

In sub-Saharan Africa, the disparity in public health between rural and urban areas remains a constant concern, both in terms of health infrastructure and human resources.

The concept of a "rural pipeline" (Durey et al, 2015) was included in the SWEDD project as a credible alternative to the persistent challenges of the availability, quality and retention of midwives in rural areas, particularly in the north of countries plagued by insecurity such as Mali and Chad. The project also aims to build the capacity of midwives, nurses and other qualified health professionals.



The rural pipeline approach involves training, employing and retaining health workers living in or near rural areas, in order to provide quality care to communities. It contributes to community health policy. The training and deployment of midwives as part of this approach helps to improve their ability to provide reproductive health and maternal and child health services, to reduce maternal morbidity and mortality and to improve the use of contraception, particularly in rural areas. This Guide documents the different experiences across countries in implementing the rural pipeline for the training and deployment of midwives in rural areas, the relevance of the approach, and the bottlenecks and opportunities reported by field data and/or perceived by those involved in implementing this intervention, in order to draw lessons from them.

Sample: Experts from 2 SWEDD countries: Mali and Chad.

Main data sources: Review of documents such as: The State of Midwifery in the World; The harmonised training curriculum in nursing and obstetrics for West and Central Africa; the PAD: SWEDD project document (see bibliography). Summaries of interviews with key respondents analysed by CHMP focal points.

Collection methodology: Qualitative, using a conversation guide drawn up with input from a group of experts.

Analysis methodology: Transcripts, audio recordings and notes, analysed manually by the CHMP.

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See the attached annexes for more details on methodology and sampling.



THE DEVELOPMENT OF A HARMONISED CURRICULUM FOR WEST AFRICA

Between 2013 and 2015, the World Health Organisation (WHO), the United Nations Population Fund (UNFPA) and the World Health Professions Alliance jointly undertook an evaluation of midwifery education in eleven francophone countries. Nove's 2018 analysis of six of these countries (Benin, Congo, Côte d'Ivoire, Mali, Mauritania and Senegal) revealed the need to invest in training healthcare workers to improve healthcare provision. In addition, the State of Midwifery in the World 2014 report (UNFPA, 2014) alludes to challenges in the availability and quality of teaching staff, equipment and opportunities for students to gain practical experience. These potential problems are at the root of the high levels of maternal, infant and neonatal mortality, as well as the low level of reproductive health, including the use of contraception, in the region.

Seven years later, these same challenges persist, as the 2021 edition of the State of Midwifery in the World Report clearly highlights (UNFPA et al., 2021). This edition highlights that among the factors preventing sexual, reproductive, maternal, newborn, child, nutrition and adolescent health (RMNCAH) workers from meeting all needs are insufficient numbers of staff, an ineffective mix of skill sets within teams, uneven distribution of staff, differences in the level and quality of education and training programmes, a limited number of qualified trainers (including for supervision and mentoring), and limited regulatory effectiveness.

According to the most recent data available (EDS-MICS 2014-2015), Chad has a shortage of midwives. The lack of qualified personnel and their uneven distribution are recurrent problems in the West African region, where the disparity between urban and rural areas persists (Sidibé et al., 2018). The same is true in Mali, where midwives are concentrated in urban areas, particularly Bamako, and standards set by the WHO are a long way from being met.

Given this evidence, the West African Health Organisation (WAHO) has recognised the need to improve midwifery training in francophone African countries based on the skills identified by the International Confederation of Midwives (UNFPA et al., 2021) and to standardise it and make it reproducible. Accordingly, in order to harmonise the education of nurses and midwives in the region, WAHO has developed the Harmonised Nursing and Midwifery Education Curriculum for West and Central Africa (WAHO 2014). This curriculum integrates reproductive health and maternal and child health into midwifery activities.



An example of rural pipeline good practice: Convergence of Rural and Municipal Pipeline Approach Communes in Guinea

The Rural Pipeline programme developed by Guinea aims to improve the ongoing use of quality health services by the most vulnerable populations, initially in 20 so-called "convergence municipalities" in 4 administrative regions.

