

BACKGROUND:

- Immunization is the most cost-effective public health intervention, providing children with protection from vaccine-preventable diseases (VPDs). Vaccines prevent debilitating illness and disability, and save millions of lives every year. Despite the overall success of immunization programs to date, it is estimated that almost 11 million children under 5 years of age die each year globally from VPDs. Especially in developing countries; immunization achievement is still far from the universal target which is less than 95% coverage rate, leading to preventable mortality.
- Equity in access to vaccination remains a challenge and coverage rates vary greatly among countries. Even within countries, where there is greater potential for consistent resource allocation, coverage is uneven. In developing countries that have a poorly functioning health system, it is difficult to ensure equity of access to immunization and, as a result, there may be a high degree of variability in immunization coverage.
- Though currently, Ethiopia has witnessed good improvement in immunization coverage due to the health extension program which deployed more than 30,000 health extension workers at kebele level and the construction of health posts closer to the community.

STUDY OBJECTIVE:

- To assess immunization service availability and readiness in PHCUs in pastoral and semi-pastoral regions of CORE Group Polio Project (CGPP) Ethiopia implementing districts.

METHODS:

- Facility-based cross-sectional survey was conducted between 14–23 August 2016 in 860 PHCUs (all health centers in CGPP implementation areas and three randomly selected HPs in areas where the HC catchment has more than three HPs under each HC catchment area) in 85 CGPP implementation districts.
- Observation checklists were filled by trained data collectors for all study PHCUs. Data were collected on the 860 PHCUs (227 HCs and 633 HPs) using an observation checklist. Double data entry using Epi Data was employed and analysis was done using STATA version 12.

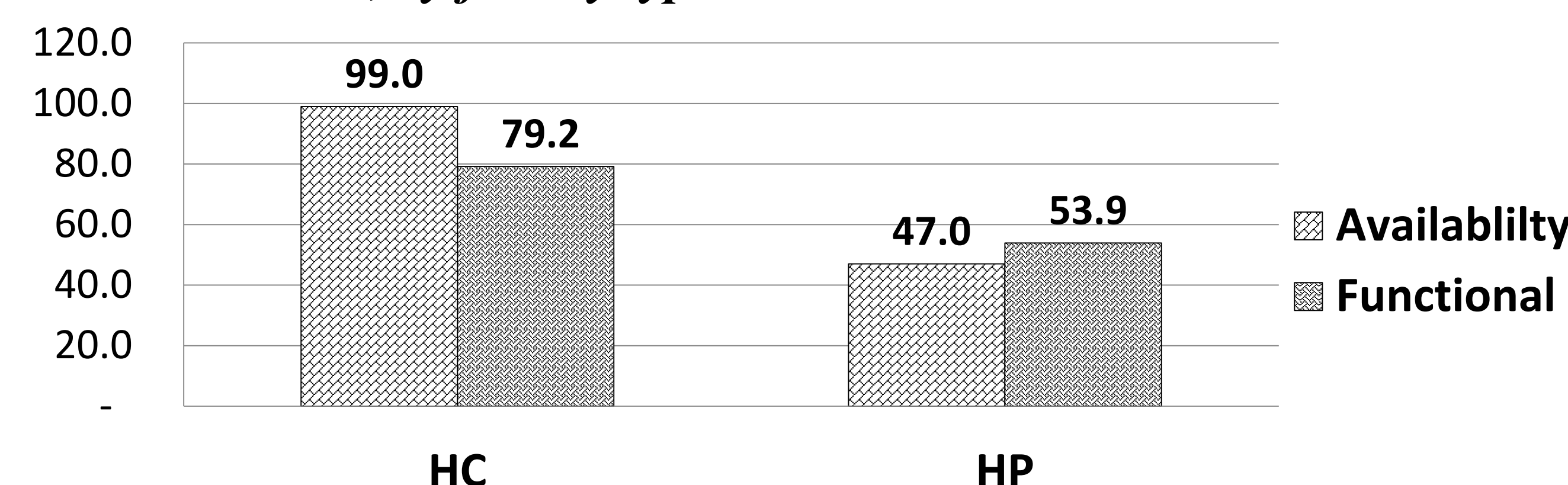
RESULTS:

- A total of 860 PHCUs 227 (26.3%) health centers (HCs) and 633(73.7%) health posts (HPs) were observed in 85 CGPP implementation districts.

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- On service provision, 626 (92%) of the PHCUs (99.6% of HCs and 89.7% of HPs) reported providing immunization. Moreover; only 156 (18.1%) facilities (36.2% of HCs and 11.7% of HPs) were observed and 279 (32.4%) PHCUs (56.3% of HCs and 23.8% of HPs) were reported providing the service on the day of the survey. The vast majority (86%) of the PHCUs have at least one staff member trained on EPI, and over half of the PHCUs found to have the national/regional immunization guideline (65.5% of HCs and 47.2% of HPs).
- **Availability of cold chain:** From the total observed PHCUs, 505 (58.7%) had refrigerators for vaccine storage (99.1% of HCs and 47.2% of HPs), of which 328 (65%) were functional (78.7% of HCs and 53.9% of HPs)

Graph 1: Availability and functionality of refrigerators in the primary health care units, by facility type.



