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VIRTUAL SUPPORTIVE SUPERVISION

AN INNOVATIVE APPROACH FOR STRENGTHENING ELECTRONIC IMMUNIZATION REGISTRY SYSTEM IMPLEMENTATION IN VIETNAM DURING THE COVID-19 CRISIS



by IDEAL-Vietnam



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Abbreviations

CDC	Center for Disease Control and Prevention
FIF	Fee-based immunization facility
FLWs	Frontline workers
IDEAL	Introducing Digital immunization information systems–Exchange And Learning
IT	Information Technology
MLM	Mid-level managers
NEPI	National Expanded Program on Immunization
NIIS	National Immunization Information System
Q&A	Question & Answer
SS	Supportive supervision
VSS	Virtual supportive supervision

This case study was developed by the IDEAL-Vietnam project, a collaboration of PATH, the Vietnam Ministry of Health, the Vietnam National Expanded Program on Immunization, and Viettel, and authored by team members from PATH and the National Expanded Program on Immunization.

We hope this report will contribute to ongoing discussions about immunization logistics, and we welcome comments from interested parties.

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Photo credit: PATH

Supportive supervision in implementation of Vietnam's National Immunization Information System

“Supportive supervision” (SS) can be defined as a process of guiding, monitoring, and coaching frontline workers (FLWs) to promote compliance with standards of practice, ensure the delivery of high-quality health services, and support the professional development of those supervised FLWs. SS can look different in every case, but UNICEF lists five basic elements of SS:¹



Visiting FLWs regularly to review program performance, data, and reports



Observing and listening attentively to learn FLWs' challenges and needs.



Highlighting what FLWs do well and what can be improved.



Helping FLWs identify and resolve problems.



Providing FLWs with coaching and on-the-job training.



A commune health worker in Son La province during a virtual supportive supervision session. Credit: PATH

In the context of the immunization program, SS has been linked with continuous improvement in program performance (i.e., in providing high-quality immunization services through direct, personal contact on a regular basis). SS visits guide and support peripheral functionaries in developing professional competence with both knowledge and skills. SS strengthens relationships within the system, focuses on the identification and resolution of problems on the site, optimizes resource allocation, and promotes teamwork and two-way communication. These SS trips help ensure that FLWs have the information, training, supplies, constructive feedback, positive reinforcement, and advice and guidance they need and appreciate to provide high-quality services.²

Implementation of Vietnam's National Immunization Information System (NIIS) nationwide has, thus, relied heavily on SS as the core program activity. Furthermore, as the system continues to evolve, improve, and update, frequent and timely SS will ensure FLWs catch up with the system. However, the frequency of SS trips varies among different regions, provinces, and districts in Vietnam, depending on the available local resources and local transportation condition. Furthermore, due to the lack of funding, NIIS supervision is often integrated with SS of

other health programs. Thus, supervisors often do not have enough time to dedicate to the system, as it is often not prioritized.³

To address this, PATH—within the framework of the Introducing Digital immunization information systems—Exchange And Learning (IDEAL) project from Vietnam, which is funded by the Bill & Melinda Gates Foundation—has provided, since November 2019, additional support in planning and conducting NIIS-specific SS trips for the two project provinces of Son La and Hanoi in northern Vietnam.

Virtual supportive supervision - initial context and emerging challenges for an innovative approach

- **About Hanoi and Son La Province**
- **COVID-19 pandemic**

About Hanoi and Son La Province

Hanoi is the capital city of Vietnam and covers an area of 3,358.6 km². It is the second-largest city in the country—consisting of 12 urban districts, 1 district-level town, and 17 rural districts—and acts as the cultural and political center of Vietnam.⁴ Hanoi is located within the Red River Delta, approximately 90 km from the coast, and has three basic kinds of terrain—the delta area, the midland area, and the mountainous zone—with average elevation ranging from 5 to 20 m above sea level. Hanoi is the second-most populated place in Vietnam. As of 2019, it had 8,993,082 people residing in the city as a whole, with urban areas accounting for 7,125,493, or 79.2 percent, and rural areas for 1,867,589, or 20.8 percent.⁵ Transportation infrastructure in Hanoi is quite developed, and there are always multiple options for getting around in the city, including by motorbike, bus, taxi, and increasingly, car—although, the city is struggling with frequent gridlock, as roads and infrastructure in the older parts of Hanoi were not designed to accommodate them.

