

Field Innovation Case Study - Japanese Red Cross Medical Center

Innovating the nursing service, the foundation for advanced acute medical care
Improved efficiency allows nurses to spend more time on actual patient care

Challenges

- Over 1/3 of total shift time was spent on reporting and documentation duties. →
- Medication duties outside regular hours were a major source of overtime. →
- Monitoring of electrocardiogram for inpatients was not optimized. →

Results

- Optimized frequency and timing of change-of-shift reports to better focus on patient care.
- Redesigned allocation of medication duties and cut 160 hours of overtime per month.
- Halved the number of monitored inpatients through careful review in physician-nurse collaboration.

Japanese Red Cross Medical Center decided to try Fujitsu's Field Innovation (FI) service as a means to improve their workplace efficiency. Together, with the assistance of Field Innovators (Flers), they reviewed their work practices and by relieving some of the burden of reporting and documentation duties and medication administration, the hospital was able to better realize its basic goal to provide patient-centric healthcare.

Aiming for improved nursing practices

To provide each patient with the warm and thorough care

Japanese Red Cross Medical Center has provided high quality healthcare services to the community for nearly 130 years, founded in a belief in the Red Cross spirit of love and humanity, and has nurtured nurses throughout most of those years.

Director of Nursing, Ms. Yuko Furukawa explained, "Just 4 years after our hospital opened in 1890, this institution began training first-aid nursing students here. Our institution has a more than 125-year history in nursing education, and currently, we continue to work with our around 100 hospitals and affiliated organizations such as Japanese Red Cross College of Nursing and Japanese Red Cross School of Midwifery to train nurses."

However, there are still many issues in the nursing workplace. Ms. Furukawa reflected, "The duties of a nurse have continued to expand

with repeated reform of the Government medical systems. Recently, it is our task to provide intensive care over short periods so that patients can be released from the hospital as quickly as possible, and this makes it very busy for a nurse." This is why they decided to undertake an overhaul and reform of these work practices to better provide patients with the warm and thorough care they deserve by making use of Fujitsu's Field Innovation services.

Using third-party point of view for reforms

FI visualization (Project Charter) was used (defined) to identify and clarify issues and objectives

"We tried to solve everything on our own, and that is probably why we



Ms. Yuko Furukawa
Director of Nursing
Japanese Red Cross Medical Center



Ms. Hiroko Imoto
Deputy Director of Nursing
Japanese Red Cross Medical Center

Customer Profile

Japanese Red Cross Medical Center

Headquarter 4-1-22 Hiroo, Shibuya-ku, Tokyo, JAPAN, 150-8935
Established November, 1886
Number of Beds 708 beds
U R L <http://www.med.jrc.or.jp/en/tabid/393/Default.aspx>

This medical institution was founded in a belief in the Red Cross spirit of love and humanity. It provides medical and nursing care based on hospitality, respecting the dignity of each and every patient, and the latest medical evidence.

failed to make an impact,” said Deputy Director of Nursing, Ms. Hiroko Imoto. “It is difficult to identify fundamental issues when they are on the inside, and our experience with effective improvement strategies tends to be limited.”

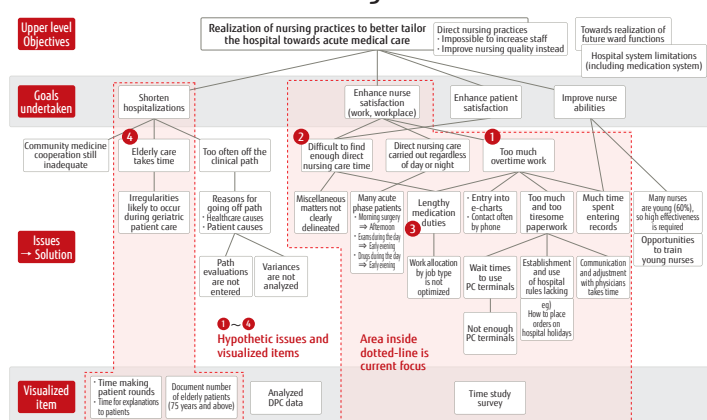
Field Innovation was the key to solving this situation. Japanese Red Cross Hamamatsu Hospital had implemented Field Innovation, and they reported their experience at a professional meeting among Red Cross hospitals.

“When I heard the presentation, I was completely awed. The idea of having a non-healthcare company carries out the innovative overhaul of nursing practices was exactly the kind of new initiative that we were seeking. Japanese Red Cross Hamamatsu Hospital had also mentioned that ‘A review of our practices by a third-party was invaluable in revolutionizing our healthcare practices,’ and we decided that we would like to try to introduce this kind of reform at our medical center as well,” said Ms. Imoto. Field Innovation at Japanese Red Cross Medical Center began by going over the various issues that Ms. Imoto and others had identified, and delineating them for consideration with the Flers.

