



Success Story

USAID | DELIVER PROJECT Helps Uganda Improve Vaccine Cold Chain



USAID | DELIVER PROJECT 2009

To keep cold chain storage equipment operating without interruptions requires adequate, regular energy supplies. Gas cylinders are used by 78% of all health facilities in Uganda.

Through improved tracking systems, Ugandans manage fuel and related supplies more effectively, strengthening the cold chain.

SEPTEMBER 2009

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the USAID | DELIVER PROJECT, Task Order I.

U.S. Agency for International Development
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The Uganda National Expanded Programme on Immunization (UNEPI), the agency responsible for providing safe, potent vaccines to children and women of childbearing age, manages critical, life-saving commodities for the Ministry of Health (MOH). The USAID | DELIVER PROJECT provides ongoing logistics technical support to UNEPI.

To ensure potency, vaccines must be stored at specific temperatures (called the cold chain). Adequate, regular energy supplies are needed to keep the vital cold chain storage equipment operating without interruption. Although districts implement the program, the central level buys the vital supplies—gas, vaccines, and injection materials—and delivers them to the districts every month.

In 78 percent of all health facilities, bottled liquefied petroleum gas (LPG) is the primary energy source for the cold chain equipment.¹ UNEPI includes at least two full cylinders of LPG for every gasoline refrigerator they issue, assuring sufficient supplies. When the refrigerators are delivered, the staff adds the two new cylinders to the stored pool of cylinders at that site. As the cylinders are needed, they are removed from the storage area.

After the staff at UNEPI noticed that frequent fuel shortages were hampering their program's revitalization efforts, the project's logistics advisors collaborated with UNEPI to find out what was causing the shortages. Gas, which should have been available when it was needed, was not always present. Some cylinders were missing at health units and district vaccine stores. Sites can accept only those re-supply amounts that can be stored, so each missing cylinder reduces the quantity of fuel that can be received.

¹ For more information, see—
<http://www.whouganda.org/reports/newletters/epi/EPI%20Newsletter%20M%20arch%202008.pdf>.

A team, comprising staff from the USAID | DELIVER PROJECT, UNEPI, and the National Tuberculosis and Leprosy Program, followed-up with studies to determine the extent of the cylinder shortage and to recommend improvements for managing the supplies that power the cold chain. The team developed a new system to track the cylinders. They introduced tools that helped staff monitor cylinder movement and gas use. As a result, all levels are now able to capture this vital information.

Under the new system, district stores sign a receipt when they receive gas supplies from the central level, including the recipient's name, quantity received, and date of receipt. Lower-level health facilities follow similar steps when they receive gas from the district level. The health facility uses a new gas utilization format to record all gas transition details. By reviewing the records from the date the fuel is connected to the refrigerator and the date when the fuel runs out, facilities can now report the number of days the fuel lasts, giving the program critical data on fuel consumption by type of refrigeration unit. For accountability and maintenance, similar recordkeeping now tracks empty gas cylinders. This new transparent system allows for up-to-date tracking of gas supplies movement and use at all levels.

The USAID | DELIVER PROJECT, Task Order 1, is funded by the U.S. Agency for International Development, and implemented by John Snow, Inc. The project improves essential health commodity supply chains by strengthening logistics management information systems, streamlining distribution systems, identifying financial resources for procurement and supply chain operations, and enhancing forecasting and procurement planning. The project also encourages policymakers and donors to support logistics as a critical factor in the overall success of their health care mandates.

The authors' views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

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