Son La is a province in the Northwest region of Vietnam, with 250 km of its southwest border shared with Laos. It covers an area of 14,123.49 km² (the third-largest province in Vietnam) and, together with other provinces in the northwest area, makes up the “roof of Vietnam.” As of 2019, it had a population of 1,248,415, with 172,861 (13.8 percent) residing in the urban area (Son La City) and 1,075,554 (86.2 percent) spreading out over the 11 rural districts. The population includes Tai Dam and Tai Don ethnic groups. The average elevation of Son La Province ranges between 600 and 700 m above sea level. It is characterized by its highly dissected terrains, with mountains, rivers, and valleys interlacing in the west, leaving the eastern part a major plateau and causing Son La to be among the less-developed provinces as far as transportation systems. About one-third of Son La’s roads are local dirt roads; 24 out of 204 communes cannot be accessed all four seasons; and nine villages are completely isolated, reachable only on foot.⁶

Table 1. Characteristics of Hanoi and Son La Province.

Location	Area (km ²)	Population			Terrain		Transport system	Districts / communes	Routine SS period*
		Total	Urban	Rural	Type	Elev.			
Hanoi	3,358.60	8,993,082	7,125,493 (79.2%)	1,867,589 (20.8%)	Delta, midland, mountain zone	5–20 m	Dense gridlock transportation system	30/579	1–2 months
Son La	14,123.49	1,248,415	172,861 (13.8%)	1,075,554 (86.2%)	Highly dissected terrain (mountain, rivers, valleys, plateau)	600–700 m	Less developed with some villages / communes accessed by foot/horse.	12/204	1.0–1.5 years

* Period in which a provincial staff would come back to the same commune via the routine SS schedule and no major weakness or disadvantage is detected/found at that particular commune. Abbreviation: SS, supportive supervision.

The different characteristics of the two project sites posed challenges to the IDEAL team in coordinating and conducting SS trips. Hanoi is an easy location for the National Expanded Program on Immunization and PATH, with direct contact and easy access: all 30 district/towns can be reached within one hour of travel, and even the furthest communes can be visited as urgent need emerges. On the other hand, Son La SS trips require substantial time and budget allocation for travel. The typical week-long SS trip of national-level officers would entail two full days traveling between Hanoi and Son La Province, with many hours, and even days, traveling from the province center to the various districts and communes on winding, beat-up

local roads along the mountain slopes. Regardless of the hustle and bustle to rush from one commune to the next, trips like these would cover an average of 8 to 12 communes in one district, as well as several hospitals, and conclude with a review at Son La provincial Center for Disease Control and Prevention (CDC).⁷ The IDEAL team thus proposed using virtual supportive supervision (VSS), particularly for Son La Province.

COVID-19 pandemic

Around the world, the COVID-19 pandemic is overstressing health services as health workers are diverted to support the response. On top of that, measures have been strictly implemented to control the spread of the virus, including social distancing and travel restrictions. Thus, NIIS implementation and SS trip planning plummeted, while routine immunization services needed to be maintained to ensure essential control and prevention of other vaccine-preventable

disease outbreaks during the pandemic. Fortunately, many channels of communication and interaction had just started to thrive, and they received a big boost due to COVID-19: video conferences became popular, and online meetings became the norm, as did virtual options for casual “catch-up.” As such, VSS was the obvious and only option for maintaining the essential process of NIIS implementation.



On-site supportive supervision at a fee-based immunization facility in Dan Phuong, Hanoi. Credit: PATH

VSS implementation

- **Steps and best practices**
- **Choosing the online platform to conduct VSS**
- **VSS in Son La Province**

Steps and best practices

The NIIS transition readiness assessment⁸ in 2019, as well as the process of NIIS introduction and deployment, has done a great deal in creating the adequate groundwork for VSS. First, insufficient information technology (IT) infrastructure remains the limiting and deciding factor for any kind of innovative approach, but the existing IT infrastructure prepared for the NIIS rollout was deemed ready for VSS: available computers/smartphones with stable Internet connection. Second, FLWs with improved computer/system skill sets, gained from basic training on the NIIS, were ready to take on the new form of SS. The VSS implementation process followed the steps set out by the World Health Organization in its SS training module for midlevel managers, with the slight modification for virtual environment (Figure 1).

Figure 1. Virtual supportive supervision implementation steps.



Source: Adapted from: *Expanded Programme on Immunization. Training for mid-level managers (MLM): Module 4: Supportive Supervision.* Geneva: World Health Organization; 2008.

https://www.who.int/immunization/documents/MLM_module4.pdf#page=9.

