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Utilizing SMART Technology for Quality Data Collection at The Bed Side.

PROBLEM

The Nursing Quality Improvement Department conducts a monthly Peripheral IV Infiltration survey. The process of data collection, validation and entry for the international benchmark was lengthy and costly.

AIM

To create a more efficient and accurate method of collecting and reporting quality indicator's data in a timely manner through automation of the process using XML file.

INTERVENTION

- Develop IT mobile web based application
- Write a series of programs to change the format and content from the source data to meet the database requirements
- Utilized mobile SMART technology
- Validate and export the files into the international database



Figure 1. Staff using Smart Technology.

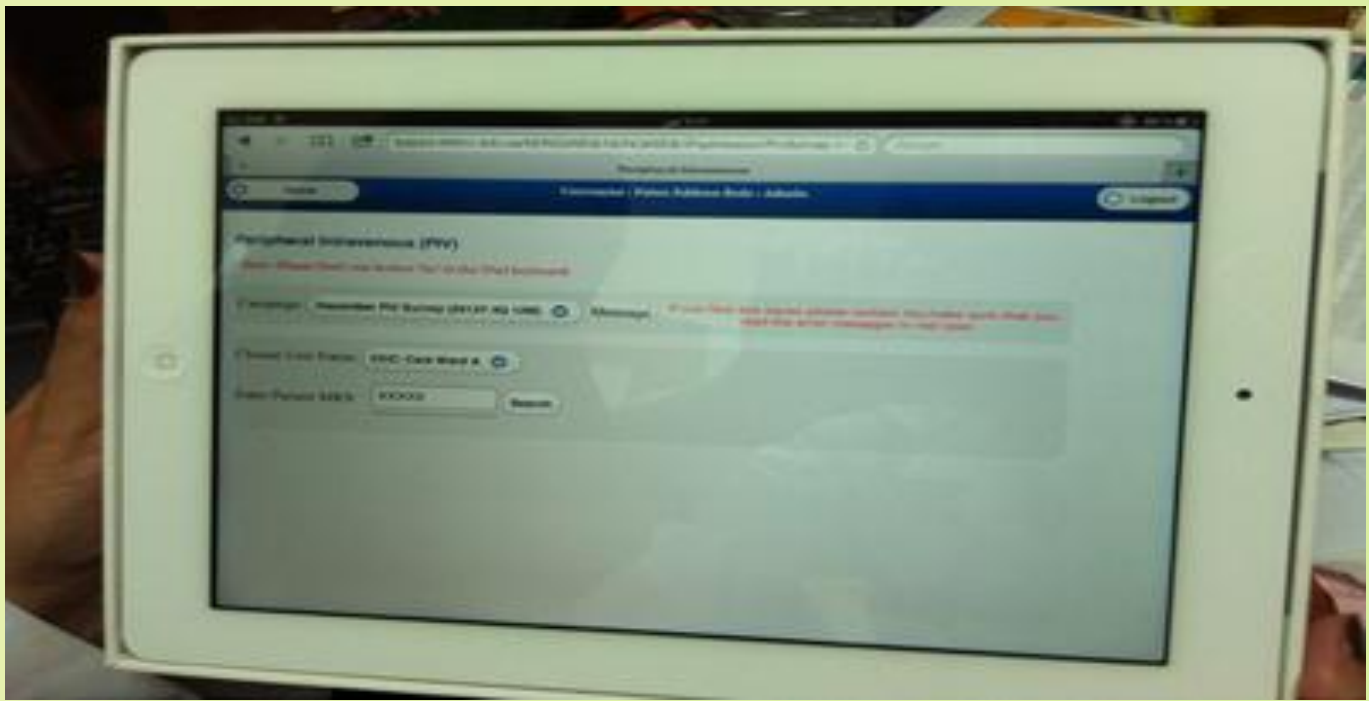


Figure 2. Web based application on iPad.

Model for Improvement

What are we trying to accomplish?

