Understanding Service Readiness of Primary Healthcare Facilities in Bhavnagar, Gujarat

Harsha Joshi, Akriti Mehta, Krishna D Rao, Yifeng Zhao, Ankita Shah, Tapasvi Puwar, Anish Sinha

Evaluating service readiness of health facilities provides insights into their functional status and helps identify areas for quality improvement. In this note we discuss findings from a service readiness assessment of Sub-health centres in Bhavnagar district of Gujarat. Implications of the study findings for the Health and Wellness Center program to deliver comprehensive primary health care is discussed.

Background

The Ayushman Bharat- Health and Wellness Centre (HWC; now known as Ayushman Arogya Mandir or AAM) initiative was launched by the Government of India in 2018 to strengthen the delivery of comprehensive primary health care services (CPHC). The initiative focused on enhancing structural and process quality at Sub-health centres (hereafter referred to as SC-AAMs) and Primary health centres to enable them to deliver comprehensive primary health care (CPHC) close to communities. The national guidelines for AAMs define twelve service packages that these centres must offer. These include six pre-existing service packages that have historically been rendered and six "newer" ones (enlisted in Table 2).[1]

The service availability and readiness assessment (SARA) developed by World Health Organization (WHO) provides a comprehensive approach to assess the capacity and supply of health services at the facility level using a standard set of tracer indicators and summary measures.[2] These measures reflect the extent to which minimum standards for service provision are met at health facilities.

In Bhavnagar district of Gujarat, and in collaboration with the district health authorities, a facility assessment was conducted at 40 SC-AAMs to evaluate their preparedness and capacity to deliver the twelve service packages as outlined in the guidelines.

Map of Gujarat state with highlighted Bhavnagar district

The key findings from the assessment are presented in the following section, while the methodology is described in the last section.

Key findings and implications

1. Sampled SC-AAMs had good structural capacity, in terms of availability of basic equipment, required staff, and infection control practices. However, there were gaps in availability of basic infrastructure for safe water, private space for examination, and adequate sanitation facilities. These infrastructure gaps can negatively impact staff motivation, service delivery and patient satisfaction.[3,4]

2. Compared to some early AAM facility assessments in the literature, we observed improvements in average availability of essential medicines and diagnostics[5]. Nevertheless, only a few facilities were providing all essential tests and medicines.

3. Among all service packages, service readiness for non-communicable diseases (hypertension and diabetes) was the highest. This finding aligns with the high policy priority given to screening and management of common non-communicable diseases.

4. Service readiness for other newer services such as mental health care, eye-ENT care, oral health care, elderly and palliative care, and emergency care is low. Although most community health officers (CHOs) are trained on these service packages, further efforts are necessary to equip health facilities with necessary medicines and equipment for operationalizing these services.

5. Some facilities reportedly did not offer essential pre-existing reproductive health services such as care for reproductive tract infection/sexually transmitted infections, etc.

Results From the Service Readiness Assessment

Service readiness comprises two components- general service readiness and service specific readiness.

General service readiness reflects the overall capacity of health facilities to provide basic services at minimum standards, assessed under six domains (refer to Table 1 for domain-wise tracer items under general service readiness).[2]
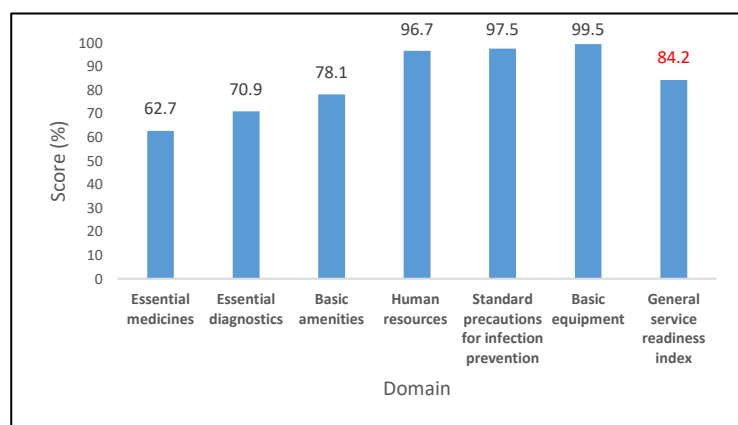