Choosing the online platform to conduct VSS

Google Meet was chosen (after careful evaluation and comparison with other platforms for video conferencing, including Skype, Zoom, Teams), following criteria of (i) popularity/familiarity among FLWs and managers, (ii) low cost (free, if possible), (iii) security and stability, and (iv) extensive functionality:

(i) Vietnam governmental bodies (including health care sector) use Gmail as their email domain, so all officers and offices/facilities already have their own Google accounts. Google Meet is also conducted on a web browser, so no new account needs to be created or app downloaded. It is available on both computers / laptops and on smartphones.

(ii) Google Meet is free, without any limitations on time or number of meetings.

(iii) Google Meet's security settings are turned on by default. In most cases, users do not have to do anything to ensure their meetings and data are secure. Google Meet also benefits from the Google Cloud Platform defense-in-depth approach to security, which uses Google's built-in protections and global-private network.

(iv) Google Meet features useful functions, including unlimited numbers of meetings, live captioning, adjustable layout and screen settings, controls for meeting hosts (pin, mute, remove participant, etc.), screen sharing, chat/messaging, and most importantly, integration with Google and other Microsoft Office apps and compatibility across devices.

VSS has a unique and clear purpose, as well as procedure, and thus sets itself apart from most online meetings. However, as it is carried out on the online platform, it is also essential to include the following best practices to ensure the efficiency of the session:

// Prior to the session:

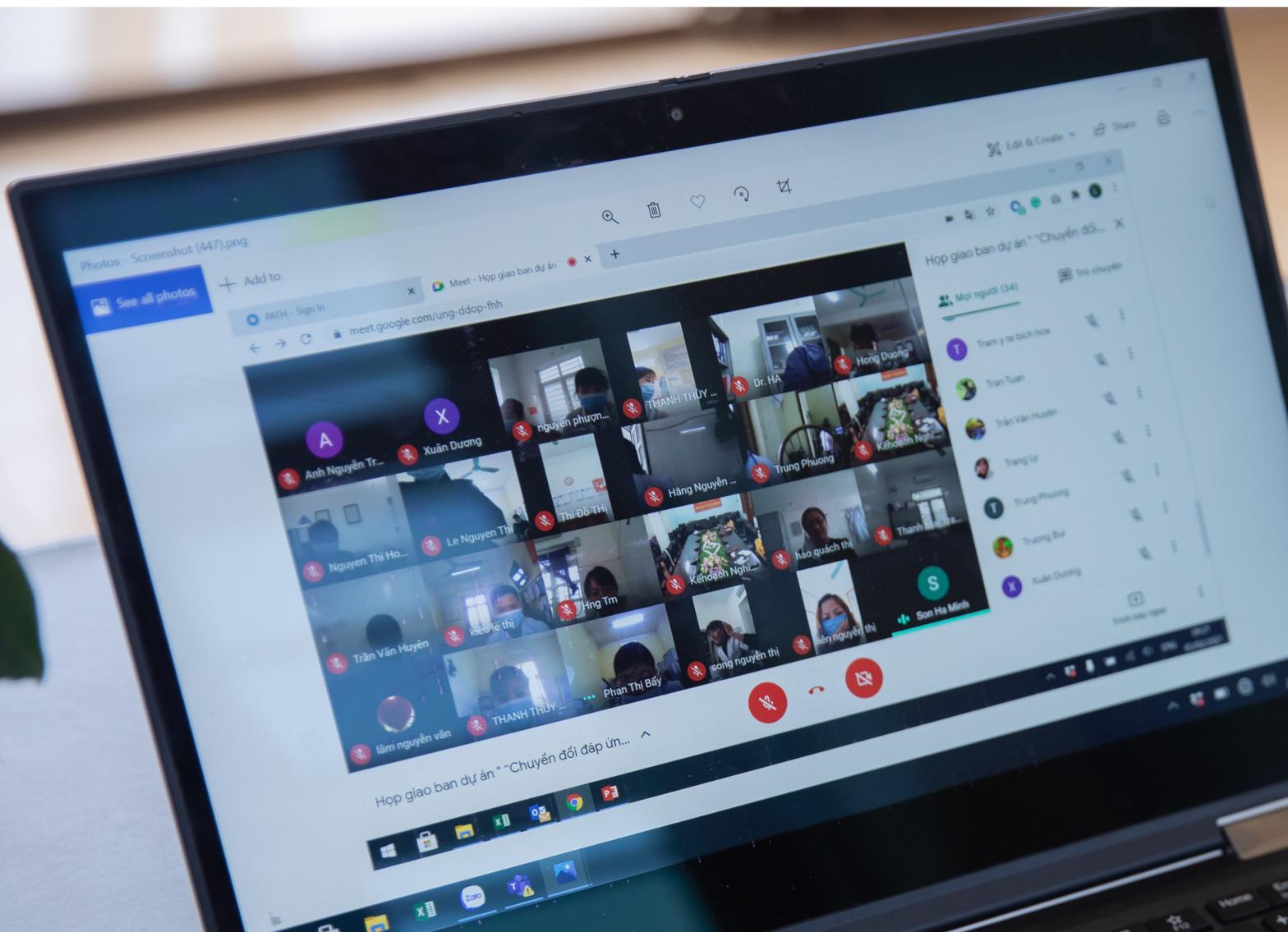
- Send out an invitation link and calendar with a clear agenda.
- Test the technologies (connection, microphone, speaker, webcam, computer, etc.).

