Since 2013, JSI has been working with Niger’s Ministry of Health and the Immunization Department (DI in French) to support and strengthen immunization program activities and supply chain management. Support has been provided for new vaccine introduction, improved planning for program activities and cold chain needs, and building capacity of the DI in all aspects of immunization activities.

With funding from Gavi, the Vaccine Alliance (Gavi), JSI first began to support the Republic of Niger’s comprehensive multi-year plan (2011-2015), which proposed introducing three new vaccines into its routine immunization system—the nationwide introductions of pneumococcal conjugate vaccine (PCV13) and rotavirus vaccine, and a demonstration project of human papilloma virus vaccine (HPV) in two districts (urban and rural). Additional needs were identified by the MOH and partners in 2015 to increase coverage and equitable access to routine immunization services. As part of the response to this, Gavi provided JSI an additional grant to provide technical support with scale up the immunization system, strengthening the supply chain, and building capacity for use of Gavi health systems strengthening funds.

JSI partners with the DI, the World Health Organization (WHO), and the United Nations Children’s Fund (UNICEF) and liaises with other partners in-country, to provide technical assistance in the following areas:

1. Introduction of rotavirus and pneumococcal conjugate (PCV) vaccines into the national routine immunization (RI) system;
2. Demonstration of the introduction of human papillomavirus vaccination (HPV) in one rural and two urban districts;
3. Reinforcement of the routine immunization (RI) system and strengthening of the national immunization program, through the DI’s use of Gavi health systems strengthening (HSS) funding and;
4. Strengthening immunization supply chain management capacity.

### APPROACH

JSI embedded two technical advisors in the Ministry of Health/DI to provide responsive, targeted support to the DI team for close collaboration and to help the DI strengthen the foundation of its immunization program (see Box). Additional details on the technical assistance are provided below.

### Summary of JSI Immunization Technical Support with the Niger DI

- Strengthening immunization supply chain and management capacity
- Assisting with updating national immunization goals and their alignment with international and global standards, objectives, and recommendations
- Planning, applying for, monitoring, and reporting on immunization and health system assistance, such as grants for cold chain equipment, vaccine introductions, and engagement with civil society
- Capacity building and competency transfer with roles, responsibilities, and essential activities for a range of immunization-related activities, including (among others) training, supportive supervision, membership in committees and governing bodies, and data management
- Ensuring coordination with national agencies and partners involved with immunization and vaccination
- Coordinating and participating in meetings, training sessions, and supportive supervision visits
Strengthening Immunization Supply Chain Management Capacity

Niger has prioritized improvement of its storage capacity and management of its immunization supply chain. Plans to implement recommendations for a 2014 Effective Vaccine Management (EVM) improvement plan were delayed due to funding shortfalls. Despite those funding challenges, JSI was able to assist with implementation of several of those recommendations, such as supportive supervision to regions and districts.

With financial support from UNICEF, JSI helped Niger to develop strategies for optimizing the vaccine supply network and system design. With the DI, JSI brought together stakeholders to assess the current immunization supply chain and generate commitment to improve its performance. The assessment enabled more in-depth analysis and process revisions that are helping to optimize distribution and ensure that vaccines reach users on time, in good condition, and in sufficient quantities.

Approaches for improving the immunization logistics system include:

- **Clarifying immunization supply chain roles**: JSI developed terms of reference (TORs) for the Logistics Sub-Committee, and helped to institute weekly meetings to discuss supply chain activities, challenges, and priorities. JSI advisors also helped with TORs and trainings for MOH staff at the regional, district, and integrated health center levels, including conducting an assessment of vaccine temperature during transport. Although the assessment found that overall performance of the vaccine cold chain in Niger is good, several recommendations continue to be implemented by the DI team to strengthen the system.

- **Expand cold chain capacity**: JSI supported the DI’s efforts to install more than 400 cold chain equipment units in health facilities across the country. Additionally, JSI supported the Direction of Immunization (DI) to complete, and successfully submit an application for a Cold Chain Equipment Optimization Platform (CCEOP) grant from Gavi. More than 400 cold chain equipment units are expected to arrive beginning in mid-2018.

- **Strengthening vaccine storage**: JSI supported cold room mapping in four regions to optimize vaccine storage. This activity included training MOH staff on the mapping tool, generating central level, JSI’s technical advisors have supported monthly stock reporting; while at regional and district levels they used supportive supervision to build capacity for monitoring and reporting. They also helped the DI staff to develop and submit quarterly reports using the Stock Management Tool (SMT). These reports are being used to identify system weaknesses and inform decision-making for addressing these.

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1. The role of the immunization supply chain is to ensure effective vaccine storage, handling, and stock management; rigorous temperature control in the cold chain; and maintenance of adequate logistics management information systems. (WHO; http://www.who.int/immunization/programmes_systems/supply_chain/en/)
Building DI Capacity for Routine Immunization

To build DI’s capacity to manage the RI program, expand access, and improve program monitoring, JSI focused on building capacity at all levels and ensuring regular discussion of data management and data quality. Other approaches included:

- **Improving supportive supervision:** To improve capacity in low-performing districts, JSI helped develop TORs and a checklist for supportive supervision as well as supported the DI Data Manager to identify and prioritize regions. Subsequently, working with DI and WHO, JSI participated in supportive supervision visits to identify and address problems with supply chain management, reporting, and service delivery. Supervisors provided on-the-job training to build staff capacity, and used microplanning to ensure availability of services for hard-to-reach populations.

