

ONE-STOP SERVICE FOR INPATIENT CAREGIVER REGISTRATION DURING COVID-19 PANDEMIC

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Introduction:

The COVID-19 pandemic has brought unprecedented challenges to the world since the end of 2019. The impact of the COVID-19 pandemic has placed a huge burden on healthcare workers. In addition to effective therapeutic drugs and vaccines, non-pharmaceutical interventions (NPIs) are particularly important to stop the spread of the virus. Wearing a mask and implementing hand hygiene are important and effective infection control measures.

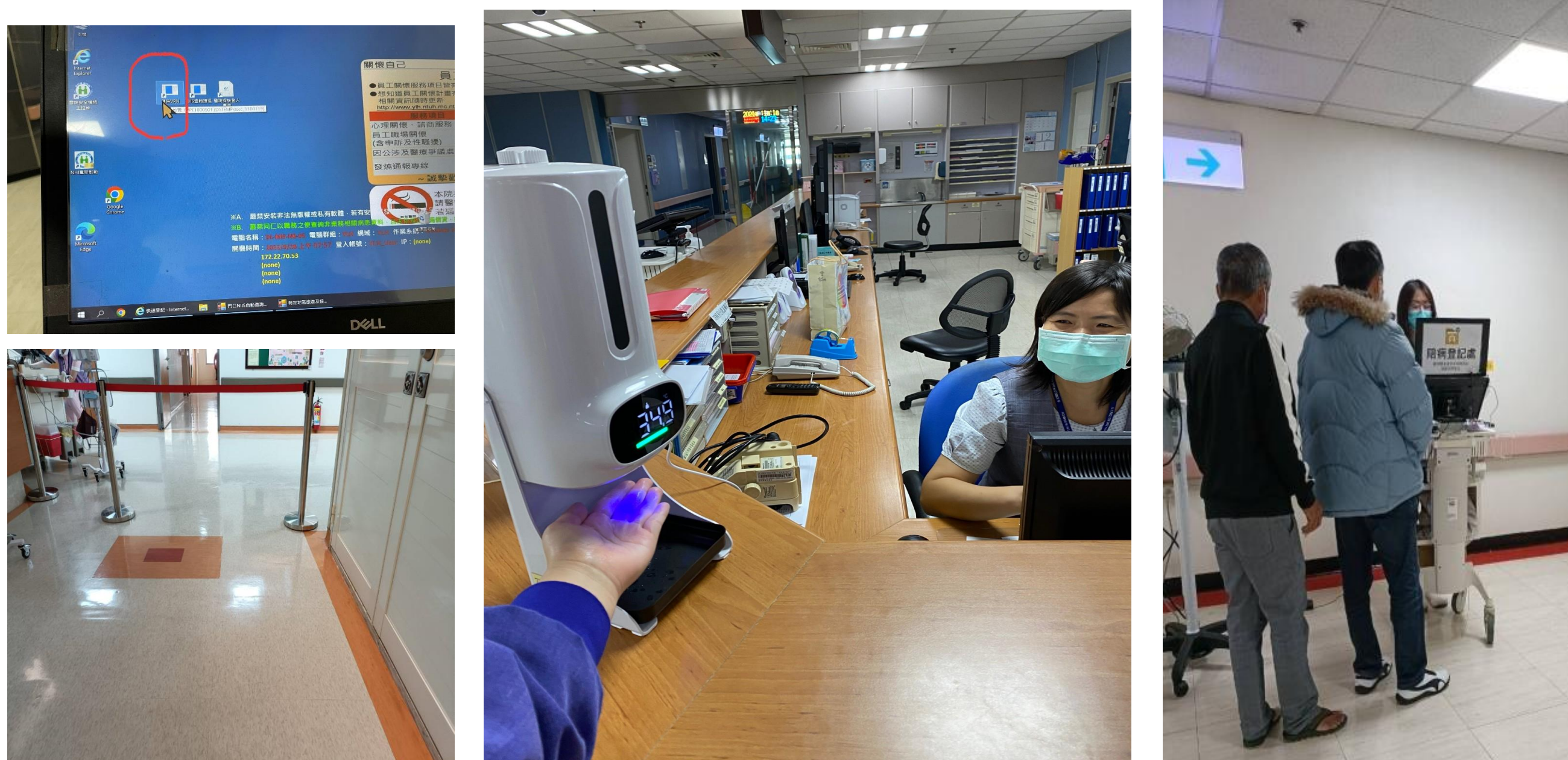
Digital contact tracing is an important global epidemic technology when the urgency of epidemic monitoring and epidemic prevention. Therefore, patient-centered contact registration becomes important information for follow-up investigation.

The research purpose is to understanding the registration process of inpatient caregiver information in order to solve the problem of queuing congestion at the hospital entrance.

Methods:

Use digital intervention designs the research. Change the registration process of the inpatient caregiver's information from paper to digital record. The registration place was changed from the hospital entrance to the nursing station. Set Automatic temperature measuring machine plus induction alcohol hand sanitizer machine at each nursing station. And before register, visitor would used alcohol hand hygiene and measure the temperature every time. At the same time, Health workers use visitor's health insurance card to link to the National Health Insurance Administration's health insurance medical information cloud query system TOCC window to provide COVID-19 related information. And patient visitors' information about Travel, Occupation, Contact and Cluster history (TOCC) can inquire immediately. Questionnaire of inpatient caregiver registration system are established to satisfaction survey including type, timing, location and overall satisfaction. The 5-point Likert scale was used. There are 52 samples before intervention from November 30 to December 3, 2011 and 42 samples after intervention from December 8 to December 13, 2011.

