



WE ENVISION A WORLD IN WHICH EVERY CHILD HAS ACCESS TO LIFE-SAVING VACCINES

*VaxTrac works with frontline health workers to design and implement a mobile vaccine registry system. This document communicates lessons learned from our first roll-out of Vial-to-Child in Nepal. We have grouped our lessons learned into three categories that represent how we think about our work: **Build, Do and Learn**. You will notice a common theme of **time** that runs throughout our lessons learned.*

Build: Designing Technology

Take the time to design

For any health technology project, it is important to schedule time to test the new software for bugs and to localize it. For instance, hiring software testers and holding focus groups with health workers in Nepal would have helped us train health workers on a more polished product. We got useful feedback from health workers during training, but their feedback takes time to incorporate into the software and push out to units that have already been distributed to remote clinics.

Implications: Be clear from the beginning of new projects about the importance of taking time to work out bugs in new software and to localize it to new environments. Focus groups and testing are important steps in the process of designing new software. If these steps are missing it can translate into logistical and technical challenges later on in the project.

Consider connectivity and access

Our project site is large and remote. Many clinics are inaccessible by car and can take several hours to reach by foot, which means that providing manual updates and tech support is challenging. Many clinics are also in areas with poor network connectivity, making it difficult for the health workers to sync their data to the cloud.

Implications: It is important to spend time with the DHO to decide whether or not it makes sense for every clinic to receive a VaxTrac unit. Regional coverage maps and accessibility should drive decisions as to which clinics get the technology, especially in the most nascent stages of the project. Given how remote many of the clinics are, it is also crucial to ensure that the infrastructure for tech support is in place before distributing technology to the clinics.

VaxTrac Nepal

LESSONS FROM THE FIELD



Our biggest takeaway from this experience is to schedule in time to design, test and localize our software, as well as to get familiar with the political landscape of the country and build relationships.



Do: Managing Projects

Relationships take time

Vial-to-Child is VaxTrac's first project in Nepal. Initially, we relied on the UNICEF country office to jumpstart our relationships with the Ministry of Health. Since UNICEF has a large presence in our project district, we underestimated the importance of taking time to build our own relationship with the DHO. Social relationships and norms play a critical role in the professional realm in Nepal and most decisions are made within informal networks. As such, even though we had conducted a site visit and needs assessment, we could have benefited from having a more regular presence in the region in the months prior to implementation.

Implications: Having a project coordinator who can be on the ground from the beginning of the project is important for building relationships. Going forward, we will invest in local partners who are good at managing relationships at both the central and local levels.

Account for “bugs” during training

One of the main challenges we faced during training was that the technology was immature. New technology is developed in stages and requires testing and feedback from users—all of which takes time. When features do not work as expected, it confuses health workers and ultimately affects technology adoption.

Implications: In an ideal setting, we would have had time set aside in our program plan to test the new technology and get user feedback before implementation. However, given our time constraints, it is important to understand what bugs are going to appear so that we can conduct the training accordingly. It is also important to prioritize hiring someone locally to provide training refreshers and tech support to health workers.

Staffing shortages affect training

Smaller training groups allow health workers to have more hands-on practice time. Given that the majority of vaccinator posts in the local district are vacant, we decided to train between 2-3 people per clinic, which created larger training groups than we usually recommend. We were able to reconcile this by breaking health workers into small groups based on clinic. This worked well because it mirrored the team-like approach clinic staff take since many do not have a dedicated vaccinator on staff.

Implications: Always consider the staffing situation in local clinics when designing a training program. While it is ideal to have small training groups, if there are staffing shortages, it is better to train more people per clinic to ensure that there is institutional memory within each clinic. If some health workers will not be there for the long term, remaining health workers can take on the responsibility of training new health workers.



Learn: Measuring Impact

More time yields more data

Due to the short timeline of the project, limited human resources and the remoteness of some of the clinics, many of the monitoring and evaluation tools we have used in the past are not feasible. As a result, we have been taking advantage of the data that is collected automatically by the system, such as which clinics are syncing data, how many children are being registered, how many records have been found, and how long it takes to find a record and register a new patient. All of this data is key and we will be able to use it to guide our evaluation. However, it is important to note that the short timeline of the project has limited the amount of data we have been able to collect, giving us an incomplete picture of the feasibility of integrating an electronic vaccine management tool into the current vaccination system.

Implications: In the future, having a longer project timeline would give our team the necessary time to determine how an electronic vaccine registry tool might impact the existing vaccination system. The project timeline needs to account for the district's vaccination schedule, the learning curve that health workers will go through as they learn how to use new technology, as well as the time it takes to see an impact from a new intervention.



Reflecting on lessons learned is a vital step in understanding how to improve our product and programming. We hope to integrate these lessons learned into the next iteration of Vial-to-Child. If you would like more information please do not hesitate to reach us at info@vaxtrac.com.