

## STUDENT SOCIAL RESPONSIBILITY PROJECT PROPOSAL

# BONE DENSITY AND LAB TEST

Date of Submission:

(6/12/2024)

Prepared By  
SSR22-134

### PREPARED For

**Mr. Krishnanunni M V**  
Corporate & Industry Relations  
Amrita Vishwa Vidyapeetham  
Amritapuri Campus

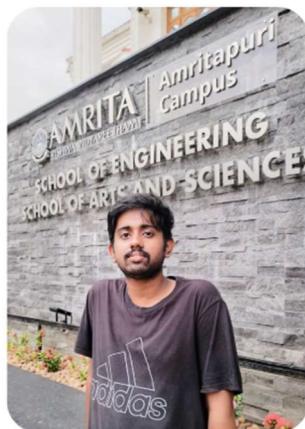
## **Team Members:**



**Siddanth Bhogaju**  
(AM.EN.U4ARE22015)



**Govind G**  
(AM.EN.U4ARE22022)



**ADITHYA POTHLA**  
(AM.EN.U4ARE22026)



**Rthuraj P R**  
(AM.EN.U4ARE22032)



**Revu Danusith Kumar**  
(AM.EN.U4ARE22049)



**Aayush R Pillai**  
(AM.EN.U4ARE22038)



**Kontham Ashiq**  
(AM.EN.U4ARE22040)

## **Acknowledgment**

We extend our heartfelt gratitude to the Corporate and Industry Relations (CIR) department of Amrita Vishwa Vidyapeetham for their invaluable support and encouragement throughout our health camp at Shalem Bhavan, Varenickal. Their backing was instrumental in the successful planning and execution of this initiative.

A special note of thanks is reserved for our mentor Krishnanunni M V, whose unwavering guidance and thoughtful insights helped steer this project to fruition. His expertise, coupled with his motivational leadership, was pivotal in shaping the camp into a meaningful and impactful endeavor.

We would also like to express our deepest gratitude to the dedicated staff and residents of Shalem Bhavan. Their warm cooperation and gracious participation ensured that the event ran smoothly and successfully. Their hospitality and positive engagement fostered a supportive atmosphere that motivated us to give our best.

A sincere appreciation goes to Aayush's father, whose medical expertise and guidance provided us with the essential knowledge and skills to effectively carry out the health screenings and medication distribution. His contribution was key in ensuring the accuracy and professionalism of our efforts.

Lastly, we acknowledge the unwavering commitment and teamwork of every individual who participated in this initiative. From coordinating logistics and preparing the venue to managing tests and documentation, the collective effort of our team members made this event a resounding success.

We are profoundly grateful to everyone who contributed to this camp, directly or indirectly. Your support, collaboration, and encouragement were integral in realizing our shared mission of fostering health and well-being for the residents of Shalem Bhavan.

## Executive Summary

This report outlines a Social Service Responsibility (SSR) project undertaken by a team of students from Amrita Vishwa Vidyapeetham. The event, conducted on October 25, 2024, aimed to provide bone density checkups and basic blood tests for residents of Shalem Bhavan, a psycho-rehabilitation center in Varenickal, Kerala.

The initiative addressed the critical need for early detection of osteoporosis and osteopenia in underserved communities. Despite challenges such as heavy rain necessitating a last-minute venue change, the team successfully conducted over 80 tests with the support of Micro Lab professionals and Shalem Bhavan staff.

The event commenced with an introductory session featuring addresses by Shalem Bhavan members and Dr. Ramesh, followed by a structured workflow that divided responsibilities among the team. Bone density results enabled the distribution of essential medicines, while blood tests were facilitated for further analysis.

Key challenges included adverse weather conditions and the team's limited medical expertise. However, these were overcome through effective teamwork, adaptability, and external support.

The project not only provided crucial health screenings but also fostered a deeper understanding of social service and community needs among the participants. Future initiatives aim to expand similar services to other rural communities, ensuring a broader impact.