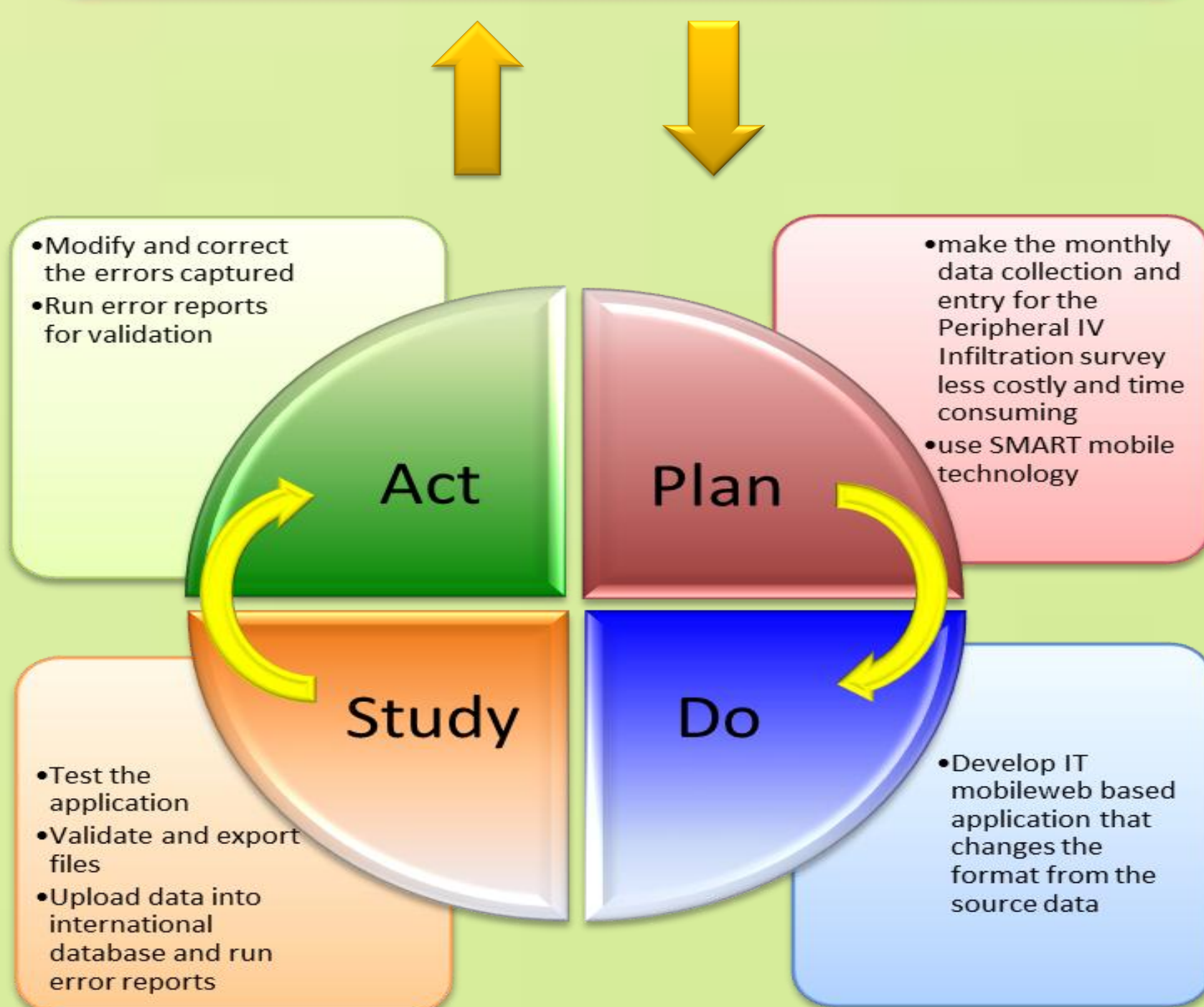
- Create more efficient and accurate method of monthly Peripheral IV Infiltration data collection
- Provide quality data reports in a timely manner
- Reduce Cost and Time consumption

How will we know that a change is an improvement?

- Number of hours spent for data collection
- Number of hours spent for data entry
- Number of errors in data reports

What changes can we make for improvement?