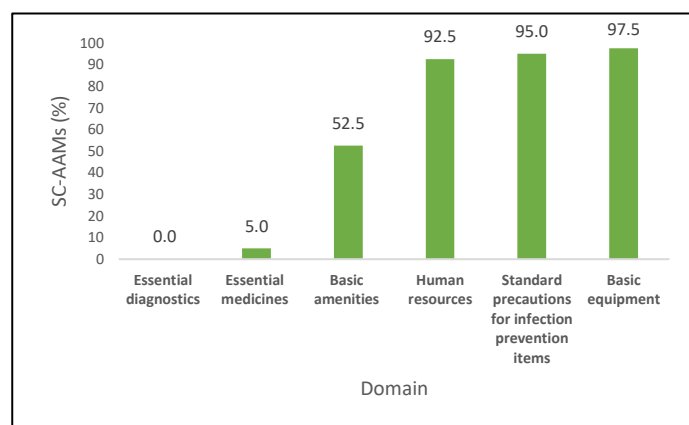Figure 1: General service readiness at SC-AAMs (n=40)

Figure 2: Extent of availability of all tracer items for general service readiness (n=40)

- Among the sampled SC-AAMs, the general service readiness score was 84, indicating that on average, 84 percent of items required for providing general health services were available in the sampled SC-AMMs (Figure 1).
- Facilities had good availability of staff, basic equipment, and standard precautions for infection prevention.
- There were large gaps in availability of essential medicines and diagnostics. On average, facilities had 71% of the essential diagnostics and 63% of the essential medicines (Figure 1). In particular, no facility offered all 14 essential diagnostics, while only 5% of facilities reported availability of all 105 essential medicines (Figure 2).
- On average, 78% basic amenities were available among the sampled SC-AAMs (Figure 1). Electricity availability was observed in most of the facilities (97.5%), followed by water availability (82.5%), and designated private space for examination (75%). Separate functional toilets for male and females were observed in only 58% facilities. Just over half of the facilities (53%) had all required basic amenities available (Figure 2).

Service availability at SC-AAMs refers to self-reported extent of service packages offered at a facility.

- 85% of the facilities reported offering all twelve service packages. A small percentage of facilities reported not providing packages related to reproductive health services such as care for RTI/STI (8%), adolescent health services (5%), and mental health services (5%) respectively. Only those facilities that offered the specific service were further assessed for their readiness to provide that service.

Service-specific readiness reflects the capacity of health facilities to provide each services package as per the operational guidelines[1]. This capacity was determined by the availability of medicines, equipment-screening tools, and requisite training of the Community Health Officer at SC-AAMs (refer to Table 2 in methods section for services included and readiness score calculation).
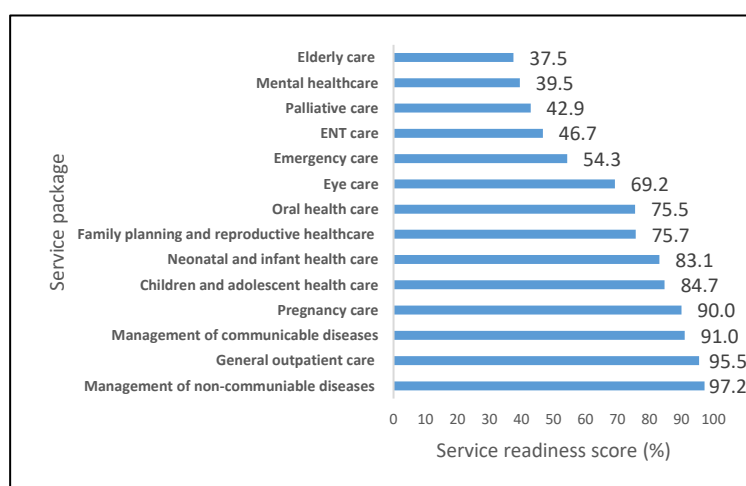
**Figure 3: Service-specific readiness of SC-AAMs**
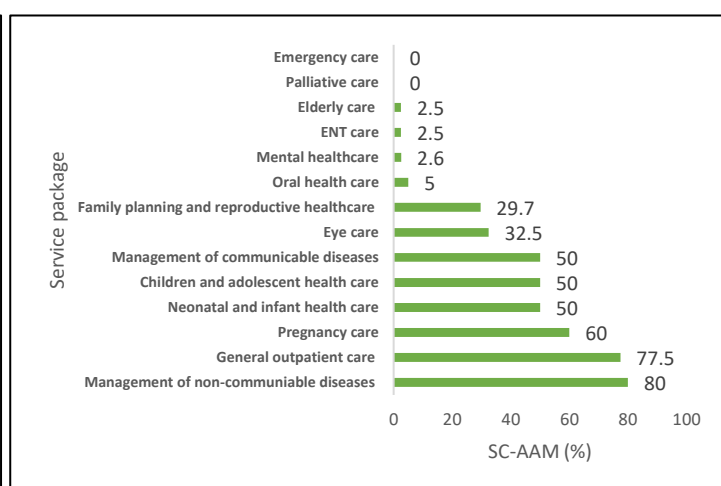
**Figure 4: Extent of availability of all tracer items for various services**

Note- Service specific readiness score is calculated for only those facilities that reported service specific availability. Therefore, denominators vary across services: 1. Child and adolescent care (38), 2. Family planning and reproductive health (37), 3. Communicable disease (39), 4. Mental health (38), and 5. All other services (40).