## **Table of Contents**

<b>Sl.no</b>	<b>Topic</b>	<b>Page no:</b>
1	SSR at Amrita	1
2	Problem Statement	2
3	Project Objectives	3
4	Activities Undertaken	4-10
5	Challenges and Accomplishments	11-12
6	Project Learning	13-15
7	Conclusion and future work	16
8	Appendix	17-22

## **SSR at Amrita**

Social Service Responsibility (SSR) is a significant initiative at Amrita Vishwa Vidyapeetham that seeks to instill in students a strong sense of empathy, responsibility, and active engagement with society. By bridging the gap between academics and real-world issues, SSR provides students with the unique opportunity to contribute to meaningful causes, thereby fostering holistic growth.

The SSR program enables students to participate in various community-oriented activities, such as health camps, environmental drives, and educational outreach programs. These initiatives are designed to address pressing societal challenges, ensuring that students not only gain hands-on experience but also understand the importance of serving humanity. Through such engagements, participants are encouraged to develop practical skills like project management, communication, and problem-solving.

One of the defining aspects of SSR is its emphasis on teamwork and collaboration. Students work in diverse teams, often comprising individuals from different disciplines, which enriches their perspectives and enhances their interpersonal skills. These collaborations create a dynamic environment where innovative solutions are developed to meet community needs.

Moreover, SSR is not just about addressing immediate concerns; it's about fostering long-term impact. By actively engaging with communities, students learn the value of sustainable development and the importance of empowering individuals to become self-reliant. This focus on sustainable change aligns with Amrita's vision of integrating education with compassion and social responsibility.

For students, SSR serves as a transformative experience. Beyond the skills and knowledge gained, it instills a sense of purpose and fulfilment. The interactions and connections formed during these activities often leave a lasting impression, shaping students into compassionate and socially conscious individuals.

At its heart, SSR reflects Amrita's commitment to nurturing well-rounded individuals who are not only academically proficient but also dedicated to creating a positive impact in the world. It's a program that reminds students that the true essence of education lies in its ability to serve humanity.

## **Problem Statement**

Access to adequate healthcare services remains a significant challenge in rural and underserved communities. Conditions such as osteoporosis and osteopenia, which affect bone health, are often undiagnosed due to a lack of awareness, screening facilities, and healthcare accessibility. Psycho-rehabilitation centers like Shalem Bhavan, catering to individuals with mental health challenges, often face additional barriers in addressing the physical health needs of their residents. Many residents, already grappling with psychological issues, are at risk of neglecting physical ailments that can significantly deteriorate their quality of life if left untreated.

Osteoporosis, a condition characterized by weakened bones and an increased risk of fractures, can have debilitating effects if not diagnosed and managed early. Similarly, osteopenia, often a precursor to osteoporosis, requires timely intervention to prevent progression to more severe stages. Unfortunately, routine health checkups, including screenings for bone health, are not a standard practice in many psycho-rehabilitation centers. This creates a gap in preventive care, leaving residents susceptible to complications that could otherwise be mitigated.

In facilities like Shalem Bhavan, logistical challenges such as limited transportation options and insufficient medical resources further exacerbate the problem. Blood tests, which are vital for diagnosing underlying conditions and assessing overall health, often require residents to travel to distant labs or hospitals, imposing financial and physical burdens. As a result, many residents forego necessary diagnostic tests, leading to missed opportunities for early intervention.

This project aimed to address these issues by organizing a healthcare camp to provide bone density checkups and basic blood tests to the residents of Shalem Bhavan. By bringing these essential services to their doorstep, the initiative ensured early detection of conditions like osteoporosis and osteopenia while also promoting awareness about preventive healthcare. This effort underscored the importance of collaborative interventions in bridging healthcare gaps for vulnerable populations.