- Move forward and apply this method for other quality indicators
- Reduce the Human resources utilized for data collection



TEAM:

- Zeinab Ali Hussein Jaffer, Nurse Systems Manager
- Alwaleed Ali Abdullah Alhathloul, Programmer Analyst
- Hamze Jomaa, Nursing Quality Improvement Program Director
- Naser Shwaihet, Nursing Quality Improvement Manager
- Faten Shahab Eddeen, Nursing Quality Improvement Coordinator

Sponsors:

- Wael Mohamed Elmassarani, Database Administrator
- Hamze Jomaa, Nursing Quality Improvement Program Director

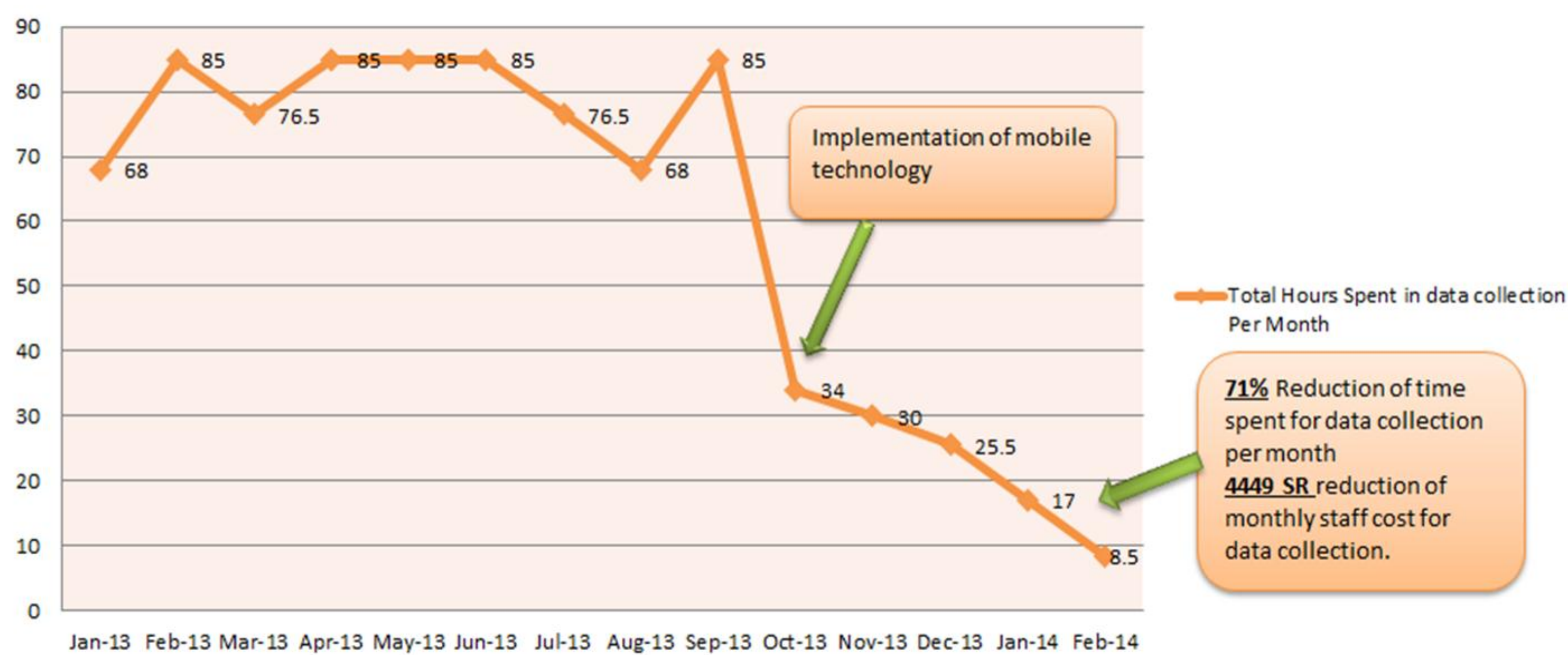
Conclusions

- Reduction in time spent and staff cost for data collection
- Reduction in time spent and staff cost for data entry and submission into the international benchmark
- Increased efficiency and accuracy

