strategy; Rural Water Supply and Sanitation National Policy and Strategy; Health Sector Strategy: An Agenda for Reform; Nepal Health Sector Programme - Implementation Plan (NHSP-IP); SWAp adopted; National Neonatal Health Strategy; Nepal Health Sector Programme – Implementation Plan (2004-2009); Nepal Red Cross Society Health Policy

2005 Nepal Drinking Water Corporation (Third Amendment) Ordinance; Drinking Water Management Board Ordinance; Drinking Water Tariff Charge Fixation Commission Ordinance; Human Right Commission Ordinance; Information Technology Academy Ordinance; Poverty Alleviation Fund Ordinance; National Blood Policy updated and revised; Safe Delivery Incentive Programme

2006 Nepal Health Service (Third Amendment) Act; Nepal Water Management Board Act; National Policy on Skilled Birth Attendants; Health Sector Information System National Strategy; Mental Health (Treatment and Protection) Act; Health Care Technology Policy; Business Plan for Health Sector – 2006/07-2008/09; Environmental Impact Assessment of Nepal Health Sector Program - Implementation Plan 2004-2009; Health Care Technology Policy; Health Care Waste Management in Nepal Assessment of Present State and Establishment of a Framework Strategy and Action Plan for Improvement; Vulnerable Community Development Plan for NHSP-IP; National Safe Motherhood and Newborn Health Long-term Plan; Labour and Employment Policy

2007 Right to Information Act; Human Trafficking and Transportation (Control) Act; Nepal Drinking Water Corporation (Third Amendment) Act; Interim Constitution of Nepal (First Amendment); Three-Year Interim Plan Approach Paper (2064/65-2066/67); Nepal Interim Constitution; Free Health Care Policy; Policy on Quality Assurance in Health Care Services; National Medicines Policy; Implementation Guide on Adolescent Sexual and Reproductive Health; National Workforce Policy

2008 National Nutrition Policy and Strategy (revised)

2009 Domestic Violence Act; *Aama* Programme; Community-Based Newborn Care Package; Five-Year Operational Plan for In-service Training of Skilled Birth Attendants; Annual Work Planning and Budgeting (e-AWPB 1.0) Operating Manual; Central Bidding Local Purchasing - Guidelines; Health Sector Gender Equality and Social Inclusion Strategy; National ART Gridlines

2010 Nepal Human Rights Action Plan; Nepal Health Sector Programme Implementation Plan - II (NHSP-IP 2); Annual Work Planning and Budgeting (e-AWPB 2.0) Operating Manual; Guideline for Below Poverty Level Medical Treatment Support Program; Operational Guidelines for DDCs and VDCs; National Youth Policy; Drug Control Policy

2011 National HIV and AIDS Policy (Revised); National HIV/AIDs Strategy 2011-2016; National Guidelines on Prevention of Mother-to-Child Transmission (PMTCT) of HIV in Nepal; National Plan of Action on Human Trafficking

2012 Social Service Unit Establishment and Operational Guidelines; National FCHV Program Revised Strategy; Multi-sector Nutrition Plan For Accelerating the Reduction of Maternal and Child Under-nutrition in Nepal 2013-2017; National Guidelines for Minimum Services Packages for Children affected by AIDS (CABA); National Plan of Action for Children

2013 National Oral Health Policy; The National Anti-tobacco Communication Campaign Strategy for Nepal; Integrated Non-Communicable Diseases (NCDs) Prevention and Control Policy of Nepal; Guidelines for Community Health Insurance; Local Health Governance Strengthening in Nepal: A Collaborative Framework

"Female community health volunteers have been shown to be effective providers of community-based care. However, over the years, they have been given more and more responsibility and have been asked to perform increasingly complex tasks. If this trend continues, there is a risk that we will ask too much of them. We must be careful not to overburden the FCHVs."