## **Project Objective**

The primary objective of this Social Service Responsibility (SSR) initiative was to provide accessible healthcare services to the residents of Shalem Bhavan, a psycho-rehabilitation center in Varenickal, Kerala. The project focused on addressing two critical healthcare needs:

**1. Early Detection of Bone Health Issues:**

The initiative aimed to screen residents for osteoporosis and osteopenia using bone density tests. Identifying these conditions at an early stage would enable timely intervention, reducing the risk of fractures and improving overall mobility and quality of life for the residents.

**2. Basic Health Assessment Through Blood Tests:**

Blood tests were conducted to provide a preliminary evaluation of the resident's general health. This was essential for identifying potential underlying conditions that may require further medical attention.

In addition to these primary objectives, the project also sought to:

- Enhance awareness about bone health and the importance of preventive care among the residents and staff of Shalem Bhavan.
- Provide medicines to those diagnosed with bone health conditions, ensuring immediate follow-up care.
- Develop team collaboration and organizational skills among the student participants, fostering a sense of social responsibility and empathy.

By bringing medical services directly to Shalem Bhavan, the initiative bridged the gap between healthcare providers and the underserved population, demonstrating the impact of community-driven interventions.

## **Activities Undertaken**

The activities undertaken during the SSR event at Shalem Bhavan were structured to ensure the smooth execution of the healthcare camp and maximize the impact of the services provided. The key activities included preparation, implementation, and follow-up. Below is a detailed overview of each activity:

### **1. Pre-Event Preparation**

#### **Team Coordination and Planning:**

The project team of seven students met several times before the event to plan and organize the necessary logistics. Responsibilities were assigned to each member, ensuring that all tasks, including setting up, conducting tests, data entry, and medicine distribution, were clearly delegated.

#### **Partnership with Micro Lab:**

Micro Lab, a professional healthcare provider, was contacted to support the event by conducting blood tests. The lab ensured that the tests were performed accurately and that results could be processed, even though they would not be available immediately.



#### **Medical Supplies and Equipment:**

Bone density measurement tools and blood test kits were arranged well in advance. Additional supplies, such as medicines for osteoporosis and osteopenia, were sourced to ensure immediate care could be provided to those diagnosed with these conditions.

## 2. Travel and Setup



### Journey to Shalem Bhavan:

The team departed from Amrita Vishwa Vidyapeetham at 6:00 AM and reached Shalem Bhavan by 7:00 AM. Upon arrival, heavy rain forced the team to move the camp to a more suitable area within the center.

### Venue Setup:

Despite the weather challenges, the team quickly organized the venue, setting up stations for the bone density checkup and blood tests. This included preparing a counter for residents to check in and another for the blood work and ensuring privacy and comfort during the procedures.



### Breakfast and Introduction:

After the setup, the residents were provided with a light breakfast and tea. This gesture helped foster a relaxed atmosphere and allowed the residents to settle in comfortably before the health screenings. It also created an opportunity for team members to interact with the residents, helping to build rapport and ease any potential anxieties about the procedures.

## **Introductory Session**

Following breakfast, a brief introductory session was held, with speeches from Dr. Ramesh and members of Shalem Bhavan. The session set the tone for the day, emphasizing the importance of the health checkups and the collective effort behind the event. Adithya delivered the vote of thanks, expressing gratitude to Shalem Bhavan staff, the Micro Lab team, and the residents for their cooperation and participation in making the event a success.



### **3. Health Screenings and Blood Tests**

#### **Bone Density Checkups:**

Residents participated in the bone density test to determine whether they had osteoporosis or osteopenia. The procedure was conducted efficiently, with team members ensuring that each individual was properly guided and felt comfortable during the test.



