

POLICY PROSPECTIVE, SERVICE PROVISION AND GAP IN MATERNAL HEALTH IN NEPAL

**HARI PRASAD KAPHLE¹, NEENA GUPTA², NAVEEN SHRESTHA³,
ANUPRIYA PAUL⁴ & ARVIND DAYAL⁵**

¹Research Scholar, Shalom Institute of Health and Allied Sciences, Sam Higginbottom
University of Agriculture, Technology and Sciences (SHUATS), Allahabad, Uttar Pradesh, India

²Assistant Professor, Shalom Institute of Health and Allied Sciences, Sam Higginbottom
University of Agriculture, Technology and Sciences (SHUATS), Allahabad, Uttar Pradesh, India

³Professor, Faculty of Health Sciences, Pokhara University, Pokhara Lekhnath Metropolitan-30, Kaski, Nepal

⁴Assistant Professor, Department of Mathematics & Statistics, Sam Higginbottom
University of Agriculture, Technology and Sciences (SHUATS), Allahabad, Uttar Pradesh, India

⁵Professor and Dean, Shalom Institute of Health and Allied Sciences, Sam Higginbottom
University of Agriculture, Technology and Sciences (SHUATS), Allahabad, Uttar Pradesh, India

ABSTRACT

Safe motherhood has been recognized as a right of every woman since long ago. But still, every day significant numbers of women are dying due to preventable causes related to pregnancy and childbirth; mostly in developing countries and in rural setting due to unavailability and/or poor quality maternal health services. Available health services are not also utilized properly due to lack of awareness and other socio-cultural factors. The objective of this paper was to review relevant literatures to describe the gap regarding policy prospective and maternal health service provision in Nepal. This paper built on a review of relevant literatures published in between 1990 and 2017. The review revealed that Nepal has provided topmost priority on maternal health since 1990 and it has been getting priority agenda in several policy papers. Progressive improvement in maternal health has been observed in between 1990 and 2017, but achieving national and international policy targets within the specified time frame are still challenging. It is needed to maximize efforts to sustain the current achievement and make further progress on maternal health.

KEYWORDS: Maternal Health, Maternal Mortality, Skilled Birth Attendants, Health Policies, Millennium Development Goals, Sustainable Development Goal, Demographic and Health Survey, Nepal

INTRODUCTION

Maternal health indicates to health of women from pregnancy to the postpartum period.¹ Every day, about 830 women worldwide die from preventable causes related to childbirth. Of the 99% of all maternal deaths that occur in developing countries; South East Asia accounts almost one-third.² Major causes of maternal morbidity and mortality are hemorrhage, infection (sepsis), high blood pressure, obstructed labor, and unsafe abortion.³

One of the targets of Millennium Development Goal (MDG) 5, was to reduce global maternal mortality by three-quarter in between 1990 and 2015 but it was dropped only by about 44%.² Despite of significant reduction (>60%) in maternal mortality, South East Asia Region also missed in achieving MDG 5.⁴ Intensive efforts of Nepal

contributed in about 71% reduction in maternal mortality in between 1990 and 2015 with Maternal Mortality Ratio (MMR) 258 per 100000 live birth in 2015, but are not still sufficient to achieve MDG 5.² One of the target under Sustainable Development Goal (SDG) 3 is to reduce the global maternal mortality ratio to <70 per 100000 live births by 2030.⁵ This is only possible with access to skilled care during pregnancy, childbirth, and few weeks after childbirth.⁶ Recent data indicates >40% of births in the South-East Asia Region of WHO were not attended by skilled birth attendants (SBAs).⁷ Poverty, remoteness, lack of information, inadequate & low quality services and cultural practices are known barriers in developing countries for maternal health and survival.⁶

Nepal has been concentrating its effort on maternal health in last three decade through the formulation of several health policies and programs.⁸ National Health Policy (NHP) 1991 provided topmost priority to maternal health to address high maternal mortality prevalent in Nepal.⁹ Following NHP 1991, a separate policy on maternal health came into existence in 1998.¹⁰ Similarly, a separate program entitles ‘Safe Motherhood Program’ was started in 1997 for the provision of maternal health services throughout the country.¹¹

The objective of this review was to describe current policy prospective, status of service provision and gap in policy prospective and service provision in maternal health in Nepal.