The national support programme for convergence across municipalities (PNACC), aims to create a favourable environment for the decentralisation and deconcentration law, and to pool the actions of the development sectors in a specific area in order to improve the living conditions of the population and, in particular, access to basic social services and quality public services.

With a view to the effective and efficient implementation of the programme, an overall strategic planning document for the Rural Pipeline Approach was produced for all the convergence municipalities. Similarly, a Global Programme Action Plan and an Impact Assessment Protocol were developed and the tools associated with the Protocol and the data collection mechanisms were identified.

Important recommendations were made to the municipalities, the participating sectoral ministries and the technical and financial partners.

Source: www.afro.who.int/fr/news/la-guinee-dotee-du-plan-global-du-programme-pipeline-rural





STRATEGIES AND ORGANISATION OF STAFF SELECTION AND TRAINING FOR RURAL AREAS

In Chad and Mali, and more generally in all the SWEDD countries, in order to improve training and learning conditions, the project provided financial support to build the physical, technical and organisational capacity of rural and cross-border schools to implement midwifery training programmes, with a focus on increasing the supply of equipment to institutions and training sites. The project also built the capacity of clinical supervisors and supervisors at the learning sites through short modular training courses (World Bank, 2015). According to the key interviews for this Guide, this investment was significant, given that "investing in midwifery training is a useful approach to tackling the shortage of qualified personnel observed in sub-Saharan African countries" (Local Authorities, Mali).

Mali and Chad have 49 and 21 midwifery training institutes/schools respectively. These institutions are responsible for training students in the nursing and midwifery professions in order to increase the availability of such staff for their respective countries. Under the "rural pipeline" approach used in the SWEDD project, these institutes helped to strengthen institutional education in rural areas, ensure the admission of students from rural areas, expose students to rural placement sites, and promote practical rather than theoretical training, including related capacity-building activities that will be supported in the delivery of public health services in remote areas. The aim of this approach is to ensure that the recruitment and subsequent deployment of trained health workers is aligned with the training location. In other words, a midwife trained in a given rural area will subsequently be recruited in that same rural area or in a neighbouring rural area.

The selection of midwives was an important part of the process. For example, for all the midwives interviewed, particularly Community Health Centre (CSCom) managers in Mali, "the existence of a definition, validation and adoption of objective criteria for the selection of midwives (mentors and mentees) was a good practice" appreciated by health actors. On the issue of training content, "the students covered all the topics relevant to midwifery practice, and the midwives gain thorough knowledge and take ownership of the topics through simulation and role-playing" (Mentee midwives and CSCom manager, Mali).

Analysis of the data collected in Mali and Chad shows that the training courses run in accordance with the harmonised curriculum improved the participants' skills. This training was provided in both countries in two main ways: basic training in public and private institutions, including in-service training, and clinical mentoring of midwives, mentoring¹ being a learning technique that comes into play when midwives are deployed in rural areas.



LESSON 2: Investment in training of trainers in the Centres of Excellence and the acquisition of equipment and teaching materials are important inputs in overcoming the challenges faced by training institutions.

However, these training courses continue to encounter a number of challenges, which were highlighted during interviews with midwives. These include the inadequacy of the training building and of quality human resources, and the persistent shortage of teachers in schools. The partners are currently trying to fill these gaps, in particular by seeking support from other financial partners.

Acquiring additional resources to improve public health in rural areas: Example of Mali

The relevance of the rural pipeline approach to the SWEDD project has attracted the engagement and support of other funding partners. Following the initiative supported by the SWEDD project, UNFPA/Mali, under the 8th cooperation programme (CPD8 2020-2024), launched the "Deployment of United Nations Volunteer (UNV) midwives in community settings" initiative to strengthen human resources for the improvement of reproductive, maternal, neonatal and child health in disadvantaged areas. The initiative was officially launched on 8 March 2021 when the Ministry of Health and Social Development made available an initial cohort of 50 midwives (including 49 community UNV midwives and a coordinating midwife), out of the 200 that would be deployed in six regions: Koulikoro, Sikasso Ségou, Mopti, Timbuktu, Gao and the district of Bamako. Supported by partners (Canada, Italy, Fonds Français Muskoka, Spotlight Initiative), this initiative covers the 5 years of the Mali/UNFPA cooperation programme. During this period (CPD8 2020-2024), the aim is to deploy 200 UNV midwives to improve the provision of reproductive health services, focusing on the prevention of and quality response to gender-based violence in hard-to-reach rural areas in the regions in question. This is an example of how additional resources for similar programmes can enhance the coverage and success of initiatives to improve public health.