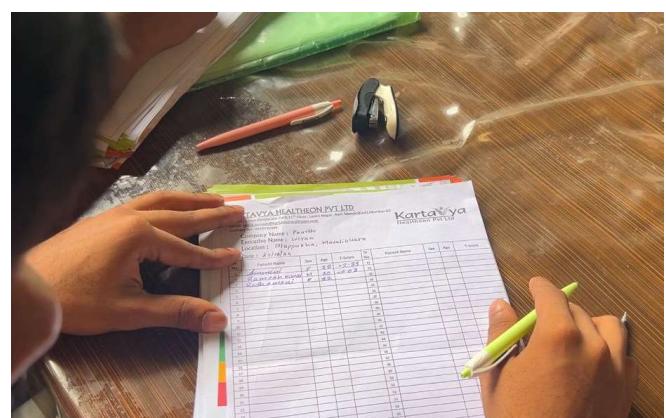
### **Blood Test Station:**

In parallel, the Micro Lab team carried out blood tests to assess the general health of the residents. Since the results were not immediately available, the team focused on managing the test logistics and assisting residents who required additional help.



### **Data Entry and Documentation:**

Some of the team members were responsible for documenting the results of the bone density tests, while others handled the registration and data entry for the blood tests. This process ensured that accurate records were maintained for follow-up care.



#### **4. Medicine Distribution**

##### **Immediate Care:**

Following the bone density checkup, residents diagnosed with osteoporosis or osteopenia were provided with medicines as part of the initial care. This step helped mitigate the immediate risks and ensured that they received some form of medical attention before returning to their daily lives.



#### **5. Post-Event Wrap-Up**

##### **Completion of Tests:**

By 4:00 PM, the team had successfully conducted over 80 tests. Despite the challenges faced during the day, all tasks were completed efficiently, and the team ensured that each resident received the necessary attention.

##### **Acknowledgment and Departure:**

After completing the activities, the team acknowledged the help and cooperation of Shalem Bhavan's staff and Micro Lab assistants. At 6:00 PM, the team wrapped up the event and returned to their hostels.



Through these well-organized activities, the team ensured that the event was not only efficient but also impactful, delivering essential healthcare services to those who would otherwise have limited access.

## **Challenges and Accomplishments**

The health camp at Shalem Bhavan posed several logistical and operational challenges but also offered many opportunities for learning and growth. Below is a summary of the obstacles encountered and the milestones achieved during the event.

### **Challenges Faced**

#### **Adverse Weather Conditions:**

**Challenge:** The event was initially planned for an outdoor venue, but unexpected heavy rain made the space unsuitable for the camp.

**Accomplishment:** Collaborating with Shalem Bhavan staff, the team quickly relocated to an indoor space. Despite the delay, the efficient coordination ensured that the new venue was set up in time for the health screenings to proceed smoothly.

#### **Limited Resources:**

**Challenge:** As students, the team lacked the necessary medical qualifications to conduct the tests independently.

**Accomplishment:** By partnering with professionals from Micro Lab, the team ensured that the tests were conducted accurately. This collaboration allowed the students to focus on vital support roles like data entry, organization, and guiding participants.

#### **Managing a Large Crowd and time :**

**Challenge:** Conducting over 80 tests within a single day posed significant challenges in terms of managing the large crowd efficiently.

**Accomplishment:** The team divided responsibilities among themselves, including organizing participants, maintaining order, and ensuring smooth transitions between testing stations. This division of labor was key to completing the tests on schedule.

### **Communication Barriers:**

Challenge: Some participants faced difficulties understanding the procedures due to language differences or cognitive challenges.

Accomplishment: Using visual aids and simplified language, the team, with support from Shalem Bhavan staff, effectively communicated the steps, ensuring the residents felt comfortable and confident during the tests.

Organizing the health camp at Shalem Bhavan was an enlightening journey, filled with moments that tested our problem-solving abilities and teamwork. From the unexpected disruption caused by heavy rain to the logistical and professional limitations we faced, each challenge became an opportunity to innovate and adapt. The support of the Shalem Bhavan staff, the professionalism of Micro Lab assistants, and the synergy within our team played a crucial role in overcoming these obstacles.