METHODS

This review is mainly built on review of policy papers, reports, surveys and other literatures of Government of Nepal regarding maternal health. Similarly, some other literatures used in this review are the World Health Organization’s publications on maternal health issues. So, to prepare this review literature were collected from diverse sources including search of literatures in websites of government authorities, website of WHO, Google search, Google Scholar and pub med. Literatures published in between 1990 and 2017 included for review. Literatures were searched in between 1st December 2016 to 15th February 2017. Key words used for searching literatures were: “maternal health”, “maternal mortality”, “skill birth attendants”, “health policies”, and “Nepal”. A total number of 41 literatures were collected via above mentioned process. All literatures were screened as per objectives of the review and 11 were excluded from the review. Remaining 30 literatures were reviewed to prepare this review.

Policy Perspective

National Health Policy 1991

The Policy was formulated to extend basic primary health services throughout the country with special focus on rural areas. The policy aimed to reduce the MMR to 400 from 850 per 10000 live births by the year 2000. Maternal child health, including family planning was kept as one of the priority program under preventive health services in this policy.⁹

Second Long Term Health Plan (SLTHP) 1997-2017

The aim of this twenty year long term plan was to improve the health status of entire population through expanding essential health care services and improving health care system to provide quality health care services particularly to most vulnerable, women and children. Major targets of this policy in the context of maternal health were reducing MMR to 250 from 475 per 100000 live births; increasing the percentage of deliveries by trained personnel to 95% from about 31.5%; and increasing the percentage of women attaining at least 4 antenatal visits to 80% from 50%.¹²

Safe Motherhood Policy 1998

This policy aimed to reduce morbidity and mortality among women related to pregnancy, childbirth and postpartum. Specific objectives of the policy were to increase the accessibility, availability and utilization of maternal health services; strengthen the technical capacity of health providers at all levels, strengthen referral services for maternal health services; raise public awareness on safe motherhood issues; and improve the socioeconomic and legal status of Nepalese women.¹⁰

National Safe Abortion Policy 2002

Abortion was legalized in Nepal after formulation of National Safe Abortion Policy 2002 to address women's health issues. The policy puts emphasis on comprehensive abortion care services as an additional tool to address high maternal mortality. The policy allows for any women to terminate pregnancy up to 12 weeks of gestation; up to 18 weeks of gestation if the pregnancy is resulted from rape or incest; and any time during the pregnancy with the recommendation of registered medical practitioner.¹³

Maternity Incentive Scheme (MIS) 2005

In 2005, Ministry of Health and Population introduced MIS as a priority one programme to mitigate the high financial cost of childbirth and to encourage the use of professional in delivery care through the provision of financial incentives. The program included incentives to women (a cash payment of NRs.1,500 in mountain, NRs.1,000 in hill and NRs.500 in the Tarai i.e. southern plain for intuitional delivery) as transportation allowance; incentives to health workers (a cash payment of NRs.300 for attending home or institutional delivery); and free delivery services (in 25 most disadvantaged districts having low HDI). After two years of implementation, another policy paper was developed recommending the provision of incentives to all mothers at delivery throughout the country and subsequently, the scheme was converted to the Safe Delivery Incentive Programme (SDIP).^{14, 15}

National Policy on Skilled Birth Attendants (SBA) 2006

Government of Nepal formulated the SBA policy in 2006 to fulfill its commitment in achieving the MDG 5. The policy aimed to improve maternal and neonatal health by ensuring availability, access and utilization of the skilled attendant at every birth. Developing a sufficient number of trained and skilled human resources through different measures; strengthening referral mechanism, especially below district level; conducting supportive supervision; maintaining continuous support for maternal health services; and developing, regulating, accrediting and re-licensing systems for maternity care are proposed strategies of the policy.¹⁶

Nepal Health Sector Programme - Implementation Plan (NHSP-IP) 2004-2009:

