ເສັ້ນທາງເດີນສຳລັບທຸກຄົນ
A WOMAN’S RIGHT TO HEALTH

ສິດທິຂອງແມ່ຍິງຕໍ່ສຸຂະພາບຂອງຕົນ
A UNIVERSAL PATHWAY.
Executive Summary

SoWMy 2014: ໄຟນທາງເດີນສຳລັບທຸກຄົນ. ທີ່ໄດ້ຖືກກຳນົດໄວ້ໃນບົດລາຍງານສະບັບນີ້ນ ທີ່ມີສະໜອງບໍລິການໃຫ້ແມ່ ແລະ ເດັກເກີດໃໝ່ໄດ້ "ນະໂຍບາຍ, ການພັດທະນາໃນ 3 ປິການຫຼັງຈາກ SowMy 2011 ເປັນທາງເດີນສຳລັບ ການຖືພາ, ການເກີດລູກ ແລະ ການດູແລຫຼັງເກີດ. ອັນນີ້ເຮັດໃຫ້ເຫັນວ່າວຽກງານຜະດຸງຄັນແມ່ນມີຄວາມຫຼາກຫຼາຍ ແລະ ກໍ່ໄດ້ນຳໃຊ້ໂດຍພະນັກງານດູແລສຸຂະພາບຂອງຫຼາຍຂະແໜງການ. 

SoWMy 2014 ດັດແນນໃສ່ 73 ປະເທດໃນ 75 ປະເທດ ໃນປິການປີ 2015 (Countdown to 2015). ອັນນີ້ເຮັດໃຫ້ເຫັນວ່າວຽກງານຜະດຸງຄັນແມ່ນມີຄວາມຫຼາກຫຼາຍ ແລະ ກໍ່ໄດ້ນຳໃຊ້ໂດຍພະນັກງານດູແລສຸຂະພາບຂອງຫຼາຍຂະແໜງການ.
SoWMy 2014 ແມ່ຍິງທຸກຄົນໄດ້ເຂົ້າເຖິງການບໍລິການດູແລກ່ອນເກີດຢ່າງຕຳໃໝ່ 4 ໂຄງ ໃນໄລຍະຖືພາ (ຮູບຖ່າຍໂດຍ: Michael Perier)


ການສະໜອງພະນັກງານ: SoWMy 2014 ບໍ່ການຈະເປັນແລະການສະໜອງພະນັກງານ SRMNH ທີ່ແມ່ແລະເດັກເກີດໃໝ່ສາມາດປ່ຽນເປັນຄວາມຕ້ອງການຕໍ່ພະນັກງານຜະດຸງຄັນ.

ໝໜ່üşໜ်່ແມ່ຍິງທຸກຄົນໄດ້ຮັບການດູແລທີ່ກ່ຽວພັນເຖິງ (SRMNH) ທີ່ເຂົາເຈົ້າຕ້ອງການຫຼືບໍ່. ທັງ 4 ຂົງເຂດຂອງລວມມີ: ປະເມີນຄວາມສຳຄັນຂອງການບໍລິການ SRMNH ທີ່ແມ່ແລແລະເດັກເກີດໃໝ່.
ການເຂົ້າເຖິງ: ເຖິງວ່າເກືອບທັງໝົດ 73 ປະເທດ ຮັບຮ້ອງເຖິງຄວາມສຳຄັນຂອງການເຂົ້າເຖິງທີ່ຕ້ອງມີເງິນແລະມີນະໂຍບາຍໃນການສະເໜີບາງອົງປະກອບຂອງການບໍລິການ SRMNH ບໍ່ເສຍຄ່າໃນການເຂົ້າເຖິງ, ບໍ່ມີພຽງ 4 ປະເທດເທົ່ານັ້ນທີ່ສະໜອງຊຸດຮັບປະກັນຜົນປະໂຫຍດຢ່າງຕໍ່າສຸດໃນການບໍລິການ SRMNH ແຕ່ມີ SoWMy 2014

ການເຂົ້າເຖິງ: ຊັ້ນປະຊາຊົນມີນະໂຍບາຍໄວ້ເພື່ອສະໜອງການບໍລິການດູແລ SRMNH ທີ່ຮັບຮ້ອງສະພາບຂອງສັງຄົມແລະວັດທະນະທະ.ໃຫຍ່ຮ່າງໃດກໍ່ຕາມ, ຫ່າງຂອງແມ່ຍິງທີ່ມີຄວາມຂໍ້ມູນຕໍ່ການດູແລຂອງຜະດຸງຄັນແມ່ຍິງນໍ້າພໍ, ແລະປະເທດຕ່າງໆຮັບຮ້ອງເຖິງຄວາມຕ້ອງການໃນການຄົ້ນຄວ້າບັນຫາດັ່ງກ່າວໃຫ້ເຂັ້ມງວດຂຶ້ນຕື່ມ. SoWMy 2014 ຄຸນນະພາບຂອງຜະດຸງຄັນແລະຜູ້ຮັບການດູແລສາມາດເພີ່ມຂຶ້ນໄດ້ໂດຍການປັບປຸງຄຸນນະພາບຂອງການສຶກສາ, ກົດລະບຽບແລະບົດບາດຂອງສະມາຄົມວິຊາຊີບຂອງຜະດຸງຄັນ. SoWMy 2014ຊີ້ໃຫ້ເຫັນວ່າຫຼັກສູດຜະດຸງຄັນໃນຫຼາຍເທດແມ່ຍິງແມ່ນເໝາະສົມແລະມີການປັບປຸງໃໝ່,ໂຄງສ້າງພື້ນຖານດ້ານການສຶກສາ,ລະບົບແລະເຫຼືອງຂໍ້ມູນ,ໂດຍສະເພາະແມ່ນໂຄງການອົບຮົມຜະດຸງຄັນໂດຍມີຊ່ອງວ່າງຫຼາຍ.ການຄຸ້ມຄອງທີ່ມີປະສິດທິຜົນຕໍ່ການວັດແທກການມີສະໜອງໃຫ້ແລະການເຂົ້າເຖິງແມ່ນຍັງມີຊ່ອງວ່າງຢ່າງຫຼວງຫຼາຍ.ການຫຼຸດຜ່ອນຊ່ອງວ່າງເຫຼືອງນີ້ແມ່ນຕ້ອງການເກັບກຳແລະນຳໃຊ້ຂໍ້ມູນແລະຄວາມເປັນຜູ້ນຳຂອງພະນັກງານເພື່ອໃຫ້ບ້ານລະສິດດ້ານຜະດຸງຄັນແລແລະເຜີຍແຜ່ແຫຼ່ງຂໍ້ມູນເພື່ອສະໜັບສະໜຸນພະນັກງານແລການວາງແຜນ. 10 ກົດລະບຽບທີ່ຈຳເປັນຕ້ອງມີໃນການວາງແຜນຂອງພະນັກງານສາທາລະນະສຸກມີຄື: ຈຳນວນ, ຂອງເຊັນຂອງເວລາໃນການບໍລິການດ້ານ SRMNH, ນາຍາທານ, ແມ່ຍິງ, ແມ່ຍິງບານ, ເກນອາຍຸ, ອາຍຸບຳນານ, ຄັ້ງແລະການສຶກສາ, ການລົງທະບຽນຮຽນ, ການຕົກລົ່ນແລະການຈົບຈາກການສຶກສາແລະການອອກແບບສະໝັກໃຈ.

ຜະດຸງຄັນ ປີ 2030: ການບໍລິການດູແລດ້ານຜະດຸງຄັນເປັນຈຸດໃຈກາງໃນການບັນລຸບ້ານແລະນະໂຍບາຍຂອງຊາດແລະການປ້ອງກັນສິດທິຂອງແມ່ຍິງແລະແກ້ໄຂເປັນ. SoWMy 2014ໄດ້ສ້າງຄູ່ມືຜະດຸງຄັນ 2030 ເພື່ອເປັນທິດທາງໃນການວາງແຜນແລະນະໂຍບາຍ. ໂດຍເລີ່ມຈາກຫຼັກຖານທີ່ວ່າແມ່ຍິງຖືພາຈະມີສຸຂະພາບແຂງແຮງເວັ້ນເສຍແຕ່ມີອາການສົນຫຼືມີສັນຍານເຕືອນອາການສົນແລະມີຜະດຸງຄັນສະໜອງການດູແລທີ່ດີພ້ອມກັບການດູແລສຸກເສີນເມື່ອມີຄວາມຕ້ອງການ,ມາເປັນການສົ່ງເສີມຮູບແບບການດູແລທີ່ແມ່ຍິງເປັນຈຸດໃຈກາງຂອງຜະດຸງຄັນໃນການດູແລ,ຊຶ່ງສະແດງໃຫ້ເຫັນເຖິງການໄດ້ຮັບຜົນປະໂຫຍດທີ່ດີກວ່າແລະການປະຢັດຄ່າໃຊ້ຈ່າຍໄດ້ຫຼາຍກວ່າຮູບແບບການດູແລແບບປິ່ນປົວ.

ການບໍລິການດູແລແມ່ຂອງຜະດຸງຄັນທີ່ມີຄຸນນະພາບສາມາດຊ່ວຍຊີວິດແມ່ແລະເດັກໄດ້ແລະຍັງເຮັດໃຫ້ຄອບຄົວມີສຸຂະພາບດີ (ຮູບຖ່າຍໂດຍ: Michael Perier)
ການຮຽນແບບສະເໝີພາບ ໃນບັນດາ 73 ປະເທດນັ້ນສະແດງໃຫ້ເຫັນວ່າ: 92% ຂໍ້ຄວາມຫຼັກ

1 ການຮຽນແບບສະເໝີພາບໃນບັນດາ 73 ປະເທດນັ້ນມີອັດຕາການຕາຍຂອງແມ່ ແລະ ລູກຕາຍໃນທ້ອງຫຼາຍກວ່າ 92 ດີເຊັ່ນ, ແຕ່ມີບຸກຄະລາກອນດ້ານການແພດ, ຜະດຸງຄັນ ແລະ ການຢາພຽງ 42 ດີເຊັ່ນ. ໃນບັນດາປະເທດເຫຼົ່ານີ້, ການຂາດດຸນຂອງພະນັກງານຜະດຸງຄັນແມ່ນເປັນສິ່ງທີ່ຕ້ອງໄດ້ຮັບການແກ້ໄຂຢ່າງຮີບດ່ວນທີ່ສຸດໃນເຂດທີ່ມີອັດຕາການຕາຍຂອງແມ່ແລະເດັກເກີດໃໝ່ສູງທີ່ສຸດ.

2 ຖືກພະຍາຍາມຂະຫຍາຍ ແລະ ສະໜອງການບໍລິການດ້ານພະດຸງຄັນແບບສະເໝີພາບ, ແຕ່ພັດບໍ່ມີຂໍ້ມູນແບບຈຳແນກແລະຄົບຖ້ວນເພື່ອໃຫ້ວິໄຈການເຂົ້າເຖິງ, ຄວາມເພິ່ງພໍໃຈ ແລະ ຄຸນນະພາບຂອງພະນັກງານຜະດຸງຄັນ.

3 ຍັງເຮັດໃຫ້ຄອບຄົວມີສຸຂະພາບດີແລະເພີ່ມຜະລິດຕະພັນຊຸມຊົນ.

