

HUB-AND-SPOKE MODEL: Clinical Mentorship for Adolescent-Friendly Services USAID Adolescent Reproductive Health (ARH)



Hub site mentorship program in Parsa District, Madhesh Province | USAID ARH for USAID Nepal

Program Snapshot

Life of Project: 2022- 2027

Geographical Focus: 60 municipalities across 11 districts in 3 provinces: Madhesh (41), Lumbini (12), Karnali (7)

Prime Partner: CARE Nepal

Consortium partners: Howard Delafield International (HDI), Jhpiego, Associations of Youth Networks of Nepal (AYON), Nepal Contraceptive Retail Sales (NCRS) Company

District Partners: Social Awareness Center Nepal (Surkhet), Dalit Development Society (Salyan), Rural Development and Awareness Society Nepal (Rolpa), BEE Group (Banke), Mallarani Rural Development Concern Center (Pyuthan), Aasaman Nepal (Dhanusha), CNRD (Rautahat), Bagmati Welfare Society Nepal (Sarlahi), Divya Development Resource Centre (Parsa), Protection Nepal (Bara), Ratauli Yuba Club (Mahottari)

About the program

[USAID Adolescent Reproductive Health](#) (ARH) is a five-year, USAID-funded project led by CARE Nepal in partnership with HDI, Jhpiego, AYON, and Nepal CRS Company from 2022 to 2027. The project supports the Government of Nepal (GoN) in improving adolescents' reproductive health with the goal of empowering adolescents (10-19 years) to reach their full potential and practice healthy reproductive behaviors. To achieve these goals, USAID ARH employs multichannel social and behavior change strategies, including group-based interventions, interpersonal communication, and youth- and girl-led activism for reproductive health and social norms change, supported by service linkages amplified by digital interventions.

The Government of Nepal launched the National Adolescent Health and Development Strategy in 2018 to address key issues identified in the Nepal Demographic and Health Survey, particularly the high rates of adolescent marriage and pregnancy. The strategy underscores the critical need to create an environment that promotes healthy reproductive health practices among adolescents. In 2022, the GoN reinforced this effort by endorsing the Adolescent Friendly Reproductive Health Services Guidelines. Aligned with these national initiatives, USAID ARH collaborates with federal, provincial, and municipal governments in Madhesh, Lumbini, and Karnali Provinces to improve the reproductive health of adolescents aged 10-19, with a focus on marginalized populations.

Hub-and-Spoke model

The Government of Nepal prioritizes onsite mentoring and coaching approaches for maternal and newborn health as the most effective methods to enhance the knowledge and skills of service providers at health facilities. For low-resource health facilities with human resource constraints and high patient loads, Jhpiego has documented best practices in mentorship and coaching approaches. Evidence shows that a blended mentorship approach that combines virtual and in-person mentoring results in better learning outcomes and clinical performance.¹ In addition, blended learning approaches that provide hands-on-learning through short sessions have been shown to be most effective for health care providers.² In most public health facilities, health providers cannot attend off-site all-day trainings without disrupting health services and workflow. Thus, USAID ARH is implementing high-dose low-frequency sessions in which mentors provide short, hands-on, in-person sessions every three months followed by virtual check-ins.

For clinical mentorship, the hub-and-spoke model has been recognized as a best practice.³ In this model, hub facilities are assessed on the provision of high-quality adolescent-friendly health services, as outlined in the GoN Family Welfare Division's Adolescent-Friendly Health Services (AFHS) Implementation Guideline. Based on this designation, hub facilities mentor peripheral spoke facilities through onsite coaching and virtual mentoring on the delivery of adolescent-friendly health services. The hub-and-spoke model is designed as a long-term, adaptable system that can address various needs by building on government mentors (master and clinical mentors) and can be repurposed for various issues.