Participant in multistakeholder meeting, Kathmandu

The National Policy for SBA has been implemented to ensure that sufficient numbers of new SBAs are trained, and to improve and build on the skills of existing health staff through in-service training. Nepal has focused on strategies to improve the provision of emergency obstetric and neonatal care (EmONC) resulting in a near threefold increase in the number of comprehensive EmONC facilities between 2004/5 and 2010/11.[24] Implementation of the National Blood Transfusion Policy and Guidelines has also helped to improve the availability of safe blood for emergency care. Quality of care in maternity facilities is being addressed by strengthening the logistics and supply chain systems, improving routine information systems, addressing staff retention and capacity, and expansion of maternal death and surveillance reviews.[30]

Family planning programmes have contributed to increased CPR, which has been identified as an important contributing factor to fertility decline and thus maternal mortality decline.[31] Promotion of contraceptive use is an effective primary prevention strategy for reducing maternal mortality in developing countries. The government has focused on making contraceptives available at all levels of health facilities, and at the community level through female community health volunteers (FCHVs). Spousal separation has also played a major role in the observed decline in fertility in Nepal between 2006 and 2011, followed by a decreasing proportion of married women.[32] Prior to the legalization and rollout of safe abortion services, deaths from unsafe abortions were on the increase.[26, 33] The legalization and rollout of safe abortion services since 2002 represents a major breakthrough in maternal health and has contributed to a reduction in serious abortion-related mortality.[34] However, it is unlikely that this programme could have contributed substantially to the maternal mortality reduction noted in the 2006 Nepal Demographic and Health Survey (NDHS) since these data were collected for the seven years prior to the study, when the programme would not have yet been rolled out nationally.[35]

Programmes in Nepal targeting child health have been intentionally community-based. They include the CB-IMCI programme delivered by FCHVs supported by the health system. This programme has been credited with reducing U5MR by 28% by improving effective management of pneumonia.[36] The National Immunization Programme reduced the proportion of children aged under 12 months who did not receive any of the six basic immunizations to 3% by 2011,16 contributed to the goal of polio elimination, and will help to eliminate neonatal tetanus by 2015.[37] The National Newborn Care Package, currently under revision, combined local strategies with global evidence about the community-based management of new born infections, promotion of newborn care practices and the use of birth preparedness programmes.

In addition, Nepal has also seen rapid expansion of the private sector, contributing to improved access to health care. In 2011, for example, 24% of all children with diarrhoea were taken for treatment to private pharmacies and 9% of deliveries occurred in private or NGO health facilities.[16] In addition, provision of family planning services through NGOs and social marketing agencies has expanded access to family planning services and commodities.

Legal and financial entitlements, especially for underserved populations:

Nepal's health sector has responded positively to a strong national mandate to improve gender equality and social inclusion. In particular, targeted free health care policies, through the removal of user fees for delivery care, and financial incentive programmes have addressed financial barriers to health care (see Health Sector Spotlight).

Nepal has also used targeted community-based approaches to reach poor, marginalized and excluded populations. Community engagement with the health sector has improved through programmes such as the Equity and Access Programme (women's empowerment and rights-based community mobilization programme).[22] Social auditing, which is used to hold health facilities accountable to the needs of local people, including marginalized and excluded populations, is currently being scaled up.

Health sector spotlight

REDUCING FINANCIAL BARRIERS TO SAFE DELIVERY CARE

In 2005, the MoHP introduced the Maternity Incentive Scheme (MIS) to provide cash incentives to mothers delivering in government health facilities to cover the cost of transportation, as well as corresponding incentives to health workers and support to health facilities in low human development index (HDI) districts. The incentive scheme was initially implemented nationally without considering the policy recommendation to pilot it in a limited number of districts before expanding to other districts. Operational challenges arose and after two years of implementation, several operational studies were conducted to understand the issues and redesign the programme. The MIS operational guideline was amended on the basis of the recommendations from the studies. The Family Health Division, along with the MoHP, developed another policy paper recommending the provision of incentives to all mothers at delivery by removing the parity condition. Subsequently, the MIS was changed to the Safe Delivery Incentive Programme (SDIP).

However, even with the updates which attempted to address access barriers, the goal of raising the number of institutional deliveries was not met. The operational research had also found that besides the cost of transportation the most significant barrier was the institutional cost, and recommended that such costs should be covered since many women were not in a position to cover them.[38] As a result, user fees for delivery care have been removed, and in 2009 the government merged SDIP with a free delivery scheme to form the *Aama Surakshya Karyakram*–known as The *Aama* Programme.

