

Project Title

Improving Inpatient Influenza Vaccination Rate

Project Lead and Members

- Dr Nieh Chih Ming
- Dr Calvin Loh
- Lee Su Hui
- Wong Yu Xin
- Ho Yu Tian
- Monica Lim Siew Chin
- Dr Angeline Seah
- Dr Lim Tze Chwan
- Ms Supadhara Ramaiyah

Organisation(s) Involved

Khoo Teck Puat Hospital

Healthcare Family Group Involved in this Project

Allied Health, Nursing, Pharmacy

Applicable Specialty or Discipline

Geriatric Medicine, Infectious Diseases

Project Period

Start date: Feb 2021

Completed date: Jun 2021

Aims

Increasing the percentage of geriatric inpatients' influenza vaccine status upon discharge from ward B56, from 15% to 75% within 6 months.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Additional Information

Accorded the NHG Quality Day 2022 (Category B: Service Redesign & Delivery) Best Award

Project Category

Care & Process Redesign

Quality Improvement, Workflow Redesign, Productivity, Cost Saving

Keywords

Vaccination, Flu Jab, Influenza

Name and Email of Project Contact Person(s)

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Mission Statement

Increasing the percentage of geriatric inpatients' influenza vaccine status upon discharge from ward B56, from 15% to 75% within 6 months.

Team Members

| | |
|---|--|
| Team Leader Dr Nieh Chih Ming, Consultant Geriatric Medicine, KTPH | Sponsor: Dr Angeline Seah, Senior Consultant and HOD Geriatric Medicine, KTPH |
| Members Dr Calvin Loh, Resident Physician Geriatric Medicine, KTPH Lee Su Hui, Advanced Practice Nurse, KTPH Wong Yu Xin, Staff Nurse Ward 56, KTPH Ho Yu Tian, Pharmacist, KTPH Monica Lim Siew Chin, Operations, KTPH | Facilitator: Dr Lim Tze Chwan, Senior Consultant and HOD Radiology Department, WHC Acknowledgement: Ms Supadhara Ramaiyah, Head of Pharmacy |

Evidence for a Problem Worth Solving

Influenza vaccine uptake within Asia is generally low, and a systematic review focused on Asian countries reported a median uptake of 14.9% among the general population and 37.3% among high-risk groups – far below the **WHO target of 75%**

