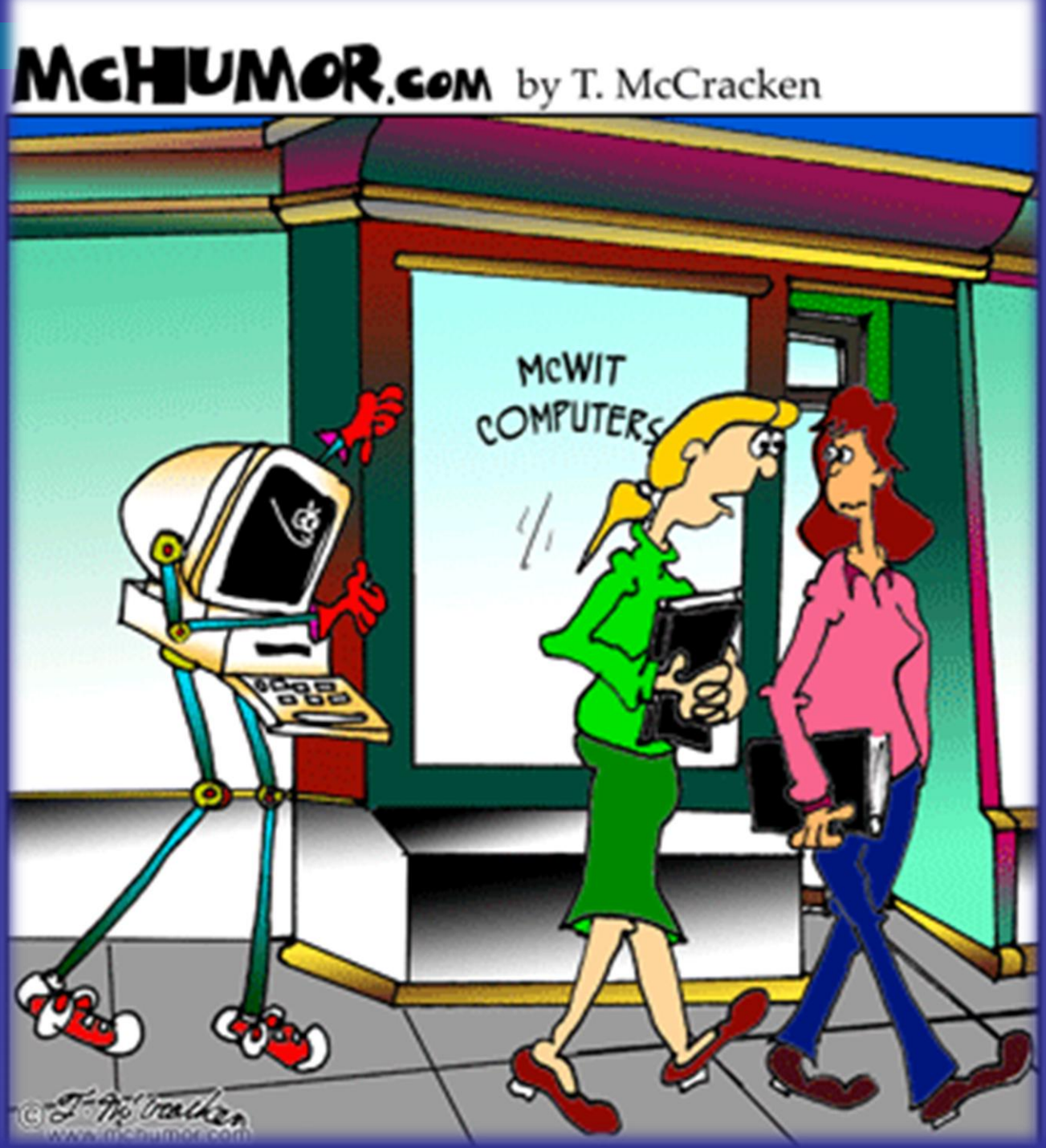
Wellington ED Respiratory Syndromic Surveillance

Dr Melissa McLeod


MCHUMOR.COM by T. McCracken
MCWIT
COMPUTERS

What is Syndromic Surveillance?

- *Syndromic surveillance* is a subset of disease surveillance, which aims to detect individual and population health indicators that are discernable before confirmed diagnoses are made (i.e. prior to laboratory confirmation).

  (Mandl, Overhage et al. 2004)

Why in an ED?

- Emergency Departments offer the advantages of: large volumes of patients; a varied patient case mix; and improving medical record technology.
  (Hirshon 2000; Muscatello, Churches et al. 2005)

- NZ Surveillance gap in Emergency Departments

Objectives of the system

The primary purpose of this surveillance system is to allow the early detection of outbreaks of respiratory illness, and a timely public health response.

- System was designed by RPH to be useful for public health response

What is Respiratory Syndrome?