¹ Jhpiego. 2021. *2021 Annual Report*. https://www.jhpiego.org/wp-content/uploads/2023/05/2021_AnnualReport_Jhpiego.pdf

² Jhpiego. 2016. *Low Dose High Frequency: A Learning Approach to Improve Health Workforce Competence, Confidence, and Performance*. https://hms.jhpiego.org/wp-content/uploads/2016/08/LDHF_briefer.pdf

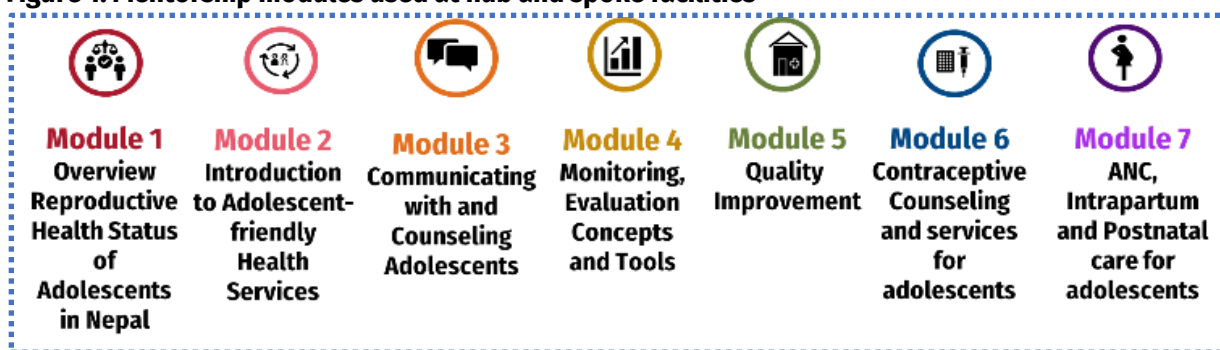
³ Elrod, James K. and John L. Fortenberry, Jr. 2017. The Hub-and-Spoke Organization Design: An Avenue for Serving Patients Well. *BMC Health Services Research* 17 (Sup 1). <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2341-x>

What are we doing?

Step 1: Prepare a pool of master mentors and develop mentorship modules

- USAID ARH identified subject matter experts to be master mentors at central, provincial, and district levels for the hub-and-spoke mentorship model.
- These mentors are doctors and nurses with training in areas including gynecology, clinical psychology, and nursing. All master mentors have experience as trainers and mentors in family planning and maternal health programs across the GoN federal, provincial and district levels.
- USAID ARH developed seven technical modules tailored for the hub-and-spoke mentorship model (Figure 1). The facilitator and participant manuals for each of these modules are aligned with the national AFHS Implementation Guideline and the National Health Training Center 5-day training package on adolescent sexual and reproductive health.

Figure 1. Mentorship modules used at hub and spoke facilities



In addition to these seven modules shown in Figure 1, USAID ARH has developed additional modules on the topics listed below to supplement the existing content:

- gender-based violence and management
- menstrual health and management
- adolescent nutrition
- mental health
- sexually transmitted diseases, infections and HIV
- sexual identity; lesbian, gay, bisexual, transgender, queer, intersex, asexual (LGBTQIA+) identities
- disability

These additional modules will begin implementation in Year 3 of the program.

Step 2: Identify and support hub facilities to meet benchmarks

- USAID ARH collaborated with provincial health directorates and municipal health units to identify hub facilities.
- Within USAID ARH's geographic areas, 16 hub facilities across 3 provinces were selected. These hub facilities were chosen because they provide all five short-acting family planning (FP) services offered by GoN, along with delivery services and antenatal and postnatal care as essential reproductive health services.
- As the project aligns with the GoN's AFHS Implementation Guideline, each hub facility is required to meet an 80% readiness benchmark before beginning mentorship to spoke facilities.

- In many cases, USAID ARH staff (quality assurance specialists and quality assurance officers) conducted multiple visits to hub facilities to support them in achieving the 80% benchmark for AFHS services and action plans for improvement over time.

Step 3: Select spoke facilities

- USAID ARH staff also collaborated with provincial health directorates and municipal health units to identify spoke facilities.
- Spoke facilities were selected from public or private facilities within 5 kilometers of hub facilities that provide at least three short-acting and 1 long-acting family planning method and were willing to participate in mentorship.
- USAID ARH selected 73 spoke facilities (52 public, 21 private) across 3 provinces that met the criteria.

Step 4: Provide whole-site orientation and mentorship at hub facilities and select clinical mentors

- The master mentors organized the initial mentorship visit for hub facilities. The first day included a whole-site orientation in which all facility staff, including gatekeepers, management committees, and clinical staff, were oriented on adolescent-friendly guidelines to secure their buy in.
- The remaining days included clinical staff and focused on the first four modules (shown in Figure 1).
- At the start, health providers were given a knowledge and skills assessment as pre-test on adolescent-friendly services. Providers were also given a post-test upon completion.
- Clinical mentors were nominated from the trainees based on their pre- and post-test assessment scores, involvement during the mentorship training, willingness to travel, and availability of time.
- Among the clinical mentors, the group selected one person to be the USAID ARH focal person for the program.

