

# Mobilizing stakeholders to establish system interoperability in Niger

## Background

In recent years, Niger's health system has made significant progress toward digitizing and managing citizens' health information. But the system still faces a number of challenges, notably in the number of information systems used to capture health data.

These systems include the routine health information system (RHIS), the integrated disease surveillance and response system (IDRS), the human resources information system (HRIS), the health programs information system (HPIS), and the hospital information system (HIS)—but this list is not exhaustive. These systems are independent and not interoperable, meaning that health workers often need to enter or retrieve data from multiple places. This can create a significant burden in terms of time and financial resources spent on data tasks, and can also lead to data quality issues because the data is fragmented (and sometimes duplicated) across systems.

To find a solution to these issues, Niger's Ministry of Health (MOH) decided to assess the potential for interoperability among the various systems and implement interoperability standard operating procedures (SOPs) under the leadership of the country's Directorate of Statistics.



Opening ceremony of the workshop for assessing interoperability readiness, which took place in Hotel Aliya on June 5, 2023. Photo credit: CHISU Niger

## Steps Taken

USAID's Country Health Information Systems and Data Use (CHISU) program supported Niger's MOH to assess the potential for interoperability between the various information systems and the District Health Information Software 2 (DHIS2) platform as well as to develop a guide for interoperability norms.

To assess the interoperability readiness between the various health information systems and DHIS2, CHISU took the following steps:

- Compiled an exhaustive list of 28 HIS applications in use in Niger
- Analyzed the specific functions of each application
- Mapped the relationships and interdependencies between existing applications and DHIS2
- Wrote and validated the evaluation report (which included application mapping, an application interoperability roadmap, and recommendations) during a five-day workshop
- Approved, disseminated, and raised awareness about the application mapping

Then the team developed a guide to interoperability norms and standards for Niger's DHIS2 platform by:

- Reviewing existing interoperability norms and standards (international, regional, or national)
- Adapting existing standards to Niger's context
- Writing and validating the standards guide on the interoperability of HIS applications during a five-day workshop
- Approving, distributing, and raising awareness about the guide

The workshops brought together stakeholders who are responsible for health sector applications, including stakeholders from MOH and its partners, the DHIS2 technical committee, two executives from the Directorate of Statistics, members of the CHISU team, and a JSI digitization expert.



Workshop for developing interoperability SOPs, which took place in Hotel Aliya on June 12, 2023.  
Photo credit: CHISU Niger

## Expected Results + Next Steps

The results of this interoperability readiness assessment and the development of the guide for HIS application interoperability will help with:

- Establishing interoperability as a strategic axis for wide and effective use of HIS applications
- Mapping health system applications for better tracking and regular monitoring
- Creating a ministerial technical committee in charge of interoperability and information and communication technology management and oversight
- Strengthening governance and leadership around interoperability at all levels of the health system
- Regulating the introduction of any new applications in the health system according to established and agreed upon SOPs
- Making a short- and long-term roadmap on interoperability issues available
- Prompting stakeholders to remove duplicative applications or applications
- Making more strategic decisions about how to choose HIS applications going forward

Dr. Aida Mounkaila is the Director of Statistics within Niger's Ministry of Health (MOH) and plays an important role in Niger's national HIS. "Participating in this initiative to evaluate HIS applications and developing interoperability SOPs has been a truly transformative experience," she said. "The clarity provided by the visual mapping and SOPs has paved the way for a deeper understanding of interrelationships, enabling fine-tuning to improve interoperability. This not only consolidated our understanding of HIS application interoperability, but also laid the foundations for a more coherent and efficient system."

CHISU is now supporting Niger's MOH in aligning HIS objectives with the applications in use by developing a national master plan for digital health—and we are doing so by drawing on guidance from the World Bank's new toolkit for developing such plans. Niger's plan will include an investment case to mobilize the funds needed to develop and maintain enterprise architectures for health care in the country.



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