To reform the entire health system by adopting the sector wide approach (SWAp) in Health, Government of Nepal, in collaboration with external developmental partners (EDPs) formulated NHSP-IP in 2004. The NHSP-IP aimed to achieve three program outputs (prioritized essential health care services, decentralized management of health facilities, and specified the role for the private sector); and five sector management outputs (sector management, financing and resource allocation, physical asset management, human resource development, and integrated system for information management). Regarding maternal health, the plan puts its emphasis on reducing maternal mortality to 300 per 100000 live births and increasing skilled attendance at birth to 35% by 2009.¹⁷

National Safe Motherhood & Newborn Health Long Term Plan 2006-2017

This revised policy was developed in 2006 to improve maternal and neonatal health and survival, particularly of the poor and excluded within the line of SLTHP (1997-2017), NHSP-IPs and MDGs. Increased equity of and access to maternal and neonatal health services; enhanced service quality; public private partnerships; decentralization; human resource development; information management; physical assets & procurement management; and sustainable financing systems for safe motherhood and newborn health were eight key outputs identified in the plan.¹⁸

National Free Delivery Policy 2009

Following Safe Delivery Incentives Program (SDIP), Government of Nepal launched National Free Delivery Policy in 2009 to reduce high out of pocket payment associated with deliveries in financial support of the Department for International Development (DFID). As a result, user fees were removed to provide free delivery services at health facilities by skilled birth attendants.^{15, 19}

Nepal Health Sector Programme Implementation Plan (NHSP-IP) II 2010-2015

The second health sector program (2010-2015) of Nepal aimed to achieve universal coverage of essential health care services by reducing socioeconomic and cultural barriers through partnership with non-state actors to improve the entire health care system. To reduce MMR 134 per 100000 live birth and increase births attended by an SBA to 60% by 2015, the programme emphasizes on scaling up female community health volunteers (FCHVs) program; training to maternal health care provider to fulfill the demand (5000 by 2012 and 7000 by 2015); expanding BEmOC/CEmOC facilities; upgrading sub health post to health post with 24 hours normal delivery facility throughout the week; and piloting of miso prostal administration to reduce post partum hemorrhage.²⁰

Aama Program

The Government of Nepal merged four programs related to safe motherhood (safe delivery incentive program, free institutional delivery care, incentive to women for 4ANC visits and incentive to health worker for home delivery) to form the 'Aama SurakshyaKaryakram' known as Aama Programme in 2012. SDIP is a cash incentive scheme, initiated 2005 which provides payment of NRs. 1500 in mountain, 1000 in hill and NRs. 500 in Terai districts to women immediately following institutional delivery. Free Institutional Delivery Care, initiated in 2009 which makes a payment to a health facility for free delivery care. The government provides payment to health facilities with <25 beds is NRs. 1000 and health facilities with \geq 25 beds is NRs. 1500 for normal delivery, NRs. 3000 for ten listed obstetric complications and NRs. 7000 for Cesarean section. Incentive to women for 4ANC visits is an another component, which makes a cash payment of NRs. 400 for women on completion of 4 ANC visits in the 4, 6, 8 & 9 months of pregnancy and institutional delivery. Incentive to health worker for home delivery, the fourth component makes a cash payment of NRs. 100 to health worker for a home delivery.¹¹

National Health Policy 2014

The recent national health policy formulated in 2014 ensures health as a fundamental human right for all citizens. It aims to achieve universal health coverage through effective and responsible health care system by qualified health professionals using evidence based technologies. The policy puts its emphasis in producing skilled human resources for

safe motherhood and provision of a doctor and a nurse in every Village Development Committee (VDC) and a midwife in every ward.²¹

Nepal Health Sector Strategy 2015 – 2020

The strategy envisions productive and quality lives with utmost physical, mental, social and emotional health of all Nepalese citizens through equitable and accountable health service delivery system. The strategy aims to reduce MMR below 125 per 10000 live births by 2020.²²