4 ຄົນຕອບແທນຈາກການລົງທຶນແມ່ນສິ່ງທີ່ "ຄຸ້ມຄ່າ": 87%

5 ຄັ້ງໃຫ້ແຮງຄັ້ງທາງການກ່ຽວກັບຮຽນຜົນໄປຢ່າງມິສິນຕ່າງໆ ແມ່ນຄົນທີ່ຕົກຫຼົ່ບ ແລະ ການຈົບການສຶກສາ ແລະ ແດ້ຮັບອັນໃຫຍ່ຫຼວງເຊັ່ນ: ການຫຼຸດຜ່ອນການຕິດເຊື້ອ, ລົບລ້າງການຕາຍຂອງແມ່ແລະເດັກເກີດໃໝ່ທີ່ສາມາດຫຼີກລ້ຽງໄດ້.

6 ການຮຽນແບບສະເໝີພາບມີພະນັກງານຜະດຸງຄັນທີ່ການຮຽນແບບສະເໝີພາບດ້ານຄົນທີ່ມີອັດຕາການຕາຍຂອງແມ່ແລະເດັກເກີດໃໝ່ ກຳເນີນສະແດງໃຫ້ເປັນມັນນ້ອຍເຈົ້າໃຊ້ອະນຸຍາດຄົນທີ່ສາມາດຮຽນແບບສະເໝີພາບໄດ້ເຖິງ87 ດີເຊັ່ນ.

7 ປະກວດ, ກຳລຽງ ແລະ ຜັຂອບບຽງການຮຽນແບບສະເໝີພາບມີພະນັກງານຜະດຸງຄັນທີ່ຖືກຕ້ອງສາມາດຮຽນແບບສະເໝີພາບຢ່າງສຸກຊ່ວຍ ແລະ ຄຸນນະພາບຂອງແມ່ໄດ້ເຖິງ87 ດີເຊັ່ນ: ຈຳນວນຜະດຸງຄັນ, ຫົວງຊາງແລະການບໍລິການ RMNH, ຜະດຸງຄັນແລະການຈັດຕັ້ງການຜະດຸງຄັນ, ຜະດຸງຄັນ, ຜະດຸງຄັນແລະການ扩张ແລະການຮຽນແບບສະເໝີພາບຂອງຄົນທີ່ມີຄຸນນະພາບສູງສາມາດຊ່ວຍຊີວິດແມ່ແລະເດັກເກີດໄດ້ໃຫ້ຄອບຄົວມີສຸຂະພາບດີແລະເພີ່ມຜະລິດຕະພັນຊຸມຊົນ.

8 ການຮຽນແບບສະເໝີພາບຈະປ່ອຍໃຫ້ທ່ານໝໍ,ແພດແລະຂະແໜງການສາທາລະນະສຸກສາມາດໃຫ້ຄວາມຕ້ອງການດ້ານສຸຂະພາບແລະເຮັດໃຫ້ບັນລາຜົນໄດ້ຮັບອັນໃຫຍ່ຫຼວງເຊັ່ນ: ການຫຼຸດຜ່ອນການຕິດເຊື້ອ, ລົບລ້າງການຕາຍຂອງແມ່ແລະເດັກເກີດໃໝ່ທີ່ສາມາດຫຼີກລ້ຽງໄດ້.

ຂົມຂອງມາດການລົງທຶນຈະປ້ອຍໃຫ້ທ່ານໝໍ,ແພດແລະຂະແໜງການສາທາລະນະສຸກສາມາດໃຫ້ຄວາມຕ້ອງການດ້ານສຸຂະພາບແລະເຮັດໃຫ້ບັນລາຜົນໄດ້ຮັບອັນໃຫຍ່ຫຼວງເຊັ່ນ: ການຫຼຸດຜ່ອນການຕິດເຊື້ອ, ລົບລ້າງການຕາຍຂອງແມ່ແລະເດັກເກີດໃໝ່ທີ່ສາມາດຫຼີກລ້ຽງໄດ້.

ຝັກອາຍ່າວນີ້ແຕ່ຕ່າງມາຈະໄດ້ຮັບການຜະດຸງຄັນສາມາດຮຽນແບບສະເໝີພາບທີ່ຕ້ອງໄດ້ຮັບການເຂົ້າເຖິງ.
ผสมยาตัวเลือกใช้สิ่งตั้งนี้มี(matrix)
ការបໍລິການດ້ານຜະດຸງຄັນ

ການບໍລິການດ້ານຜະດຸງຄັນແມ່ນຕອບສະໜອງດ້ວຍການປະຕິບັດຮ່ວມກັນພ້ອມກັບສະມາຄົມ, ຊ່ຽວຊານດ້ານສຸຂະພາບ ແລະ ການຈັດພະນະການສາທາລະນະສຸກ.

ການບໍລິການດ້ານຜະດຸງຄັນຂັ້ນຳອິດແມ່ນຕ້ອງຢູ່ໃກ້ຊິດກັບແມ່ແລະຄອບຄົວໂດຍການສົ່ງຕໍ່ໄປຍັງການດ້ານສຸຂະພາບດັ່ງກ່າວ.

ພະນະການຜະດຸງຄັນໄດ້ຮັບການສະໜັບສະໜູນຜ່ານການສຶກສາ, ກົດລະບຽບທີ່ມີຄຸນນະພາບແລະການບໍລິຫານບຸກຄະລາກອນແລະຊັບພະຍາກອນອື່ນໆຢ່າງມີປະສິດທິຜົນ.

ຊ່ຽວຊານດ້ານການດ້ານສຸຂະພາບທັງໝົດແມ່ນຕອບສະໜອງແລະໃຊ້ງານເພື່ອການບໍລິການດ້ານສຸຂະພາບທີ່ມີຄຸນນະພາບແລະໃຫ້ກຽດກັນ.

ສະມາຄົມວິຊາຊີບຕອບສະໜອງຄວາມເປັນຜູ້ນຳໃຫ້ແກ່ສະມາຊິກຂອງເຂົາເຈົ້າເພື່ອອຳນວຍຄວາມສະດວກກົດລະບຽບການດ້ານສຸຂະພາບທີ່ມີຄຸນນະພາບ.

ສົ່ງເສີມການເລີ່ມຕົ້ນທີ່ປອດໄພ

- ການເຂົ້າເຖິງການບໍລິການດ້ານຜະດຸງຄັນຢ່າງປອດໄພກັບສາມູນສໍາລັບຈາກເກີດໃນເວລາເກີດ.
- ການຊ່ວຍເຫຼືອໂດຍທີມງານຜະດຸງຄັນໃນການເຂົ້າເຖິງການບໍລິການດ້ານຜະດຸງຄັນທີ່ມີຄວາມສາມາດແລະມີອຸປະກອນເຄື່ອງມືການແພດໃນການຊ່ວຍເກີດທ້າຍການທີ່ຕ້ອງການແລະຕ້ອງໄດ້ຮັບການເກີດສຸກເສີນເມື່ອມີຄວາມຕ້ອງການ.
- ການຊ່ວຍເຫຼືອຈາກທີມງານຜະດຸງຄັນທີ່ດີໃນເວລາທີ່ຕ້ອງການເກີດສຸກເສີນ.

6 7 8 9 10

EXECUTIVE SUMMARY
ນັກງານທີ່ເຮັດວຽກ RMNH ຫຼືການຕັ້ງເພາະສັນຖານສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວເພີ່ມຂຶ້ນ 33 ກິດຈະແລກ 46 ກິດຈະແລກການການຈ່າຍການເຂົ້າເຖິງດ້ານການເງິນການເຂົ້າເຖິງດ້ານທີ່ຕັ້ງພູມສັນຖານສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວໃນປີ 2030. ຄວາມໝາຍຂອງລະບົບສາທາລະນະສຸກແມ່ນສາມາດຮູ້ຄ່າແລະຊັບຊ້ອນພະນັກງານດ້ານ SRMNH ທີ່ສະເໝີພາບຈັກການເຂົ້າເຖິງຄ່າທີ່ຕັ້ງພູມສັນຖານຈະເລີນໂປດະຊານຕໍ່ປີ 2012-2030. ຈຸດສັນຍາດພະຍາບານຜະດຸງຄັນຕ້ອນຕອບສະໜອງການບໍລິການໃຫ້ແມ່ຍິງຖືພາຈຳນວນ 0.3 ລ້ານຄົນແມ່ຍິງຢູ່ໃນໄວຈະເລີນໂປດະຊານທຸກຄົນ)ຂອງງານຄັ້ງໃນ 3. ໃນປີ 2030, ຄາດວ່າປະຊາກອນຈະເພີ່ມຂຶ້ນ 33 ກິດຈະແລກ 8.8 ລ້ານຄົນ. ຄວາມໝາຍຂອງລະບົບສາທາລະນະສຸກແມ່ນສາມາດກຳນົດຄ່າແລະຊັບຊ້ອນພະນັກງານດ້ານ SRMNH ທີ່ສະເໝີພາບຈັກການເຂົ້າເຖິງຄ່າທີ່ຕັ້ງພູມສັນຖານຈະເລີນໂປດະຊານຕໍ່ປີ 2012-2030. ຈຸດສັນຍາດພະຍາບານຜະດຸງຄັນຕ້ອນຕອບສະໜອງການບໍລິການໃຫ້ແມ່ຍິງຖືພາຈຳນວນ 0.3 ລ້ານຄົນແມ່ຍິງຢູ່ໃນໄວຈະເລີນໂປດະຊານທຸກຄົນ)ຂອງງານຄັ້ງໃນ 3. ໃນປີ 2030, ຄາດວ່າປະຊາກອນຈະເພີ່ມຂຶ້ນ 33 ກິດຈະແລກ 8.8 ລ້ານຄົນ. ຄວາມໝາຍຂອງລະບົບສາທາລະນະສຸກແມ່ນສາມາດກຳนົດຄ່າແລະຊັບຊ້ອນພະນັກງານດ້ານ SRMNH ທີ່ສະເໝີພາບຈັກການເຂົ້າເຖິງຄ່າທີ່ຕັ້ງພູມສັນຖານຈະເລີນໂປດະຊານຕໍ່ປີ 2012-2030.