The experience taught us the value of flexibility and preparedness, emphasizing that every hurdle can be surmounted with determination and collaboration. Whether it was the quick relocation of the venue, ensuring clear communication with residents, or managing a high volume of participants, the collective effort demonstrated the true essence of social responsibility. This camp was not just about delivering medical aid—it was about learning to navigate real-world complexities and turning them into meaningful accomplishments.

## **Project Learning**

The health camp at Shalem Bhavan was not only a collective effort but also a significant opportunity for personal and professional growth for each team member. Below are the individual contributions and key takeaways from the event:

### **Siddanth Bhogoju (AM.EN.U4ARE22015)**

As the team lead, my focus was on ensuring smooth coordination among the team members and keeping the event on track. Managing tasks during the unexpected relocation of the venue due to heavy rain required quick thinking and adaptability, which helped maintain order and efficiency throughout the camp. In addition to overseeing team activities, documenting the event became a significant responsibility. Capturing photographs of key moments and interactions allowed the impact of the camp to be visually preserved, serving as a lasting record of its success. This role provided valuable insights into leadership, organizational skills, and the power of visual storytelling to highlight the importance of social initiatives.

### **Aayush R Pillai (AM.EN.U4ARE22038)**

As the primary point of contact with Micro Lab, I was responsible for ensuring smooth communication between the team and the lab professionals. My role involved coordinating the logistics and facilitating the proper conduct of the medical tests, which was made possible with the support of my father, a doctor. He played a key role in guiding us on how to perform the bone density checkups and gave us invaluable insights into the medical procedures, which were crucial for the success of the camp. Additionally, I took charge of the food arrangements for the participants, ensuring that everyone had a light breakfast and tea before the screenings began. I also managed the distribution of medicines to individuals diagnosed with osteoporosis and osteopenia, ensuring they received the appropriate treatment. This experience allowed me to develop strong communication, organizational, and logistical skills, as well as a deeper understanding of healthcare procedures in a real-world setting.

**Adithya Pothula (AM.EN.U4ARE22026)**

During the introductory session, I had the honor of addressing the camp, and expressing gratitude to the residents of Shalem Bhavan and the staff for their cooperation. This set the tone for the day and highlighted the significance of the event. I also took on the responsibility of managing the live count of medicines being distributed, using Excel to create a real-time tracking system. This ensured accurate records and that each participant received the correct dosage. The experience went beyond numbers, as ensuring the right medicine reached those in need showed how even small actions can make a meaningful difference and carry a profound sense of responsibility.

**Revu Danusith Kumar (AM.EN.U4ARE22049)**

Preparing the venue became a crucial responsibility, especially when the rain disrupted our plans and demanded quick decisions to adjust the setup. Ensuring everything was ready in time for the screenings felt like a small but significant contribution to the day's success. Working alongside the team to document test reports and maintain accurate records for each participant was both challenging and rewarding. Each entry felt like a step toward ensuring the residents received the right care and attention they needed. This experience taught me the importance of staying organized and adaptable, especially when managing something that directly impacts others' well-being. The satisfaction of seeing everything come together smoothly made every effort worthwhile.

**Rthuraj PR (AM.EN.U4ARE22032)**

Ensuring the comfort of participants during the tests was a key focus, as it created a more relaxed and welcoming environment. Taking charge of the test results, I made sure they were recorded accurately and efficiently, maintaining clarity throughout the process. Interacting with the residents while they waited not only helped ease their nerves but also allowed me to connect with them on a personal level, building trust and understanding. Additionally, contributing to the breakfast preparations earlier in the day felt rewarding, as it helped set a positive tone for the event and brought everyone together. Watching the residents feel cared for and supported made these efforts deeply meaningful, reinforcing the importance of even the smallest contributions to the overall success of the camp.