Service Provision

Program to Deliver Maternal Health Services

Maternal health services are provided under the safe motherhood program in Nepal which was initiated in 1997. The aim of the programme is to improve the maternal and neonatal health through preventive and promotive interventions as well as by addressing avoidable risk factors related to childbirth. Developing the infrastructures for normal delivery and emergency obstetric care; standardizing maternity care; strengthening human resource management for midwifery care; establishing a functional referral mechanism; promoting inter-sectoral coordination and collaboration; and promoting research on safe motherhood is the major strategies of the program.¹¹

Provisions under Safe Motherhood Program

Safe motherhood programme in Nepal mainly includes antenatal care (ANC), delivery care, and postnatal care (PNC) services. ANC service comprises minimum four check-ups (at 4th, 6th, 8th and 9th month of pregnancy); monitoring weight & blood pressure of mother and fetal heart rate; providing education and counseling on birth preparedness and complication readiness (BPCR); detecting and managing complications during pregnancy; providing iron folic acid tablets, deworming tablet, tetanus toxoid and Diphtheria (Td) immunization; and malaria prophylaxis where necessary. Similarly delivery care service includes providing delivery by SBAs; detecting complications and managing or referral to appropriate health facility where emergency obstetric services are available; and registration of births and maternal and neonatal deaths. PNC service includes three postnatal check-ups (within 24 hours of delivery, on the third day and on the seventh day after delivery); identifying and managing complications of both mother and newborn and referral to appropriate health facility if needed; promoting exclusive breastfeeding; educating for personal hygiene and nutrition; supplementing vitamin A and iron to the mother; immunizing of newborn; and family planning counseling and services during post-natal period.¹¹

New Initiations under Safe Motherhood Program

To accelerate maternal health service utilization rate, Government of Nepal has taken several new initiations in the program since it has started in 1997. Some of these are implemented throughout the country, some are going as pilot projects in few districts and some are in expanding phase. Birth preparedness and complication readiness (preparedness of money, SBA/health facilities, transport and blood donors, identification and prompt care seeking for danger signs during pregnancy, delivery and post-partum period); rural ultra sound program (for timely identifying complication during pregnancy by using portable ultrasound machine and refer to the appropriate health facility from rural areas); emergency referral fund (to facilitate referral services from rural areas by supporting poor women); reproductive health morbidity prevention program (uterine prolapse, cervical cancer screening, and obstetric fistula screening); Matri Suraksha Chakki (Misoprostol) distribution for prevention of post partum hemorrhage at home delivery;

expanding comprehensive emergency obstetric and neonatal care to cover the entire districts and Nyano Jhola Program (to prevent hypothermia and infection of the newborn which consists of warm clothes from others and babies) are some examples with this regard.²³

Gaps in Maternal Health

Trend of Maternal Mortality

There was significant decline in Maternal Mortality in between 1990 and 2015. According to WHO estimate, MMR of Nepal decrease to 258 per 10000 live birth from 901 per 100000 live birth with 71.4% reduction in last 25 years.² (Figure 1)

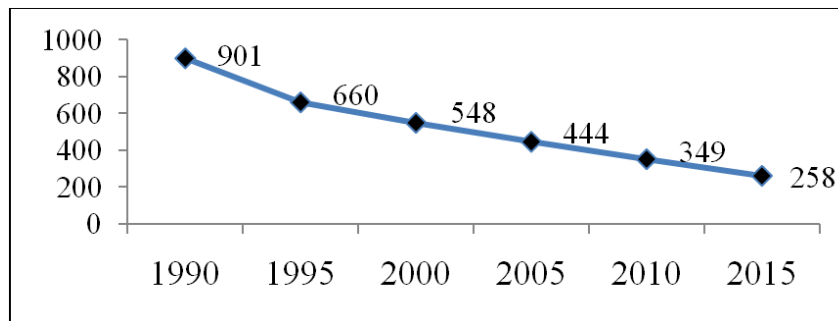


Figure 1: Trend of Maternal Mortality 1990-2015 by WHO Estimates²

The figures of MMR based on national surveys are presented along with MDG and SDG targets in figure 2. These figures are somewhat similar with WHO estimates. Even Nepal made good progress in reducing maternal mortality but was not able to achieve MDG target and have to face a big challenge in achieving SDG target.²⁴