Step 5: Inception of mentorship from hub to spoke facilities

- After completing the first mentorship visit at the hub facilities, one master mentor and two clinical mentors from each hub facility conducted an in-person mentorship visit to the designated spoke facilities.
- The master mentor and clinical mentors conducted a whole-site orientation for the spoke facility, followed by delivery of the first four mentorship modules.
- The master mentor and clinical mentors also supported the spoke facilities to conduct facility self-assessments for readiness standards aligned with the GoN AFHS Implementation Guideline.
- As part of the content for Module 3 (Communicating with and Counseling Adolescents), clinical mentors used *empathways cards*⁴ as an interactive values clarification exercise to improve interaction and behavior with adolescent clients. In addition, this session included provision of *net promoter scorecards*.⁵ Providers were oriented to give adolescents these cards after offering counseling or services to gather information on whether they would recommend the same services to other adolescents as a measure of client satisfaction.
- These assessments helped spoke facilities identify specific action plans for improvement.

⁴ *Empathways cards* are cards that encourage empathy towards adolescents. These were modified by Jhpiego from the Breakthrough Action program detailed here: <https://breakthroughactionandresearch.org/empathways-dealing-a-winning-hand-to-youth-centered-health-services/>

⁵ *Net promoter scorecards* are physical cards for adolescent feedback on services they receive. These are used to measure client satisfaction.

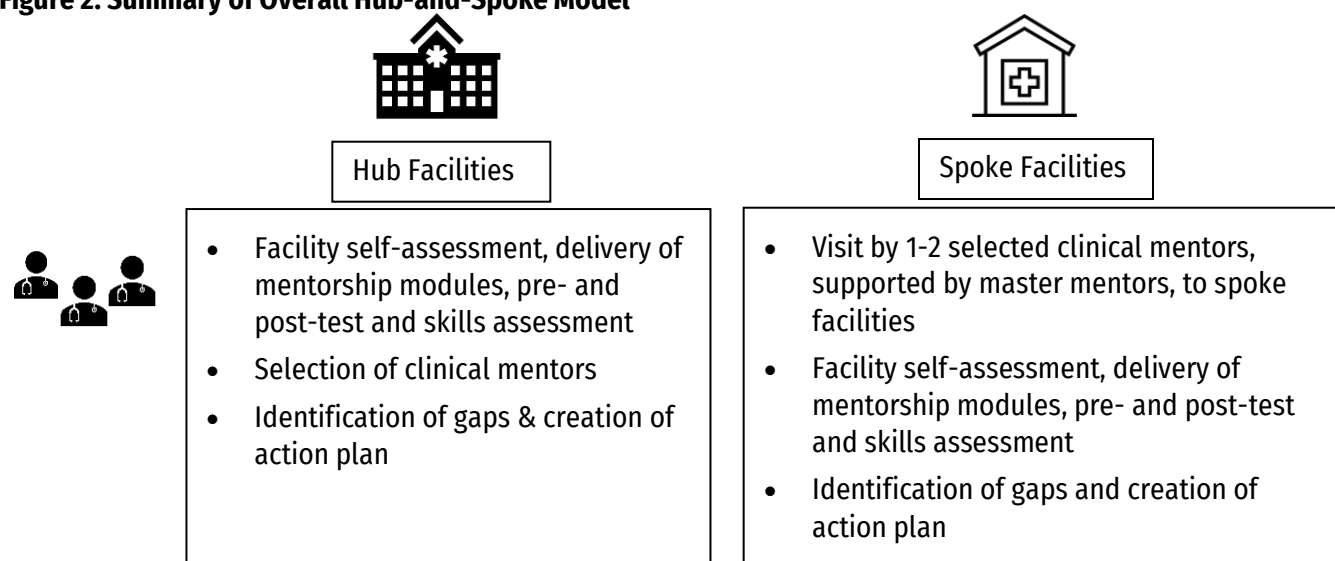
Step 6: Virtual mentoring and supportive supervision

- Master mentors joined a WhatsApp group with the USAID ARH staff and clinical mentors at hub facilities. The master mentors provided advice and answered questions that the clinical mentors posed.
- The clinical mentors formed a WhatsApp group with spoke facilities and USAID ARH staff to address questions from the spoke facilities and provide ongoing advice.
- These WhatsApp groups served as forums for open communication, discussion of challenges, and identification of common solutions.