Under *Aama*, women receive cash incentives for completion of four ANC visits (NRs. 400 or approximately US$ 4); free delivery care and a cash payment to cover their transport costs to a health facility to give birth; health staff receive an incentive for attending both health facility and home delivery, though the home delivery incentive is being phased out so as not to promote home deliveries; and health facilities receive funds to cover the costs of delivery services and to enable investment in service quality. Larger payments are given for complicated deliveries and for caesarean section.

The SDIP and *Aama* Programme have contributed to improved maternal and child health by addressing both supply- and demand-side barriers to service uptake, and by responding to the needs of different communities. Higher incentives (NRs. 1500 or approximately US$ 15 and NRs. 1000 or approximately US$ 10) are available for women in mountain and hill districts respectively (who are poorer and where the travel to facilities is often difficult) than for those in *Terai* districts (NRs. 500 or approximately US$ 5). Similarly, the *Aama* Programme also provided a payment to health facilities for the provision of free care: normal delivery at a health facility with 25 and more beds NRs. 1500 (US$ 15) and a health facility with less than 25 beds NRs. 1000 (US$ 10); deliveries with complications NRs. 3000 (US$ 30); and caesarean section (C-section) NRs. 7000 (US$ 70).[24] The programme has contributed to increased service use rates.[39]

Innovative solutions which have strengthened the programme include a monitoring mechanism from community to central level. The Village Development Committee (VDC) secretary, village ward representative or FCHV identify the expected deliveries with the help of mothers' groups and recommend to the mothers to use SBAs. The HFOMC provides the incentives based on the recommendation of the VDC secretary, ward representative or FCHV.

In addition, based on the Local Self-Governance Act (LSGA) 1999, some VDCs are mobilizing local resources to enable birthing centres to offer 24/7 services. Some HFOMCs are recruiting additional SBAs and constructing health facility buildings and toilets for females.

6. Initiatives and Investments Outside the Health Sector

Education

Women's educational status has been linked with maternal and neonatal survival in Nepal.[23, 32] Nepal is committed to ensuring that all children have access to free, compulsory, good-quality primary education. To achieve this, the Education For All (EFA) goal was developed, including promotion of early child development activities in line with the Dakar Framework of Action of EFA (2001–2015).[40] Measures have subsequently been taken to increase access to education, particularly for the poor and other disadvantaged groups. Nepal has made good progress towards achieving its MDG targets for literacy rates for 15–24 year olds, increasing from 49.6% in 1990 to 88.6% in 2011,[33] and the net enrolment rate in primary education achieving 95.3% in 2012.[12, 41]

Although Nepalese women lag behind their South Asian counter parts in terms of educational attainment, girls' enrolment in primary school has improved from 60% in 1999 to 97% in 2012 (see Table 1.)

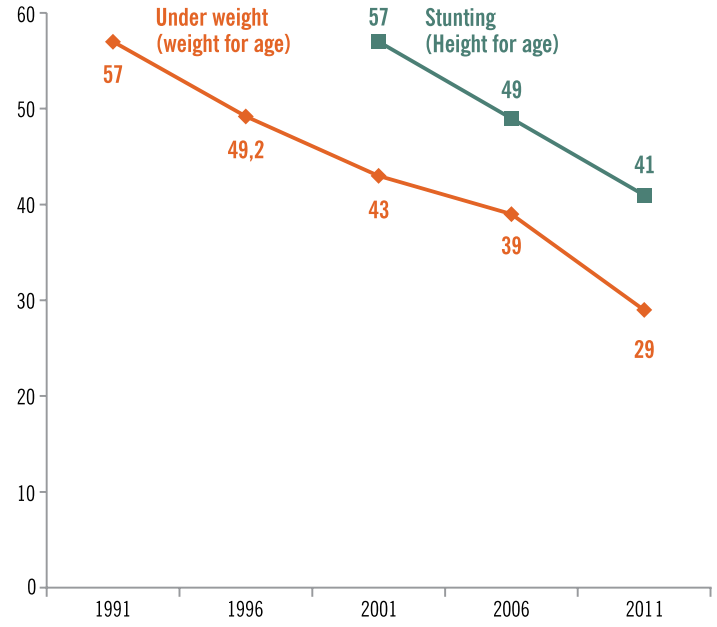
The proportion of women with no education was halved between 1996 and 2011[42] and the adult female literacy rate for the population aged 15 and older nearly tripled by 2011 (47%) compared to 1990 (17%). This important shift in girls' education has led to women becoming more empowered and aware of their health. There is clear evidence of a rising age at marriage among women and men in Nepal.[16] The percentage of women in the 15-19 age group who have not married has risen to 71% from 60% in 2001. Key informants felt that girls' education had led to the changes in attitudes to teenage marriage and early pregnancy.

