

## NIMHANS-NH-SKAN Stroke Project Quarterly report (July 2025-September 2025)

### 1. Highlights of the study progress in the quarter

#### a. Key accomplishments-

##### i. House numbering:

Month	Mulabagilu villages
July	10
August	12
September	19

##### ii. Community meetings:

Month	Mulabagilu	Bengaluru
July	13	3
August	16	1
September	21	0

##### iii. Field Data Collector's Training:

Trained a total of 78 field data collectors during this period. 52 were selected in 3 training programs.

##### iv. Stroke-free cohort:

Data collection and Sample collection during the current quarter

	Household questionnaire completed	Individual questionnaire completed	Blood sample collected
<b>Villages completed</b>	32	31	30
<b>Mulabagilu</b>	3843	6701	4662
<b>Bengaluru</b>	2272	3721	2021
<b>Total</b>	<b>6115</b>	<b>10422</b>	<b>6683</b>

#### Response rate

	Household questionnaire completed	Individual questionnaire completed	Blood sample collected
<b>Mulabagilu</b>	97.46%	90.81%	69.57%
<b>Bengaluru</b>	93.08%	95.46%	54.31%

- v. **Stroke-cohort:** Baseline data collected for 11 stroke patients, with appropriate follow-ups.
  - **July month:** 3
  - **August:** 5
  - **September:** 3
  
- vi. **CASCADE:** 4 Hospital preparedness assessment completed and 75 CASCADE pre-intervention arm stroke case recruited in the quarter
  - **July month:** 37
  - **August:** 19
  - **September:** 19

**b. Brief summary of all activities, progress along with timelines.**

- Meetings: 5<sup>th</sup> Independent Monitoring Team visit (04/08/2025 to 06/08/2025), SDUMC Investigator's meet (26/09/2025)
- Tool development: Nil
- Cohort enrolment – Numbers
  - Sample Size-~2 lakh
  - Current Recruitment size- Provided above
- List of Hypothesis being tested: Nil
- Publications/ poster/oral presentations if any of funded projects across different platforms (conferences, seminars, etc.)- Effectiveness of a district level Comprehensive Acute Stroke CAre moDEL (CASCADE) for management of acute stroke patients in Karnataka – A quasi experimental study-Submitted to BMC Health Services Research journal. Status: awaiting reviewer's comments
- Any other material worthy of being shared- Nil

## GALLERY OF ACTIVITIES



Field Data Collector's Training



House numbering and sticking posters in prominent places



Mulabagilu community meeting



**Attending job mela to recruit more data collectors**



**Meeting Panchayat members for sensitising about the project**



**ASHA meeting attended by Junior Community Mobiliser to inform about stroke case**



**Sensitisation during numbering**



**Mulabagilu data collection**



Sunangur, Karnataka, India  
396x+30h, Sunangur, Karnataka 563136, India  
Lat 13.060163° Long 78.399669°  
05/10/2025 07:41 AM GMT +05:30



Kannatha, Karnataka, India  
495w+8n, Kannatha, Karnataka 563136, India  
Lat 13.107846° Long 78.397974°  
25/09/2025 07:43 AM GMT +05:30



Mothakapalli, Karnataka, India  
3e4z+5fc, Tayalur - Gutahalli Rd, Mothakapalli  
553135, India  
Lat 13.016182° Long 78.401172°  
06/10/2025 07:40 AM GMT +05:30

### Mulabagilu blood sample collection



Bengaluru, Karnataka, India  
#1f9, 31, B Cross, Thilak Nagar, Jayanagar, Bangalore  
1st Block, Byrasandra, Jayanagar, Bengaluru, Karnata  
Lat 12.93332° Long 77.591177°  
29/07/2025 10:25 AM GMT +05:30



Bengaluru, Karnataka, India  
64, Mountain St, 1st Block East, 1st Block, Jaya Nagar East, Jayanagar,  
Bengaluru, Karnataka 560011, India  
Lat 12.935631° Long 77.586438°  
10/09/2025 05:15 PM GMT +05:30