**Govind G (AM.EN.U4ARE22022)**

Helping organize the flow of participants for testing was crucial in maintaining an efficient and orderly process. I ensured that everyone followed a structured line, which minimized confusion and kept the testing process running smoothly. Additionally, I coordinated both the bloodwork and the bone density checkups, making sure each was done in the correct sequence and that no one was overlooked. Alongside this, I contributed to documenting the test results, ensuring accuracy and clarity in the records. This role not only required strong organizational skills but also allowed me to directly contribute to the well-being of the participants, ensuring they were cared for and supported throughout the process. Seeing everything come together smoothly, knowing that my efforts helped ease their experience, was incredibly fulfilling and deeply meaningful.

**Ashiq Kontham (AM.EN.U4ARE22040)**

I was deeply involved in the distribution of food, ensuring that everyone had a nourishing start to the day, which felt like a small but important act of care. Alongside this, I helped supply the necessary medicine to the participants, making sure they received it on time. Being part of this process and knowing that my actions were contributing to the well-being of the residents was incredibly rewarding. The smiles on their faces, knowing that they were receiving the help they needed, made me realize the profound impact we can have when we come together to support others.

## **Conclusion and Future Work**

The bone density checkup camp at Shalem Bhavan was a deeply fulfilling experience. It allowed our team to come together and provide valuable medical support to the residents, showcasing the power of teamwork and community service. Despite challenges, like the heavy rain that forced us to change the venue, the team's dedication ensured that everything proceeded smoothly. By the end of the day, we had conducted over 80 tests, distributed medications, and created an atmosphere of care and support for the residents.

Personally, this event reaffirmed the importance of community involvement and the impact of small actions. It was not only about the tasks we completed but also the connections we made with the residents. Their stories and experiences reminded me how crucial it is to support one another in times of need. This event also taught me valuable lessons in teamwork, adaptability, and planning—skills that will stay with me as I continue my academic and personal journey.

Looking to the future, there are several ways this event could be improved. A more efficient registration and organization process would help streamline the camp while gathering feedback from the residents could provide insights for improvement. We could also expand the scope of the camp to include other health screenings and incorporate digital health records for better data management. Educational components, like sessions on bone health and prevention, would empower residents to take proactive steps in caring for their health. Collaborating with healthcare professionals could enhance the quality of care and support we provide.

While this camp was a success, it marks the beginning of a larger effort to serve communities in meaningful ways. As we continue to improve and learn from our experiences, we aim to make each future event more impactful, leaving a lasting positive change in the lives of those we serve.

## Appendix and Image Gallery

### Data Collected on the Event Day

The table below summarizes the key data points collected during the event. These include the T-scores from bone density checkups, the ages of participants, and their respective diagnoses. The dataset reflects the outcomes and trends identified during the camp.

**Sample of the data collected**

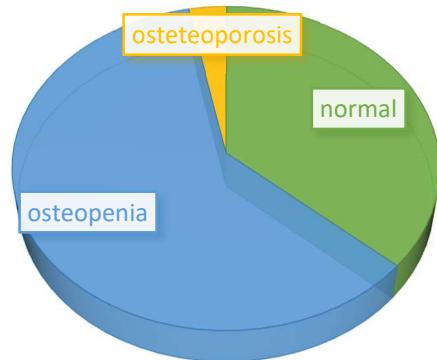
no	name	right/left	age	gender	t-score
1	ammini	L	78	F	-2.33
2	Ramesh Kumar	L	50	M	-0.03
3	Radhamani	L	72	F	-1.79
4	Sonu George	L	44	M	-0.83
5	T.K Mathi	L	46	M	-0.83
63	Akshay Krishnan	L	33	M	-1.4
64	Nikhil	L	21	M	-1.03
65	Shivan Kutty	L	45	M	-2.26
66	Arun	L	35	M	-0.74
67	Ramanan Pilla	L	61	M	-1.69
68	Shanu	L	31	M	-1.69
69	Maniyan	L	50	M	-2.06
70	Pradeep	L	46	M	-0.97
71	Ratheesh	L	37	M	-1.26
72	shyju	L	55	M	-1
73	Shan	L	39	M	-1.14
74	Girish	L	48	M	-1.8
75	Suku Gopalan	L	43	M	-0.69
76	Sunil George	L	44	M	-1.29
77	Binumon	L	43	M	-1.6
78	Vikas	L	44	M	-1.03
79	Shanu K.A	L	44	M	-0.66
80	Arun Kavi	L	36	M	-1.26
81	CP Mathew	L	72	M	-1.11
82	Pradeep	L	36	M	-0.57
83	Joji	L	38	M	-0.66
84	Joy	L	66	M	-1.57
85	Sajeev	L	44	M	-2.03
86	Sangeetha	L	32	F	-1.09