More specifically, analysis of the data collected during individual interviews with mentees also reveals that this approach offers "career support, increased visibility and an opportunity to test and apply theoretical knowledge" (Mentee midwife, Mali). A student from one of the Centres of Excellence² also emphasised that "the quality of the teaching and the training materials used meet the expectations of the trainees". The midwife mentors emphasised "the opportunity to share experience and wisdom, as well as knowledge about operations and best practice". For the midwives interviewed in Chad, the mentoring training helped to fill many of the gaps in their practice. Mentoring enables them to constantly improve their practice and prepare themselves to support other midwives in the future.



¹ See Best practice guide number 10 for the "Midwifery Clinical Mentoring Approach" for more information.

² See Best practice guide number 11 on Centres of Excellence for further information.



DEPLOYMENT OF MIDWIVES IN RURAL AREAS

In Mali, recruitment for deployment in rural areas is managed by the Ministry of the Civil Service for State civil servants and by the Ministry responsible for local affairs for community-level civil servants, based on needs expressed by the Health Human Resources Department. The selection of midwife mentors and mentees is based on a clear definition, validation and adoption of criteria such as

RH/FP skills, availability, acceptability and accessibility. A CSCom manager in Mali believes that this is good practice that should be documented. The staff of the Community Health Associations (ASACO) are recruited directly by the CSCom and paid from their own funds. Posted staff must remain in the same position for at least three years before they can apply for a new posting if they are civil servants. For the staff of community health associations, any departure is tantamount to a job loss.

Under SWEDD, through the rural pipeline, Mali recruited and deployed a first wave of 105 midwives to 105 CSCom who benefited from the local government's project in



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remote areas for the period 2015-2020. For the period 2021 to 2024, the SWEDD project saw the deployment of a second wave of 323 agents in 15 regions of Mali. The initiative received the support of the country's highest authorities. The launch ceremony, chaired by the Prime Minister on 8 November 2021, acknowledged the deterioration in the health system, but emphasised the government's determination to provide high-quality healthcare staff in outlying areas in order to reduce maternal, neonatal and infant mortality and promote family planning. With this in mind, the SWEDD project in Mali supported 15 private midwifery practitioners in second-tier towns and peri-urban areas, to facilitate access to quality maternal and neonatal care for people living in peri-urban areas and towns.

It should be noted that one of the deployment criteria for these Malian midwives is their geographical origin. In other words, midwives are assigned based on their area of origin. This is the case for midwives in the northern regions, who were all trained at training institutions in Timbuktu and Gao, where it is virtually impossible to post midwives from the capital. This strategy, successfully implemented in the Gao region, involves training youth and women in RMNCAH care and recruiting them locally to retain them in rural and disadvantaged areas. This initiative, which aims to ensure that midwives are properly distributed throughout the country, covers 15 regions of Mali, and is based on the extension of the rural pipeline strategy to most of the country's regions. This initiative serves as an example to other governments in the region on how best to ensure that, on completion of training, professionals can be recruited for such disadvantaged areas. This strategy resulted in a 40 per cent increase in the number of midwives working in the regions selected under the midwifery initiative and a 23 per cent increase in the number of midwives working nationally (Toure 2021).

Those managing the facilities to which midwives had been deployed expressed their satisfaction. Deployment has resulted in "improved technical facilities, the provision of high-quality, accessible and available services, user satisfaction and increased productivity", and "at CSCom level, an increase in the number of women attending a range of consultations, an increase in the number of monitored pregnancies, an increase in assisted childbirth and an increase in the uptake of contraception" (CsCom manager, Mali).

