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A community health worker registers all unvaccinated children in his community in the Cameroon East region.

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WHO

The **Cameroon Ministry of Health**, supported by the National Advisory Group on Immunization (NITAG) and the Cameroon Society of Paediatrics, is leading the **Big Catch-up initiative**. This initiative, approved by the Inter-Agency Coordination Committee (ICC), ensures nationwide participation with all districts informed by Cameroon's Ministry of Health. UNICEF Cameroon supports these efforts through the Expanded Program on Immunization (EPI), working closely with the Ministry of Health to enhance immunization services across the country, alongside other partners like the World Health Organization (WHO).

WHAT

The Big Catch-up, launched globally in April 2023, aims to address the acute immunization gaps caused by the COVID-19 pandemic, which caused a backslide in immunization coverage globally and increased vulnerability of children vaccine-preventable diseases. In Cameroon, the initiative translates into a comprehensive policy to reach **zero-dose and under-vaccinated children**, curb measles and yellow fever outbreaks, and address the circulation of vaccine-derived poliovirus type 2 (cVDPV2). The goal is to raise the pentavalent-3 vaccine coverage above 70 per cent and harmonize vaccination practices, including **data recording and monitoring**. This initiative exemplifies how efforts in Cameroon can guide other countries in adapting Health Management Information Systems (HMIS) to meet Big Catch-up monitoring requirements: by adopting a data-driven approach, country can enhance the efficiency and effectiveness of immunization programs.

WHEN

Even before the launch of the **global Big Catch-up initiative** in 2023, Cameroon's Ministry of Health had taken significant steps in 2021 during the COVID-19 pandemic by developing the initial country catch-up policy. In April 2024, Cameroon requested GAVI's support with additional vaccines needed for the Big Catch-up. The first round of intensive routine activities is starting in September 2024, targeting 530,949 zero-dose and under-immunized children, representing 39 per cent of the target population. This effort includes:

- 116,286 zero-dose children under 2 years,
- 183,368 between 2 and 5 years,
- 100,727 under-immunized children under 2 years,
- 130,568 aged between 2 and 5 years.

WHERE

The Ministry of Health initiates the first phase of the Big Catch-up from September 23 to 29 prioritizing **80 health districts** based on the number of zero-dose children, historical measles data, and contextual factors like insecure and conflict zones, poverty, rapidly growing urban areas, and regions with difficult access like islands, mountainous areas, and forest zones.

WHY

Real-Time Monitoring (RTM) for vaccination campaigns, which has been effectively used for Supplementary Immunization Activities (SIAs) and other mass distribution of vaccines, provides a robust framework to identify, monitor, and address these immunization gaps promptly. **Adapting health information systems** to meet Big Catch-up monitoring requirements entails the adaptation of RTM forms and dashboards to accurately capture catch-up vaccinations of older kids, i.e., 11-23 months and 24-59 months, and systematically track response in real time, ensuring accurate capture of catch-up vaccinations and systematic tracking and response in real time.

HOW

1. Identifying and Estimating Zero-dose and Under-vaccinated Children:

- **Prioritization:** Districts were categorized based the number of zero-dose children, measles epidemic history, and contextual challenges.
 - **Group 1:** 38 health districts with the highest number of zero-dose children, regardless of measles history
 - **Group 2:** 56 districts with recent measles epidemic, totalling 72 prioritized districts.
 - Additional districts included based on similar contexts, bringing the total to 80 districts.
- Districts were further characterized according to predominant contexts:
 - 7 insecure and conflict zones,
 - 12 disadvantaged urban areas (slums), and
 - 20 areas with difficult geographical access
 - Additional districts included 8 insecure and 4 urban districts.

2. Vaccination Campaigns:

- Planned in three rounds across all districts to address the five-year backlog, integrating catch-up activities into routine immunization services and primary health care, with intensified routine immunization efforts in fragile and insecure areas.

3. Big Catch-up Schedule:

- Round 1: September 23-29, 2024
- Round 2: November 02-08, 2024
- Round 3: December 06-12, 2024

4. Adapting Real-Time Monitoring Tools:

- Each geographical community and birth cohort will use a single vaccination register, where each child is identified by a unique identification number recorded on both the vaccination register and the vaccination card. The register tracks the dates of administration for each dose and groups doses administered during the same contact to make it easier to track contacts and visits. The vaccination card records the dates of administered doses and the dates of next doses, ensuring the identification number on the card matches the register.
- Updated tally sheets, monitoring curves, and report forms categorize data by age groups (12-23 months and 24-59 months) and sex (female, male).
- Transitioning from aggregate data by organizational unit to event-based data reporting by immunization session and geographic community, with data reported via mobile applications (IASO WEB, Cameroon Collect) immediately after immunization sessions, including geo-coordinates of the vaccination locations.
- Pending automatic linkage between IASO (data collected by vaccination session) and DHIS2 (monthly report form), a summary sheet of all tally sheets has been developed to facilitate data integration.