308,000 ມື້ຍິງຖືພາ = ໃຊ້ການງາມຊ່ວຍເກີດ (2012)

ແຜນຄະບວນຕັ້ງຄົກຂະນວນ (2012)

ການຕະຫາວ່າງທີ່ຫຼັງຈາກການຕະຫາວ່າງທີ່ຕັ້ງຄົກຂະນວນ MNH

- ແຜນຄະບວນ MNH
- ແຜນຄະບວນ MNH %
- ແຜນຄະບວນ MNH 673 90
- ແຜນຄະບວນ MNH 3,010,000
- ແຜນຄະບວນ MNH 1,232,000
- ແຜນຄະບວນ MNH 186,000
- ແຜນຄະບວນ MNH 745,000
- ແຜນຄະບວນ MNH 495 30
- ແຜນຄະບວນ MNH 105 100

ການຕະຫາວ່າງທີ່ອຸປະລານລາຄາ

ການຕະຫາວ່າງທີ່ອຸປະລານລາຄາ MNH

- ແຜນຄະບວນ MNH 673 90
- ແຜນຄະບວນ MNH 3,010,000
- ແຜນຄະບວນ MNH 1,232,000
- ແຜນຄະບວນ MNH 186,000
- ແຜນຄະບວນ MNH 745,000
- ແຜນຄະບວນ MNH 495 30
- ແຜນຄະບວນ MNH 105 100

ການຕະຫາວ່າງທີ່ອຸປະລານລາຄາ MNH (%)

- ແຜນຄະບວນ MNH 673 90
- ແຜນຄະບວນ MNH 3,010,000
- ແຜນຄະບວນ MNH 1,232,000
- ແຜນຄະບວນ MNH 186,000
- ແຜນຄະບວນ MNH 745,000
- ແຜນຄະບວນ MNH 495 30
- ແຜນຄະບວນ MNH 105 100

ຈຳນວນການເກີດທີ່ມີຄູຊ່ວຍໃນຫຼັກສູດຕໍ່າສຸດຈະເກີດ 20 ກໍລະນີ (ຖືພາ x 4) = 1,232,000
1. ການປົກຄຸມດ້ານ SBA ຕົວເມືອງ/ຊົນນະບົດ ແມ່ນຍັງບໍ່ມີ. ຕົວເລກອີງຕາມການເກີດຢູ່ຕົວເມືອງ/ຊົນນະບົດພຽງຢ່າງດຽວ.
2. ຂໍ້ມູນອ້າງເຖິງປະເພດພະນັກງານຜະດຸງຄັນ
3. ຂໍ້ມູນເຫຼົ່ານີ້ແມ່ນເປົ້າໝາຍທີ່ໄດ້ສະເໜີໄວ້ສຳລັບ MMR ແລະ MMR ປີ 2030 ຈາກການແນະນຳຂອງການລົບລ້າງການຕາຍຂອງແມ່ທີ່ຫຼີກລ້ຽງໄດ້ພາຍໃນ ປີ 2030 ແລະແຜນປະຕິບັດຕໍ່ແຄ້ນໃຊ້ທີ່ຈ່າຍໜ່ວຍໃນການຄວາມສະຫະລະຊີວະຊີວິດ ເຊັນເປີເຊັນ. ສະເໜີຕໍ່ການແກ່ການລະຫບບຖ້າມແລະການຕາຍເມືອງ/ຊົນນະບົດ ແມ່ນຫຼິ້ນໄວ້ສຳລັບການສາມາດການຄວາມສະຫະລະຊີວະຊີວິດ ເຊັນເປີເຊັນ.
SoWMy 2014’s main objective, agreed at the 2nd Global Midwifery Symposium held in Kuala Lumpur in May 2013, is to provide an evidence base on the state of the world’s midwifery in 2014 that will: support policy dialogue between governments and their partners; accelerate progress on the health MDGs; identify developments in the three years since the SoWMy 2011 report was published; and inform negotiations for and preparation of the post-2015 development agenda.

SoWMy 2014 focuses on 73 of the 75 low- and middle-income countries that are included in the “Countdown to 2015” reports. More than 92% of all the world’s maternal and newborn deaths and stillbirths occur within these 73 countries. However, only 42% of the world’s medical, midwifery and nursing personnel are available to women and newborn infants (hereafter ‘newborns’) in these countries.

Midwifery is a key element of sexual, reproductive, maternal and newborn health (SRMNH) care and is defined in this report as: the health services and health workforce needed to support and care for women and newborns, including sexual and reproductive health and especially pregnancy, labour and postnatal care. This enables analysis of the diverse ways in which midwifery is delivered by a range of health-care professionals and associate professionals.

SoWMy 2014 has been co-ordinated by the United Nations Population Fund, the International Confederation of Midwives and the World Health Organization on behalf of government representatives and national stakeholders in the 73 countries and 30 global development partners.
Midwifery is a key element of sexual, reproductive, maternal and newborn health (SRMNH) care.

The evidence and analysis in SoWMy 2014 is structured by the four domains that determine whether a health system and its health workforce are providing effective coverage, i.e. whether women are obtaining the care they want and need in relation to SRMNH services. These four domains are: availability, accessibility, acceptability and quality.

**Availability:** SoWMy 2014 provides new estimates of the essential SRMNH services needed by women and newborns. This need for services, in each country, can be converted into the need for the midwifery workforce.

**Accessibility:** Although nearly all of the 73 countries recognize the importance of financial accessibility and have a policy of offering at least some essential elements of SRMNH care free of charge at the point of access, only 4 provide a national “minimum guaranteed benefits package” for SRMNH that includes all the essential interventions.

**Acceptability:** Most countries have policies in place to deliver SRMNH care in ways that are sensitive to social and cultural needs. However, data on women's perceptions of midwifery care are scarce, and countries acknowledge the need for more robust research on this topic. Contributors to the SoWMy 2014 workshops noted that the issue of acceptability is strongly linked to discrimination and the status of women generally, both as service users and health workers.

**Quality** of both care and care providers can be increased by improving the quality of midwifery education, regulation and the role of professional associations. SoWMy 2014 indicates that although the curricula in most countries are appropriate and up-to-date, pervasive gaps remain in education infrastructure, resources and systems, particularly for direct-entry midwifery programmes.
There are substantial gaps in effective coverage in both the availability and quality dimensions. Reducing these gaps requires the collection and better use of workforce data and leadership to prioritize midwifery and release resources to support workforce and service planning. The minimum 10 data elements required for health workforce planning are: headcount, percentage time spent on SRMNH, roles, age distribution, retirement age, length of education, enrolments into, attrition and graduation from education, and voluntary attrition from the workforce.

Midwifery2030: Quality midwifery care is central to achieving national and global priorities and securing the rights of women and newborns. SoWMy 2014 has developed Midwifery2030 as a pathway for policy and planning. Starting from the premises that pregnant women are healthy unless complications, or signs thereof, occur, and that midwifery care provides preventive and supportive care with access to emergency care when needed, it promotes woman-centred and midwife-led models of care, which have been shown to generate greater benefits and cost savings than medicalized models of care.
KEY MESSAGES

The report shows that:

1. The 73 Countdown countries included in the report account for more than **92% OF GLOBAL MATERNAL AND NEWBORN DEATHS AND STILLBIRTHS** but have only **42% OF THE WORLD’S MEDICAL, MIDWIFERY AND NURSING PERSONNEL**. Within these countries, workforce deficits are often most acute in areas where maternal and newborn mortality rates are highest.

2. **ONLY 4 OF THE 73 COUNTRIES** have a midwifery workforce that is able to meet the universal need for the 46 essential interventions for sexual, reproductive, maternal and newborn health.

3. Countries are endeavouring to expand and deliver equitable midwifery services, but **COMPREHENSIVE, DISAGGREGATED DATA** for determining the availability, accessibility, acceptability and quality of the midwifery workforce **ARE NOT AVAILABLE**.

4. Midwives who are educated and regulated to international standards can provide **87% OF THE ESSENTIAL CARE** needed for women and newborns.

5. In order for midwives to work effectively, **FACILITIES NEED TO BE EQUIPPED TO OFFER THE APPROPRIATE SERVICES**, including for emergencies (safe blood, caesarean sections, newborn resuscitation).

6. Accurate data on the midwifery workforce enable countries to plan effectively. This requires **A MINIMUM OF 10 PIECES OF INFORMATION THAT ALL COUNTRIES SHOULD COLLECT**: headcount, percentage time spent on SRMNH, roles, age distribution, retirement age, length of education, enrolments into, attrition and graduation from education, and voluntary attrition from the workforce.

7. Legislation, regulation and licensing of midwifery allow midwives to provide the high-quality care they are educated to deliver and thus protects women’s health. High-quality midwifery care for women and newborns saves lives and **CONTRIBUTES TO HEALTHY FAMILIES AND MORE PRODUCTIVE COMMUNITIES**.

8. The returns on investment are a “best buy”:
   - Investing in midwifery education, with deployment to community-based services, could yield a **16-FOLD RETURN ON INVESTMENT** in terms of lives saved and costs of caesarean sections avoided, and is **A “BEST BUY” IN PRIMARY HEALTH CARE**.
   - Investing in midwives frees doctors, nurses and other health cadres to focus on other health needs, and contributes to achieving a grand convergence: reducing infections, **ENDING PREVENTABLE MATERNAL MORTALITY** and **ENDING PREVENTABLE NEWBORN DEATHS**.
WHAT MAKES THIS POSSIBLE?

1. All women of reproductive age, including adolescents, have universal access to midwifery care when needed.

2. Governments provide and are held accountable for a supportive policy environment.

3. Governments and health systems provide and are held accountable for a fully enabled environment.

4. Data collection and analysis are fully embedded in service delivery and development.

5. Midwifery care is prioritized in national health budgets; all women are given universal financial protection.

ENSURING A HEALTHY START means:

- maintaining your health and preparing yourself for pregnancy, childbirth and the early months as a new family
- receiving at least four antenatal care visits, which include discussing birth preparedness and making an emergency plan
- demanding and receiving professional supportive and preventive midwifery care to help you and your baby stay healthy, and to deal with complications effectively, should they arise

PLANNING AND PREPARING means:

- delaying marriage
- completing secondary education
- providing comprehensive sexual education for boys and girls
- protecting yourself against HIV
- maintaining a good health and nutritional status
- planning pregnancies using modern contraceptive methods
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• protecting yourself against HIV
• maintaining a good health and nutritional status
• planning pregnancies using modern contraceptive methods

CREATING A FOUNDATION FOR THE FUTURE
• starting to breastfeed immediately and being supported to continue breastfeeding as long as you wish
• being provided with information about and support in caring for your child in the first months and years of life
• receiving information about family planning so you can efficiently space your next pregnancy
• being supported by the midwifery team to access child and family health services and vaccination programmes at the appropriate time

SUPPORTING A SAFE BEGINNING
• safely accessing midwifery services with the partner of your choice when labour starts
• finding respectful, supportive and preventive care, provided by competent midwives who have access to the equipment and supplies they need and receiving emergency obstetric care if required
• participating in decisions about how you and your baby are cared for
• having the privacy and space to experience birth without unnecessary disturbance and interventions
• being supported by a collaborative midwifery team in the event that you do need emergency obstetric care

6 Midwifery care is delivered in collaborative practice with health-care professionals, associates and lay health workers.
7 First-level midwifery care is close to the woman and her family with seamless transfer to next-level care.
8 The midwifery workforce is supported through quality education, regulation and effective human and other resource management.
9 All health-care professionals provide and are enabled for delivering respectful quality care.
10 Professional associations provide leadership to their members to facilitate quality care provision.

EXECUTIVE SUMMARY
The country brief has been designed to prompt and inform policy discussions on how the composition, skill-mix, deployment and enabling environment of the midwifery workforce impacts on the delivery of SRMNH services for all women and newborns who need them. This visual guide describes the graphics on the two-page country brief and provides examples of the indicative policy questions that may arise.

First page: Where are we now?

The first page of the country brief can be used to discuss the extent to which the workforce is currently able to deliver SRMNH services for all women and newborns who need them. Proxies for availability, accessibility and quality are presented to facilitate these discussions. All data are from 2012.

WHAT DO WOMEN AND NEWBORNS NEED?

The brief starts by showing some of the indicators of need that must be met if universal coverage is to be attained. The number of pregnancies, their geographical distribution, and the volume of services that must be provided are displayed in this section. Other needs include the provision of sexual and reproductive health services, including addressing unmet need for family planning.

Indicative policy question: Is the policy and planning environment in the country consistent with universal coverage of SRMNH services, responsive to what women and newborns need?

WORKFORCE AVAILABILITY AND MET NEED

The brief then considers how many health workers are available to meet this need. The number (by headcount) of all workers reported and the percentage time each one spends on MNH services are shown. This information provides the number of available health workers by their full-time equivalent. Only by considering the number of full-time equivalent health workers can a true picture of availability be constructed. Health workers are grouped by category, while their country cadre name is provided in footnote 1.

The section also provides an estimate of how workforce availability compares with need. An estimated percentage for the national aggregate summarizes the extent to which the available midwifery workforce, taking into account which health workers provide which services, has enough time to deliver the 46 essential SRMNH interventions to all women and newborns who need them. The estimate of met need is highly sensitive to the package of care (e.g. the 46 essential interventions), the number of health workers reported, the percentage of time they spend on SRMNH services, and the roles they perform.

