



## Evaluation of Benefits and Effectiveness Of Outreach Health Care Services At Rajamahendravaram, Andhra Pradesh

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Type of Publication: Original Research Paper

Conflicts of Interest: Nil

### Abstract

**Introduction:** The health camp idea has been recommended to increase access to healthcare in neighborhoods near people's homes. It is imperative to invest in free health camps.

### Objectives:

- 1) To study the sociodemographic data of beneficiaries who attended outreach health services at Rajamahendravaram, East Godavari
- 2) Evaluating the benefits of the outreach health services.
- 3) Assessing the effectiveness of health care services provided at health service.

**Methodology:** It is a community-based Cross-Sectional study done at randomly selected 4 rural areas under 4 sachivalayas at Rajamahendravaram, east Godavari district from 30-09-2023 to 3-10-2-23. The beneficiaries who gave consent to participate in the study were included by simple random sampling. A total of 709 participated in the study. Socio-demographic data is obtained by semi semi-structured questionnaire. A pre-tested self-administered questionnaire to obtain data regarding the satisfaction of beneficiaries. Data collected is spread on an Excel sheet. Analysis done on SPSS software (trial version 26)

**Results:** Of total 709, 36% are males and females 64%, the mean age of beneficiaries is 51.43+/- 13.4 SD. 38.4% of participants reported, outreach health activity greatly benefited them. Overall feedback for the outreach health service given by the Examiners was good.

**Conclusion:** The recipients expressed gratitude for the occasion and requested similar camps be held in future. The beneficiaries and organizers of the camp disclosed that it was need-based.

**Keywords:** Auxiliary Nurse Midwife (ANM), Rural Health camps, Sachivalayas

### Introduction

The health camp idea has long been recommended as a way to increase access to healthcare in neighbourhoods near people's homes. This was a commonly used tactic after the National Health Mission (1). Everyone has the right to health care, but lack of skilled medical experts, inadequate infrastructure, and logistic issues prevent rural

population from accessing basic medical treatment and pharmaceuticals. (2)

Excellent health is without a doubt, the greatest treasure. Every year on April 7th, "World Health Day" is commemorated under the World Health Organization's auspices to raise awareness of the importance of health.

In India, reaching the optimal standard of healthcare is a dynamic process that calls for cooperation from all organizations, communities, and individuals. It is imperative to invest in free health camps. There isn't another way to help as many Indians as you can.

Health camps are crucial for providing healthcare in remote areas, increasing public awareness of the problem, and promoting preventative treatment. They are useful solution to the high incidence of preventable illnesses, diseases. The health outcomes of rural residents can be significantly impacted by supporting health camps, healthcare organizations, non-governmental organizations, and government agencies.

India's southern coastline region is home to the state of Andhra Pradesh. According to the 2011 Indian Census, Andhra Pradesh has 49,577,103 residents, making it the tenth most populous state. It is the seventh largest state, covering an area of 162,970 km<sup>2</sup> (62,920 sq mi). There are 53% rural and 29.47% urban people in the country (3).

The Andhra Pradesh government has organized a program across the state from September 30. Village Health Clinic (VHC) across the state to improve the health of the people of the state and create awareness.(4)

The goal is to raise public awareness of health issues and provide campaign-style care for citizens' medical needs. There are two main parts to the program:

- 1) Door to Door campaign to identify the health needs of the citizens,
- 2) Health Camp for consultation, treatment and referral.

ANMs (Auxiliary Nurse Midwife) will visit homes door to door and perform any required testing. They will make the whole case records and the results available to the doctors. On the day of the health camps, the citizens can consult with the doctors. The medical professionals will assess the patients and recommend any required drugs. Patients will be sent to higher centres if they need additional diagnosis and treatment. In particular, the program targets children with the 4Ds, women who are pregnant or nursing, people with NCDs/CDs, and chronic patients in all homes.

As part of this campaign, volunteers will conduct an awareness campaign on how to get medical services in Network Hospitals under the Aarogyasri program. Through volunteers, the Aarogyasri Citizen App will be downloaded onto Citizen devices. Health Camp will preferably held in sites like schools, anganwadi centres, Community Centres / Village Health Clinics in rural areas or in urban PHCs in Urban areas during the day.

**DOOR TO DOOR ANM/CHO**

1. **ANM/CHO attends D2D** asks questions about various aspects of health, performs necessary tests, and enters test findings into the app.
2. **DELIVERS TOKEN NUMBER** -to attend on camp day.
3. **FILL THE FORM ON THE APP** Need to ask the question and record their answer in the app.
4. **HANDOVER AAROgyASRI PAMPHLET** information about Dr. YSR Aarogya Aasara and how to use the Aarogyasri services. Install the Aarogyasri Citizen APP.
5. **EXPLAIN ABOUT CAMP** Must describe the JAS Health camp, including the date, time, and location.