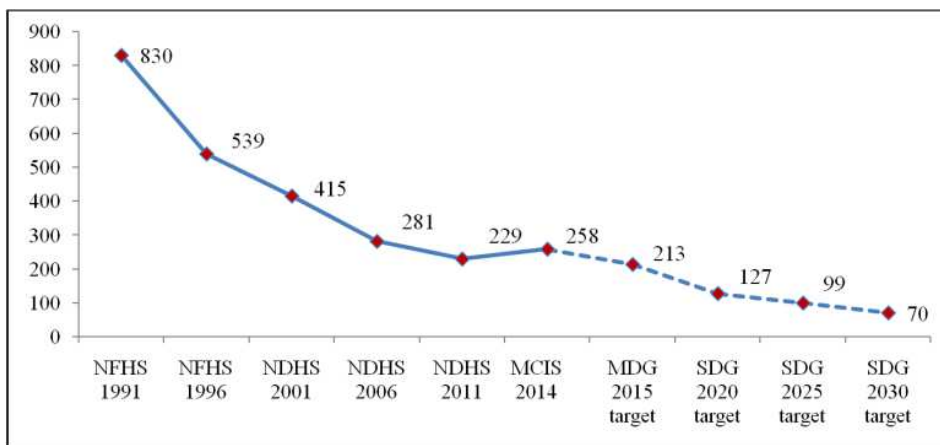


Figure 2: Trend of Maternal Mortality 1990-2015 by National Surveys²⁴⁻²⁹

Utilization of Key Maternal Health Services

Utilization of key maternal health services based on national demographic health surveys (NDHS) and multiple clusters indicator survey (MCIS) along with MDG and SDG target are presented figure 3.

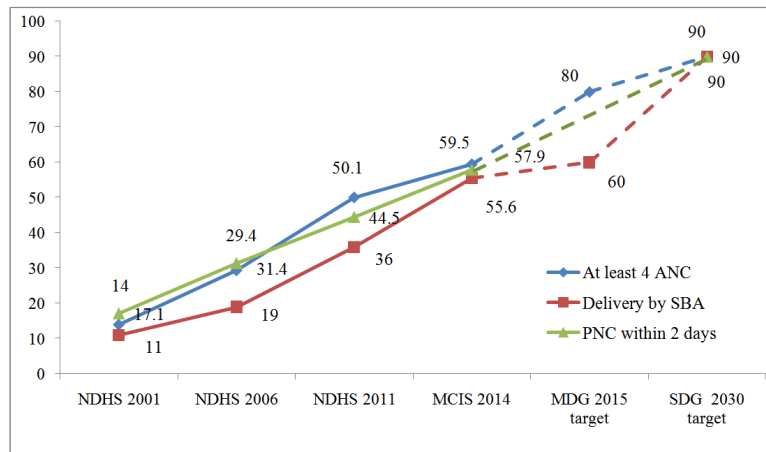


Figure 3: Utilization of Key Maternal Health Services 2000-2015 by National Surveys ²⁴⁻²⁸

The recent data of Nepal shows about two-third (68%) of women received ANC service by a skilled provider (38% by medical doctors, 15% by nurses and 15% by auxiliary nurse midwives). Six-out of-ten (60%) women received at least four ANC service. The data also revealed rural women; women living in the poorest households or women with no education were least likely to have at least four ANC visits. ²⁸ Although there has been more than four-fold increase in percentage of women receiving at least 4 ANC service since 2001 (14% to 59.5%) but efforts were still insufficient to achieve the target of MDG 5 by 2015 and SLTHP by 2017 (80%). ^{12, 24}

Regarding delivery care, recent data revealed about 56% women were attended by a skilled provider (39% doctors, 10% by nurses & 7% by auxiliary nurse midwives). Around 55% women delivered in a health facility (45% in public and 9% in private facilities). The data also revealed urban women were much more likely to be attended by a skilled provider than rural women (90% compared to 51%). ²⁸ Although significant increase in the percentage of births attended by a skill provider in between 2011 and 2014 (36% to 56%) ^{27, 28} but efforts are not sufficient in achieving the MDG target by 2015 (60%) ²⁴, NHSP target by 2015 (60%) ²⁰ and SLTHP target by 2017 (95%). ¹²