// During the session:

- Minimize any possible distractions from the surroundings (book a meeting room, if available, turn off notifications, etc.)
- Adopt online etiquette (appropriate background, mute/unmute, hand raising, proper use of chat, Q&A, etc.).
- Use platform functionalities, such as screen sharing and remote access/control for on-the-job training and NIIS problem solving.
- Include and engage active participation via poll, open communication on all available channels of chat, Q&A, and voice.

// After the session:

- Circulate session notes with clear action items and proposed solutions.
- Record and fill out checklist.
- Schedule follow-up session.



Computer screen of a virtual meeting with all the commune health centers in the district on Google Meet. Credit: PATH

VSS in Son La Province

Over the course of the IDEAL Vietnam project thus far, PATH has supported six VSS sessions, with approximately 80 communes participating. Districts have employed VSS included Sông Mã, Yên Châu, Sốp Cộp, Mộc Châu, Bắc Yên, Mường La



VSS' benefits and limitations based on UNICEF's basic elements for SS

- **Interviews with immunization staff in Son La Province**
- **Interviews with immunization staff in Hanoi CDC**

Interviews with immunization staff in Son La Province

After six months of VSS implementation, PATH have conducted in-depth qualitative interviews with immunization staff from provincial, district, and commune levels in Son La Province on the benefits and limitations of VSS. The consolidated input from the interviewees is given below, as well as input from PATH staff who also attended some of these VSS session. The input is organized around UNICEF's five basic elements of SS, which are at the center of the VSS evaluation.



Visiting FLWs regularly to review program performance, data, and reports



"Travel costs for supervisors were reduced by 100%, and meals and other miscellaneous costs reduced by 20 times to that of an on-site SS trip. Each VSS session would typically go from 8-11 a.m. or 2-5 p.m., and we can have double sessions a day and follow up the next day; and we can have 2 full days a week."

Provincial Expanded Programme on Immunization (EPI)
supervisor

This is the most obvious benefit of VSS in the standpoint of a provincial manager. **Time, cost, and other logistic savings** help managers to organize **more frequent VSS sessions** and provide timely support to the FLWs, especially in the case of traveling difficulties with Son La and with the frequent NIIS updates.



"I can attend the VSS session while on duty travel elsewhere. Travel time is often 'dead time' for me. I now can be more productive with VSS."

Provincial EPI manager

Flexibility for the supervisors and supervisees is also an important benefit to ensure regular VSS, even during the time of travel restriction and social distancing due to COVID-19. These schedules would not be disrupted, regardless of whether the COVID-19 policy is tightened up or not.



Observing and listening attentively to learn FLWs' challenges and needs.

Interviews with immunization staff often stated the difficulties faced in overserving and listening during VSS session including the following:

Distracting environment. FLWs often attend VSS at a commune health center (CHC), where they share the room with other staff, as well as frequent patients or visitors. This requires that supervisors lead sessions in a more engaging manner via the online platform to sustain the FLWs' full attention.



There are always things going on in the CHCs; it's hard to glue my attention to the screen.

CHC immunization staff

Lack of the direct interaction, body language, and personal connection that direct SS can offer. Also, **lack of an on-site observation of field activities** (working in an immunization section, checking immunization ledgers, etc.) makes it hard to have an overall picture of the sites' challenges and needs.