Although not specifically documented, remittances received from family members and husbands abroad has likely enabled increased access to quality health services (public or private).

Nutrition

Nepal is on track to meet MDG 1C, to halve the proportion of people suffering from hunger. In general, the nutritional status of children has improved over the past 15 years and Nepal is now close to achieving its 2015 MDG target for reducing the percentage of children aged 6–59 months who are underweight.[16] However, stunting (low height for age) in children under 5 years persists with a rate of 41% in 2011 (see Figure 3).[16] Overall, by 2011, 70% of children aged under 6 months were exclusively breastfed (see Table 2). Other successes include sustained high coverage (over 90%) of vitamin A supplementation and deworming programmes for children 6-59 months of age[16] and increased use of iodized salt following government legislation.[42] However, anaemia remains a major child health problem and considerable differences in the nutritional status of children by caste and ethnicity endure.[3] Contrastingly, the nutritional status of women has improved only slightly in the past 15 years, and in 2011, 18 % of women were malnourished.[16]

Figure 3: Trends of underweight & stunting among children under 5 (%)



Source: NFHS 1991, NFHS 1996, NDHS 2001, NDHS 2006, NDHS 2011

Rates of anaemia amongst women also appear to have stagnated at around 40% since 2006. In response to this, the government introduced the National Anemia Strategy and scaled up the Intensification of Maternal and Neonatal Micronutrient Supplementation Program to cover all the districts in the country, outside of Kathmandu, from 2003 to 2011 with the support of the Micronutrient Initiative and UNICEF.

Nepal has pioneered the implementation of a multisectoral approach to undernutrition. In 2009, Nepal's Nutrition Analysis and Gap Assessment resulted in the formation of a multisectoral nutrition plan (MSNP) of action in 2011 to address malnutrition in pregnant women and children under 5 years old. This MSNP for improving maternal and child nutrition and reducing chronic malnutrition was prepared by five government sectors, under the lead of the National Planning Commission (NPC) and in collaboration with development partners. It offers a package of interventions with priority strategic objectives by sector that, over a period of five years, should contribute to a reduction by one third in the current prevalence rates of chronic malnutrition.

The longer term goal is to significantly reduce this problem within the next ten years so that malnutrition no longer impedes the productivity of Nepal's human capital and its socioeconomic development. Nutrition is now fully integrated in national and United Nations (UN) development strategies.

At the national level, the NPC oversees the implementation of the MSNP, in coordination with the Ministries of Health, Agriculture and Livestock Development, and Urban Development. A High-level Nutrition and Food Security Coordination Committee, chaired by the Vice-Chairman of the NPC, has responsibility for overseeing the national response to undernutrition. Currently, the Government of Nepal (GoN) has identified six districts as pilot districts for implementing the MSNP. Multi-sectoral Nutrition and Food Security Committees (MSNFSC), established within the framework of the MSNP, bring together key stakeholders at the district level to address the issues identified in the MSNP. The Local Development Officer in each district leads this committee in coordination with representatives from relevant line ministries and the Chief District Officer. The USAID-funded *Suaahara* project has already implemented this approach in 20 districts.