Figure 1 Relative devices: Control line, IT shortcut and Automatic temperature measuring machine plus



Results:

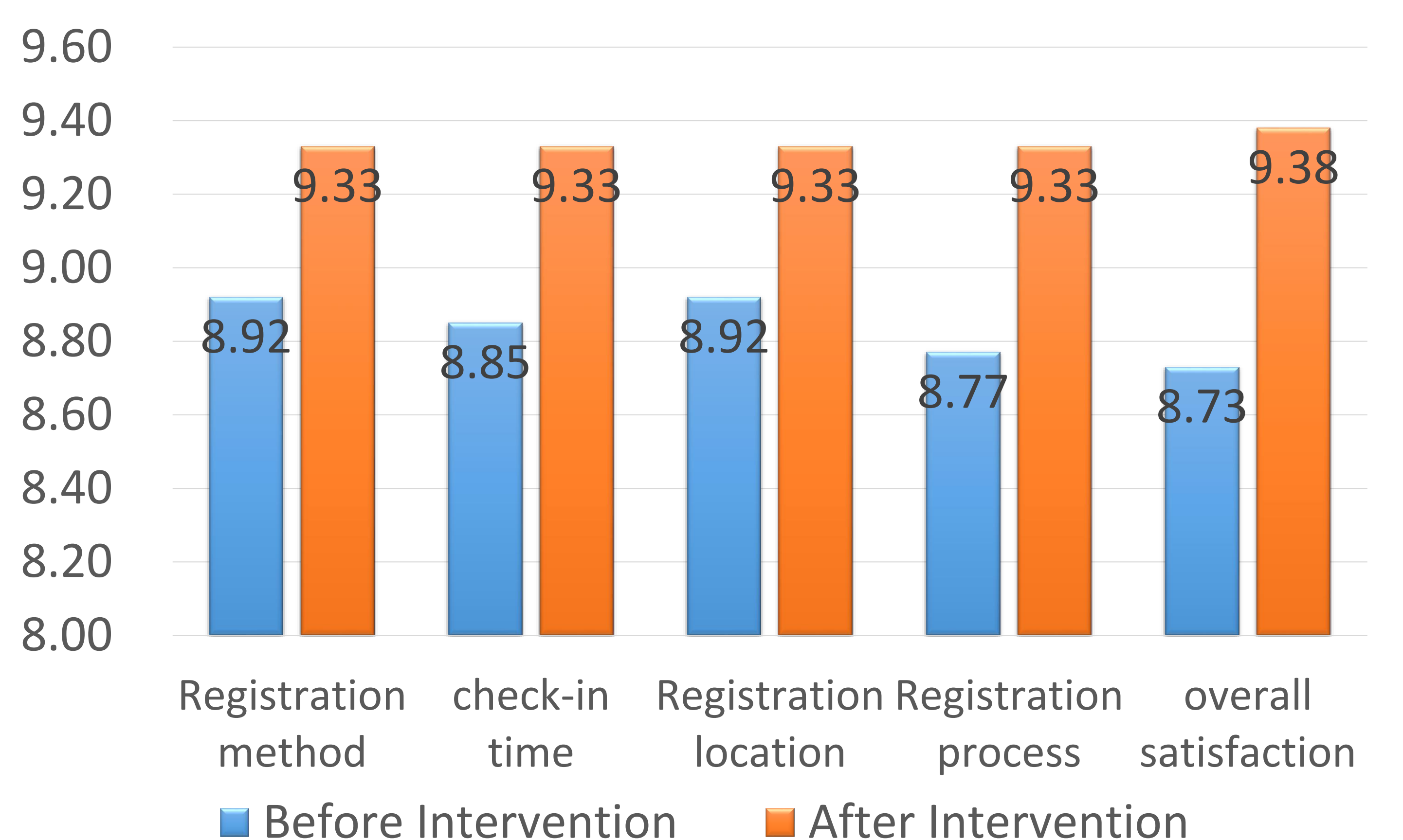
Basic data analysis, inpatient caregiver average age 50.9, Gender percentage was male 38.5% and female 61.5% before intervention. After intervention, inpatient caregiver average age 50, Gender percentage was male 31.0% and female 69.0%.

Caregiver registration process spends average savings of 4.5 minutes every time after improved TOCC registration. Caregiver's satisfaction before and after process change average from 4.18 improved to 4.69. The TOCC completion rate of inpatients caregiver is increased to 100% at afternoon and night shift.

Table 1 Basic data analysis of caregiver in inpatient.

	Before Intervention	After Intervention
data collection period	11/30~12/03	12/08~12/13
Number of samples	52	42
average age	50.9	50
Gender ratio (%) (male : female)	38.5% : 61.5%	31% : 69%
identity attribute (family: foreign domestic helper: Care workers)	51.9% : 11.5% : 36.5%	45.2% : 11.9% : 42.9%

Figure 2 Satisfaction analysis of caregiver in inpatient



Conclusion:

Caregiver registration process can register for 24 hours without time limit. Medical materials cost save \$17,305 per month on infrared ear thermometer probe cover consumption. The place of registration was changed to the nursing station, which could reduce the distance of caregivers from ward to the hospital's entrance, time consuming and reduce staff registration of TOCC. The visit registration system act in concert with alcohol hand sanitizer machine at each nursing station, could reduce the number of bacteria on hands of caregivers, could also fit Hand Hygiene Policy.

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