Indicative policy questions: Have all cadres that contribute to the midwifery workforce been reported, by name and by the percentage of time each cadre spends on SRMNH services? Does the estimate of met need at the national aggregate level mask inequities, e.g. at the sub-national level, or when disaggregated by urban/rural and socio-economic strata?

FINANCIAL ACCESSIBILITY

Even if there are sufficient health workers, the services they provide may not be affordable. This graph shows the number of the 46 essential SRMNH interventions that are included in each country’s minimum health benefits package and available free at the point of delivery, as an indication of the degree of financial protection offered to women and their newborns in accessing SRMNH care.

Indicative policy questions: Is the minimum health benefits package guaranteed to all women regardless of ability to pay? Are there national plans to provide a package of SRMNH services that include and go beyond the 46 essential interventions?

GEOGRAPHICAL ACCESSIBILITY

Health workers, and the facility from which they work, may not be equally distributed with regards to need. This graph shows the number of births in urban versus rural areas to indicate the geographical need for SRMNH services. Where data are available the graph also shows the number of births where a skilled birth attendant was reportedly available. This provides an indicative measure of workforce accessibility.

Indicative policy question: Is there a marked difference in access to the midwifery workforce in urban and rural areas and what policy measures can be taken to address this?

BANGLADESH

In 2022, an estimated total population of 159.7 million; 111.2 million (70%) were living in rural areas and 48.5 million (30%) were urban. The fertility rate was 2.2. By 2030, the population is projected to increase by 25% to 196.7 million. To achieve universal access to sexual, reproductive, maternal and newborn care, voluntary services must respond to 4.3 million pregnancies per year by 2030, 66% of those in rural settings. The health system implications include how best to configure and expand the SRMNH workforce to meet at least 72.6 million antenatal visits, 57.6 million births and 23.2 million post-partum/maternatal visits between 2012 and 2030.

The country brief has been designed to prompt and inform policy discussions on how the composition, skill-mix, deployment and enabling environment of the midwifery workforce impacts on the delivery of SRMNH services for all women and newborns who need them. Proxies for availability, accessibility and quality are presented to facilitate these discussions. All data are from 2012.
Second page: What might 2030 look like?

The second page of the country brief aims to prompt policy discussion on the future evolution of the midwifery workforce compared with the future scale of population need. The last section, “Estimates and projections to 2030”, compares future availability of the health workforce and future needs for SRMNH services under a variety of scenarios. Given the absence of data in some countries, this analysis should be seen as a starting point for policy discussions (including around the availability and quality of national data) rather than as a statement of fact.

**PROJECTED PREGNANCIES AND MORTALITY REDUCTION**

Achieving universal coverage means anticipating and responding to future needs. This section shows the evolution of need (expressed as the annual number of pregnancies in urban and rural areas) in the period 2012-2030. Other needs for sexual and reproductive health services will be determined by changes in the number of women of reproductive age, including the number of adolescents.

The section also provides an indication of the targets for reductions in maternal and neonatal mortality, as proposed in the Ending Preventable Maternal Mortality by 2030 initiative and the Every Newborn Action Plan. These proposed targets are subject to national policy priorities and decisions.

**Indicative policy questions:** Is there an opportunity in your country to address unmet need for family planning and therefore reduce the annual number of pregnancies? What is the impact of urban/rural population change on the selection, education and deployment of the midwifery workforce? What are the midwifery workforce implications to achieve the accelerated reductions in maternal and neonatal mortality by 2030?

**ESTIMATES AND PROJECTIONS TO 2030**

This section illustrates the potential evolution of the midwifery workforce under “business as usual” assumptions and according to different policy scenarios.

The first row of three graphs considers the number of health workers who will enter and exit the midwifery workforce in the period 2012 - 2030. The graph to the left illustrates how the full-time equivalent number of health workers will reduce over time, and the shaded area represents the “outflows” in this period. The graph in the centre identifies the entities from national education institutions, and the third graph to the right the cumulative effect of entries and exits.

“What if” scenarios are presented as examples. These illustrate the potential impact of policy decisions and demonstrate the changes in net need that could be realised through four different scenarios: reducing the number of pregnancies per annum, increasing the supply of midwives, nurses and physicians, improving efficiency and reducing voluntary attrition. The bottom two graphics highlight the difference between “business as usual” and the combination of the policy scenarios. The changes in net need are based on the country data reported and a standard set of decision rules in Annex 5.

**Indicative policy questions:** What are the opportunities to improve the efficiency and management of the current midwifery workforce? What is the turnover of the midwifery workforce today, and are there mechanisms in place to capture all exits and understand why health workers are leaving? What are the national policy priorities for the skill mix and deployment of the midwifery workforce and how will this impact on met need?
LAO PEOPLES DEMOCRATIC REPUBLIC

In 2012, of an estimated total population of 6.6 million, 5.9 million (89%) were living in rural areas and 1.8 million (26%) were women of reproductive age; the total fertility rate was 3. By 2030, the population is projected to increase by 33% to 8.8 million. To achieve universal access to sexual, reproductive, maternal and newborn care, midwifery services must respond to 0.3 million pregnancies per annum by 2030. The health system implications include how best to configure and equitably deploy the SRMNH workforce to cover at least 22.6 million antenatal visits, 3.4 million births and 13.7 million post-partum/postnatal visits between 2012 and 2030.

WHAT WOMEN AND NEWBORNS NEED (2012)

308,000 PREGNANCIES A YEAR = HOW MANY EPISODES OF CARE?

PRE-PREGNANCY

ANTENATAL

BIRTH

POST-PARTUM

POSTNATAL

WORKFORCE AVAILABILITY (2012)

Country classification of staff working in MNH%

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>MNH %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwives</td>
<td>673</td>
<td>90</td>
</tr>
<tr>
<td>Midwives, auxiliary</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Nurse-midwives</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Nurses</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Nurses or nurse-midwives, auxiliary</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Clinical officers &amp; medical assistants</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Physicians, generalists</td>
<td>495</td>
<td>30</td>
</tr>
<tr>
<td>Obstetricians &amp; gynaecologists</td>
<td>105</td>
<td>100</td>
</tr>
</tbody>
</table>

FINANCIAL ACCESSIBILITY

Percentage of 46 RMNH Essential Interventions included in minimum health benefits package, 2012

43% (n=20) Covered

57% (n=26) Not covered

GEOPGRAPHICAL ACCESSIBILITY

Number of births with a skilled birth attendant (SBA)

MIDWIFERY EDUCATION

Minimum high-school requirement to start training

Grade 10

Years of study required to qualify (rounded)

1.5

Standardized curriculum? Year of last update

Yes, 2013

Minimum number of supervised births in curriculum

20

Number of 2012 graduates/as % of all practising midwives

189/28

% of graduates employed in MNH within one year

100%

MIDWIFERY REGULATION

Legislation exists recognizing midwifery as an autonomous profession

No

A recognized definition of a professional midwife exists

Yes

A government body regulates midwifery practice

Yes

A licence is required to practise midwifery

No

A live registry of licensed midwives exists

Yes

Number of EmONC basic signal functions that midwives are allowed to practise (out of a possible 7)

7

Midwives allowed to provide injectable contraceptives/intrauterine devices

Yes

PROFESSIONAL ASSOCIATIONS

Year of creation of professional associations

2007

Roles performed by professional associations:

Continuing professional development

No

Advising or representing members accused of misconduct

No

Advising members on quality standards for MNH care

No

Advising the Government on policy documents related to MNH

No

Negotiating work or salary issues with the Government

No

na = not applicable; – = missing data
**LAO PEOPLE'S DEMOCRATIC REPUBLIC**

2012 and 2030.

The health system implications include how best to configure and equitably deploy the SRMN

To achieve universal access to sexual, reproductive, maternal and newborn care, midwifery services must respond to 0.3 million women of reproductive age; the total fertility rate was 3. By 2030, the population is projected to increase by 33% to 8.8 million.

Interventions included in minimum health

<table>
<thead>
<tr>
<th>Obstetricians &amp; gynaecologists</th>
<th>Physicians, generalists</th>
<th>Nurses or nurse-midwives</th>
</tr>
</thead>
<tbody>
<tr>
<td>A licence is required to practise midwifery</td>
<td>A government body regulates midwifery practice</td>
<td>A recognized definition of a professional autonomous profession</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Midwives</th>
<th>Nurse-midwives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwives are allowed to practise (out of a possible 7)</td>
<td>Midwives allowed to provide injectable contraceptives/intrauterine devices</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country classification of benefits package, 2012</th>
<th>FINANCIAL ACCESSIBILITY</th>
<th>GEOGRAPHICAL ACCESSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINANCIAL ACCESSIBILITY</td>
<td>GEOGRAPHICAL ACCESSIBILITY</td>
<td></td>
</tr>
</tbody>
</table>

308,000 PREGNANCIES A YEAR = HOW MANY EPISODES OF CARE?

<table>
<thead>
<tr>
<th>Number and distribution of pregnancies (2012)</th>
<th>PRE-PREGNANCY</th>
<th>POSTNATAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-PREGNANCY</td>
<td>POSTNATAL</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of live births with a skilled birth attendant (SBA) 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(national aggregate)</td>
</tr>
</tbody>
</table>

19% based on available data.

<table>
<thead>
<tr>
<th>Number of live births</th>
<th>Number of 2012 graduates/as % of all</th>
</tr>
</thead>
<tbody>
<tr>
<td>(births x 4)</td>
<td>(newborns x 4)</td>
</tr>
</tbody>
</table>

3,010,000 routine visits

<table>
<thead>
<tr>
<th>Routine visits</th>
<th>Family planning visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,010,000</td>
<td>186,000</td>
</tr>
</tbody>
</table>

1. These health worker categories include the following country titles - Midwives: includes community midwives; Generalist physicians: includes generalist physicians, family medicine; Obstetricians & gynaecologists includes: obstetricians & gynaecologists. Source: IHSN 2014 or secondary sources (WHO Global Health Observatory, government policy documents).

5. These are proposed targets for MMR and NMR by 2030 from the recommendations of Ending Preventable Maternal Mortality by 2020 and the Every Newborn Action Plan.
ANNEX 1: GLOSSARY

Acceptability (of health services): Dimension of the right to health, which requires that all health facilities, goods and services must be respectful of medical ethics and culturally appropriate, as well as sensitive to gender and life-cycle requirements [1].

Acceptability (of the health workforce): The characteristics and ability of the workforce to treat everyone with dignity, create trust and enable or promote demand for services [2].

Accessibility (of health services): Dimension of the right to health, which requires that health facilities, goods and services are accessible to everyone within the jurisdiction of the State Party. Accessibility has four overlapping dimensions: non-discrimination; physical accessibility; economic accessibility (affordability) and information accessibility [1].

Accessibility (of the health workforce): The equitable access to health workers, including in terms of travel time and transport, opening hours and corresponding workforce attendance, whether the infrastructure is disability-friendly, referral mechanisms and the direct and indirect cost of services, both formal and informal [2].

Accreditation: A process designed to confirm the educational quality of new, developing and established education and training programmes. It is usually carried out by peer/third-party review against established standards/outcomes [3].

Association (or College): An organized body of persons engaged in a common professional practice, sharing information, career-advancement objectives, in-service training, advocacy and other activities. It usually defends the interests of the profession and the professionals, but is not a union.