Infrastructure, water supply and sanitation

A policy change in 1991 prompted the mass construction and upgrading of health facilities, and has improved access to care in some areas of the country. The number of health facilities has dramatically expanded from 975 to 4000 in the last five years. Although remote areas of Nepal remain isolated, the number of birthing centres also increased dramatically from 422 in 2007/8 to 1121 in 2011/12,[43] considerably improving access to maternal health care in these areas.

There has also been an increase in the proportion of paved roads,[4] which has facilitated access to health care. Among the South Asian countries, Nepal has historically had a very low road density. Although the strategic roads constitute only about 20% of the national road network, they play an important role in moving people and freight. The national road network has expanded to 62 579 kilometres (km) in 2013 from 5925 km in 1985.[44] At present more than 150 million motorized vehicles are registered in the country[45] mainly due to increased economic activity. The expanded road network and motorized vehicles, including ambulances, provide increased access to health care for rural communities.

The recent expansion of mobile phone networks across Nepal and increasing use of mobile technology may also help increase access to health care in Nepal's most remote and underserved populations/communities. It could also improve communication between health facilities, which was identified as a factor in poor maternal outcomes.[26]

Nepal has also made significant progress in the proportion of the population using an improved drinking-water source from 46% in 1990 to 85% in 2012.[41] The proportion of population using an improved sanitation facility rose from 6% in 1990 to 62% in 2012,[12, 41] which is likely to contribute to improved health outcomes.

Innovation and research

Nepal has adapted delivery of care and services to meet local needs. The government has been progressive in its adoption of innovative, context-specific strategies and has fostered a culture of using evidence to inform programme design.[46] Research and pilot studies have shaped the design of several interventions and strategies, including the birth preparedness package, community-based misoprostol distribution for prevention of postpartum haemorrhage in home deliveries, use of chlorhexidine for newborn cord care, and identification and treatment of newborn sepsis at the community level. These interventions focus on the continuum of care from pregnancy, through birth and the early postpartum period, including the newborn. Misoprostol has also been included in the National Essential Drug List. Other innovative evidence-based interventions include the national vitamin A supplementation programme which was the first of its kind, developed in response to evidence of a link to childhood mortality; and the legalization of abortion.

Spotlight of a sector outside of health

In 2003, the GoN established a long-term policy on communication and information identifying it as indispensable for economic prosperity and social progress[47] and emphasizing the need to extend communication services to rural parts of the country. A significant feature in Nepal's media development is the expansion of radio broadcasting. Nepal pioneered community-based FM broadcasting in South Asia, which has wide coverage across Nepal.[40] Recently, Nepal has also seen an increase in the number of private TV channels, including outside of the Kathmandu valley. With the entry of satellite TV providers in 2010, access to TV viewing is increasing.[48] Moreover, approximately 70% of the population now has access to mobile phones.[49] These various communication channels have provided increased awareness about health generally and have also been used to promote health seeking behaviours.

7. Key Actors and Political Economy

Nepal is still in a post-conflict transition process with many rapid changes in political and social spheres on one hand, while remnants of the decade-long conflict continue to prevail on the other. A new constitution has been drafted but has not been finalized since the end of the conflict. The resulting political instability over the last seven years has been a constraint for democratic and accountable national development in Nepal. In addition, Nepal has experienced a prolonged absence of elected representatives at the local level. Despite these challenges, the interim constitution developed in 2007 declared the State's commitment to, and responsibility for, the health of its people for the first time in Nepal's history. It guarantees that "every citizen will have the right to have free basic health care services as provisioned by the State" and thus has established health as a fundamental right of every person.[50] This high-level political will is also seen in the fact that Nepal adopted a SWAp to health financing in 2004, and promoted Health Sector Joint Annual Reviews. Nepal was one of the first countries to participate in the International Health Partnership, which also promotes donor harmonization and sector-wide approaches.

Despite the instability, often causing rapid turnover in leadership, the MoHP has led in policy formulation and advocacy, promoted good coordination with health sector EDPs and continued its review and planning cycle. Even within this environment, Nepal has enacted numerous new policies and strategies that have impacted women's and children's health (see Table 3). The NPC also has a strong role in coordinating EDPs activities within the country under national long-term plans. In addition, the EDPs in the health sector hold monthly meetings to coordinate and jointly plan activities in line with government priorities.

