

Shining a light on data dark zones

Senegal strengthens vaccine supply chain with Parsyl's connected vaccine monitoring solution

The need for resilient and adaptable supply chains has never been more apparent. Parsyl strengthens critical global cold chains with modern, end-to-end temperature monitoring and data-powered cargo insurance, protecting health commodities from the first mile to the last.



“We found inefficiencies in vaccine stock and supplies which is why we implemented Parsyl. Users are now able to better protect the cold chain.”

Dr. Amy Lo Ndyaye, Logistics Coordinator,
Ministry of Health, Senegal

Monitoring the last mile

In partnership with Gavi, Parsyl monitors vaccine cold chains around the world. In 2018, Senegal's Ministry of Health (MoH) engaged Parsyl to improve the country's extensive vaccine supply chain. By placing Parsyl's wireless sensors inside cold rooms, refrigerators and cold boxes that store and transport vaccines, MoH personnel and frontline workers have newfound visibility into the causes and location of possible vaccine degradation with alerts and notifications available via a user-friendly mobile app.

Parsyl in Action

Thanks to data collected by Parsyl, Senegal is better able to ensure its vaccination programs are effective.

32.5M Temperature data points	887 Facilities	3,896 Shipments
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Parsyl has collected over 32.5 million temperature data points in Senegal across 887 facilities and 3,896 shipments.

- ✓ Nationwide, just **5%** of refrigerators accounted for approximately **50%** of the alerts.
- ✓ Parsyl simulations show that replacing or fixing these fridges could reduce the number of vaccines spoiled due to freezing temperatures by **24%**.
- ✓ Cutting the time vaccines spend in the cold chain, especially in the last mile, we could reduce spoilage by nearly **40%**.



Strengthening supply chains and improving health

Parsyl empowers frontline workers with immediate actionable insights and end-to-end visibility through the last mile.

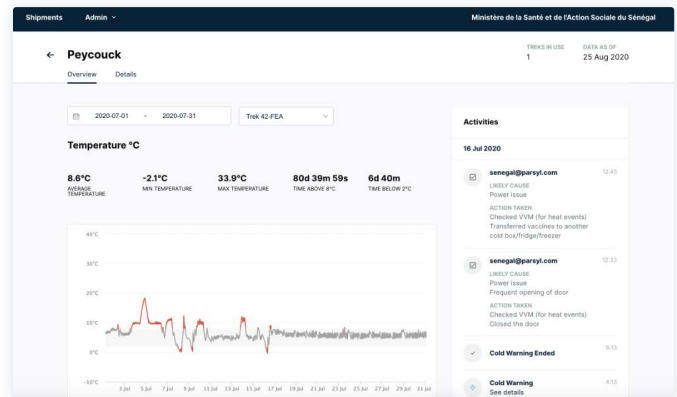
Parsyl devices have been placed in national level cold rooms and freezers across Senegal, notifying EPI logistics managers of temperature excursions. The decrease in temperature alarms over time has shown that data visibility has the power to positively impact cold chain management.

Parsyl will soon cover 100% of the country's cold chain and is already monitoring COVAX vaccines in Senegal and several other African countries.

With this kind of coverage and data, countries will be better equipped to make the improvements necessary to ensure all people receive safe and potent vaccines.

How it works

- 1 Smart sensors monitor temperature conditions in storage and transit
- 2 Alerts via SMS and/or email notify workers of harmful conditions
- 3 Smart Countdown feature tracks remaining shelf life—including thawed ultra cold chain (UCC) vaccines
- 4 Data is collected and stored, even in remote health posts with low and no connectivity
- 5 Insights uncover cold chain equipment (CCE) malfunctions and opportunities to improve Expanded Program on Immunization (EPI) supervision and training practices



Data from a health facility vaccine refrigerator in Senegal that illustrates the positive impact on vaccine management after a health care worker's intervention and behavior change.

“Our supply chain has improved thanks to Parsyl. We’ve been able to identify and replace certain cold chain equipment and improve best practices for storing vaccines within their recommended temperature ranges.”

Mor Diama, Vaccination Logistician
Ministry of Health, Senegal