5. Analytics:

- During Big Catch-up vaccination campaigns, RTM data is used in real-time to monitor campaign progress, allowing health officers to make on-the-spot adjustments, such as reallocating resources or modifying strategies in low-coverage areas, ensuring immediate corrective actions during each campaign round,
- Monitoring coverage by specific demographics (age, sex, location), RTM data is used to ensure equitable distribution of vaccines and identifying populations that might be at risk of being missed,
- RTM data allows for a prompt monthly reconciliation of distributed vaccines using tools like ProMeDeau, leveraging analytics for informed decision-making.

Results:

Adapting digital health information systems to meet Big Catch-Up (BCU) requirements is crucial for streamlining immunization efforts. By aligning BCU RTM with existing digital immunization systems, countries can strengthen their health systems, avoid the creation of parallel systems, and achieve a more accurate understanding of immunization coverage.

Joseph Safana, a health worker in the Mandjou Health District, East Cameroon, says, "With the advanced strategies, the health facilities get closer to communities where basic social services are not very accessible, and we manage to vaccinate many children who have never been vaccinated. This enables us to offer other

services such as vaccinating other children and adolescents, birth registration, and identifying cases of malnutrition. Since 2023, this strategy has already enabled us to vaccinate more than 300 children, at least 50 of whom have received their first vaccinations in the commune of Mandjou.”

Challenges:

- **Changing Healthcare Worker Habits:** Healthcare workers who are reluctant to administer catch-up doses to off-target children pose a challenge. Overcoming this resistance and ensuring their active participation in catch-up vaccination efforts is crucial for success.
- **Ensuring Continuous Vaccine Availability:** Maintaining a consistent supply of sufficient doses for last-mile catch-up campaigns is essential. Any interruptions or shortages in vaccine availability can hinder the progress of vaccination programs.
- **Adapting Tools for Accurate Identification and Follow-Up:** The need to adapt tools for accurate identification and appropriate follow-up of catch-up doses in micro-planning is necessary. Ensuring precise tracking and monitoring of vaccination doses is essential for effective implementation.
- **Responding to Community Concerns:** Effectively addressing community concerns and encouraging timely uptake of immunization services is a significant challenge. Overcoming vaccine hesitancy, misinformation, and other community-related barriers is crucial for achieving high vaccination coverage rates.

These challenges underscore the complexity and multifaceted nature of implementing successful catch-up vaccination strategies in Cameroon. Addressing these obstacles will be key to improving immunization coverage and reaching zero-dose and under-vaccinated children effectively.

What's Next:

- Integrate DHIS2, routine immunization data, the Big Catch-up data, and IASO data, for seamless data management and improved programme responsiveness.
- Focus on overcoming challenges like changing healthcare worker habits, ensuring continuous vaccine availability, and responding to community concerns.

LESSONS FROM CAMEROON ON ADAPTING HEALTH INFORMATION SYSTEMS FOR THE BIG CATCH-UP

1. **Policy Development and Approval:** Involve key stakeholders like the National Advisory Group on Immunization and the Inter-Agency Coordination Committee to ensure broad support and effective implementation of catch-up policies.
2. **Prioritization and Contextual Adaptation:** Prioritize districts based on the number of zero-dose children and contextual challenges (e.g., insecurity, urban areas, difficult geography) to direct resources where most needed.
3. **Real-Time Monitoring Tools:** Implement digital platforms like IASO WEB and Cameroon Collect for timely and accurate data collection and monitoring.
4. **Data Analytics:** Regularly reconcile vaccine distribution data and use analytics to inform decision-making, ensuring timely and actionable insights.
5. **Training Programs:** Invest in extensive training for community health workers and healthcare personnel to effectively use new monitoring tools and implement catch-up activities.
6. **Structured Vaccination Campaigns:** Conduct catch-up vaccination campaigns in multiple rounds with clear schedules, integrating them into routine immunization services.

7. **Stakeholder Engagement and Communication:** Ensure clear communication and active involvement of all relevant parties through structured dissemination of policies and regular engagement.
8. **Flexibility and Agility:** Maintain flexibility and agility in health information systems to quickly respond to emerging challenges and changing circumstances.
9. **Feedback from Field Workers:** Regularly gather and act on feedback from frontline health workers to continuously improve immunization programs.
10. **Data Integration:** Plan in advance to create systems that allow seamless integration of different data sources (i.e., routine immunization and Big Catch-up activities).

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