**Live Count table**

Health Diagnosis Breakdown			
normal	35	Total	80
osteopenia	58	med bottles Distributed	61
osteoporosis	3		
total	96	remaining	19

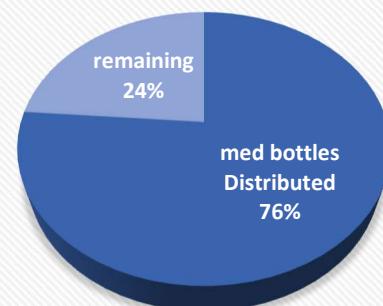
**Diagnosis Distribution (Pie Chart)**

## HEALTH DIAGNOSIS BREAKDOWN



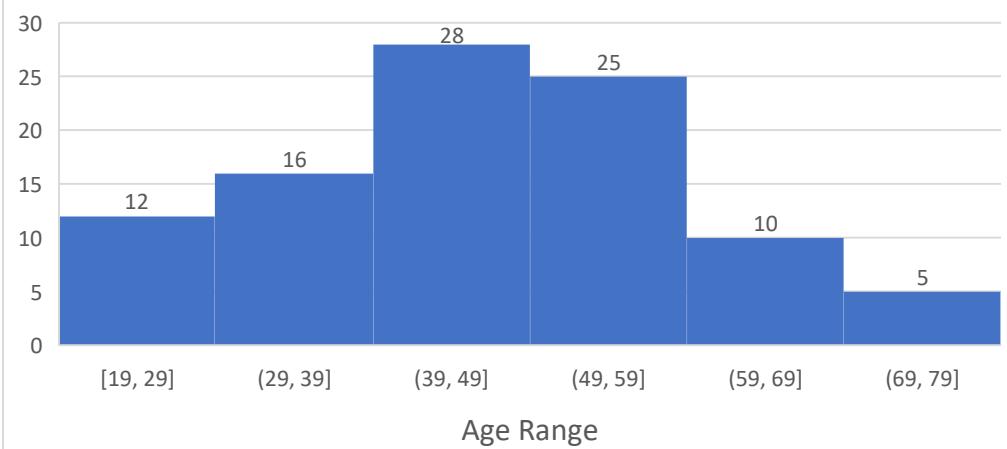
**Medicine Prescribed (Pie Chart)**

## Live Count of Distribution

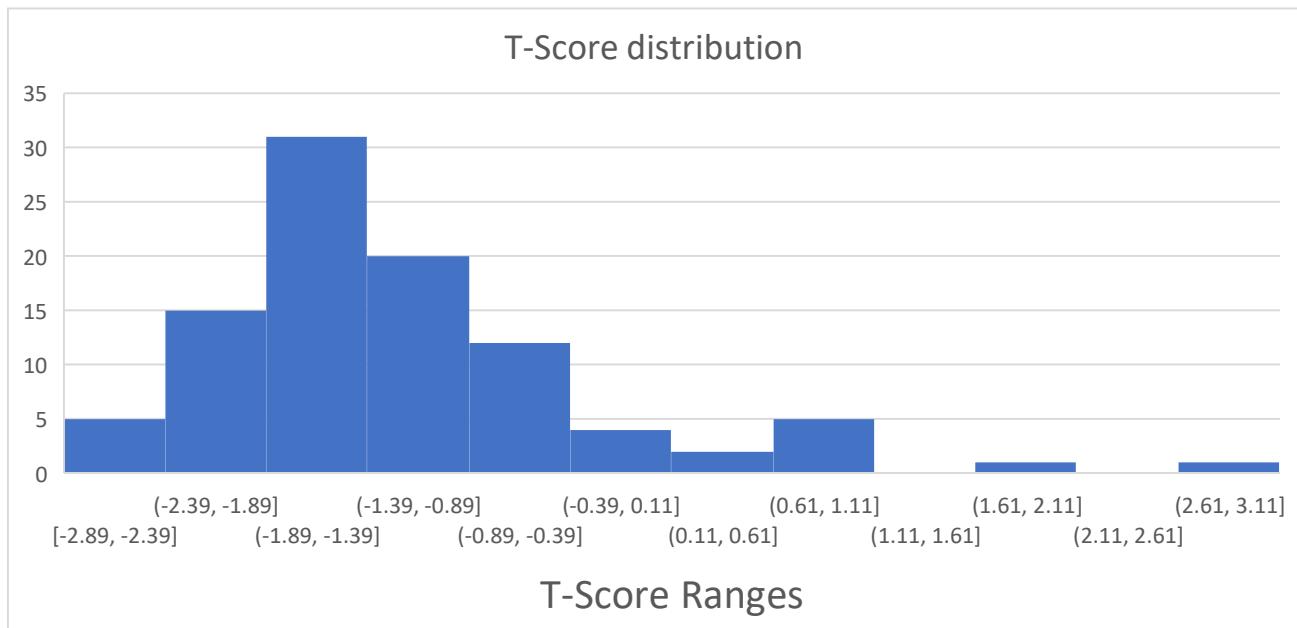


**Age Distribution (Histogram)**

## Age Distribution of Attendees



### T-Score Distribution (Histogram)



### Event Snapshots







## Social Media Highlights: LinkedIn Post Reflection:



Siddanth Bhogaju • 1st

Aspiring Robotics Enthusiast | Leveraging Skills for Global Impact

1w • Edited •

•••

A heartfelt act of service

Last month, we embarked on a meaningful journey as part of our ...more



You and 38 others

2 comments • 4 reposts



Like

Comment

Repost

Send

A heartfelt act of service

Last month, we embarked on a meaningful journey as part of our Social Service Responsibility (SSR) project. We visited an orphanage to conduct a bone density camp and blood checkup for the elderly residents. What began as a simple initiative turned into a deeply fulfilling experience.

Throughout the day, we screened 70 individuals, offering detailed reports and personalized recommendations to improve their health. Beyond the medical aspect, it was the warmth in their smiles , the gratitude in their eyes, and the incredible hospitality they showed us that truly touched our hearts.

We also want to express our gratitude to the hospital staff for their dedication and support in making this camp a success. Their tireless efforts and care inspired us immensely.

After spending time with these wonderful individuals, we realized what life truly is—its challenges, its beauty, and how it flows. Their resilience and positivity taught us lessons no classroom ever could.

This project was a success thanks to the unwavering efforts of our team members: **Siddanth, B Adithya Pothula, Danusith Kumar, Govind G, Rthuraj P.R** and **Aayush R Pillai, Ashiq Kamal**. Together, we learned that small actions can create significant change and that giving back to the community is one of life's greatest rewards.

A special thanks to our mentor **Krishnanunni M V** sir for his invaluable guidance and constant support, and to the Student Service Responsibility Chapter for empowering us to take on such impactful initiatives. We are truly grateful to be part of this incredible journey.

A heartfelt thanks to everyone who participated in and supported this initiative. Let's continue striving to make a difference!