National vaccination coverage rate in Singapore for adults >50 years old: 14-20%

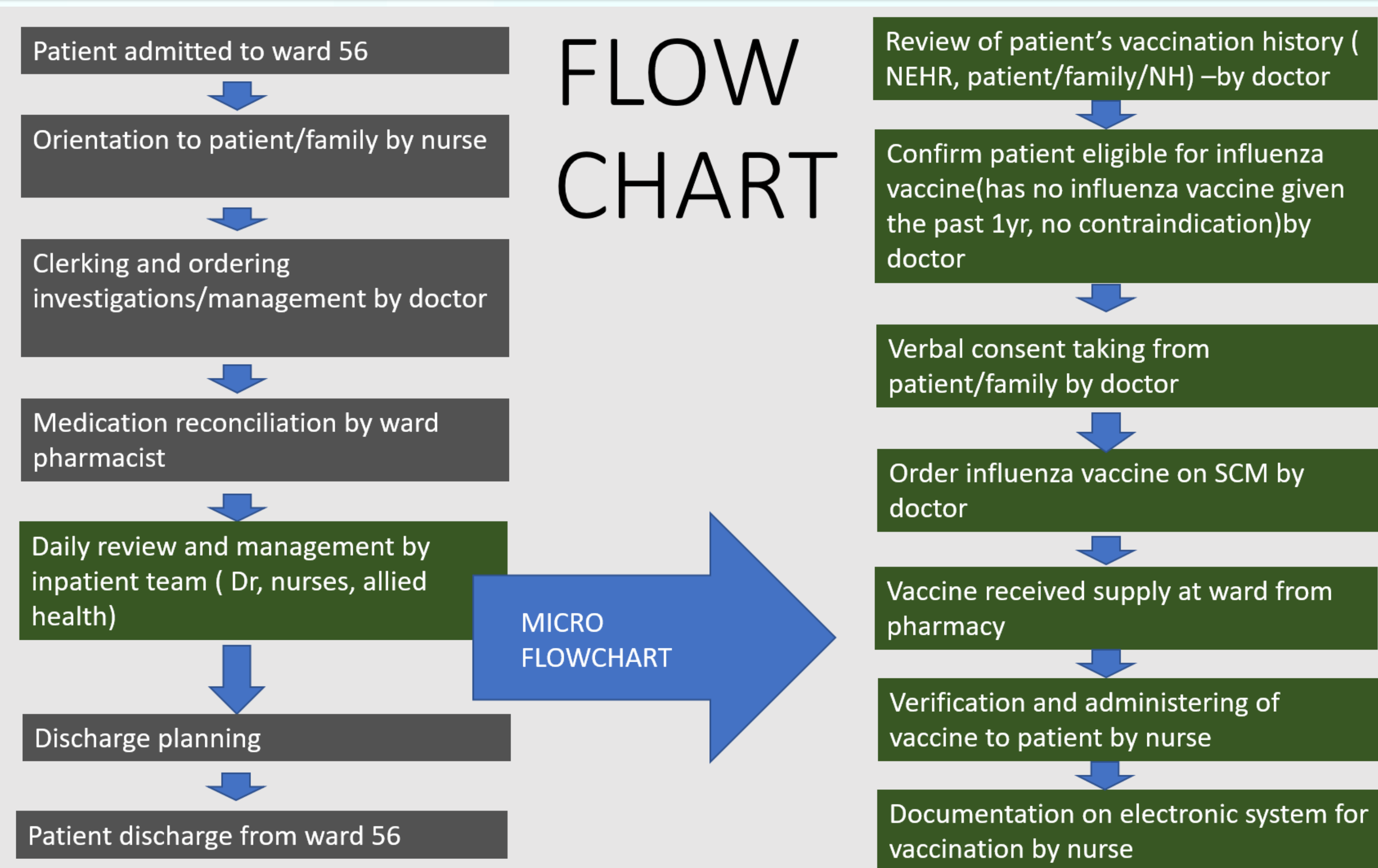
Current Performance of a Process

Singapore National Adult Immunization Schedule (NAIS) recommends 