Auxiliary midwife: A health worker assisting in the provision of maternal and newborn health care, particularly during childbirth, who possesses some of the competencies in midwifery but is not a fully qualified/licensed midwife. In the latest International Standard Classification of Occupations (ISCO-08), these are also referred to as midwifery associate professionals [4].

Auxiliary nurse-midwife: A health worker assisting in the provision of maternal and newborn health care, particularly during childbirth but also in the prenatal and post-partum periods, who possesses some of the competencies in midwifery but is not a fully qualified/licensed nurse-midwife.

Availability (of health services): Dimension of the right to health that requires functioning public health and health-care facilities, goods and services, as well as programmes in sufficient quantity [1].

Availability (of the health workforce): The sufficient supply and stock of health workers, with the relevant competencies and skill mix that correspond with the health needs of the population [2].

Community health worker (CHW): According to the WHO definition, community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers [5].

Council, Board, Order or Ordem: A regulatory institution responsible for the registration and licensing of professionals, enabling them to practise, while overseeing their professional conduct and ensuring the ethics of the profession. Usually accredits educational institutions and programmes, sometimes in collaboration with the government or other bodies. It may be government-led, professional-led or mixed. It normally defends patients’ interests.

Efficiency: The capacity to produce the maximum output for a given input [6].

Emergency obstetric and neonatal care facilities, basic (B-EmONC): Peripheral health facilities with maternity and newborn services that have practised in the past three months all seven basic signal functions: parenteral administration of antibiotics, anticonvulsants, oxytocics, manual removal of placenta, manual vacuum aspiration for retained products, assisted instrumental delivery by vacuum extractor, and newborn resuscitation with mask. The functions include stabilization of mothers and newborns with complications before and during transfer to a higher-level hospital [7].

Emergency obstetric and neonatal care facilities, comprehensive (C-EmONC): Health facilities with maternity services that have practised in the past three months all seven B-EmONC signal functions listed above plus two additional signal functions: emergency surgery (caesarean section) and safe blood transfusion (can also include advanced newborn resuscitation) [7].

Equity (in health): The absence of systematic or potentially remediable differences in health status, access to health care and health-enhancing environments, and treatment in one or more aspects of health across populations or population groups defined socially, economically, demographically or geographically within and across countries [6].

Licensing: Generally involves conferring upon an individual a licence to practise their particular health-care profession. Many countries do not distinguish between licensing and registration (see definition below) and both may be partial/temporary/conditional in certain circumstances (for instance, newly qualified professionals in some countries) [3].

Millennium Development Goal (MDG): Eight MDGs were adopted by world leaders at the Millennium Summit at the United Nations in 2000, with the global aim of reaching equitable development by 2015. MDG 4 is to reduce the under-5 mortality rate by two thirds of its 1990 value. MDG 5 is to improve maternal health by reducing the maternal mortality ratio by three quarters of its 1990 value by 2015 (Target 5A). The proportion of births attended by skilled health personnel is used as an official indicator of this target. In 2005 the international community added a second
target to MDG 5 (Target 5B): to achieve universal access to reproductive health by 2015. MDG 6 is to combat HIV/AIDS, tuberculosis, malaria and other infectious diseases [8].

Maternal and newborn health (MNH): The health of women during pregnancy, labour, childbirth and the post-partum period, as well as the health and survival of the foetus during labour and the newborn within the first few hours and days, a period during which the newborn is mostly cared for by a professional birth attendant (and in privileged circumstances by a neonatologist). This operational definition differentiates newborn health from neonatal health, which spans the period from birth to the end of the fourth week after birth, and is in accordance with the H4+ (UNAIDS, UN Women, WHO, UNFPA, UNICEF and the World Bank) consensus.

Midwife: The report uses the term “midwife” to include those health professionals who are educated to undertake the roles and responsibilities of a midwife regardless of their educational pathway to midwifery, whether direct-entry or after basic nursing.

This definition is aligned with the recommendations and position statements of the International Confederation of Midwives and the International Council of Nurses.

ICM defines a midwife as: A person who, having been regularly admitted to a midwifery educational programme, duly recognized in the country in which it is located: has successfully completed the prescribed course of studies in midwifery that is based on the ICM Essential Competencies for Basic Midwifery Practice and the framework of the ICM Global Standards for Midwifery Education; has acquired the requisite qualifications to be registered and/or legally licensed to practise midwifery and use the title “midwife”; and demonstrates competency in the practice of midwifery [9].

Midwifery: Encompasses the health services and health workforce needed to support and care for women and newborns during pre-pregnancy, pregnancy, labour, and the post-partum/postnatal period.

It includes: measures aimed at preventing health problems in pregnancy, the detection of abnormal conditions, the procurement of medical assistance when necessary, and the execution of emergency measures in the absence of medical help [10].

Midwifery workforce: The health professionals whose primary function includes health services provided to women during pregnancy, labour and birth, as well as post-partum care for mothers and newborns. The definition includes midwives and others competent in the practice of midwifery, such as nurse-midwives and doctors with relevant competence (and in certain countries, auxiliary nurse midwives). These professionals are also referred to as skilled birth attendants [11].

Midwife-led maternity unit: Birth centres that are staffed and managed by midwives [12].

Minimum guaranteed benefits package: In the context of this report, this refers to a set of health services that a government has committed itself to making available to all, free at the point of access. It can also be called an essential health package, which, in a low-income country, consists of a limited list of public health and clinical services which will be provided at primary and/or secondary care level [13].

Nurse-midwife: A person who is legally licensed/registered to practise the full scope of nursing and midwifery in his/her country [14].

Quality (of health services): Dimension of the right to health, which requires that health facilities, goods and services must be scientifically and medically appropriate and of good quality [1].

Quality (of the health workforce): The competencies, skills, knowledge and behaviour of the health worker assessed according to professional norms and as perceived by users [2].

Registration: Generally refers to the process of enrolling with a professional regulatory body following graduation from an accredited programme. Many countries do not distinguish between registration and licensing, but some do and a licence to practise may be issued by a separate authority, particularly in countries where the processes are managed at subnational level. Both licensing and registration may be partial/temporary/conditional under certain circumstances (for instance, newly qualified professionals in some countries) [3].

Regulation: Act of controlling professional practice in accordance with laws, policies and standards, and ethics. It can apply to education, practice, management of the profession, career advancement, etc.

Sexual, reproductive, maternal and newborn health (SRMNH): Health services provided in the continuum of care, from information, education and counselling on human sexuality to antenatal, safe delivery and post-natal care, as defined in the ICPD Programme of action, 1994 [15].

Skilled birth attendant: Defined by the WHO as an accredited health professional — such as a midwife, doctor or nurse — who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns [16].

Skills: Abilities learned through training or acquired by experience to perform specific actions or tasks, usually associated with individual tasks or techniques, particularly requiring the use of the hands or body.

Union: A form of professional association that can include more than one type of health worker, generally independent of government, whose purpose is to defend the interests of the workers. In some countries the professional association is called a union.

Vulnerable: Vulnerable groups, usually women, children and elderly people, are associated with poverty, but vulnerability can also arise when people are isolated, insecure and defenceless in the face of risk, shock or stress [17].
REFERENCES


This Annex describes how the SoWMy 2014 study was designed and conducted.

ICM, UNFPA and WHO co-chaired the development and launch of the SoWMy 2014 report, with UNFPA and WHO coordinating on behalf of the H4+ agencies (UNAIDS, UNFPA, UNICEF, UN Women, the World Bank and WHO).

ICS Integrare, a UNFPA Implementing Partner, managed the research, writing, production and launch of the report, with research support from the University of Southampton (UK) and the University of Technology, Sydney (Australia). The Averting Maternal Death and Disability programme at the Mailman School of Public Health, ICM, Jhpiego, an affiliate of Johns Hopkins University (USA), the World Bank and WHO provided additional technical contributions.

Methods

Overall design
There were two strands to the primary data collection:

1. a self-completion questionnaire to collect quantitative data on selected indicators, distributed to each of the 75 countries;
2. a full-day deliberative workshop of national stakeholders and experts. It was recommended that all 75 countries hold a workshop.

The aim of the questionnaire was to elicit quantitative data on key indicators relating to the midwifery workforce and SRMNH services. The questionnaire was based on that used for the 2011 report, with key questions repeated to enable analysis of change over time in the 58 countries invited to take part in both surveys. It was amended to address lessons learned during the 2011 study, and to include a stronger focus on the size and structure of the midwifery workforce, as well as the key related issues of education, regulation and association and health service infrastructure.

The aim of the workshop was engage national stakeholders and experts to identify barriers to effective coverage of SRMNH care, and to identify potential solutions to these barriers, by collecting qualitative data to inform the identification of success stories and future strategies to strengthen SRMNH care.

Ethical approval

Ethical approval was obtained from the research ethics committee at the University of Southampton. Particular attention was paid to methods of ensuring that participants were able to give informed consent to taking part in the workshops and that, having done so, steps were taken to avoid harm resulting from participation, e.g. by not making audio or video recordings, by asking participants to sign up to “Chatham House rules” and by giving participants the opportunity to view the workshop report before it was submitted to the research team. Those contributing to the self-completion questionnaire were asked to state whether or not they wanted their participation to be acknowledged in the final report.

Data collection: self-completion questionnaire

The questionnaire was developed through an iterative feedback process involving the core research team and members of the core group. Reference was made to international policy documents and agreed research and analysis frameworks. Information needs were balanced against the need to make the process manageable for respondents.

French and Spanish translations of the original English language questionnaire were also produced.

UNFPA and WHO distributed the self-completion questionnaire and the workshop guidance to their country representatives in each of the 75 countries, and nominated a lead technical midwifery/SRMNH advisor in each country as the focal point in each country. The focal points worked with personnel from ministries of health and education, professional associations, H4+ agencies and other relevant stakeholders to complete and validate the questionnaire. Each contributor was named in the completed questionnaire, with the option of requesting anonymity in the final report.

The questionnaire was also made available as an online tool, in English, French and Spanish, allowing respondents to enter their answers online and upload them directly to the analysis team. Once users submitted their responses, the system generated a PDF document displaying their answers, allowing contributors to check and validate the submitted data. A multi-lingual helpdesk was available to assist users throughout the process.

Data collection: deliberative workshops

The WHO and UNFPA focal points also coordinated with the ministries of health to convene and host the policy workshops. They were asked to invite up to 25 participants per workshop, with participants selected on the basis of their knowledge and expertise of midwifery/SRMNH services and their potential contribution to policy dialogue. In practice, participants included representatives of (amongst others): ministries of health, ministries of education, H4+ agencies, professional associations, civil society, academia, private sector, women’s and consumer groups and parliamentarians. A rapporteur was appointed for each workshop, with responsibility for taking detailed notes. Workshops were held under “Chatham House rules”, with participants asked not to attribute comments to individuals.

The country focal points were provided with a “facilitator’s handbook” for the workshops, which included written guidance, template invitations, participant consent forms and a reporting template.

Data collection: secondary data

Secondary data from published sources were collected on population, demographics, epidemiology and health service delivery to inform the modelling on effective coverage (see Annexes 3 and 4) and the mapping of subnational distributions of populations, women of reproductive age, pregnancies and live births (see Annex 6).