Bengaluru, Karnataka, India  
Chitrana Apartment B-Block, Chitrana Apartment,  
Byrasandra Main Rd, 1st Block East, 3rd Block, Jaya Nagar  
Jayanagar, Bengaluru, Karnataka 560011, India  
Lat 12.935541° Long 77.592512°  
30/09/2025 02:24 PM GMT +05:30

### Bengaluru community meeting and house to house sensitisation



Bengaluru, Karnataka, India  
D Block, Chitrana Apartment, 1st Block East, 1st Block  
Jayanagar, Bengaluru, Karnataka 560011, India  
Lat 12.934918° Long 77.589042°  
16/09/2025 04:12 PM GMT +05:30



287 10th Cross, 7th Main Rd, Jaya Nagar 1st Block, Byrasan  
Jayanagar, Bengaluru, Karnataka 560011, India  
Latitude 12.9316585° Longitude 77.5922265°  
Local 07:13:26 PM Altitude 909 meters  
GMT 01:43:26 PM Tuesday, 16.09.2025



Bengaluru, Karnataka, India  
Whmqr+6, Jaya Nagar 1st Block, Byrasandra, Jaya  
Bengaluru, Karnataka 560011, India  
Lat 12.933566° Long 77.590049°  
22/08/2025 06:45 PM GMT +05:30

### Bengaluru data collection



Bengaluru, Karnataka, India  
127/3, Near Vector India Institute And Abash Institute, 4th T  
Block East, Jayanagar 5rd Block East, Jayanagar, Bengaluru,  
Karnataka 560011, India  
Lat 12.931801° Long 77.577864°  
10/07/2025 07:05 AM GMT +05:30

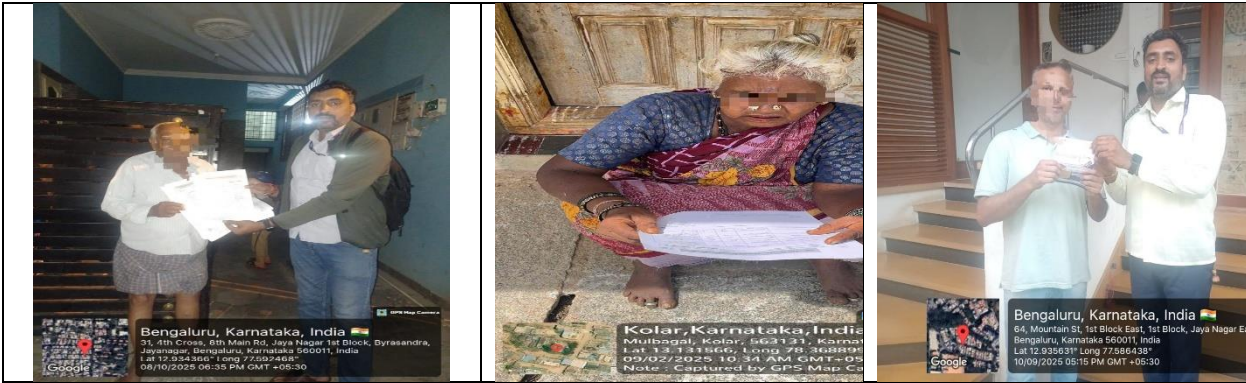


Bengaluru, Karnataka, India  
53-1-53-2, 30th Cross Rd, 3rd Block East, U  
Jayanagar 4th Block East, Jayanagar, Bengal  
560041, India  
Lat 12.928209° Long 77.580875°  
15/07/2025 07:40 AM GMT +05:30



Bengaluru, Karnataka, India  
222/9, 8th Main Rd, 1st Block East, Jaya N  
Byrasandra, Jayanagar, Bengaluru, Karnat  
Lat 12.9316585° Long 77.591177°  
24/09/2025 10:00 AM GMT +05:30