Similarly, MCIS 2014 shows only 58% women received PNC service within 2 days of birth indicating a large proportion of women missing life saving opportunities for both mother and newborn during the postpartum period. ²⁸

Ways Forward

Address Inequities in Access

Social-cultural and structural barriers in access to comprehensive reproductive and sexual health service need to be addressed using gender equity and social inclusion (GESI) strategies. ^{2, 15, 20}

Ensure Universal Coverage

Community-based health insurance schemes; expansion of maternity homes, basic and comprehensive emergency obstetric service centers; involvement of private-sector of maternal health care service are evidence proven strategies to ensure universal coverage on maternal health. ^{15, 30}

Improve Quality of Care

As utilization of maternal health services increase efforts should be concrete on the quality of care of the health facilities need to be improved to prevent avoidable maternal and neonatal deaths. ^{2, 4, 30}

Strengthen Referral Service

Emphasis Provision of an ambulance facility to all levels; emergency referral funds, airlifting for emergency referral in remote districts, community-based awareness on birth preparedness and complication readiness are strategies to strengthen referral services. ¹¹

Reduce Human Resource Gaps

An investment in expanding the skill base, size and equitable distribution of health workforce, particularly midwives for reducing the human resource gap in maternal health. ¹⁵

Strengthening the Health System

Developing countries need to be strengthened in all components health systems to provide evidence based maternal health services and to respond to the priorities and needs of girls & women. ^{6, 30}

Ensuring Accountability

Policy provision and regulation to ensure accountability of maternal health care providers need to be formulated to improve the quality of care and making equity. ^{6, 22}

CONCLUSIONS

Following conclusions were derived from the above review

- Nepal has been concentrating its efforts since last three decades through the formulation and implementation of several policies, programs and strategies to address the maternal health problems.
- There is significant improvement in maternal health in the last three decades, but efforts are still insufficient to achieve national and international targets.
- There is an immediate need to maximize efforts on maternal health to sustain the current achievement and make further progress.

ACKNOWLEDGEMENTS

We are grateful to all authors of reviewing literatures whose efforts made this review possible. We also acknowledge the effort of Mr. Dilip Kumar Yadav, Ph D Scholar (Public Health) of Sam Higginbottom University of Agriculture, Technology and Sciences (SHUATS), Allahabad, India for providing valuable suggestions in preparing this article.

DECLARATIONS

Funding: None

Conflict of interest: None, Declared

Ethical approval: Not needed

REFERENCES

1. WHO. Maternal health. World Health Organization 2017 [cited 2017 Jan 14]; Available from: http://www.who.int/topics/maternal_health/en/.
2. WHO, UNICEF, UNFPA, WB, UN. Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva, Switzerland: World Health Organization; 2015.
3. Say L, Chou D, Gemmill A, Tunçalp O, Moller A-B, Daniels J, et al. Global causes of maternal death: a WHO systematic analysis. *The Lancet Global Health*. 2014;2 (6): e323-e33.
4. WHO, SEARO, editors. Strengthening Country Capacity on Maternal and Perinatal Death Surveillance and Response: Report of a South-East Asia Regional Meeting 2016 February 16-18; Maldives: World Health Organization, Regional Office for South East Asia.
5. UN. The global strategy for women's, children's and adolescents' health (2016-2030) New York: United Nations; 2015.
6. WHO. Maternal mortality: Fact sheet. Geneva, Switzerland: World Health Organization; 2015 [updated 2016 Nov; cited 2016 Dec 20]; Available from: <http://www.who.int/mediacentre/factsheets/fs348/en/>
7. WHO. World health statistics 2016: Monitoring health for the SDGs, Sustainable Development Goals. Geneva: World Health Organization; 2016.
8. Bhandari TR, Dangal G. Safe delivery care: Policy, practice and gaps in Nepal. *J Nepal Med Assoc*. 2013;52(192):637-44.
9. MoH. National Health Policy 1991. Kathmandu, Nepal: Ministry of Health, Government of Nepal; 1991.
10. FHD. Safe Motherhood Policy. Kathmandu, Nepal: Family Health Division, Department of Health Services, Ministry of Health, Government of Nepal; 1998. p. 8.
11. DoHS. Annual Report: Department of Health Services 2071/72 (2014/2015). Kathmandu, Nepal Department of Health Services, Ministry of Health, Government of Nepal; 2016. p. 480.
12. MoHP. Second Long Term Health Plan 1997-2017, Perspective Plan for Health Sector Development. 2007 Reprint ed. Kathmandu Nepal Health Sector Reform Unit, Ministry of Health and Population; 2007. p. 158.
13. FHD. National Safe Abortion Policy Kathmandu, Nepal: Family Health Division, Department of Health Services; 2003 p. 10.
14. DoHS. Annual Report Department of Health Services 2064/65 (2006/07). Kathmandu, Nepal: Department of Health Services; 2008. p. 428.
15. Ministry of Health and Population Nepal, Partnership for Maternal, Newborn & Child Health, WHO, World Bank and Alliance for Health Policy and Systems Research. Success factors for women's and children's health: Nepal. Geneva: World Health Organisation; 2014.