**JAS CAMP DAY**

**Visit Camp At The School**

**Registration Desk**

**Consultation Of The Doctors**



**Undergo Tests Like ECG And Get The Medicines.**



**Refer Patient To Higher Centre For Required Treatment On Cashless Under Dr. YSR Aarogyasri.**

This research primarily focuses on evaluating the benefits and assessing the effectiveness of this health care service at Rajamahendravaram, Andhra Pradesh.

**Methods And Materials**

Community-based Health camps have been organized in Andhra Pradesh since September 30<sup>th</sup>, 2023. This is a community-based cross-sectional study done at Rajahmundry.

4 sachivalayas were selected randomly on 4 different dates in Rajahmundry, East Godavari district. All 4 belongs to rural area namely Vemagiri, Hukum Peta, kambalpeta, and Namavaram. Prior permission and approval is taken from institutional ethics committee. We have included all the beneficiaries attending the health camps on those scheduled days of camp which were announced in the community prior with proper IEC and who gave consent for participation in the study. Those who didn't give consent were excluded from the study. A total of 2756 beneficiaries attended the camps, only 709 were included in the study by simple random sampling.

A validated questionnaire is used to gather the sociodemographic information, which includes the

beneficiary's gender, age, education, occupation, and family type. To determine the range of disease patterns among the beneficiaries, information is gathered about the complaints that each beneficiary has presented to the camp.

By using a questionnaire to gauge beneficiary satisfaction, the health camp's efficacy is evaluated. The questionnaire has been pre-tested and is self-structured. This is a validated questionnaire which has a Cronbach alpha value of more than 0.6. There are ten questions total, and each one has four possible answers: excellent, good, average, and poor (4 points likert scale).

The questionnaire consists of questions pertaining to satisfaction of services provided like satisfied with the availability of specialist doctor, Availability of prescribed medications, Adequacy of seating and waiting areas, Availability of clean drinking water and restroom facility, Information and guidance provided to patients, Received bag, folder, and case sheet.

A team of doctors from the Department of Community Medicine evaluated the program and findings were given in terms of man, material, and

services delivered. The external evaluator self-structured checklist with 8 parameters are taken into consideration for grading the quality of services as good, average and poor.

Data was collected in google sheets and exported it to MS-Excel. SPSS version 26 (trial version) is used for data analysis. Data is presented using descriptive statistics, frequency, and percentages.

## Results

Of the 709 beneficiaries, 260 (36.7%) were males and 499(63.3%) were females. The minimum age group is 21 years and the maximum age is 80 years. The mean age of the study participants is 51.43+/-13.4 standard deviation.

Table 1 shows the socio-demographic characters of the study population. The age group of 51–65 years makes up the majority of study participants (45.5%), followed by that of 36–50 years (23.3%), while those above 65 years old make up only 12.6% of the study population.

About 42% of study participants lack formal education, 51.1% of the population is unemployed, and 61.2% of individuals are part of a nuclear family. Approximately 2.4% of the senior population was living alone. They are included in nuclear.

Figure 1 shows the spectrum of disease patterns of the camp beneficiaries. The ophthalmology department at the Camp drew in 30.3% of beneficiaries, with orthopaedics coming in second with 16.2%. followed by minor medical conditions for General Medicine (OPD), children's OPD (8.5%), surgical OPD (6.2%), and very few beneficiaries to skin and ENT OPD.

The results of TABLE 2 show how satisfied people are with the health camps. This gives the effectiveness of the camp. According to results, camp Beneficiaries were pleased with the first medical examination they had, which included monitoring their height, weight, and vital signs by the Health Worker during house-to-house visit. They were also pleased with the registration procedure which was also done by ANM/Health Worker and the staff's explanations and attitude toward them. Additionally, they expressed satisfaction with the camp's management about the location, cleanliness, infection

control procedures, and referrals to the more advanced medical facility.

In a similar vein, their sense of satisfaction was influenced by the availability of drugs for daily use and meeting their perceived demands. They were also provided with a kit which comprise of bag with a folder and case sheet. Many recipients expressed satisfaction with the camps' overall functioning with 38.4% of participants reported that the camps had greatly benefited them, compared to 57% who were pleased with the camp. Of those who provided comments, 4.4% stated they had not benefited much and 0.3% claimed they had not benefited at all.

TABLE 3 shows the evaluation which was done by a team of doctors from the Department of Community Medicine.

The four camps that were visited on four different days have differed in shelter type and area. The camp starts at 9am in the morning with 2 medical officers and 2 specialist doctors, an optometrist, and pharmacist along with ASHAS ANMS, AWWs with food stalls, and lab technicians and trained MLPS with 2 staff nurses on weekdays. There is also one 104 ambulance to transport cases to the local hospital. Number of beneficiaries attending the camp per day ranged from 350-450.