- The service readiness score for non-communicable diseases was the highest at 97, indicating that on average, 97 percent of required inputs of medicines, diagnostics and training were available at sampled SC-AAMs (Figure 3). High service readiness scores were observed for pre-existing service packages such as general outpatient care (96), pregnancy care (90), children and adolescent health care (85), neonatal and infant health care (83), and family planning and reproductive health care (76). Readiness scores for many newer service packages, namely, elderly care, ENT care, palliative care, and mental health care were below 50.

- No facility reported availability of all tracer items for palliative and emergency care services (see Figure 4). All tracer items for elderly care, ENT care, mental health care and oral health care services were available at no more than 5% of sampled facilities. On the other hand, over 75% facilities were equipped with all tracer items for non-communicable diseases and general outpatient care services. Between 50-60% facilities reported having all items for pre-existing service packages for pregnancy, child health care, and management of communicable diseases (Figure 4).

See Figures 5,6, and 7 for domain wise results for service readiness.
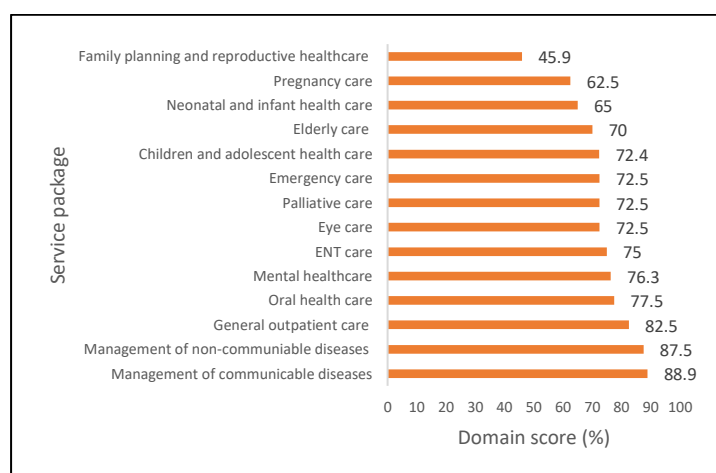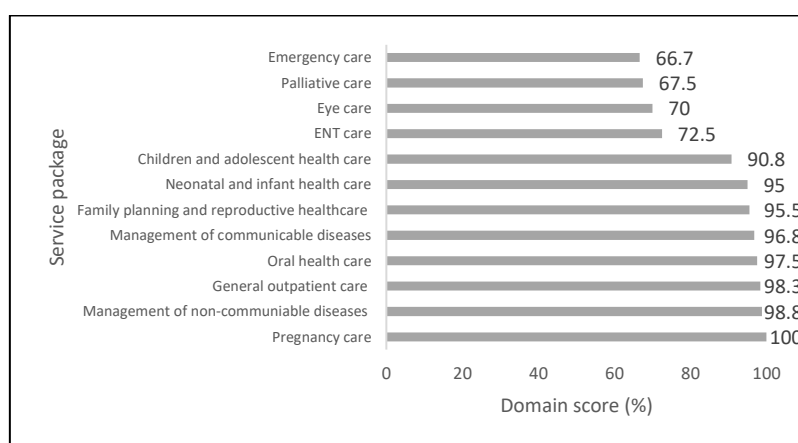

Figure 5: Training domain score for each service
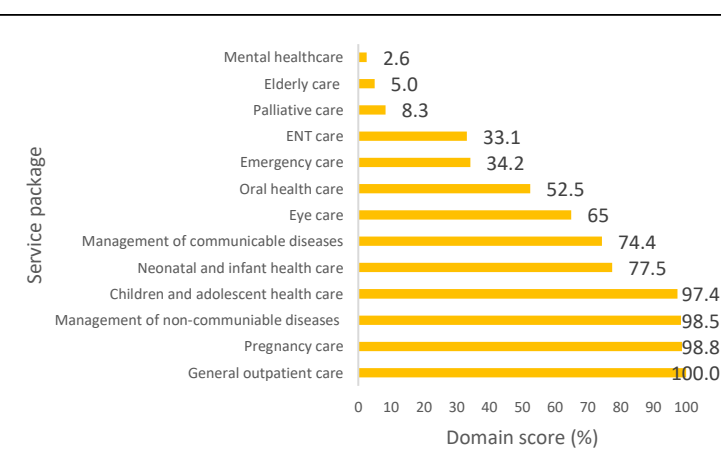
Figure 6: Equipment/tool domain score for each service

Note- No tracer equipment were identified for the specific services on family planning and reproductive health care, hence the package is not considered for equipment domain score calculation.