Data analysis and reporting

Members of the core group analysed the complete quantitative and qualitative dataset. Key subject areas analysed included: alignment between country cadre titles and ISCO classification; current policy environment; education; gap between designated and actual EmONC facilities; workforce availability and projections towards achieving UHC; strength of regulation and professional associations; broad perspectives; policy actions since 2011; salaries; workshop reports. A data analysis workshop was convened in Geneva in March 2014 for the Core Group to present and discuss their respective findings. These emergent findings informed the development of the report and its key messages.
ANNEX 3: METHODOLOGY FOR MODELLING EFFECTIVE COVERAGE OF THE ESSENTIAL INTERVENTIONS FOR SEXUAL, REPRODUCTIVE, MATERNAL AND NEWBORN HEALTH CARE

“Health interventions cannot be carried out without health workers” [1]

Health workforce projections are a policymaking necessity [2]. Their purpose in this report, aligned with the WHO framework on health policy and systems research, is to provide “directional” and “correctional” scenarios [3] that can inform policy dialogue and decisions within countries on “what actions need to be taken in the near future to ensure movement towards achieving longer-term objectives” [2]. A key element of these actions is the requirement for further detailed analysis and investigation of the health workforce and health labour market to account for changing demographic, economic and health service contexts [4].

The methodology for modelling effective coverage of the 46 essential interventions for SRMNH care [5] builds upon published papers, tools and guidelines from the World Bank, WHO and others to inform needs-based workforce planning [4,6-15]. The result is a snapshot of “met need”, comparable across countries.

“Met need” is defined as: the percentage of a universal SRMNH benefits package that could potentially be obtained by women and newborns given the composition, competencies and available working time of the midwifery workforce* The universal benefits package in this instance is, at minimum, the 46 essential interventions. The indicator is calculated as:

\[
\text{Volume of essential SRMNH services that can be provided by the midwifery workforce (expressed in hours of work)} \times 100
\]

Volume of essential SRMNH services required by women and newborns (expressed in hours of work)

The model — Effective Coverage Modelling (ECoMod) – is a tool to test scenarios and encourage multi-criteria decision-making [16,17] in workforce planning for Universal Health Coverage. For each of the 73 countries that contributed to this report, ECoMod was used to create baselines and projections, for each year between 2012 and 2030, of met need for the 46 essential interventions. The model uses self-reported data from countries (collected through the SoWMy 2014 survey), published secondary sources for population, demographics, epidemiology and health service delivery data, as described in Annex 4, and evidence-informed assumptions when a country responded “don’t know” (Annex 5). A full description is available in a separate Working Paper [18].

The model calculates:


The mathematical model follows an adjusted service targets-based approach. The model is implemented using the following steps:

a. Determining the package of SRMNH services that women and newborns need. This package is the set of 46 essential interventions which together cover the continuum of SRMNH care (pre-pregnancy, antenatal, childbirth and postnatal health care). These 46 interventions are recommended by the Partnership for Maternal Newborn and Child Health (PMNCH): they have an impact on reducing maternal, neonatal and child mortality; are suitable for delivery in low- and middle-income countries, and/or settings where minimal essential care is generally available; and are delivered through the health sector [5].

b. Quantifying the annual volume of each health-care service required. The model estimates the total number of contacts, per year, to deliver each essential intervention to women and/or newborns based the assumption of universal coverage (100% of need). Universal coverage is estimated based on key demographic variables (e.g. number of women of reproductive age, number of pregnancies, number of live births, each with urban/rural and sub-national disaggregation, projected over time) and on available country-specific data on the incidence/prevalence of conditions associated with the essential interventions.

c. Converting the annual volume of need into time and workload indicators of staffing requirements. Evidence-based estimates of the average time needed by a SRMNH worker to provide each essential intervention are available from the OneHealth tool [19]. When average time is multiplied by the total number of contacts and aggregated across the SRMNH continuum of care, it provides the total available working time (i.e. workforce requirement) needed to achieve universal coverage.


Next, the model calculates, for the years 2012-2030, projections on the availability of the SRMNH workforce for comparison with the workforce requirements calculated in section 1. The model uses self-reported data from the SoWMy 2014 survey. In instances where a country responded “don’t know”, data were either identified from the WHO’s Global Health Observatory or defaulted to evidence-informed modelling assumptions. This is implemented in three steps:

a. Determining the initial stock and age-distribution of each SRMNH cadre in the baseline year (2012). The SoWMy 2014 survey requested specific information on the composition, roles and age of the SRMNH workforce. These data were inputted into the model.

b. Estimating the changes over time (2013-2030). The model adopts the standard workforce logic of "stock-and-flow" [4,20,21]. It includes an advanced mathematical simulation procedure to calculate, per year, the net number of workers (full-time equivalents, FTEs) who are actively engaged in

* As defined in the glossary, and including associate midwifery/nursing personnel, midwifery/nursing personnel, clinical officers and medical assistants, physicians (generalists), and obstetricians/gynaecologists.
providing SRMNH care. The simulation accounts for the annual outflows (from voluntary attrition, mortality and retirement) and the annual inflows (from new graduates entering the workforce). Total FTEs available per cadre are then converted into total hours of available working time.

c. Assigning the total hours of available working time to the provision of essential interventions. WHO guidelines (OneHealth and Optimize for MNH [22]) provide evidence-informed analysis of the competencies and roles of the SRMNH workforce in relation to the essential interventions. These evidence-based guidelines do not reflect the diversity of task allocation across and within countries, but are appropriate for global projections. Roles for each cadre were allocated using a sequential marginal time allocation procedure:

1. The SRMNH cadres are categorized according to the essential interventions (1–46) based on the WHO guidelines for their role and competencies in an integrated health workforce (from community to primary and specialized cadres).

2. The annual working time available from each cadre category (starting at 1 and rising to 46) is allocated on a marginal basis to match the time requirements for the essential interventions that this cadre is authorized and competent to perform. This is done in blocks of 48 hours,* starting with the first family planning intervention and finishing with the last postnatal intervention. This allocation procedure is iterative. Once the first round of time blocks is allocated, the time allocation starts again from the first intervention until either the working time requirements are met or the available working time from the cadre has been allocated.

3. The available working time from each of the other cadres is then allocated to match the remaining time requirements not met by the previous category. Crucially, each cadre’s available working time is allocated in increasing order of their roles and competencies. In practice, this means that although a GP could deliver family planning advice, the GP cadre’s time will only be allocated to this intervention if the available working time from other cadres in previous categories (e.g. the midwife cadre) has already been “spent”.

The procedure outlined above for allocating available working time is based on the economic principle of “productive efficiency” [23]. This economic principle is adopted within the Optimize 4 MNH guidelines, and encourages the distribution of tasks (interventions) across the integrated health workforce in relation to the cadre’s education, licensing and competencies. Secondly the procedure assumes that no essential SRMNH intervention is prioritized for delivery; each intervention is afforded equal weighting.

The third stage is a straightforward calculation. For each year between 2012 and 2030, the likely SRMNH workforce deficit in meeting women’s and newborns’ needs for SRMNH services is the difference between workforce requirements and the available working time.

4. Alternative scenarios and policy options
Finally, the model is designed to test scenarios and encourage multi-criteria decision-making in workforce planning for Universal Health Coverage. Four scenarios were developed to explore the impact of alternative policy options: 1) improved family planning to reduce the annual number of pregnancies and births; 2) the scale-up of graduate numbers to 2020; 3) efficiency gains in the existing workforce; and 4) a 50% reduction in voluntary attrition from the existing workforce. The impact of each scenario on the available working time and the resulting increase in met need is then calculated.

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* Ideally, the marginal time allocation to the essential interventions should be done in blocks of 1 hour, but for computational efficiency a larger unit of time allocation (48 hours) was used (except for Brazil, China, India and Nigeria, where due to population size blocks of 480 hours were used).
ANNEX 3: METHODOLOGY FOR MODELLING EFFECTIVE COVERAGE OF THE ESSENTIAL INTERVENTIONS FOR SEXUAL, REPRODUCTIVE, MATERNAL AND NEWBORN HEALTH CARE (continued)

REFERENCES


## ANNEX 4: ESTIMATING WOMEN’S AND NEWBORNS’ NEED FOR THE 46 ESSENTIAL INTERVENTIONS

<table>
<thead>
<tr>
<th>Essential intervention (SRMNH)</th>
<th>Need (defined as number of contacts with a health care worker by the population in need)</th>
<th>Data requirements and sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRE-PREGNANCY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Family planning methods – delivery</td>
<td>All WRA who use one of the following contraception methods: condoms/ pills/ injectables/ IUD/ female sterilization. For each year, need is defined for each method as follows:</td>
<td>Indicator: CPR (latest available figure) Source(s): WHO Global Health Observatory (available from: <a href="http://apps.who.int/gha/data/node.main.S31?lang=en">http://apps.who.int/gha/data/node.main.S31?lang=en</a>).</td>
</tr>
<tr>
<td></td>
<td>3. Need for IUD = [WRA (y) x (CPR + unmet need) x IUD method mix] / 5.</td>
<td>Note: Information in this source for our purposes is only available for the following methods: IUD/ pill/ injectable/ condom/ female sterilization. Implants are apparently excluded from method mix because they account, across countries, for less than 1% of all contraception methods.</td>
</tr>
<tr>
<td></td>
<td>4. Need for female sterilization (y) = [WRA (y) – WRA (y-1)] x (CPR + unmet need) x sterilization method mix.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Need for management of syphilis (y) = WRA (y) x incidence of syphilis.</td>
<td></td>
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<tr>
<td></td>
<td>2. Need for management of gonorrhoea (y) = WRA (y) x incidence of gonorrhoea.</td>
<td></td>
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<tr>
<td></td>
<td>3. Need for management of chlamydia (y) = WRA (y) x incidence of chlamydia.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Need for management of trichomoniasis (y) = WRA (y) x incidence of trichomoniasis.</td>
<td></td>
</tr>
<tr>
<td>3c. Prevention and management of STIs and HIV in all WRA: management of HIV</td>
<td>All WRA needing ART, calculated as follows: Number of WRA needing ART in 2012 / WRA in 2012 x WRA (y).</td>
<td>Indicator: % of WRA needing ART (number of adults needing ART x % of HIV positive adults who are women). Source(s): Number of adults needing ART (available from: <a href="http://www.unaids.org/en/data-analysis/datalools/aidinfo/">http://www.unaids.org/en/data-analysis/datalools/aidinfo/</a>); some countries’ individual sources; % of HIV positive adults who are women (number of female adults who are HIV positive / number of all adults who are HIV positive) from UNAIDS AIDInfo database (available from: <a href="http://www.unaids.org/en/dataanalysis/datalools/aidinfo/">http://www.unaids.org/en/dataanalysis/datalools/aidinfo/</a>); some countries’ individual sources.</td>
</tr>
<tr>
<td>4. Folic acid fortification/ supplementation</td>
<td>All WRA, one contact per year.</td>
<td></td>
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</tbody>
</table>

**PREGNANCY**

<table>
<thead>
<tr>
<th>Essential intervention</th>
<th>Need (defined as number of contacts with a health care worker by the population in need)</th>
<th>Data requirements and sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Iron and folic acid supplementation</td>
<td>All PW, one contact per year.</td>
<td></td>
</tr>
<tr>
<td>6. Tetanus vaccination</td>
<td>All PW, one contact per year.</td>
<td></td>
</tr>
<tr>
<td>7a. Prevention and management of malaria with insecticide-treated nets and antimalarials: prevention</td>
<td>All PW living in areas of high malaria transmission, calculated as follows: Need for prevention of malaria (y) = PW (y) x % population in the country living in areas of high malaria transmission.</td>
<td>Indicator: % population living in high malaria transmission areas (number of people living in high risk areas (or if not available, used living in active foci)/total population). Source(s): WHO. Annex 6A of the World Malaria Report 2013. Geneva: WHO, 2013 (available from: <a href="http://www.who.int/malaria/publications/world_malaria_report_2013/en/">http://www.who.int/malaria/publications/world_malaria_report_2013/en/</a>).</td>
</tr>
</tbody>
</table>