“The first step toward Field Innovation began by talking with the Flers. At first, I was skeptical that the Flers would be capable of understanding the types of situations and issues that nurses were forced to deal with on a daily basis, so I purposely tried asking some confrontational questions. To my surprise, not only did the Flers understand the challenges facing healthcare and nursing, but they were also very good at getting us to communicate what exactly we were feeling and seeking. We started by mapping out the FI visualization figure to illustrate the issues. Through this process, we were able to identify our issues, and this completely resolved our vague sense of dissatisfaction with the status quo. I felt that by working with Flers, we would finally be able to achieve a major reform of our healthcare practices,” continued Ms. Imoto.

Ms. Furukawa said, “If we had tried to do everything internally on our own, we risked creating confusion. We were too familiar with our duties and this would have led to an impasse. However, under guidance of Flers, as we identified the issues one by one, the problems seemed to solve themselves. More surprisingly, everything was taken care of within scheduled meeting hours. I was thoroughly impressed by how efficiently the Flers handled progress management.”

Systematic visualization of objectives and issues allows almost instantaneous sharing of awareness



At a session before actions in place, FI visualization was used to identify current issues and objectives. Attempts made to share awareness towards improvement and reform.



Ms. Hitomi Yamamoto
Chief Nurse
Japanese Red Cross Medical Center



Ms. Kaoru Goto
Chief Nurse
Japanese Red Cross Medical Center

Start point: Reforming a busy surgical ward

A workload survey identified issues facing daily nursing practices

Imagining the medical center might eventually want to innovate our entire hospital, work began in the surgical ward. Compared to all other wards, Surgery was on large numbers of prescription orders and massive nursing overtimes. There was no doubt that any implemented reforms would have great impact in this department. In addition, to make a large enough impact to promote these reform activities, major improvements would have to be implemented quickly, and so a “Dream Team” comprising staff from various departments around the hospital who could help spread the word, was born.

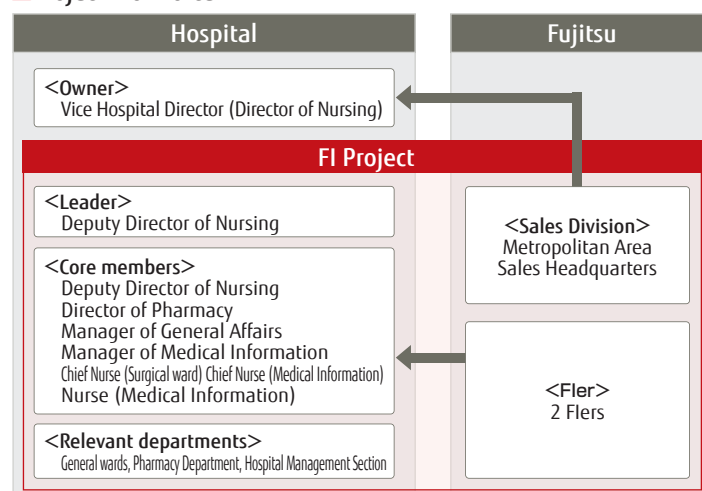
In order to visualize the current work conditions, the Flers conducted a workload survey through a time study sheet (workload survey form) and on-site observation. PC usage reports and things noticed about the workplace were documented to clarify how much time staff devoted to any given duty.

Ms. Hitomi Yamamoto, Chief Nurse explained, “In designing these time study sheets, all survey items were compiled into one check sheet that nurses in the field could easily fill out.”

To minimize any impact on daily work duties, they also performed a pretest in experienced nurses. Their opinions and suggestions were reflected to ensure a real survey.

All nurses were made aware that this survey was to improve the Nursing Department, and the Flers also made sure to explain this activity.

Project Workforce



Leading staff members with a high dedication towards reform and the skills necessary to carry it through were called upon to join our project team. We formed a “Dream Team” to push forward in revolutionizing the hospital.

Ms. Kaoru Goto, the Chief Nurse of this ward at the time reflected, "It was just so busy every day. When I heard that the entire Nursing Department was taking steps to improve our work conditions, I was so happy. We kept explaining how overloaded we were, but just a sense of overwork wasn't enough to derive any real reforms. We felt this survey would be the key to a real solution and the nurses on staff were all happy to cooperate."