According to SoP, banners, and standees were put up at the encampment to indicate the location. When it came to camp arrangements, MPDO/MRO was there and coordinated with the medical officers. DEOs were set up to enter patient information. The camp commenced punctually, with patients using the token system and being supervised by the assigned staff ASHA.

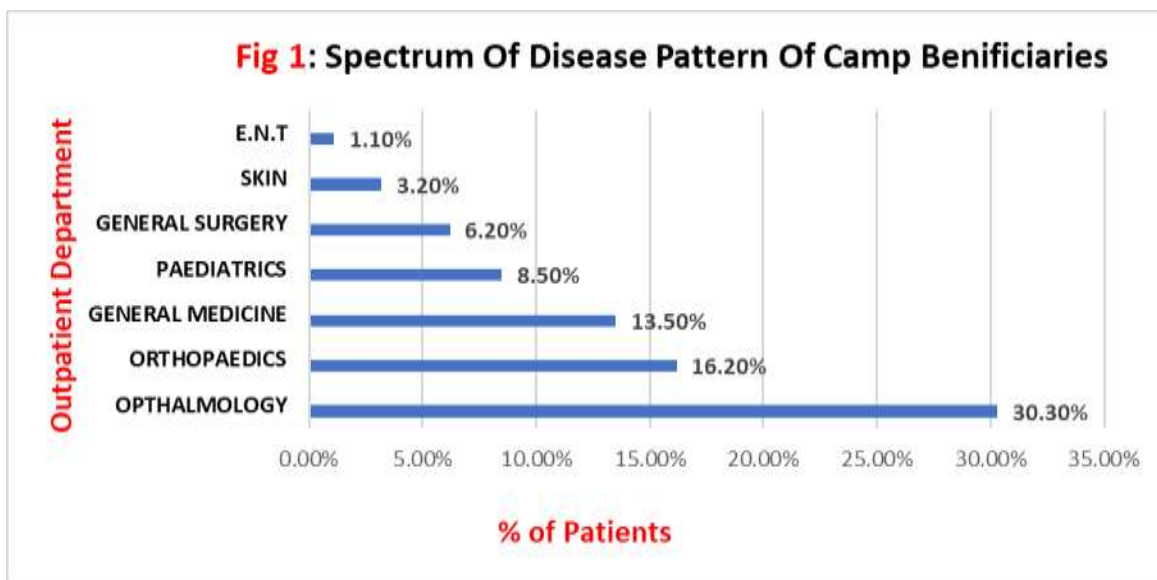
A dedicated room is given to each doctor to perform OPD; Specialist medical professionals who offer Arogya Sri services come from both private and public hospitals. Appropriate Arogya Sri referrals are upheld. The female patients can be screened in private. At every counter, a minimum of six members' seats were reserved. For nearly all of the patients who visited the camp, case sheets were created. The campsite had a enough supply of bags and folders.

Basic refractory errors are assessed at separate eye screening counters with an optometrist and referred to an ophthalmologist for additional care. The

campsite has all the essential medications along with diagnostic tools like Hb %, BP, RBS, and an ECG facility. PHCs are connected to the camp's patients for follow-up care. Patients who need specialized care are tagged to district, sub-district, and Community Health Centers.

Anganwadi Workers set up separate nutrition stalls where they offered a variety of foods and how they were prepared with readily available items that they created and their nutritional contents.

All 8 parameters in the checklist of the assessors were almost fulfilled. So, Overall feedback for the Camp given by the Examiners was good.



**Table 1: Sociodemographic Data of Study Participants**

Variable		N	%
Gender	Male	260	36.7%
	Female	449	63.3%
Age distribution	21-35	132	18.6%
	36-50	165	23.3%
	51-65	322	45.5%
	>65	89	12.6%
Education	Illiterate	298	42.0%
	Primary	276	38.9%
	Secondary	111	15.6%
	Graduate and above	33	4.5%
Occupation	Unemployed	365	51.1%
	Farming/daily wage	267	37.7%
	Employed	39	5.5%
	Business	23	3.2%

	Retired	15	2.1%
Type of family	Nuclear	434	61.2%
	Joint	275	38.8%

**Table 2: Satisfaction Of Beneficiaries Towards Services Provided at Camp.**

S.NO	QUESTIONS	EXCELLENT	GOOD	AVERAGE	POOR
1)	Are you satisfied with the availability of specialist doctor	425(59.9%)	271(38.2%)	11(1.6%)	2(0.3%)
2)	Doctor willing to listen and address your concern	433(61.1%)	257(36.2%)	17(2.4%)	2(0.3%)
3)	Availability of prescribed medications	374(52.8%)	292(41.2%)	39(5.5%)	4(0.6%)
4)	Information provided about medication usage and side effects	278(39.2%)	380(53.6%)	43(6.1%)	8(1.1%)
5)	Adequacy of seating and waiting areas	355(50.1%)	294(41.5%)	58(8.2%)	2(0.3%)
6)	Availability of clean drinking water and restroom facility	369(52.0%)	284(40.1%)	51(7.2%)	5(0.7%)
7)	Information and guidance provided to patients	370(52.2%)	291(41%)	45(6.3%)	3(0.4%)
8)	Received bag, folder, and case sheet.	523(74%)	175(24%)	8(1.1%)	1(0.1%)
<b>OVERALL FEEDBACK</b>		<b>272(38.4%)</b>	<b>404(57%)</b>	<b>31(4.4%)</b>	<b>2(0.3%)</b>