Civil society in Nepal has grown particularly strong over the last few years and plays an important role in advocacy and promoting transparency as well as having a voice in planning and in such forums as the Global Fund country coordination mechanism.

In addition, the LSGA (1999) made special provision for women, economically and socially disadvantaged ethnic groups, communities and indigenous groups, to be represented in the village and ward level development committees. It also gave operational and management responsibility of health services to village level committees.

A long list of key actors and institutions have played an important role in the field of maternal and child health in Nepal. They include: the NPC; Ministry of Finance; Ministry of Federal Affairs and Local Development; Ministry of Education; Family Health and Child Health Divisions of the Department of Health Services/MoHP; UN agencies and the EDPs Health Group (including WHO, UNICEF, DfID, USAID, World Bank and many others); dedicated international NGOs as well as strong local NGOs and civil society organizations (e.g. Safe Motherhood Network Federation, NGO Federation of Nepal); and professional organizations such as the Nepalese Society of Obstetricians & Gynaecologists and Nepal Paediatric Society. In addition, more than 50 000 FCHVs, who provide basic health education and some primary health services to their communities, bear special recognition for the contribution they have made to improved maternal and child health.

8. Governance and Leadership

Despite political instability, Nepal has made modest progress in strengthening voice and accountability, but achieved limited change in terms of rule of law and control of corruption from 2002 to 2011.[51]

Social auditing is used to devolve authority and improve accountability to communities served, especially the poor and marginalized;[52] however, governance and leadership within the health system remain a challenge. Nepal still has much to do to create a supportive political environment with reliable leadership and good governance while implementing its decentralization policy.

9. Lessons Learned and Future Priorities

Significant progress has been made in reducing maternal and child mortality through a combination of health and cross-cutting factors outside of the health system. Sustaining these advances will require concerted action on the challenges that remain.

Tackle inequalities and improve access to care in remote areas:

There is evidence of worsening economic inequalities in access and use of health services. Maternal mortality is higher among women from mountain districts, rural areas, and in certain caste/ethnic groups.[26] There are also differences in the nutritional status of children by caste/ethnicity. The factors leading to inequalities in health outcomes and service use need to be better understood and addressed.[3] Based on progress achieved in other countries and recommendations from the literature, a number of strategies may reduce inequities and poor access to health care in remote areas in particular. Measures (some of which are already being adopted) could include: (i) taking steps to limit the extent to which terrain and distance impact on uptake of care, e.g. by strengthening community based outreach services, addressing financial barriers to reduce out-of-pocket spending on transportation and establishing rationally located, functional (24 hours), and fully staffed birthing centres; (ii) improving the availability and quality of health care to poor and marginalized populations/communities, e.g. by testing the use of mobile health (mHealth) technologies and forming partnerships with NGOs/Community Based Organizations and the private sector; (iii) increasing equality and strengthening monitoring systems so that data on service use can be disaggregated by caste and ethnicity and used for planning and priorities; (iv) integration of services such as family planning with the national immunization programme.

Target neonatal mortality:

In recent years, the NMR has stagnated. There is a wide gap in the rate of NMR between different socioeconomic groups.[32] Programmes should address areas and populations with higher NMRs. Neonatal health is affected by other health and non-health programmes (e.g. birth spacing through family planning, mother's education through literacy programmes, and reduction of indoor air pollution through environment programmes). Neonatal care in health facilities needs to be strengthened and the impact of the Community-Based Newborn Care Package (CB-NCP) should continue to be evaluated periodically using an operational research framework. The CB-NCP should also be appropriately linked with other child health initiatives, which requires careful monitoring to ensure its successful integration into existing programmes.[27] Further research is needed to better understand the immediate causes of neonatal deaths, and the findings from such studies should be used to appropriately focus programme efforts. Nepal should continue and increase its focus and attention on newborn health.