16. FHD. National Policy on Skilled Birth Attendants. Kathmandu, Nepal: Family Health Division, Department of Health Services, Ministry of Health, Government of Nepal; 2006. p. 13.
17. MoH. Nepal Health Sector Programme- Implementation Plan 2004-2009. Kathmandu, Nepal: Ministry of Health, Government of Nepal; 2004. p. 98.
18. FHD. National Safe Motherhood and Newborn Health Long Term Plan (NSMNH-LTP) 2006-2017. Kathmandu, Nepal: Family Health Division, Department of Health Services; 2006. p. 28.
19. Witter S, Khadka S, Nath H, Tiwari S. The national free delivery policy in Nepal: early evidence of its effects on health facilities. *Health policy and planning*. 2011;26(suppl 2):ii84-ii91.
20. MoHP. Nepal Health Sector Program-Implementation Plan II (NHSP-IP 2) 2010-2015. Ministry of Health and Population, Government of Nepal; 2010. p. 142.
21. MoHP, GoN. National Health Policy 2071. Kathmandu, Nepal: Ministry of Health and Population, Government of Nepal; 2014. p. 17.
22. MoH, GoN. Nepal Health Sector Strategy 2015 - 2020. Kathmandu, Nepal: Ministry of Health, Government of Nepal; 2015. p. 88.
23. DoHS. Annual Report: Department of Health Services 2070/71 (2013/2014). Kathmandu, Nepal: Department of Health Services, Ministry of Health and Population, Government of Nepal; 2015. p. 283.
24. NPC. Sustainable Development Goals, 2016-2030, National (Preliminary) Report. Kathmandu, Nepal: Government of Nepal, National Planning Commission; 2015. p. 91.
25. Ministry of Health [Nepal], New ERA, and Macro International Inc. 2002. Nepal Demographic and Health Survey 2001. Calverton, Maryland, USA: Family Health Division, Ministry of Health; New ERA; and ORC Macro.; 2002.
26. Ministry of Health and Population (MOHP) [Nepal], New ERA, and Macro International Inc. 2007. Nepal Demographic and Health Survey 2006. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and Macro International Inc.;2008.
27. MoHP, NewERA, ICFInternationalInc. Nepal Demographic and Health Survey 2011. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and ICF International, Calverton, Maryland.; 2012. p. 421.
28. CBS. Nepal Multiple Indicator Cluster Survey 2014, Final Report. Kathmandu, Nepal: Central Bureau of Statistics, UNICEF Nepal; 2015. p. 387.
29. Pradhan A, Aryal RH, Regmi G, Ban B, Govindasamy P. Nepal Family Health Survey 1996. Kathmandu, Nepal and Calverton, Maryland: Ministry of Health [Nepal], New ERA, and Macro International Inc;1997.
30. WHO. Improving the quality of care for reproductive, maternal, neonatal, child and adolescent health in South-East Asia. New Delhi, India: World Health Organization, Regional Office for South-East Asia; 2015.