Preparation of a time study sheet

Surveyed items		Business Content
Direct care	Bathing and hygiene care	Dry baths, shampoo, washing of face and genitals, showers, baths, oral care, dentures, and all assistance in required ambulation or moving patients for these activities
	Elimination care	Assistance to and from bathrooms, urination, defecation, catheterization, diaper changes, handling stoma emptying
	Meals and enteric care	Handing out and collecting food trays, dealing with snacks, setting, help in eating, after meal clean-up, observation of meal intakes, enteral feedings
	Rounding	Going around to hospital rooms, observation of symptoms, controlling drug administration doses (checking i.v. lines, infusion speeds, DIB 3-way joints, etc.)
	Body temperature and other measurements	Body temperature, BS checks, height, weights, urinary output, abdominal girth, SPO2: includes inputting data into charts
	Maintaining patient safety	Ensuring patient environment is safe from tumbling/falling accidents, checking drains and equipment, ensuring accompaniment, monitoring and restraints to safeguard against wandering, leaving hospital, infection control, and prevention of accidents.

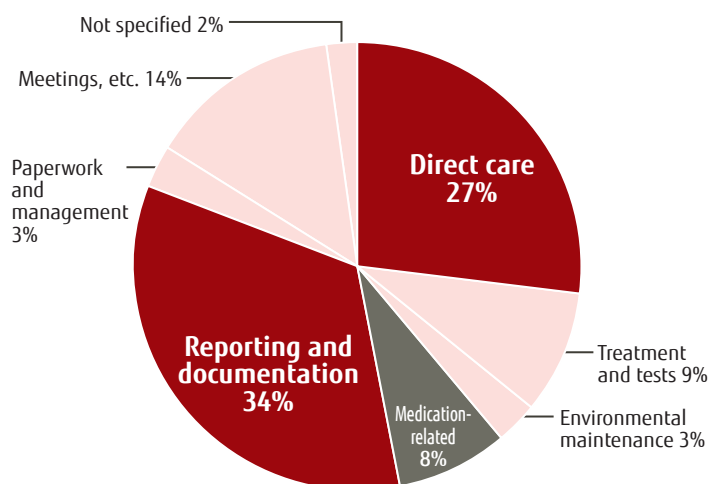
An original time study sheet for workload survey. Checks every 5 minutes for work that one has done.

Issues that came to light from the survey

Reporting and documentation duties are keys to solving work efficiency issues

As a result of a nearly half-a-month workload survey, the issues of the surgical ward became very clear. Approximately 1/3 or more nurse's time was spent on reporting and documentation duties, which was more than the time spent caring for the patients, which should have been the real focus of a nurse's duties. Over 60% of overtime was spent completing these reports and documents. "We were hardly surprised by these results. It was good to have some quantitative data to actually prove our situation and we think the survey was very meaningful for this," added Ms. Goto.

Visualized issues "Reporting, documentation, and medication duties leave nurses no time for direct patient care"



Visualized from survey. Data revealed reporting and documentation took up 1/3 of shift time, far more than time spent for direct care.

Conducted surveys together with fixed-point observation and time study sheets



- General ward nurses overall (Total 94 nurses)
- Record PC usage and issues identified
- Made to fill out by yourself (5 days a week on weekdays)
- Complement the time study

Together with the time study sheet survey, fixed-point on-site observation by the Flers was conducted. PC usage and other things noticed in the workplace were recorded.

Reduce excessive shift reports

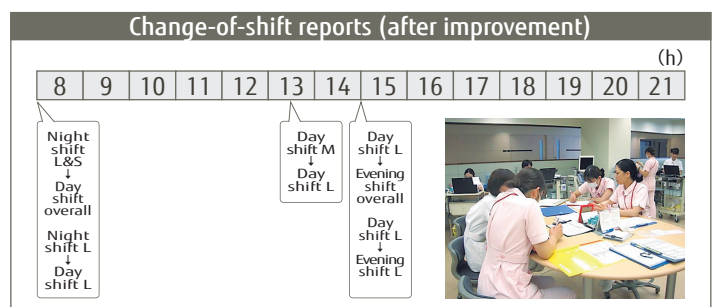
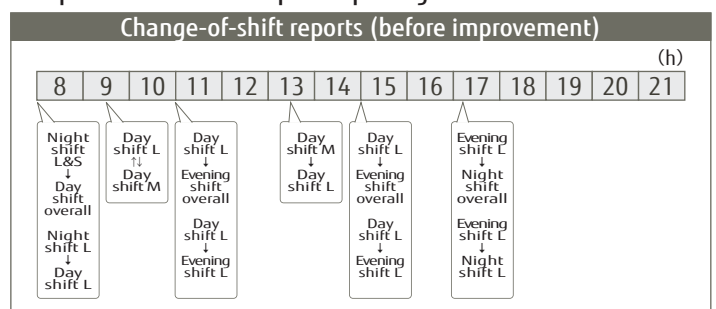
Reconsider best timing and frequency for reports, and ensure complete shift report of all vital information

In the surgical ward, innovation efforts began by improving the shift report. The hospital runs on a three-shift system: day, evening, and night, and every day, patient care shift reports were held 6 times a day at shift changes, sometimes taking over half an hour each.