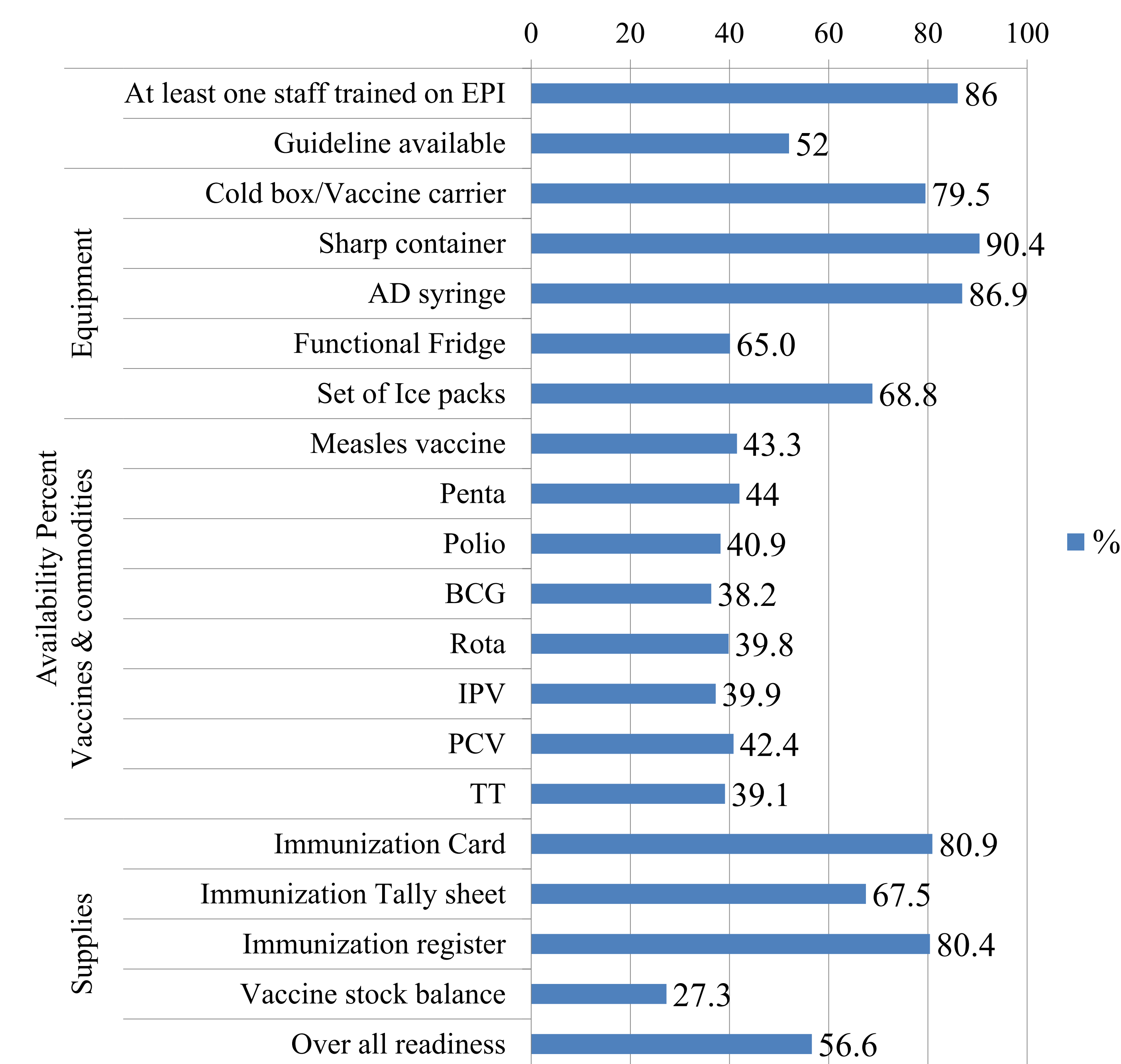
- **Vaccine and equipment:** The study findings showed that 765 (90.4%) of the observed PHCUs had sharps containers/safety boxes. Moreover, 735 (86.9%) have AD syringes ,430 (51.4%) diluents, 579 (68.9%) droppers and 553 (65.8%) of the observed PHCUs have 5ml mixed syringes.
- Regarding the availability of antigens on the day of the assessment, 90.5% of the HCs and 26% of the HPs had measles vaccines; 84% of HCs and 25.1% of HPs held OPV; and 92.3% of HCs and 26.3% of HPs stocked pentavalent vaccines. The majority of the observed antigens were found to be not expired.

Table 1: Percentage of vaccine availability and vaccine validity in assessed Primary health care units, by facility and vaccine type

Vaccine Type	Availability of vaccine			Invalid vaccine		
	HC	HP	Total	HC	HP	Total
BCG	84.2	21.2	38.2	3.7	7.1	5.1
Inactivated polio	86.9	22.4	39.9	7.8	5.2	6.7
Measles	90.5	26	43.3	4.5	3.8	4.2
Oral polio	84	25.1	40.9	5.4	7.9	6.6
Pentavalent	92.3	26.3	44	4.9	4.4	4.7
Pneumococcal	89.5	25.2	42.4	3.6	4	3.7

- All the observed PHCUs (860) were assessed on their readiness to provide immunization service based on the availability of the 19 tracer items, as shown in figure below.

Graph 2: Percentage of primary health care units' that were ready to provide immunization service, CGPP implementation area



CONCLUSION AND RECOMMENDATION:

- All PHCUs are expected to provide routine immunization service daily at the facility in order to avoid immunization missed opportunities. However, this study showed that only 36.2% of HCs and 11.7% of HPs were observed providing the service during the survey period. This may be due to the variation in the observation time and the health facilities' vaccination schedules.
- The majority of the PHCUs were not observed providing immunization service at the facility on the day of the assessment. This may be due to the unavailability of functional refrigerators to store vaccines in the PHCUs (especially the HPs), resulting in low antigen availability during the data collection period.
- Equip all PHCUs, especially HPs, with functional refrigerators and provide regular maintenance, Make available all immunization antigens and schedule immunization service daily at PHCUs to avoid missed opportunities, Make the EPI guideline available in all PHCUs.

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Contact address : Tenager Tadesse, CORE Group Polio Project Ethiopia
Email: tenagert.cgpp@gmail.com