One possible reason for these increases is a reduction in waiting time, averaging 20 to 30 minutes at the CScom before treatment.

In Chad, interviews with midwives revealed that by recruiting midwives and offering them a salary, the SWEDD project has met with some success. For the manager of a midwifery centre, "it is clear that the support provided by the SWEDD project is appreciated and valued, because it meets a real need. It is also clear that the skills of midwives in the SWEDD project are recognised." Nonetheless, certain challenges remain and require particular attention. These include the lack of dedicated vehicles for mobile units to send to the field, thus constraining midwives to care for patients in improvised locations and on makeshift beds. In addition, stock-outs of RH products and medical consumables have hampered continuity of services. Moreover, midwives in the SWEDD project do not have the same access to promotion as those recruited by the State in maternity services. They are not promoted to positions of responsibility regardless of their skills, as this is contrary to civil service regulations.

Without solutions to these challenges, the deployment of rural midwives is likely to remain an arduous task.



LESSON 3: Direct deployment from training centres could contribute to a significant increase in the number of midwives in project areas and thus to a marked improvement in the supply of maternal and reproductive health services in the country.



LESSON 4: The deployment of midwives, particularly in rural areas, helps to alleviate staff shortages, increase the availability of RMNCAH services and improve maternal and reproductive health indicators.

This includes the recruitment of new users of family planning services and significantly reduces the number of miscarriages. In Mali, for example, the number of miscarriages fell from 1,154 in 2017 to 363 in 2020, a 218 per cent reduction in the 105 CSComs covered by the first phase of the initiative.



LESSON 5: Incentives and sufficient logistical arrangements are important for the successful deployment of midwives.

RETENTION OF MIDWIVES DEPLOYED IN RURAL AREAS

Overall, the training and deployment of qualified midwives in rural areas remains a feasible programme for producing quality staff who can contribute to an improvement in the maternal and reproductive health of remote populations. However, the deployment of midwives has experienced certain difficulties linked to the retention of the deployed midwives. These include the mobility or instability of midwives for a variety of reasons, such as the search for new work opportunities, and social factors, in particular

marriage and subsequent relocation. According to the interviews conducted for this Guide, this is a major difficulty. Discussions with experts from Mali and Chad, and information from the reviewed documents, show that it is also important to gain a better understanding of working conditions and the improvements needed to retain midwives in their posts. Specifically, it is important to take stock of the geographical distribution and health establishments benefiting from the first waves of midwife deployment in order to assess the proportion of open positions covered by these cohorts.

Countries have taken steps to retain midwives through the period of their contracts. For example, the project and the health



authorities in Mali have put in place a contract between the midwives and the Community Health Associations that manage the CSCom. The contract specifies that the midwife may not be transferred during the term of the contract, except in the event of a job swap between two midwives. According to the respondents for this Guide, these measures have helped to significantly mitigate the uncertain availability of midwives.

Other measures aimed at attracting and retaining staff in rural areas have also been proposed. They consist of bonuses linked to so-called "difficult" assignment areas. Midwives in such areas get priority for training grants, ongoing training, and the availability of supervision. But these measures have not improved staff retention. Organisations such as the CSCom are not able to attract or retain midwives in rural areas, and state grants are insufficient to cover the need for midwives. This situation and the lack of appeal of rural posts could exacerbate the shortage of midwives (Sidibé et al., 2018).

For future cohorts, planning remains important, including mapping needs in targeted areas in order to clearly identify the jobs to be filled when midwives are recruited in the future. It would also be beneficial to plan, for a predetermined number of years in each context, strategies to fulfil personnel needs by institution. This planning can be carried out effectively through the establishment of a forward-looking, multi-year mapping for midwives recruited by the civil service, including relevant indicators and tools for monitoring and evaluating the multi-year deployment plan. Finally, particular attention to remuneration and incentives to attract and retain midwives remains a persistent shortcoming.



Lesson 6: The retention of midwives deployed in rural areas requires additional efforts and support once they have been recruited and deployed.

This includes a particular focus on working conditions and workplaces, ensuring that civil servants are deployed where they are most needed, and developing sufficient and sustainable forms of remuneration. It is always important to monitor and evaluate these actions in order to identify and remedy any shortcomings.