**ANC**=antenatal care; **ART**=antiretroviral therapy; **CPR**=contraceptive prevalence rate; **IUD**=intrauterine device; **PMTCT**=preventing mother to child transmission; **pPROM**=pre-term premature rupture of membranes; **PW**=pregnant women; **STIs**=sexually transmitted infections; **WRA**=women of reproductive age.
<table>
<thead>
<tr>
<th>Essential intervention (SRMNHR)</th>
<th>Need (defined as number of contacts with a health care worker by the population in need)</th>
<th>Data requirements and sources</th>
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<tbody>
<tr>
<td><strong>PREGNANCY (continued)</strong></td>
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<tr>
<td>8b. Prevention and management of STIs (as part of ANC): management of HIV</td>
<td>All PW with gonorrhoea, chlamydia or trichomoniasis (note syphilis is addressed separately below). For each year $y$, calculated as follows: 1. Need for management of gonorrhoea ($y$) = PW ($y$) x incidence of gonorrhoea. 2. Need for management of chlamydia ($y$) = PW ($y$) x incidence of chlamydia. 3. Need for management of trichomoniasis ($y$) = PW($y$) x incidence of trichomoniasis.</td>
<td>Indicator: % of HIV positive PW needing effective ART for PMTCT. Sources(s): For Africa: USAID AIDInfo (available from: <a href="http://www.unaids.org/en/data-analysis/datasets/aidinfo/">http://www.unaids.org/en/data-analysis/datasets/aidinfo/</a>). For other regions: UNAIDS. Global Report: UNAIDS report on the global AIDS epidemic 2013. (available from: <a href="http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf">http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf</a>). Some countries’ individual sources. Note: Where value is &lt;500 or &lt;1000, 500 and 1000 values were assumed, respectively; where value is not available for country, the following data were used: HIV positive PW needing ART for PMTCT (region) x (HIV infected females (country)/ HIV infected females (region)).</td>
</tr>
<tr>
<td>8c. Prevention and management of STIs (as part of ANC): treatment of STIs</td>
<td>All PW needing ART to avoid mother-to-child transmission, calculated as follows: Need for management of HIV ($y$) = % (number of pregnant women needing ART for PMTCT in 2012/ PW in 2012) x PW ($y$).</td>
<td>Indicator: % of HIV positive PW needing effective ART for PMTCT. Sources(s): For Africa: USAID AIDInfo (available from: <a href="http://www.unaids.org/en/data-analysis/datasets/aidinfo/">http://www.unaids.org/en/data-analysis/datasets/aidinfo/</a>). For other regions: UNAIDS. Global Report: UNAIDS report on the global AIDS epidemic 2013. (available from: <a href="http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf">http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf</a>). Some countries’ individual sources. Note: Where value is &lt;500 or &lt;1000, 500 and 1000 values were assumed, respectively; where value is not available for country, the following data were used: HIV positive PW needing ART for PMTCT (region) x (HIV infected females (country)/ HIV infected females (region)).</td>
</tr>
<tr>
<td>10. Interventions for cessation of smoking</td>
<td>All PW who smoke, calculated as follows: Need for smoking cessation interventions ($y$) = PW x prevalence of smoking in women aged over 15 years.</td>
<td>Indicator: Current smoking of any tobacco product (age-standardized rate), all females. Source(s): WHO Global Health Observatory (available from: <a href="http://apps.who.int/gho/data/node.main.1250?lang=en">http://apps.who.int/gho/data/node.main.1250?lang=en</a>). Note: If no data were found for a particular country, used WHO regional average for the countries in the dataset.</td>
</tr>
<tr>
<td>12+13. Antihypertensive drugs to treat high blood pressure (including low-dose aspirin to prevent pre-eclampsia)</td>
<td>All PW with raised blood pressure and all PW with pre-eclampsia, calculated as follows: Need for antihypertensive drugs ($y$) = [WRA x (incidence of pre-eclampsia)] + [live births x (incidence of pre-eclampsia)].</td>
<td>Indicator: Incidence of high blood pressure and pre-eclampsia in PW. Source(s): Dalee C, AbouZahr C. Global burden of hypertensive disorders of pregnancy in the year 2000. Evidence and Information for Policy. Geneva: WHO, 2003 (available from: <a href="http://www.who.int/healthinfo/statistics/bod_hypertensivedisordersofpregnancy.pdf">http://www.who.int/healthinfo/statistics/bod_hypertensivedisordersofpregnancy.pdf</a>). Note: Only half of all hypertensive disorders presented in Table 6.1 in the reference paper were considered for the analysis.</td>
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<td><strong>(continued)</strong></td>
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<tr>
<td>Essential intervention (SRMNH)</td>
<td>Need (defined as number of contacts with a health care worker by the population in need)</td>
<td>Data requirements and sources</td>
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<tr>
<td><strong>PREGNANCY (continued)</strong></td>
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<td></td>
</tr>
<tr>
<td>15. Antibiotics for pre-term premature rupture of membranes (pPROM)</td>
<td>All cases of pPROM, calculated as follows: (\text{Need for antibiotics for pPROM (y)} \times \text{incidence of pPROM}.)</td>
<td>Indicator: Incidence of pPROM. Source(s): WHO global survey on maternal and perinatal health, 2005 (available from: <a href="http://www.who.int/reproductivehealth/topics/best_practices/GS_Tabulation.pdf?ua=1">http://www.who.int/reproductivehealth/topics/best_practices/GS_Tabulation.pdf?ua=1</a>). Note: Where country rate not available used regional rate; where regional rate not available used world total rate.</td>
</tr>
<tr>
<td>18. Post-abortion care</td>
<td>All unsafe abortions, calculated as follows: (\text{Need for post-abortion care (y)} = \text{WRA(y)} \times \text{rate of unsafe abortions.})</td>
<td>Indicator: Rate of unsafe abortions. Source(s): Sedgh G, Singh S, Shah IH, et al. Induced abortion: incidence and trends worldwide from 1995 to 2008. <em>Lancet</em> 2012; 379:925–32 (available from: [<a href="http://www.thelancet.com/journals/lancet/article/PIIS0140673611617868/table?tableid=tbl2&amp;tabledty=table_id&amp;sectionType=red">http://www.thelancet.com/journals/lancet/article/PIIS0140673611617868/table?tableid=tbl2&amp;tabledty=table_id&amp;sectionType=red</a>]). Note: Where the value was &lt;0.5 used 0.5.</td>
</tr>
<tr>
<td>19. Reduce malpresentation at birth with external cephalic version</td>
<td>All breech births (including stillbirths), calculated as follows: (\text{Need for external cephalic version (y)} \times \text{incidence of breech births (including stillbirths).})</td>
<td>Indicator: Incidence of breech presentations. Source(s): WHO. Global survey on maternal and perinatal health. Statistics on breech presentations, 2005 (available from: <a href="http://www.who.int/reproductivehealth/topics/best_practices/GS_Tabulation.pdf?ua=1">http://www.who.int/reproductivehealth/topics/best_practices/GS_Tabulation.pdf?ua=1</a>). Note: Where country rate not available used regional rate; where regional rate not available used world total rate.</td>
</tr>
<tr>
<td>20. Induction of labour to manage pre-labour rupture of membranes at term</td>
<td>All cases of pPROM, calculated as follows: (\text{Need for antibiotics for pPROM (y)} \times \text{incidence of pPROM}.)</td>
<td>Indicator: Incidence of pPROM. Source(s): WHO. Global survey on maternal and perinatal health. Statistics on breech presentations, 2005 (available from: <a href="http://www.who.int/reproductivehealth/topics/best_practices/GS_Tabulation.pdf?ua=1">http://www.who.int/reproductivehealth/topics/best_practices/GS_Tabulation.pdf?ua=1</a>).</td>
</tr>
<tr>
<td><strong>CHILD BIRTH</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Normal labour and delivery management and social support during childbirth</td>
<td>All births (including stillbirths), one contact.</td>
<td></td>
</tr>
<tr>
<td>21+22+24. Active management of third stage of labour (to deliver placenta) to prevent post-partum haemorrhage (including uterine massage, uterotonic and cord traction)</td>
<td>All births (including stillbirths), one contact.</td>
<td></td>
</tr>
<tr>
<td>26a. Screen and manage HIV during childbirth – screen if not already tested</td>
<td>All births (including stillbirths) except in those cases when there have been 4 ANC visits, calculated as follows: (\text{Need for screening for HIV during childbirth (y)} = \text{all births including stillbirths (y)} \times (1 - % \text{of cases with 4 ANC visits}).)</td>
<td>Indicator: % of antenatal care coverage (4 visits). Source(s): United Nations Statistics Division. The official United Nations site for the MDG indicators (available from: <a href="http://mdgs.un.org/unsd/mdg/Default.aspx">http://mdgs.un.org/unsd/mdg/Default.aspx</a>).</td>
</tr>
<tr>
<td>26b. Screen and manage HIV during childbirth – treat</td>
<td>All births (including stillbirths) of HIV positive women who have not had 4 ANC visits, calculated as follows: (\text{Need for screening for HIV during childbirth (y)} = \text{all births, including stillbirths (y)} \times (1 - % \text{of cases without 4 ANC visits}) \times % \text{HIV prevalence in all adults.})</td>
<td>Indicator: % of antenatal care coverage (4 visits) of HIV positive women. Source(s): United Nations Statistics Division. The official United Nations site for the MDG indicators (available from: <a href="http://mdgs.un.org/unsd/mdg/Default.aspx">http://mdgs.un.org/unsd/mdg/Default.aspx</a>); UNAIDS AIDSIInfo (available from: <a href="http://www.unaids.org/en/dataanalysis/datatools/aidisinfo/">http://www.unaids.org/en/dataanalysis/datatools/aidisinfo/</a>); some countries from individual sources.</td>
</tr>
<tr>
<td>27+28. C-section for maternal/fetal indication (including prophylactic antibiotics for c-section)</td>
<td>All births, including stillbirths, which require c-section, calculated as follows: (\text{Need for c-section (y)} = \text{all births, including stillbirths (y)} \times \text{fixed assumption on need for a c-section.})</td>
<td>Note: Assumption = 0.05 x all births (including stillbirths).</td>
</tr>
<tr>
<td>Essential intervention (SNRHN)</td>
<td>Need (defined as number of contacts with a healthcare worker by the population in need)</td>
<td>Data requirements and sources</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>CHILDBIRTH (continued)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Induction of labour for prolonged pregnancy (midwife or nurse)</td>
<td>All births including stillbirths that occur after 41 weeks, calculated as follows: Need for induction of labour (y) = pregnancies (y) x % of pregnancies which go beyond 41 weeks.</td>
<td>Indicator: % pregnancies terminated after 42 weeks. Source(s): OneHealth Model: Interventions treatment assumptions, 2013 (available from: <a href="http://futuresinstitute.org/Download/Spectrum/Manuals/Intervention%20Assumptions%202013%20%20%20.pdf">http://futuresinstitute.org/Download/Spectrum/Manuals/Intervention%20Assumptions%202013%20%20%20.pdf</a>). Note: Assumption = 0.05 x pregnancies.</td>
</tr>
<tr>
<td><strong>POSTNATAL CARE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-34 and 36-38. Postnatal preventive care</td>
<td>All births (including stillbirths), 4 contacts.</td>
<td></td>
</tr>
<tr>
<td>39. Neonatal resuscitation with bag and mask</td>
<td>All newborns requiring resuscitation, calculated as follows: Need for neonatal resuscitation (y) = live births (y) x 0.01.</td>
<td>Indicator: % of newborns requiring resuscitation. Source(s): OneHealth Model: Interventions treatment assumptions, 2013 (available from: <a href="http://futuresinstitute.org/Download/Spectrum/Manuals/Intervention%20Assumptions%202013%20%20%20.pdf">http://futuresinstitute.org/Download/Spectrum/Manuals/Intervention%20Assumptions%202013%20%20%20.pdf</a>). Note: around 1% of newborns require resuscitation.</td>
</tr>
<tr>
<td>43. Initiate prophylactic ART for babies exposed to HIV</td>
<td>All births, including stillbirths (except when there have been 4 ANC visits) in women who are HIV positive, calculated as follows: Need for prophylactic ART (y) = all births including stillbirths (y) x (1 - % of cases with 4 ANC visits) x % HIV positive adults.</td>
<td>Indicator: % of newborns, born from a HIV positive woman, who received prophylactic ART. Source(s): United Nations Statistics Division. The official United Nations site for the MDG indicators (available from: <a href="http://mdgs.un.org/unsd/mdg/Default.aspx">http://mdgs.un.org/unsd/mdg/Default.aspx</a> ); UNAIDS AIDSinfo (available from: <a href="http://www.unaids.org/en/datanalysis/datasetools/aidsinfo/">http://www.unaids.org/en/datanalysis/datasetools/aidsinfo/</a>).</td>
</tr>
</tbody>
</table>
ANNEX 5. DECISION RULES