1 dose influenza vaccine annual or per season for adults age 65 years and above.

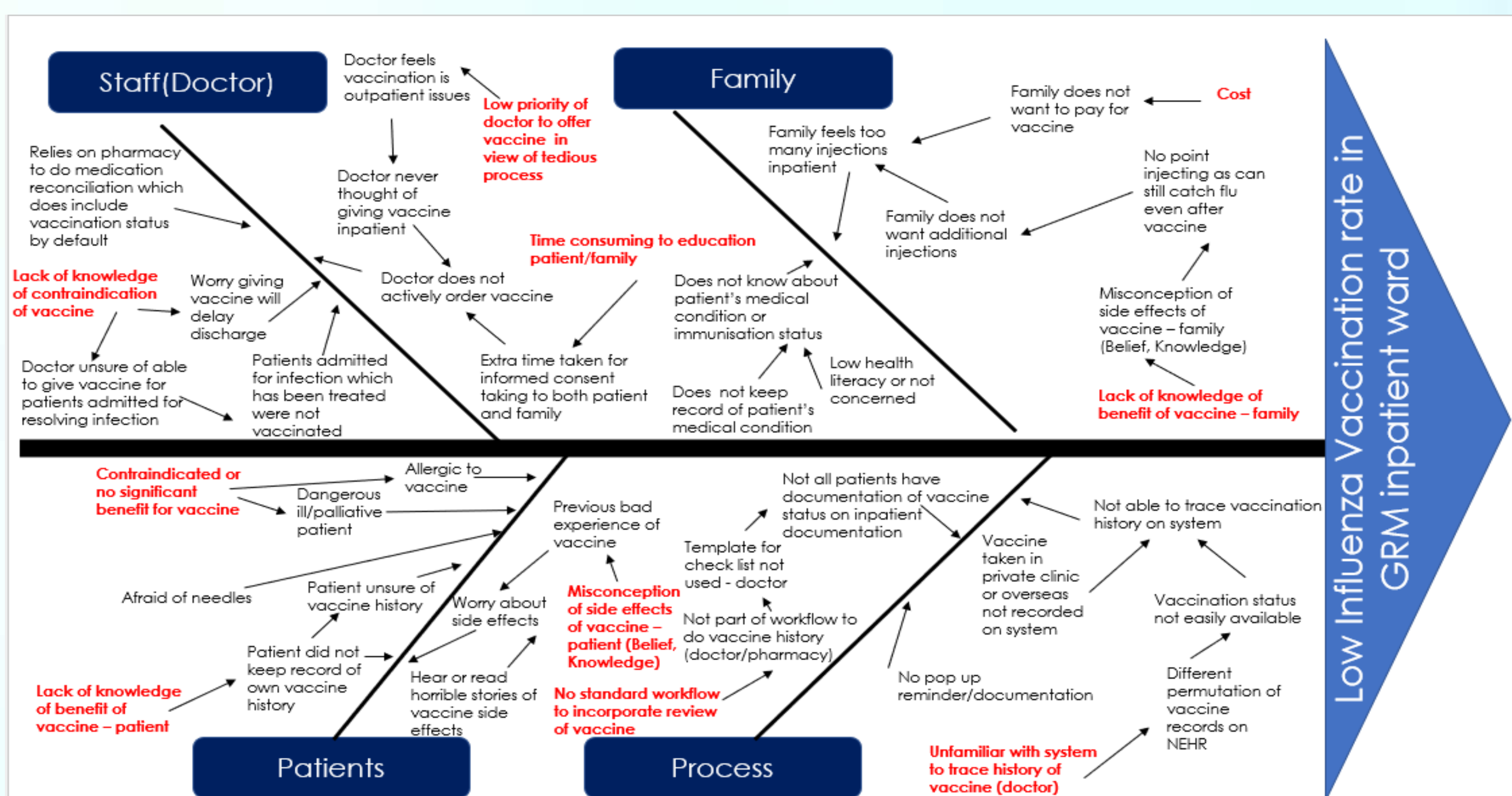
Low influenza vaccination rate in GRM inpatient wards (0-2 patients per week: 0-8%)

