



# *Validation of General Surgical Workforce Modelling*

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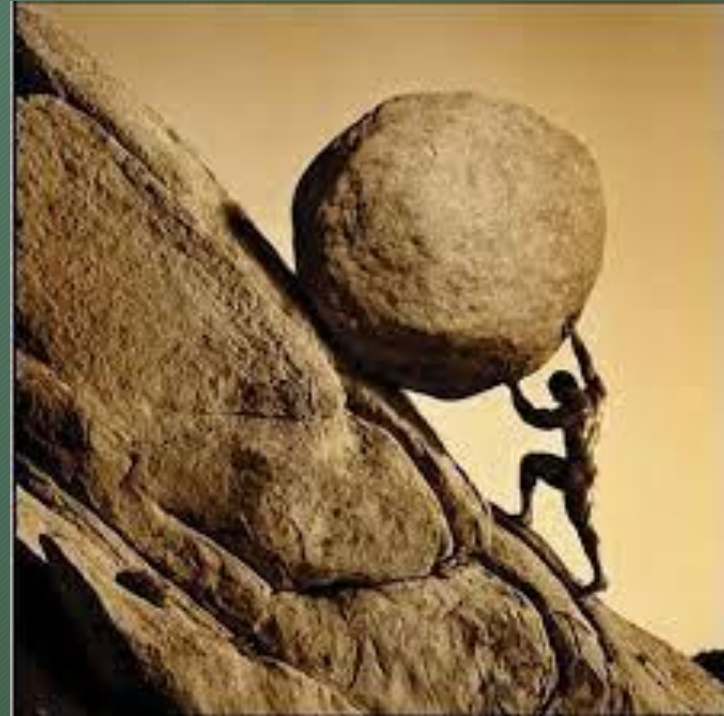
# Validation of General Surgical Workforce Modelling

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No Disclosures

# New Zealand's Health Workforce

- Aging
- Under increased demand
- Heavily reliant on migrant doctors



# Identifying Patterns



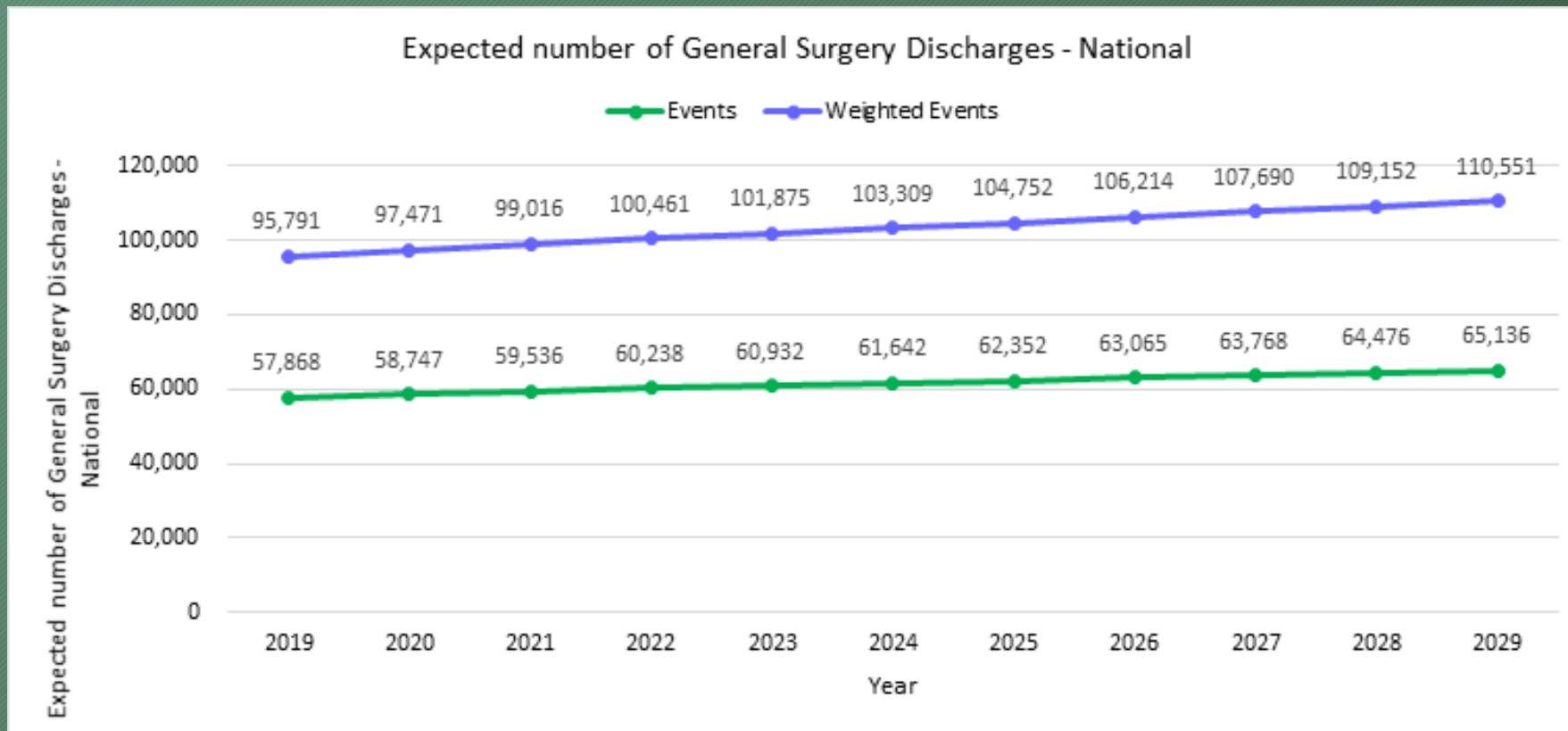
## SUPPLY:

- APC renewal pattern by age, ethnicity, DHB specific patterns

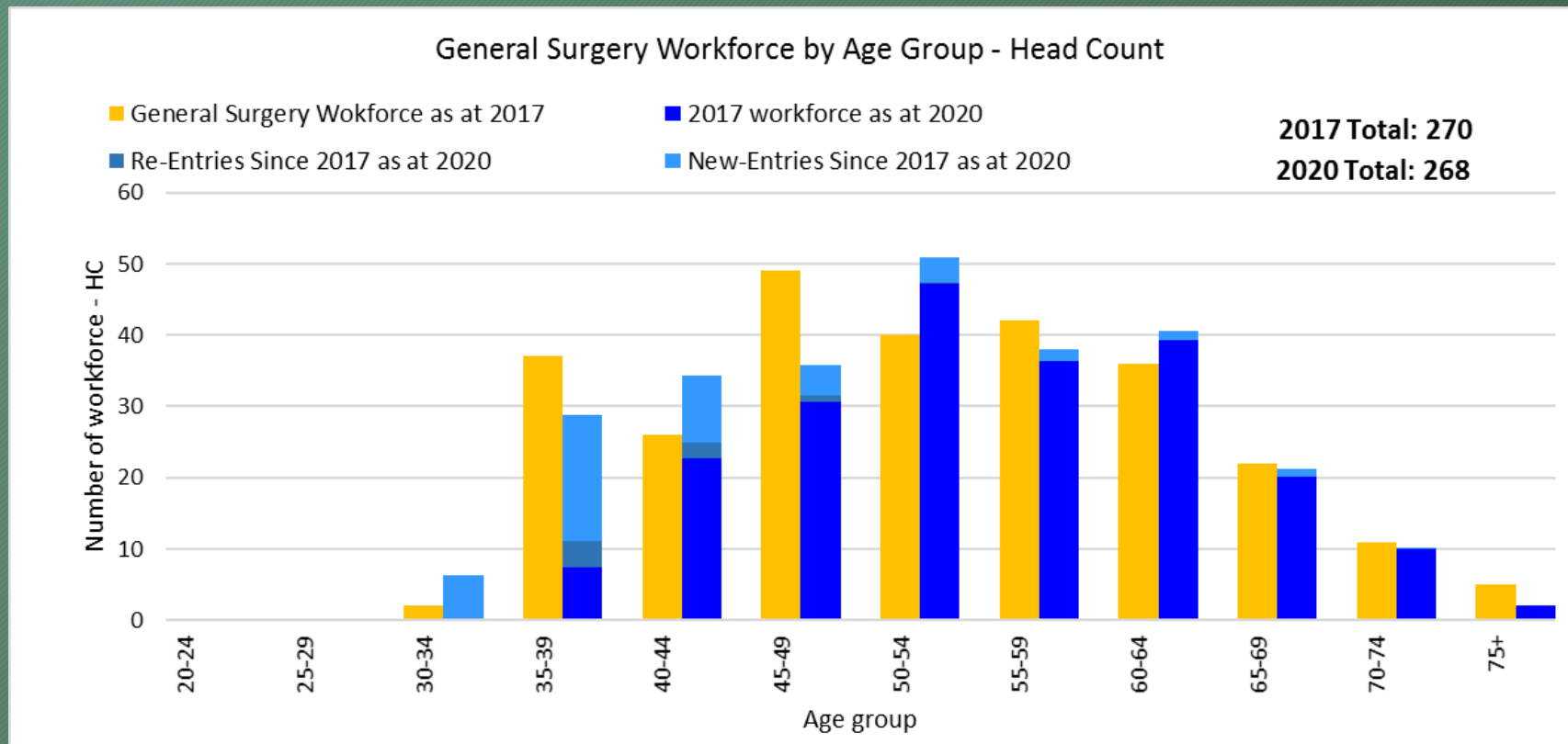
## DEMAND:

- Hospitalisation data with DRG case-weight by age, gender, ethnicity, DHB

# Increasing Workload



# Workforce Modelling



# Aims

- Validate this dynamic model





# Methods



- Medical Council Register
- Active APC - General Surgeon
- Some help from the internet



## Considerations:

- Dual trained
- No longer practising
- Emigration



**Total No. Practising  
General Surgeons in  
NZ in 2020**

# Methods - Comparison

**Total No. Practising  
General Surgeons in  
NZ in 2020**



**No. Of General  
Surgeons Forecast To  
Be Working In NZ In  
2020**

# Results

**Total No. Practising  
General Surgeons in  
NZ in 2020**

**267**

**No. Of General  
Surgeons Forecast To  
Be Working In NZ In  
2020**

**268**

# Results

Total No. Practising  
General Surgeons in  
NZ in 2020



267

No. Of General  
Surgeons Forecast To  
Be Working In NZ In  
2020



268

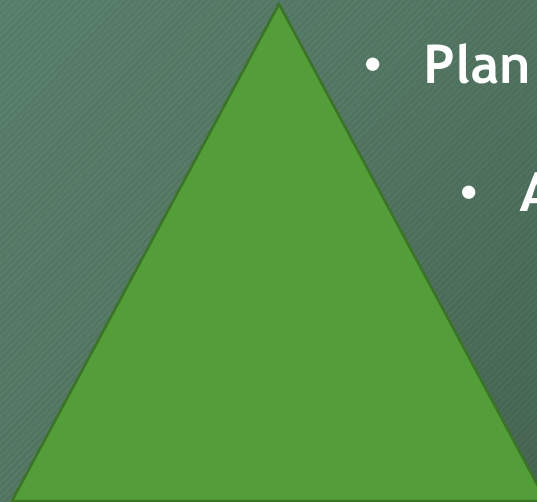
The Ministry of Health model  
is accurate to within 0.05%

# Conclusions

- This model is:
  - Reliable
  - Useful
  - Dynamic

It provides a new way of using APC data to:

- Plan future workforce needs
- Assist in workforce prioritisation
- Anticipate gaps & respond in a proactive manner



# References

1. Ministry of Health. 2014. *The Role of Health Workforce New Zealand*. Wellington: Ministry of Health.
2. Forecasting future medical specialty workforces supply with age distribution using health workforce annual practicing certificate data; Jo, Mathis, Goh

Questions?