The 73 SoWMy countries provided new information on the midwifery workforce by: cadre, ISCO classification, number, age distribution, % time spent on MNH services, annual attrition (voluntary), retirement age, graduates and enrolments, years of education, and student attrition from education.

The values for each of these indicators informed the modelled projections of workforce availability in relation to women’s and newborn need for the 46 essential SRMNH interventions.

In the case of missing or inconsistent data, the model applied a fixed set of decision rules, listed below.

<table>
<thead>
<tr>
<th>Indicator used in the modelled projections</th>
<th>Example value</th>
<th>Decision rule (for missing or inconsistent data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>A.N. Other</td>
<td>n/a</td>
</tr>
<tr>
<td>Name of cadre</td>
<td>Midwife</td>
<td>Apply the name of the category under which the country cadre was listed.</td>
</tr>
<tr>
<td>International Standard Classification of Occupation (ISCO) code</td>
<td>Code 2222</td>
<td>Assigned based on the roles and responsibilities specified, in the context of the cadre category selected.</td>
</tr>
<tr>
<td>Number of workers</td>
<td>1,515</td>
<td>Default to WHO Global Health Observatory (2014 version). If not in WHO Global Health Observatory, secondary source from government policy document. If neither, zero.</td>
</tr>
<tr>
<td>Age distribution</td>
<td>Aged under 30: 300 workers</td>
<td>Apply an equal distribution of the total number of workers across age groups.</td>
</tr>
<tr>
<td></td>
<td>Aged 30-39: 510 workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aged 40-49: 424 workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aged over 50: 281 workers</td>
<td></td>
</tr>
<tr>
<td>% time spent on MNH</td>
<td>100%</td>
<td>Apply the sample median, across all countries, for that ISCO code:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2222 (midwifery professionals): 100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2221 (nursing professionals): 85%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–3222 (midwifery professionals, associates): 100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–3221 (nursing professionals, associates): 55%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2211 (medical practitioners, generalists): 30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2212 (medical practitioners, specialists ob/gyn): 100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2240 or 3256 (paramedical practitioners and medical assistants): 75%</td>
</tr>
<tr>
<td>Annual workforce attrition (voluntary)</td>
<td>10%</td>
<td>Apply 4% for all cadres.</td>
</tr>
<tr>
<td>Retirement age</td>
<td>62 years</td>
<td>Apply the retirement age of any cadre in the same country with the same ISCO code.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the former not available, retirement age of any other cadre in the same country, regardless of ISCO code.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If retirement age not available for any cadre, default to 65.</td>
</tr>
<tr>
<td>Graduates in 2012</td>
<td>43 graduates</td>
<td>Apply 5% of the total number of workers in 2012, equivalent to a stable replacement rate of workforce turnover.</td>
</tr>
<tr>
<td>Enrolments each year from 2010 to 2015</td>
<td></td>
<td>Default to the last available enrolment figure from previous years.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If not available, assume enrolment is equal to graduates from 2012.</td>
</tr>
<tr>
<td>Years of education</td>
<td>3 years</td>
<td>Apply the given years of education of any cadre with the same ISCO code in the same country.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If former not available, assign the sample median, across all countries, for that ISCO code:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2222 (midwifery professionals): 3 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2221 (nursing professionals): 3 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–3222 (midwifery professionals, associates): 2 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–3221 (nursing professionals, associates): 2 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2211 (medical practitioners, generalists): 7 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2212 (medical practitioners, specialists ob/gyn): 10 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–2240 or 3256 (paramedical practitioners and medical assistants): 3 years</td>
</tr>
<tr>
<td>Student attrition from education</td>
<td>20%</td>
<td>Apply student attrition from education for any cadre with the same ISCO code in the same country.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the former not available, assign the sample median, across all countries, for that ISCO code.</td>
</tr>
</tbody>
</table>
The mapping methodology used in this report was developed and published by a group of partners (University of Southampton, ICS Integrale, USAID, Norad, UNFPA, WHO) working on the State of the Art in Mapping for MNH [1]. It includes new, innovative approaches to make the geography of MNH informative for policy and planning at country level. In particular, this report utilizes the increasing capacity of geographic information systems (GIS) to map women of reproductive age (WRA), pregnancies and live births [2]. The methodology follows a simple four-step process to disaggregate and estimate distributions of populations, WRA, pregnancies and live births by subnational boundaries. Each of the four steps is described below.

1. Construction of detailed and contemporary population distribution datasets

Construction of estimates of population distribution for Africa and Asia at approximately 100 metre spatial resolution has recently been completed (full details are available at www.worldpop.org.uk) [3-8]. Briefly, a GIS-linked database of census and official population estimate data was constructed, targeting the most recent and spatially detailed datasets available, given their importance in producing accurate mapping. Detailed 30 metre spatial resolution maps of settlement extents were derived from Landsat satellite imagery through either semi-automated classification approaches [6-8] or expert opinion-based analyses. These settlement maps were then used to refine land cover data. Local census data mapped at fine resolution by enumeration area level from sample countries across Africa and Asia were exploited to identify typical regional per-land cover class population densities. These were then applied to redistribute census counts by regional ecozones to map human population distributions at approximately 100 metre spatial resolution continent-wide. Where available, additional country-specific datasets providing valuable data on population distributions, not captured by censuses, such as internally displaced people or detailed national surveys, were incorporated into the mapping process. Population datasets for the Americas were being constructed at the time of analysis, and therefore population datasets from the Global Rural Urban Mapping Project (GRUMP) [9] were used for countries in the Americas.

2. Construction of future projection population distribution datasets

United Nations estimates of urban- and rural-specific growth rates [10] were compiled for all 73 countries participating in this report. These were applied to the datasets described above. For populations mapped as living within urban areas, as defined by Columbia University’s Global Rural Urban Mapping Project urban extent map [9] the urban growth rates were applied. For all other populations the rural growth rates were applied. This approach was used to construct 2010, 2012, 2015, 2020, 2025 and 2030 population distribution datasets, which were adjusted to ensure that national population totals matched those estimated by the United Nations.

3. Construction of WRA distribution datasets

Following previously published methods [11], data on subnational population compositions were obtained from a variety of sources for as many countries as possible, principally from contemporary census-based counts broken down at a fine resolution administrative unit level. These were matched to corresponding GIS datasets showing the boundaries of each unit, and used to adjust the existing spatial population datasets described above to produce estimates of the distributions of populations by sex and 5-year age group. The datasets were then adjusted to ensure that national population totals by age group, specific city totals and urban/rural totals matched those reported by the United Nations [12]. A summation of the datasets representing females in the 15-49 year age groups was undertaken to produce WRA datasets.

4. Mapping pregnancies and live births

Following the previously published approach [2], in 73 countries, age-specific fertility rates by 5-year age groupings, disaggregated by subnational regions and urban versus rural, were derived from the most recent national household surveys conducted as part of the Demographic and Household Survey (DHS) programme (www.measuredhs.com). GIS datasets representing the boundaries of the subregions (http://spatialdata.dhsprogram.com/) and the urban extents within them were assembled [9], and the age- specific fertility rates were matched to these boundaries. These rates were then used to adjust each 5-year age group female population distribution dataset described above to produce gridded estimates of the distributions of live births across each country. At the national level, these totals were then adjusted linearly to ensure that their totals matched those estimated by the United Nations for the 2010-2030 period [12] to create the different year datasets. For countries where no recent DHS data existed (n= 25) the population datasets described above were simply adjusted to ensure that their totals matched those of the United Nations estimates. To convert the gridded datasets of numbers of live births to numbers of pregnancies, national level estimates of numbers of pregnancies in 2012 were obtained from the Guttmacher Institute (www.guttmacher.org) and the 2012 birth dataset totals were adjusted nationally to match these totals. For the other years, it was assumed that the national-level ratios between numbers of births and pregnancies in 2012 remained constant, and these country-specific ratios were used to convert each live birth dataset to a pregnancy dataset.

REFERENCES

The tasks for midwifery professionals are divided into eight categories as follows:

1. planning, providing and evaluating care and support services for women and babies before, during and after pregnancy and childbirth according to the practice and standards of modern midwifery care;

2. providing advice to women and families and conducting community education on health, nutrition, hygiene, exercise, birth and emergency plans, breastfeeding, newborn care, family planning and contraception, lifestyle and other topics related to pregnancy and childbirth;

3. assessing progress during pregnancy and childbirth, managing complications and recognizing warning signs requiring referral to a medical doctor with specialized skills in obstetrics;

4. monitoring the health status of newborns managing complications and recognizing warning signs requiring referral to a medical doctor with specialized skills in neonatology;

5. monitoring pain and discomfort experienced by women during labour and delivery and alleviating pain using a variety of therapies, including pain-killing drugs;

6. reporting births to government authorities to meet legal and professional requirements;

7. conducting research on midwifery practices and procedures and disseminating findings e.g. through scientific papers and reports;

8. planning and conducting midwifery education activities in clinical and community settings.

Every woman and her newborn have the right to quality care during pregnancy, childbirth and after birth.

#SoWMy2014

#Midwives can help avert two thirds of all maternal deaths. Send a heart for #women's health #SoWMy2014

Every woman and every child has the right to good-quality health care.

#SoWMy2014

Sweden managed to drastically lower its maternal death ratio by using the services of midwives. #SoWMy2014

#Midwives help with the elimination of mother-to-child transmission of HIV

www.sowmy.org

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New York, NY 10158
www.sowmy.org

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The Skilled Birth Attendance Development Initiative in Lao PDR is supported by:

The State of the World’s Midwifery Report was translated and printed with support and co-funds from WHO and UNFPA:

UNFPA, ໃ້ອຍໃນລາວ ເປັນບ່ອນທີ່ການຖືພາທຸກຄັ້ງແມ່ນດ້ວຍຄວາມຕັ້ງໃຈ, ການເກີດລູກທຸກຄັ້ງມີຄວາມປອດໄພ ແລະ ໄວໜຸ່ມທຸກຄົນມີໂອກາດບັນລຸເປົ້າໝາຍຕາມຄວາມສາມາດຂອງຕົນ.