Prevalence: 9-30% (average: 15.3%) of patients at GRM ward B56 with up-to-date influenza vaccination status (June20-Jan 21).

Flow Chart of Process

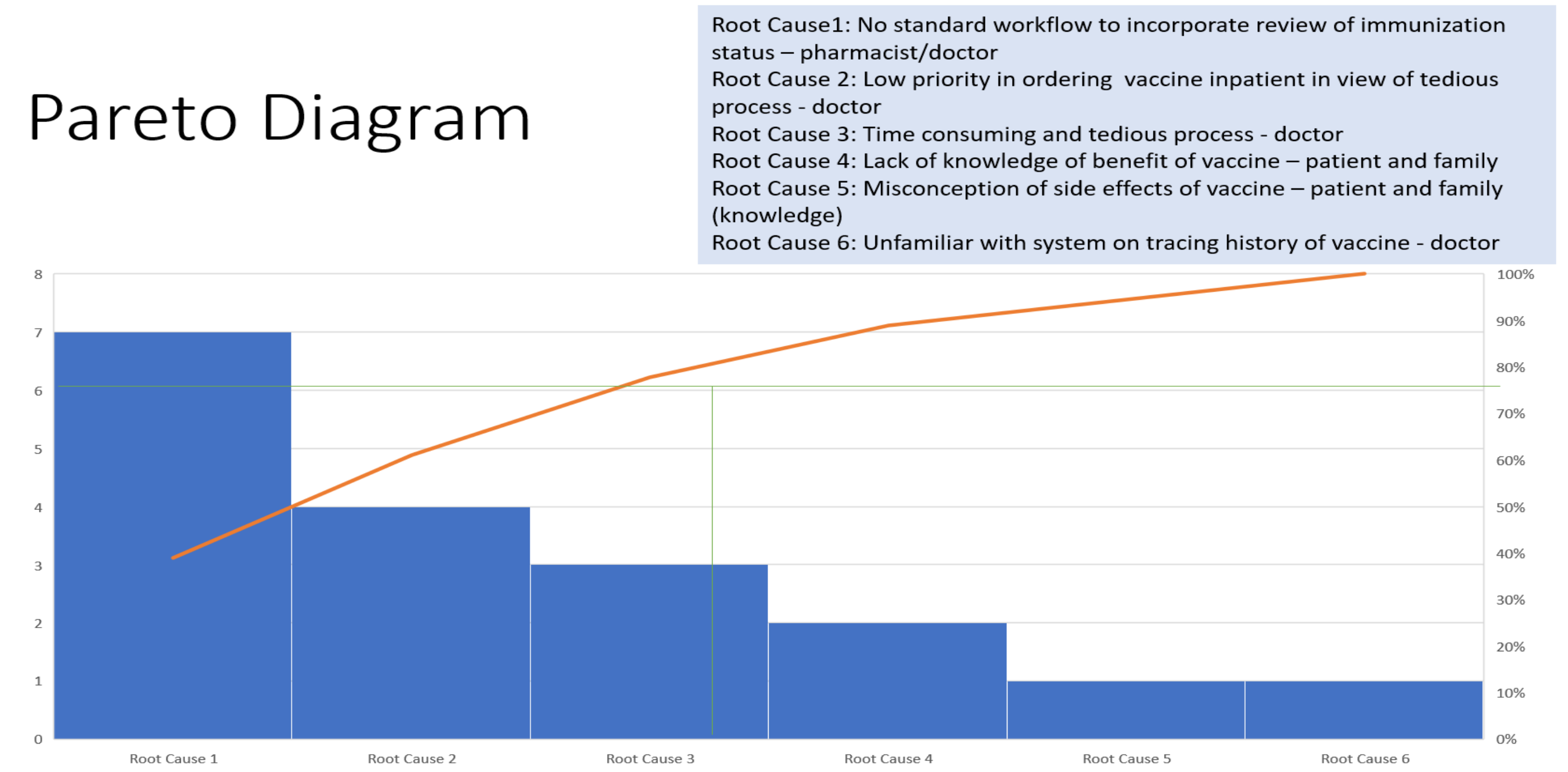


Cause and Effect Diagram

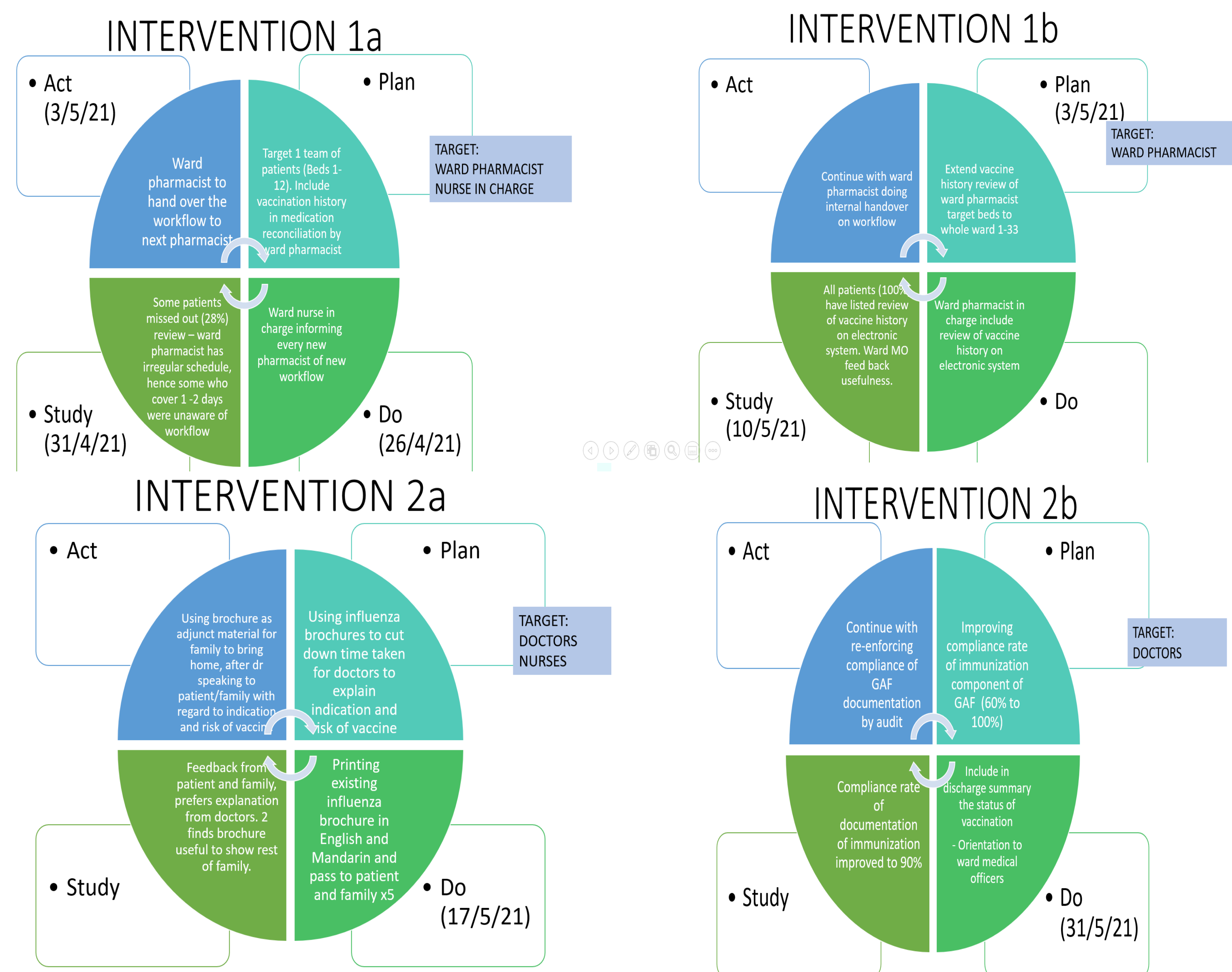


Pareto Chart

Pareto Diagram

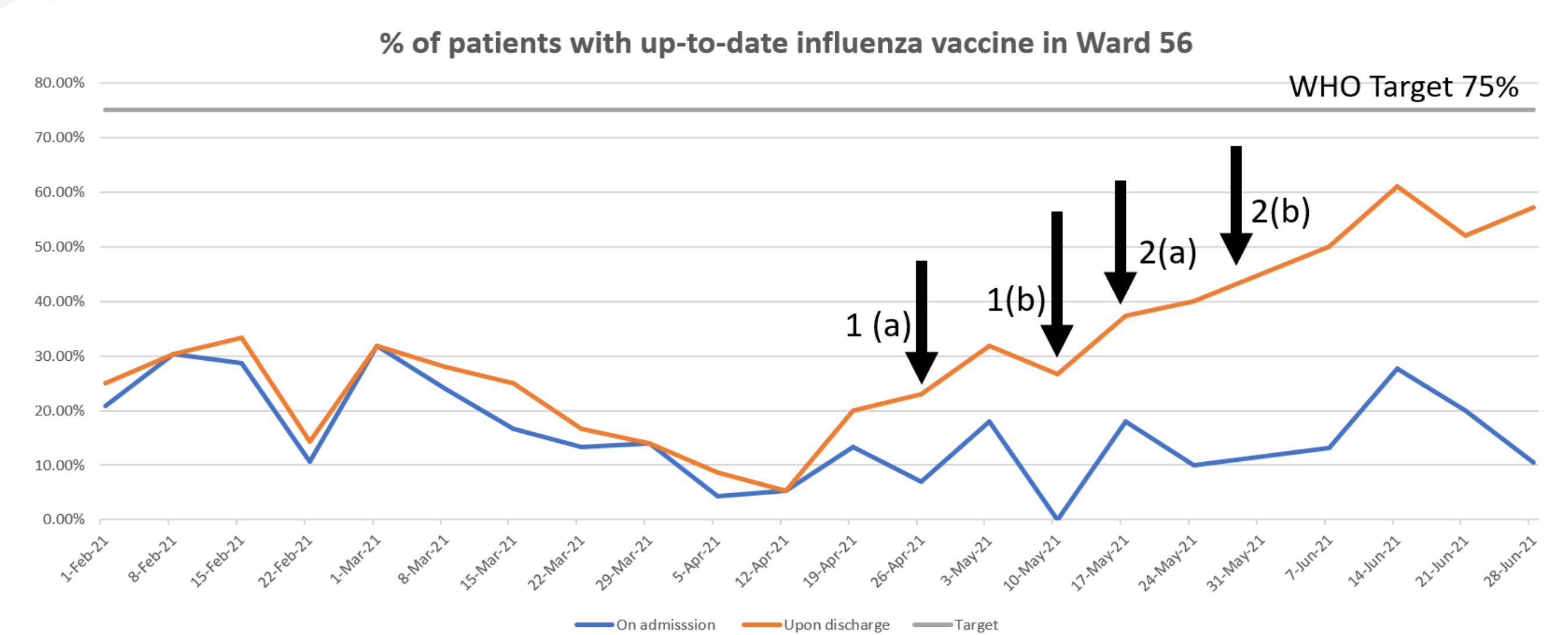


Implementation



Results

FINAL RUNCHART



Cost Savings

Influenza vaccine significantly reduces pneumonia and influenza-related hospitalization, with vaccine effectiveness of 25-53%. Study for cost effectiveness for adults aged >65 yield cost saving USD\$15,300 per quality adjusted life –year (QALY)

A review of the cost-effectiveness of adult influenza vaccination and other preventive services. N.M.Dabestani et al. Preventive Medicine, Vol, 126, September 2019

Problems Encountered

COVID restrictions affected workflow. The target ward was converted to COVID ward in November 2021 which affected subsequent sustainability.

Strategies to Sustain

SUSTAINABILITY

- Incorporating Geriatric Assessment Form (GAF) into department's Medical Officer (MO) orientation (IMPLEMENTED)
- Electronic template for GAF
- Formalizing pharmacist workflow into SWI

SPREAD

- Pneumococcal vaccination rate (IMPLEMENTED)
- Extend to other Geriatric Medicine inpatient wards