Next Step

- Apply XML method on other quality indicators data collection processes

Total Hours Spent in Data Collection Per Month



Total Hours Spent for Data Entry and Submission into International Benchmark

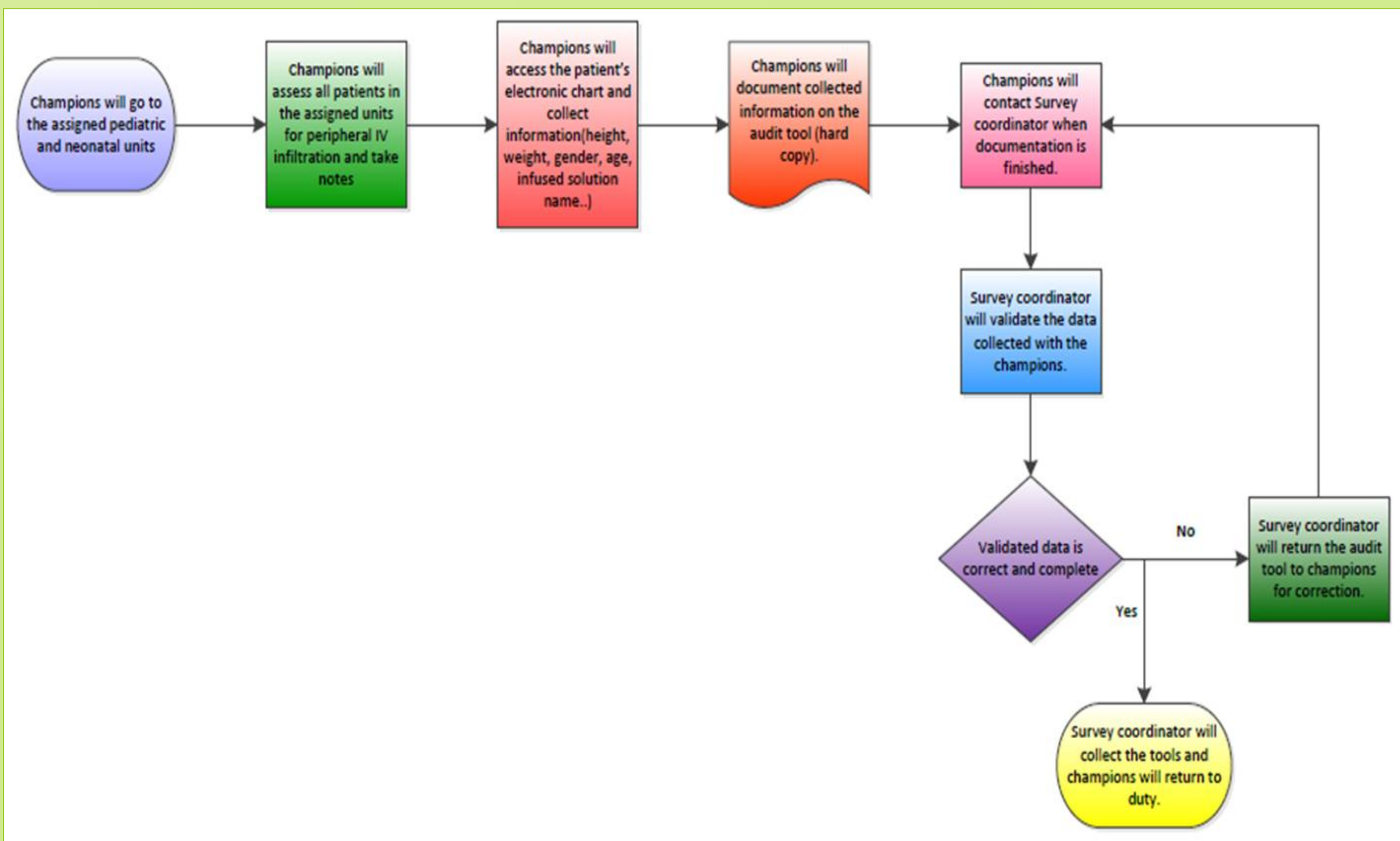
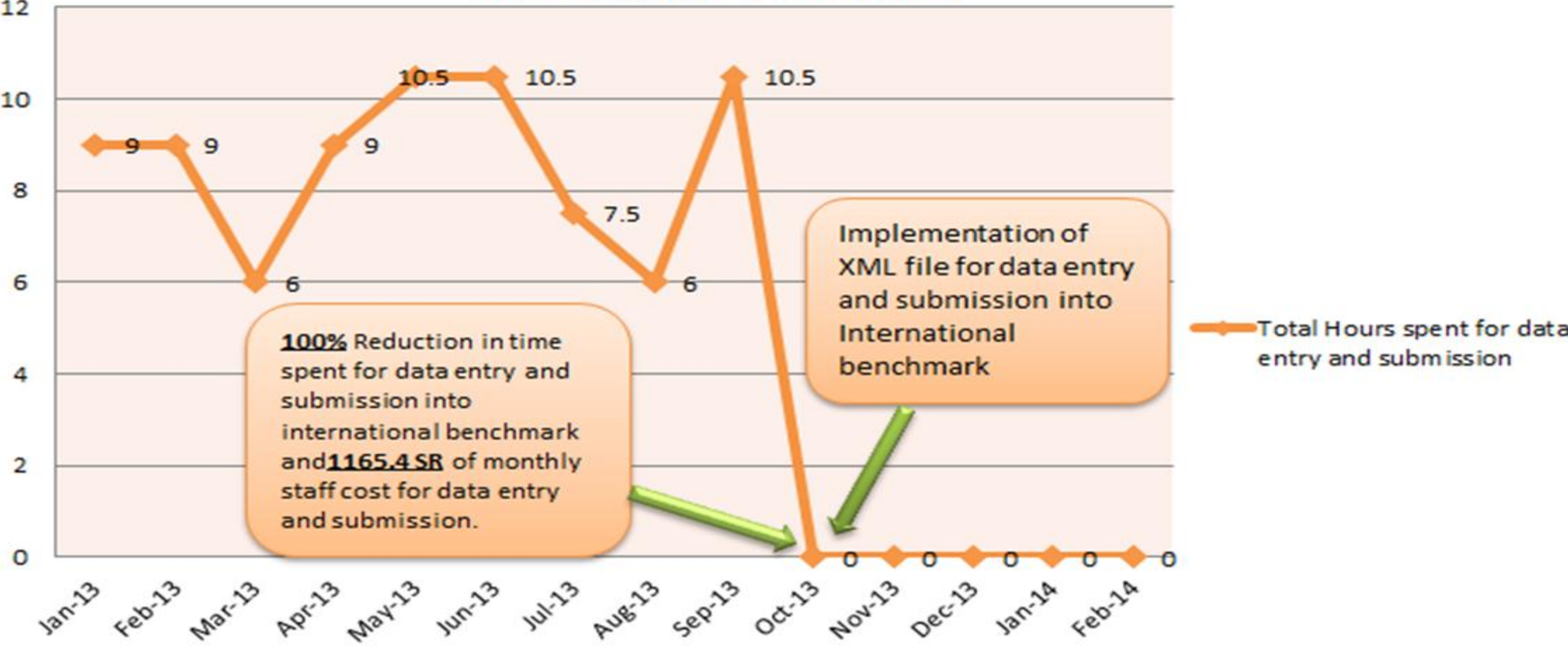