**Table 3: Services Provided at Camp- Examiner Evaluation.**

S.No		Camp Site-1	Camp Site-2	Camp Site-3	Camp Site-4
1.	Did the camp start on time?	No	Yes	No	Yes
2.	Is the token system followed at camp?	Yes	Yes	Yes	No
3.	Whether the nutrition stall placed	Yes	Yes	Yes	Yes
4.	Availability of sufficient bags and	Yes	Yes	Yes	Yes

	folders				
5.	Availability of 2MO, 2 Specialist doctors	Yes	Yes	No	No
6.	Special rooms for OPD	Yes	No	Yes	Yes
7.	Privacy for screening female patients	Yes	Yes	Yes	Yes
8.	Is Arogya Sri referral system maintained properly	Yes	Yes	Yes	Yes

**Discussion**

Health camps are transient, mobile interventions that typically last one to seven days for the target population. The rural population benefited from having access to on-site medical care because of these camps. Health camps are useful to the community and are also accepted by them, according to other studies like one by Mwala et al. [5] This is especially true in places with low income and shortage of staff.

Due to their challenging topography, many of these rural towns are still isolated from larger cities, which has enhanced their general state of health. Interprofessional collaboration was another outcome of these programs. This will enhance societal health in general and realize the dream of integrated healthcare with a patient-centered approach.

The individuals with NCDs have benefited greatly from the Camp. NCDs are just the tip of the iceberg. The illness is not well known to many individuals. Due to the ANMS door-to-door survey and their subsequent investigations, cases of hypertension and diabetes were discovered. They received timely therapy as soon as possible after an early diagnosis.

At the camp location, there was a functional referral pathway that has been used to refer numerous instances. Most of the cases involved cataract surgery in ophthalmology. The government of Andhra Pradesh has authorized cataract surgery for all patients who attended Camps through government hospitals and private facilities that have been approved by Arogya Sri facilities

The majority of the beneficiaries are satisfied with the services. In certain locations, there are several factors that prevent the availability of specialized services, chief among them being poor

communication. In several locations, technical issues caused a delay in the camp's commencement.

The impact of clinical health services on populations affected by conflict is influenced by two primary aspects of health service delivery: the effectiveness and sufficiency of the services. These elements can be measured using specific indicators, such as the percentage of outpatient consultations, the percentage of sickness episodes for which appropriate care was sought, and the average amount of time spent waiting to seek medical attention. [7]

The beneficiaries have expressed their satisfaction with the following: the quality of care provided, the early health examinations, location, and duration of the camps; the staff's attitude and the physician's explanations; the waiting period; the team's adherence to infection control protocols; and the high-quality treatment. A related conclusion from past studies indicated that camp attendees were satisfied with the various medical services offered by the camp.[2]

The initial work result reflects that most of the patients who visited health camps were to ophthalmology (30.30%) followed by orthopaedics(16.5%) and gen medicine(13.3%) which agrees with the finding by Amit Bhondave et al, where Most camp participants visited the ophthalmology department (25.4%), secondly general medicine (16.70%)[8]. The population reported reasonable levels of satisfaction and perception toward medical health camps in general. The findings on satisfaction and perception agree with the work by Amit Bhondave et al[8].

The WHO's 2019 theme, "Universal Health Coverage: Everyone, Everywhere," states that it is critical to offer basic primary care to all social classes. Health camps, which may reach even the

most impoverished and backward sections of a community, have emerged as a sensible and workable solution to the problem of providing universal health coverage. Community involvement can speed up prioritizing a given area's specific healthcare needs [6], which will aid in achieving universal health coverage.

### Conclusion

An innovative method of providing primary and necessary health care to remote and challenging places is a medical health camp. Planning ahead and working with several healthcare groups could be essential to the health camp's success. In challenging geographic areas, the use of medical specialists' teams in health camps may prove to be an economical means of achieving the aim of universal health coverage.

### Limitations

This study only included four camps. The observations from larger settings are further required to strengthen these study findings.

### Acknowledgement

Special thanks to the first batch Medical Students of Government Medical College, Rajamahendravaram for their contribution.

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