- **Training:** JSI worked with partners (UNICEF and WHO) and incorporated changes and revised training modules used by the DI management team (such as the specifics on the new vaccines). JSI Advisors from HQ and country level also helped to develop TORs for training sessions, co-facilitate new vaccine introduction trainings and conduct post-training supervision visits, as well as facilitating the DI mid-level management’ course (MLM) for 13 national level DI staff and 24 regional DI staff.

- **HSS planning:** JSI’s support is helping DI staff make optimal use of the Gavi HSS grants. JSI helped the MOH to submit a successful grant to Gavi for the introduction of the meningitis A (MenA) vaccine to the immunization system. Prior to the launch (which took place in October 2017), JSI facilitated a preparatory training of trainers workshop and helped the DI work with mobile telephone companies to disseminate messages about the MenA campaign.

As a part of this work, JSI liaised with several civil society organizations (CSOs) that participated in the discussions and planning of the use of the HSS grant. JSI also worked with the DI and partners to conduct a desk review of measles second-dose coverage. The findings were used to submit a request for funding from Gavi for a measles campaign.

Scaling up HPV Vaccination to Prevent Cervical Cancer

Since May 2017, two doses of HPV vaccine are now recommended by WHO for girls aged 9–13 years. Building on lessons learned from the initial phase of the HPV vaccine demonstration introduction conducted in 3 districts in 2014-2016 (which had included 3 doses, prior to the change in WHO recommendation), JSI supported the development of a revised strategy, administered by routine DI staff, with community outreach through UNFPA, women’s associations, and other in-country partners. Given the change in HPV vaccine schedule and the country’s expenditure of the majority of the Gavi vaccine introduction grant funds in the first phase of the HPV demonstration, completion of Phase II was delayed until 2018, awaiting additional funds and completion of polio and measles campaigns.

JSI worked with the DI and partners to develop and implement a plan for administering the remaining HPV vaccine stock in five districts in Tillabéri region in November 2016 that had not yet completed the demonstration (with an estimated 35,555 girls receiving the first dose). Additional HPV vaccines were also needed to ensure the second dose for completion of phase II of the demonstration, for which JSI provided technical support with the DI to procure an additional 50,000 doses (funded by World Bank). Phase II of the HPV vaccination demonstration was completed in July 2018, with a Post Introduction Evaluation (PIE) to be conducted to analyze the strengths, learning, and potential for nationwide HPV vaccine introduction. For the lifespan of the HPV demonstration, despite the delays and challenges, an estimated 19,500 and 57,000 girls were vaccinated with HPV1 and HPV2, respectively.

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LESSONS LEARNED

Strengthening routine immunization data quality is a long-term process

Improving immunization coverage reporting requires institutionalization in the analysis and use of reporting tools by the health staff and DI. For example, reviewing and using results from SMT reports during weekly partners’ meetings to ensure timely identification and redress of emerging issues related to the supply chain and how they link to programmatic activities; and, to address lack of data visibility at lower health system levels, routine review of data from regional and subnational levels.

System design assists with supply chain optimization

With the new regional warehouses in place and the expected cold chain equipment arriving this year, Niger is in an ideal place for a system design activity as an opportunity to optimize placement and utilization of the new equipment, streamline transport routes, and improve supply chain management practices through on-going support to the DI logistics team.

HPV vaccination demonstration provides insights into feasibility and strategies for potential nationwide introduction

Although there was MOH and partner commitment to the HPV demonstration, numerous delays occurred due to funding and resource constraints and strategy adjustments. A lessons-learned workshop should be organized to synthesize experiences from the demonstration, including describing and discussing the challenges and a possible range of solutions to maintain momentum to plan for scale-up. Also, there should be continued advocacy for release of resources from the Common Fund to support the post-introduction evaluation and a coverage survey for Phase II. The findings should be used to inform next steps, including scale-up and plans for a future grant application to Gavi for HPV nationwide vaccination introduction.

Engaging CSOs is essential for strengthening provision of and demand for immunization services

JSI worked with a local CSO coordinating group representing in-country CSOs to map organizations that are involved, or could be involved, in immunization activities. However, although a preliminary list of CSOs was compiled, additional work is needed to complete a comprehensive list of CSOs with contact information and locations, and to develop TORs and potentially partnering agreements for those who participate in DI work. Additional opportunities for gathering this information would be to determine the presence and capacities of CSOs during supervision visits to regional- and district-level sites and to gather their perspectives on how to increase their engagement beyond campaigns.

Strengthening Routine Immunization Systems

Immunization reduces or eliminates the burden of vaccine-preventable diseases. For more than 30 years, John Snow, Inc. (JSI) has worked in 50 countries to introduce life-saving vaccines, prevent the spread of disease, and reduce illness and mortality. As a trusted partner, JSI helps governments, civil society, businesses, and communities strengthen routine immunization systems and ensure that all populations, including those in hard-to-reach areas, have access to high-quality, comprehensive vaccination services.