SUMMARY OF KEY LESSONS

Phase 1: The development of a harmonised curriculum	1	The adoption by the Economic Community of West African States (ECOWAS) of a harmonised curriculum for training in nursing and obstetrics represents a major step towards standardising the quality of training provided to midwives and nurses throughout the region.
Phase 2: Strategies and organisation of staff selection and training for rural areas	2	Investment in training of trainers in the Centres of Excellence and the acquisition of equipment and teaching materials are important inputs in overcoming the challenges faced by training institutions.
Phase 3: Deployment of midwives in rural areas	3	Direct deployment from training centres could contribute to a significant increase in the number of midwives in project areas and thus to a marked improvement in the supply of maternal and reproductive health services in the country.
	4	The deployment of midwives, particularly in rural areas, helps to alleviate staff shortages, increase the availability of RMNCAH services and improve maternal and reproductive health indicators.
	5	Incentives and sufficient logistical arrangements are important for the successful deployment of midwives.
Phase 4: Retention of midwives deployed in rural areas	6	The retention of midwives deployed in rural areas requires additional efforts and support once they have been recruited and deployed.

ANNEX 1: Methodology and sampling

I. Data collection methodology

The information included in this Guide was gathered during interviews organised by the Centre Humanitaire des Métiers de la Pharmacie (CHMP), with respondents selected undertake the retrospective documentation on the conceptualisation and implementation of the deployment of midwives in rural areas. The SWEDD countries that opted to take part in the interviews on this theme were Mali and Chad. The respondents from each country were proposed by the technical partners and the consultants, who liaised with the members of the Project Management Units (PMU). Interviews were conducted face-to-face or virtually in cases where it was not possible to meet in person. The facilitators were provided with a conversation guide developed by the technical partner, containing questions on aspects of the conceptualisation and implementation of deployment relevant for each respondent. During the conversations, the facilitators used personal recording devices (phones, tablets, etc.) to record the conversations and then transcribed them later before consolidating them into a summary.

II. Data sources

The information was collected through interviews with key informants on the conceptualisation and implementation of the intervention to train and deploy midwives in rural areas in the above-mentioned two SWEDD countries. These informants do not represent a systematic sample, "but, rather, a convenience sample of those with experience in the theme of this Guide across these countries" that make it possible to leverage existing SWEDD capacity. Details of the country informants are provided in Annex 2. Additional data was extracted from a review of project documents.

ANNEX 2: Surveyed people

Key informants	Country
7 individuals: 1 PMU expert, 1 UNFPA expert, 1 local authority, 4 CBD agents	Mali
7 individuals: 1 PMU expert, 1 UNFPA expert, 1 local authority, 4 CBD agents	Chad

Bibliography

Coalition of African Alternatives Debt and Development-Mali (CAD-Mali). January 2021 Current Midwifery Situation in Mali: the Case of the Koulikoro Region, final report. www.cadmali.org/IMG/pdf/Rapport_de_l_Etude_sur_l_etat_des_lieux_des_Sages-Femmes_au_Mali.pdf

Durey, A., Haigh, M., & Katzenellenbogen, J. M. 2015. "What role can the rural pipeline play in the recruitment and retention of rural allied health professionals?" Rural and Remote Health, 15(3), 346-356; UNFPA.

French Muskoka Fund. Mali in figures. https://ffmuskoka.org/wp-content/uploads/2020/07/FFM_FichesPays_MALI_web.pdf

French Muskoka Fund. Chad in figures. https://ffmuskoka.org/wp-content/uploads/2020/07/FFM_FichesPays_TCHAD_web.pdf

International Confederation of Midwives (ICM). 2020. Recommendations on mentoring for midwives 2020. www.internationalmidwives.org/assets/files/general-files/2020/12/10889---icm-mentoring-guidelines_fre_ab.pdf

Ministry of Health and Social Development and Ministry for the Promotion of Women, Children and the Family. November 2021 Yearbook 2020, national health and social information system (SNISS). Bamako: Government of Mali http://www.sante.gov.ml/docs/Annuaire%20SNISS%202020.pdf

"Nove, Andrea. The quality of midwifery training in six francophone countries in sub-Saharan Africa. 2018." Santé Publique (Vandoeuvre-les-Nancy, France) 1.HS: 45-55. DOI 10.3917/spub.180.0045.