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Figure 7: Medicine domain score for each service

Note- No tracer medicines were identified for specific services on elderly care and mental health care, hence the packages are not considered for medicine domain score calculation.

- Most CHOs (70% and over) reported receiving training in all newer service packages and the pre-existing communicable disease and general outpatient care services; however, fewer CHOs received training on the pre-existing services for pregnancy (63%), reproductive health (46%), and infant health care (65%) in the last two years (Figure 5).
- Barring non-communicable diseases, gaps were observed in equipment and medicines availability for newer services.
- Equipment and screening tools availability was reported low (below 9%) for mental health, palliative and elderly care (Figure 6).
- Medicine availability was reported low (below 80%) for emergency care, palliative, eye care and ENT care (Figure 7).

Key steps in methods

1. Modified WHO's SARA tool to Indian context and policy priorities: this was done through AAM program guideline reviews and consultations among IPSI partners. Tracer items were identified for: (i) general service readiness (see Table 1) and (ii) service specific availability and readiness (see Table 2) for the twelve service packages. A facility survey questionnaire was drafted.
2. Pilot tested questionnaire, trained field investigators: the questionnaire was pilot tested at SC-AAMs in Bhavnagar; revisions were made based on operational feasibility and district context.
3. Collected facility data: facility level data were collected through interviews with CHOs and facility observations at 40 SC-AAMs across 4 blocks in Bhavnagar in November 2024. Facility selection was informed by the team dynamics intervention under IPSI. Data were entered into an Epicollect online tool.
4. Analysed data: Data for tracer indicators were aggregated through unweighted means into domains and analysed as per the SARA guidelines[6] to arrive at (1) general service readiness scores for CPHC and (2) specific service readiness scores for each service package, among sampled SC-AAMs.

Table 1: Domain wise tracer items under general service readiness

Sr. No.	Domain	Tracer items and score calculation
1	Basic amenities	Mean availability of 4 tracer items (%): electricity, safe water source, private space for examination/counselling, separate functional toilets for male and females.
2	Basic equipment	Mean availability of 5 tracer equipment (%): weighing scale, thermometer, stethoscope, BP apparatus, LED torch
3	Standard precautions for infection prevention	Mean availability of 3 tracer items (%): sharps container, color-coded bins for waste segregation, 70% ethyl alcohol, or any other antiseptic.
4	Essential diagnostics	Mean availability of essential tests (14) as per the national guidelines[7] (%): haemoglobin, urine pregnancy test, urine test for protein, glucose, blood glucose, rapid card tests for malaria, HIV (antibodies to HIV1 and 2), dengue, syphilis, filariasis (in endemic areas only), hepatitis B, test for iodine in salt, water testing for faecal contamination and chlorination, sample (sputum) collection for TB.
5	Essential medicines	Mean availability of essential medicines (105) as per the national guidelines[8] (%)
6	Human Resources	Mean availability of minimum staff requirement as per the AAM guidelines[1] (%): one community health officer, one female health worker, one male health worker.
	General service readiness index	**Mean score of the six sub-domains (%)-Basic amenities, basic equipment, standard precautions for infection prevention, essential diagnostics, essential medicines, and human resources.**

Table 2: List of services assessed for availability and readiness and service readiness score calculation

Sr. No.	Services assessed at SHCs as per the AAM guidelines[1]	Domains and score calculation
	Pre-existing services	• **Service readiness score**: For each service, the readiness score was computed as the mean availability of service-specific tracer items in three domains-
1	Pregnancy care	
2	Neonatal and infant health care	
3	Children and adolescent health care	1. Training of CHO on the service in the last two years (including refresher training)
4	Family planning and reproductive healthcare	2. Availability of tracer equipment and screening tools for the service
5	Management of communicable diseases	3. Availability of tracer medicines for the service
6	Outpatient care for acute simple illnesses and minor ailments	
	Newer services introduced at AAMs	
7	Management of non-communicable diseases	• **Domain score**: For each service, within each domain, a mean score was calculated across the tracer items to inform about the three domains.
8	Care for mental, neurological and substance abuse disorders	
9	Oral health care	
10	Eye care and Ear, Nose, Throat (ENT) care	
11	Elderly care and palliative care	
12	Emergency care	

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Contributors

All India Institute for Medical Sciences, Delhi: Mohan Bairwa

State Health Systems Resource Centre, Gujarat: Ankita Shah

Bhavnagar Zilla Parishad: Chandramani Kumar Prasad, M D Malaviya

Indian Institute of Public Health, Gandhinagar: Tapasvi Puwar, Anish Sinha, Ekta Ambaliya, Archan Patel, Arpana Padvi, Piyush Murdhani

Johns Hopkins University: Akriti Mehta, Krishna D. Rao, Yifeng Zhao

Johns Hopkins India Pvt. Ltd.: Harsha Joshi