### Bengaluru blood sample collection



**Referral slips and failed reports distribution**



**Monitoring by senior officers**

**Monitoring visit by Co-PI**



**5<sup>th</sup> Independent Monitoring Team visit**



**SDUMC Investigator's meeting**

## **2. Challenges -**

### **i. Application Challenges:**

Between July and September, several issues were reported to the app team related to data synchronization, reporting, and application performance across various forms, including Household Questionnaire (HQ), Individual Questionnaire (IQ), blood sample and Stroke forms. Teams frequently faced sync failures in the field, completed entries appeared as pending in the web list screen or failed to update in the HQ and IQ tables. In multiple instances, data that was filled in the mobile applications appeared as missing or marked "N/A" in the generated reports. There were also repeated mismatches in excel exports, such as misaligned columns and missing values. Blood sample and lab specimen reports were a major area of concern, with missing processing and report generation dates, blank downloads, and incorrect status updates, while FBS values often appeared as zero despite being

correctly recorded in PDFs. Auto population issues were observed across sections—gender and age fields failed to fill automatically in demographic and tobacco sections, and follow-up forms did not carry forward previously entered data. The application also faced stability challenges, including crashes during stroke form entry and blood sample consent submission, where the consent was automatically marked as “No.” Navigation inconsistencies were noted in household data, where unique IDs displayed incorrectly as “01” and redirected to unrelated records. Several reports showed data discrepancies, duplicate stroke IDs, and calculation errors, especially in IQ and HQ reports. Dashboard and report generation processes were unreliable, with incomplete or inaccurate data displays. Additionally, validation issues such as allowing special characters in the phone number field and the household list screen failing to load on the web were reported. Overall, the period saw persistent data sync failures, auto-population errors, and app crash issues, leading to missing, inconsistent, and inaccurate data across multiple modules, affecting report quality and field operations.

#### **ii. Blood Sample Collection:**

In Mulabagilu, the house-to-house approach for blood collection required substantially greater effort compared to camp-based methods, as individual household visits demand more manpower and time. To optimize efficiency, a combined strategy is now being followed: organizing camp-based collections followed by house-to-house mop-up visits two days later based on population size.

#### **iii. Participant Refusals:**

At the Bengaluru site, refusal rates are high. Participants belonged to high socioeconomic strata, working populations, apartment residents tend to refuse the most. Efforts were made to make key-persons to sensitize and provide cooperation. We also used snow balling technique to increase the recruitment from the participants.

#### **iv. Seasonal Constraints:**

Participant availability was affected by factors such as the rainy season, agricultural weeding periods, and local festivals. To overcome these challenges, flexible scheduling and close coordination with community leaders were adopted. Teams were also deployed in a staggered manner, allowing work to continue in less-affected areas during peak constraints.

**v. Community Meeting Attendance:**

Despite scheduling meetings at times convenient for residents, attendance often remained limited to elderly individuals and homemakers. To enhance participation from working-age members, meetings are now organized during early mornings or evenings. House-to-house mobilization efforts have also been intensified to strengthen community engagement.

**vii. Increased Travel Time:**

As the villages are located farther from the Mulabagilu city center, travel time has significantly increased, adding to overall field effort and logistics.

**viii. Blood Sample Refusals (Bengaluru):**

Many participants in Bengaluru continue to refuse blood sample collection. To reduce missing out of information, the questionnaire includes an option to record recent blood test reports for individuals who have undergone testing within the past three months.

**ix. Other surveys:**

Government-led surveys have led to survey fatigue and reduced participation in our study. Many respondents believe they have already provided similar information and express concerns about data privacy and misuse. This overlap has caused confusion about the survey's purpose.

### 3. SWOT analysis of planned study along with plans to mitigate the same



#### **4. Proposed plan for next quarter**

- i. Follow-up data collection has to be started from December 2025.
- ii. Completion of CASCADE pre-intervention arm stroke case recruitment and hospital preparedness assessment.
- iii. Establishment of the Community Advisory Board (CAB) to support community engagement and project oversight.