Improve quality of care:

As the number of deliveries occurring in institutions grows,[16] it is increasingly important that the quality of care is closely monitored to prevent avoidable deaths and debilitating morbidities. As private sector facility use also increases, monitoring of quality in the private sector is also needed.[27] The recent decision to rollout maternal and perinatal death and surveillance reviews is a strategy to improve quality of care.

Improve uptake of family planning:

Nepal requires further progress to meet the MDG CPR target. In order to further reduce total fertility (which would help reduce maternal and child mortality) disparities in contraceptive use need to be addressed, and the reasons for non-use of contraception and the factors associated with early childbearing need to be better understood.[53] An improved mix of contraceptives, with less reliance on sterilization, is also needed. Nepal could also focus on the integration of comprehensive sexuality education in schools, revitalize family planning services, target interventions to adolescents (specifically newly married couples) to improve uptake of contraception and expand the range of choices, such as implants and the female condom, to delay early childbearing and maintain birth spacing. High quality family planning services need to be made an integral part of maternal health by integrating family planning services into reproductive health services in both private and public hospitals.

Reduce undernutrition:
Although maternal undernutrition (nearly one fifth of women aged 15-49 years were still reported to be underweight) has been improving to a small extent,[32] anaemia remains a major child and maternal health problem in Nepal. Nepal has initiated national level coordination for nutrition as well as cross-sectoral implementation approaches. Ongoing coordination and collaboration between various sectors and ministries will continue to be required to address maternal and child undernutrition.

Fill human resources gaps:
Nepal requires investment in expanding the skill base, size and equitable distribution of their health workforce, and of midwives in particular. In 2010, Nepal had just seven doctors, nurses and midwives per 10 000 population, compared with the WHO critical threshold of 23 per 10 000 population.[54] Staff shortages remain an obstacle to delivering quality care. The quality of training, particularly for SBAs, needs to be improved and retention strategies tested.[30] Although task-shifting has, to an extent, mitigated some of the impact of health workforce shortages, measures are also needed to ensure that FCHVs are not over-burdened.[27]

Political Accountability and Democratic Governance:
Although some steps have been initiated to address this, government, political parties and people's representatives should be made more responsible and accountable towards their citizens. People should be empowered to participate in all processes of decision-making and at all levels of governance. There should be zero level of tolerance of corruption, malpractices and misappropriation of public resources. Political accountability must be in place to curb the corruption and misappropriation. Radical improvements of civil service including efficiency, effectiveness, attitude, and behaviours are also important.

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II. Acronyms

ANC	Antenatal Care
CB-IMCI	Community-Based Integrated Management of Childhood Illness
CB-NCP	Community-Based Newborn Care Package
CBS	Central Bureau of Statistics
CoIA	Commission on Information Accountability
CPR	Contraceptive Prevalence Rate
DfID	Department for International Development
EDP	External Development Partners
EFA	Education for All
EmONC	Emergency Obstetric and Neonatal Care
FCHV	Female Community Health Volunteers
GDP	Gross Domestic Product
GoN	Government of Nepal
HDI	Human Development Index
HFOMC	Heath Facility Operational Management Committee
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
IMR	Infant Mortality Rate
LB	Live Births
LSGA	Local Self-Governance Act
MDG	Millennium Development Goal
mHealth	Mobile Health
MIS	Maternity Incentive Scheme
MSNFSC	Multisectoral Nutrition and Food Security Committee
MSNP	Multisectoral Nutrition Plan
MoHP	Ministry of Health and Population
NDHS	Nepal Demographic and Health Survey
NFHS	Nepal Family Health Survey
NGO	Nongovernment Organisation
NMR	Newborn Mortality Rate
NPC	National Planning Commission
NR	Nepalese Rupee
PMNCH	Partnership for Maternal, Newborn and Child Health
PNC	Postnatal care
PPP	Purchasing Power Parity
RMNCH	Reproductive, Maternal, Newborn and Child Health
SBA	Skilled Birth Attendant
SDIP	Safe Delivery Incentive Programme
SWAp	Sector-wide Approach
U5MR	Under 5 Mortality Rate
VDC	Village Development Committee
WHO	World Health Organization
UN	United Nations
UNESCO	United Nations Economic, Social and Cultural Organization
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development

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