"Of course all important information must be transferred without fail, but because we were so afraid of mistakes in communication, it appeared we were transferring too much unnecessary information as well. We referred to the results of the survey, carefully reviewing the content of these reports, and tried to limit our communication to just the essentials," explained Ms. Goto.

Daily reports were cut by 50%, from 6 times a day to 3. The time saved could be used for actual patient care. "I felt solid data was essential to implementing improvements. Objective data will be convinced both the staff and myself and it will be a basis on which to convince other departments, too," continued Ms. Goto. Ms. Yamamoto added, "Continuance is important, so we hope to instill the importance of these activities in our new employees."

Improvements in time spent reporting to nurses



L:Leader M:member S:One of the members (supporting role)

Made improvements in reporting between nurses. To avoid redundancy of reporting orally and in writing, 6 reports/day reduced to 3 reports/day.

Spreading Field Innovation activities to other wards

Promoting improvements that meet the work characteristics of individual specialty wards

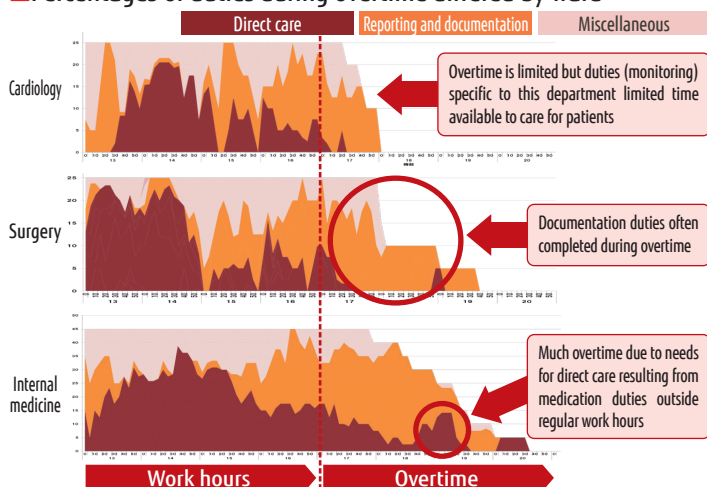
At the hospital, Field Innovation activities next spread to the cardiology and internal medicine wards. Using what we had learned in improving work strategies in the surgical ward, the visualization and improvement of work practices are now actively being promoted in other wards.

"In the cardiology ward, there was room for improvement of the electrocardiogram monitoring, while in the internal medicine ward, medication duties outside of regular working hours were a cause of overtime," explained Ms. Imoto.

Monitoring involved reading the ECG data of multiple inpatients over long periods. If the monitoring was necessary for therapy, it should be done, but it was necessary to find out if all of the patients really required this level of monitoring.

It was found that in half of the patients, ECG monitoring was actually unnecessary. "This was an example of physicians and nurses cooperation to improve healthcare practices. At this hospital, it was revolutionary. By showing with actual data, physicians were also convinced," said Ms. Furukawa, smiling. The same could be said for medication duties. By shifting these duties to the night shift, rather than handling it during overtime, nurses' overtime was reduced by 160 hours, from 500 down to 340.

Percentages of duties during overtime differed by ward



By conducting the same survey in multiple wards, the work characteristics of each ward became clear. Improvements were implemented to meet the specific needs of each ward.

In pursuit of patient-centric nursing practices

Spreading the reform to the entire hospital

"Nurses from other wards who had heard of the success with Field Innovation sent us requests to help them reform their workplace too."

We are currently working with 5 other wards in this hospital. We have built a new Nursing Department-led reform team. The head of the hospital has been very understanding of our efforts and through collaboration with other reform activities besides Field Innovation, we would like to focus our efforts on those duties that nurses should be focusing upon, and to nurturing young healthcare professionals," added Ms. Imoto.

"At this hospital, we have a history of dedicating ourselves to providing 'Quality nursing.' Even if duties become more efficient, it is meaningless if the patient's care is allowed to take second place, we must continue to improve and reform our practices," said Ms. Furukawa, summarizing her outlook.

Field Innovation will continue to support the activities of Japanese Red Cross Medical Center in the future.

Field Innovators

Throughout the project

The work of a nurse involves a multitude of daily duties, there is a lot of overtime, and the staff is exhausted. The Nursing Department would like to identify the issues that will support energizing their workplace, but they were faced with the dilemma of being too busy for any new initiatives.

By using the "Visualization method," which has proven effective at other hospitals, we focused on minimizing the nurses' sense of burden by helping them visualize issues and the current status of their nursing work. To proceed efficiently in such a short time we created an "FI visualization map" during the early planning stage and sought advice regarding nursing work from other FIers with knowledge in the field.

Thanks to the members of this initiative being both cooperative and decisive, we were always able to achieve results within the allotted time. It was our great pleasure to provide a service that supported members during the reform and improvement of their nursing process.



From left, Kouichi Nagamine, Hirotaka Chiba



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