Sometimes the supervisors can't see our condition on-site—such as the instable power supply, the outdated and slow computer, or our barcode scanner.

CHC immunization staff



Highlighting what FLWs do well and what can be improved.

However, online platforms allow provincial/district supervisors to conduct VSS for multiple facilities at once. This ability was recognized by both supervisors and supervisees as a benefit of VSS.

Recognition of FLWs' accomplishments and encouragement for others. Highlighting what FLWs do well at one CHC can not only boost their confidence but also act as models for other CHCs and have a positive effect on the district as a whole. On the other hand, for the sake of improvement, guidelines also can be shared among participants.

As the matter of fact, Google Meet platform was used by Son La Province to conduct the EPI regular monthly meetings during lockdowns for all the districts in the province.



As the staff were getting acquainted with the platform, we have conducted some of our other meetings online to get updated statuses on pressing issues, and even on COVID-19 conditions in the localities.

Provincial EPI manager



PATH staff demonstrates NIIS functions hands-on to Hanoi CDC. Credit: PATH

04

Helping FLWs identify and resolve problems.

A collaborative learning environment is important. VSS sessions usually host multiple CHCs. This mode of communication offers the chance for FLWs to share their experiences, challenges, and problems and collaboratively find the solution.

Supervisors also recognize common issues (especially issues with the system) and provide standardized solution for all the CHCs.



It was quite liberating listening to others' problems and how they could solve those problems. We could apply that same solution for our situation. It was also more comfortable to share and to talk online than when the team of supervisors were at our CHC.

CHC immunization staff

05

Providing FLWs with coaching and on-the-job training.

For NIIS implementation, it was possible for supervisors to provide coaching and supervise via the screen-sharing function. However, VSS is limited the NIIS only; it cannot provide support for other immunization topics and activities.



There are many other immunization techniques and stock management skills that we cannot observe, check, and support over the screen with VSS. This form of SS is best applied for activities on the system.

District EPI manager

Interviews with immunization staff in Hanoi CDC

PATH also conducted interviews with immunization staff at Hanoi CDC and in districts in Hanoi, where VSS was introduced but not yet implemented. The general rationale for that is as follows:

- // There is sufficiently frequent on-site SS. NIIS on-site SS can be integrated with other activities and programs. The resources and conditions to conduct on-site SS within Hanoi are not constrained. Thus, in these advantageous conditions, it is better and more efficient to conduct on-site SS.
- // Hanoi is a big city—the country’s capital—with sufficient resources for SS. These on-site SS schedules have been planned out early in the year, with allocated budgets, human resources, and logistical arrangements; thus, these will need to be carried out as planned.
- // There is not yet legal and structural groundwork for VSS (official documents on how, when, and who are responsible to provide VSS, as well as budgets and resources allocated for VSS).



On-site supportive supervision in Hanoi. Credit: PATH

Conclusion

The “new norm” during the COVID-19 era is and will be featuring many innovative approaches, among which technology plays a significant role in transforming how we work and communicate. As such, it will not go away post-COVID-19 but rather become the standard for “business as usual.” Thus, equipping FLWs with the skill set, knowledge, and attitude to be ready to apply new technologies is essential. While NIIS laid the first groundwork in digitalizing the immunization system, VSS could be the added bonus during the NIIS implementation.

Lessons learned from VSS implementation in Son La can be consolidated to the following main points:

- // VSS is not going to replace on-site SS but rather to be integrated into and scheduled alongside on-site SS trips. It is particularly beneficial for localities with difficulty in transportation or constrains in resources, or both. VSS could be the initial screening to identify the communes that need further support and to have an on-site SS visit scheduled for more specific goals and assistance.
- // Sufficient infrastructure and adequate guidelines and training are essential to ensure the effectiveness of online communication and of VSS.
- // There needs to be a change in perspectives and attitudes toward VSS. It has to be handled attentively and professionally, with formal planning, scheduling, checklists, action items, records, reports, and appropriate follow-ups.
- // Official groundwork for VSS needs to be laid by the higher levels so that this activity can be recognized, funded, and allocated the appropriate resources.



I have never heard of VSS or thought it would be possible till I was introduced to it within the IDEAL project. And then COVID-19 [hit]. [For] our first couple of sessions [it] took a long time to get everyone [to] settle down, but after that, things [went] smoothly, and we now learn to be more productive online. We even use this platform for some of our other programs, as appropriate.

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