Figure3. Data collection process before project implementation

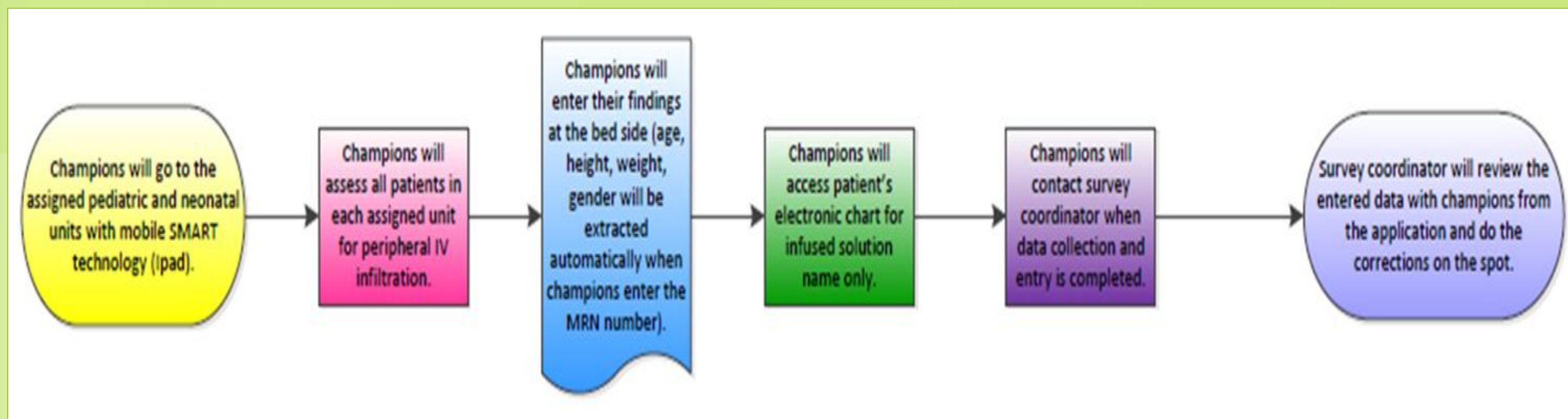


Figure 4. Data collection process after Project implementation