Step 7: Second mentorship visit to hub facilities and spoke facilities

- Three months after the first mentorship visit, master mentors conducted a second mentorship visit to the hub facilities to deliver mentorship modules 5-7 (shown in Figure 1) alongside clinical mentors and clinical staff at hub facilities. They also assessed progress on the action plans from the first visit.
- Following this mentorship visit, clinical mentors conducted a second in-person mentorship visit to spoke facilities that included pre-and -post assessments and delivery of mentorship modules 5-7.
- This visit also involved an assessment of progress from Visit 1 and identification of remaining gaps to refine future actions for quality improvement through involvement of health facility management committees.

Figure 2. Summary of Overall Hub-and-Spoke Model



What are the enabling factors?

Mobilization of the master mentors from the provincial level: Master mentors were strategically selected from the same provinces and districts in which USAID ARH operates to optimize efficiency, time and resources. Empowering and mobilizing master mentors from the same district as spoke facilities created valuable linkages for the peripheral spoke health facilities. This approach also fosters a sense of ownership among government bodies at the district level and encourages the upgrading of facilities to

adolescent-friendly models. Spoke facilities were selected to be within 5 kilometers of hub facilities to ensure practicality of mentorship.

Active involvement of the health facility’s management committee in the development of action plans:

This approach fostered greater engagement and ownership within the program’s design and implementation.

Centering hub facilities at district and local levels: Initially, USAID ARH planned to select only district-level facilities as hub facilities. However, in alignment with the GoN’s focus on federalism, USAID ARH revised its criteria to include any facilities that provide essential ARH services (defined as those offering all five short-acting family planning (FP) methods provided by GoN as well as delivery services and antenatal and postnatal care). As a result, some hub facilities are at the district level while others are at the local municipal level, reflecting GoN’s decentralization efforts.

What are the challenges?

Not all master mentors trained were available for rollout: Some master mentors, especially doctors, had difficulty in allocating time for mentoring sessions compared to the nursing staff. As a result, subsequent batches of master mentors included a higher proportion of nursing staff.

Delays in hub facilities meeting readiness benchmarks: The hub sites must obtain a benchmark of 80% based on assessments to initiate mentorship support to spoke facilities. Due to several hub facilities not meeting the 80% readiness assessment criterion at the beginning, the rollout in spoke facilities experienced delays. Additional mentorship and supportive supervision were required to support many hub facilities to attain the benchmark.

What are we learning?

Close collaboration with the government is essential: The collaboration at each stage of the hub-and-spoke process has empowered local authorities and encouraged their active involvement in the project. This engagement has provided local governments with insights into the specific reproductive health needs of adolescents in their communities, leading them to prioritize adolescent issues in their local-level planning and budget allocation processes.

Prioritize the standards for adolescent-friendly services: The mentoring of facilities is based on the GoN’s AFHS Implementation Guideline, which includes sections not directly relevant to adolescent service delivery, such as the placement of boards and signs within facilities. Participating facilities often found the AFHS guidelines overwhelming. USAID ARH staff helped facilities prioritize the domains and standards that directly impact the provision of health services for adolescents. By doing so, the facilities were able to feasibly and gradually meet the GoN readiness standards over time.

Way forward

To date, mentorship through the hub-and-spoke model has helped reduce absenteeism, foster teamwork, solve on-site issues, and improve provider performance. Regular communication between hub and spoke facilities has facilitated discussion on health topics, provided prompt expert assistance, and ensured efficient handling of issues. USAID ARH will continue collaborating with the Ministry of Health and Population, Family Welfare Division (FWD), as well as provincial and local governments for enhanced involvement and commitment.

Through the hub-and-spoke model, USAID ARH aims for 85% of participating facilities to conduct biannual mentorship visits to spoke facilities. Additionally, USAID ARH targets having 75% of service sites receiving mentorship to be ranked as providing quality care to adolescents, based on client ratings. USAID ARH will continue to critically analyze accomplishments, apply needed adjustments, and plan for scaling up as appropriate.

With all of the mentorship modules in an e-learning platform, each module can be delivered through an e-seminar with breakout sessions and videos. While GoN's FWD prefers in-person provision of the modules for this program, there is potential to leverage the e-learning platform for refresher trainings in the future to minimize workplace disruption to health providers.