Sidibé, C., Bintou Traoré, F., Keita, A., Touré, O. & Dieleman, M. 2018. "Intention to leave first-level services among midwives and obstetric nurses in Mali." Santé Publique, 30, 725-735. https://doi.org/10.3917/spub.186.0725

Toure, A.M. 15 November 2021 Maternal and child health: The Prime Minister officially launches the recruitment and deployment of 323 midwives. Maliweb.net. https://www.maliweb.net/sante/sante-maternelle-et-infantile-le-premier-ministre-lance-officiellement-linitiative-recrutement-et-deploiement-de-323-sages-femmes-2952436.html

UNFPA, International Confederation of Midwives and WHO. 2021. The State of the World's Midwifery 2021. www.unfpa.org/sites/default/files/pub-pdf/21-038-UNFPA-SoWMy2021-Report-FRv5173.pdf

UNFPA. 2014. The State of Midwifery in the World 2014: A Universal Pathway. Women's right to health. www.unfpa.org/fr/publications/letat-de-la-pratique-de-sage-femme-dans-le-monde-2014

UNFPA. 2011. The State of Midwifery in the World 2011: Successful births, lives saved. www.unfpa.org/fr/publications/letat-de-la-pratique-de-sage-femme-dans-le-monde-2011

UNFPA-Mali. 9 March 2021. Initiative to deploy UNV midwives in community settings. https://mali.unfpa.org/fr/news/initiative-deploiement-des-sages-femmes-vnu-en-milieu-communautaire-0

West African Health Organisation (WAHO). July 2014. Harmonized Training Curriculum for Nurses and Midwives in ECOWAS Region: Bachelors of Nursing and Obstetrical Sciences. www.wahooas.org/web-ooas-prod/sites/default/files/publications/1093/curriculumharmonisedeformationdesinfirmiersetsages-femmes.pdf

World Bank. Project Appraisal Document (PAD). 2015. https://documents1.worldbank.org/curated/ar/727331467986282506/PAD1137-FRENCH-PAD-P147638-PUBLIC-Box391458B-GER-Version-French-PAD-P147638-Final.docx

This Guide is one of a series that retrospectively documents the process of implementing the interventions of the SWEDD project, and documents good practices, challenges and lessons learned. The "Sahel Women's Empowerment and Demographic Dividend" (SWEDD) project was launched in November 2015 with financial support from the World Bank, and technical support from the United Nations Population Fund (UNFPA) and the West African Health Organisation (WAHO). SWEDD aims to accelerate the demographic transition, trigger the demographic dividend and reduce gender inequalities in the Sahel. The motivation for this series is the fact that SWEDD has become a strategic framework for political decision-makers, opinion leaders (traditional and religious chiefs, and other community leaders), and the community to work together on issues considered sensitive in the region. This is why it was considered important to share the processes through which the project was developed. This includes descriptions of experiences, lessons learned and recommendations. This evidence could enrich interventions in SWEDD+ and also other initiatives on gender equality and the empowerment of adolescent girls and young women. This is one of a series of four Guides which aim to document the experiences of implementation under SWEDD component 2 interventions with the objective of improving the provision of reproductive health services. These include Community-Based Distribution (CBD) interventions to bring services and products closer to communities (Guide number 9), experience in building the capacity of healthcare staff, particularly midwives, through the establishment of mentoring (Guide number 10) and Centres of Excellence (Guide number 11), and the deployment of these midwives to make up for the shortage of staff on the ground, particularly in rural areas (Guide number 12) However, the lessons learned from this documentation do not imply that all four interventions need always be simultaneously implemented.

For more information on the documentation of the processes involved in this intervention and on the SWEDD project, visit the SWEDD project's virtual resource platform: https://sweddknowledge.org/.