- Based on CDC syndromic codes, with local modifications
- 68 ICD 10 codes for “Respiratory Syndrome”

68 ICD 10 codes for Respiratory Syndrome

Chapter I - Infectious and Parasitic Diseases

- A15 Respiratory tuberculosis, bacteriologically and histologically confirmed
- A16 Respiratory tuberculosis, not confirmed bacteriologically and histologically
- A20.2 Pneumonic Plague
- A21.2 Pulmonary Tularaemia
- A22.1 Pulmonary anthrax
- A37 Whooping cough
- A38 Streptococcal sore throat and scarlet fever
- B34 Viral infection of unspecified site

Chapter X - Diseases of the Respiratory System

- J00-J06 Acute upper respiratory infections
- J09-J18 Pneumonia and influenza
- J20-J22 Other acute lower respiratory infections
- J30 Vasomotor and allergic rhinitis
- J31 Chronic rhinitis, nasopharyngitis and pharyngitis
- J32 Chronic sinusitis
- J35 Chronic diseases of tonsils and adenoids
- J36 Peritonsillar abscess
- J37 Chronic laryngitis and laryngotracheitis
- J39 Other diseases of upper respiratory tract
- J40-47 Chronic lower respiratory disease
- J60-J68, J70 Lung diseases due to external causes
- J80-J84 Other respiratory diseases principally affecting interstitium
- J85-J86 Suppurative and necrotic conditions of lower respiratory tract
- J90, J91, J93, J94 Other diseases of pleura
- J96 Respiratory failure, not elsewhere classified
- J98 Other respiratory diseases

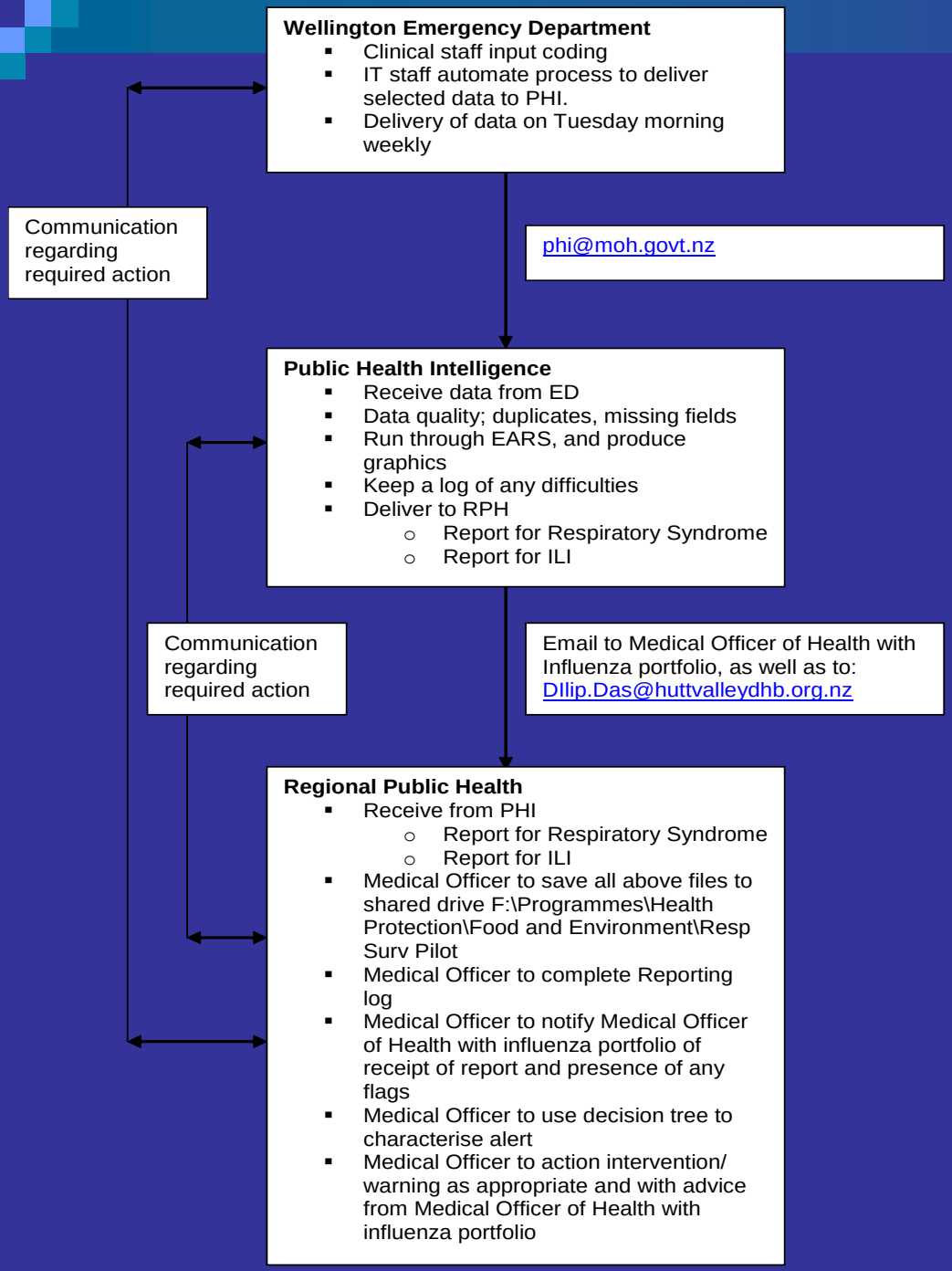
Chapter XVIII - Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified

- R04 Haemorrhage from respiratory passages
- R05 Cough
- R06 Abnormalities of breathing
- R07 Pain in throat and chest

Who is involved?

- Wellington ED – data collection and delivery
- HDI – data analysis using EARS
- RPH – Interpretation and response

Relationships managed through MOUs, protocols and goodwill (no $)



Data collection

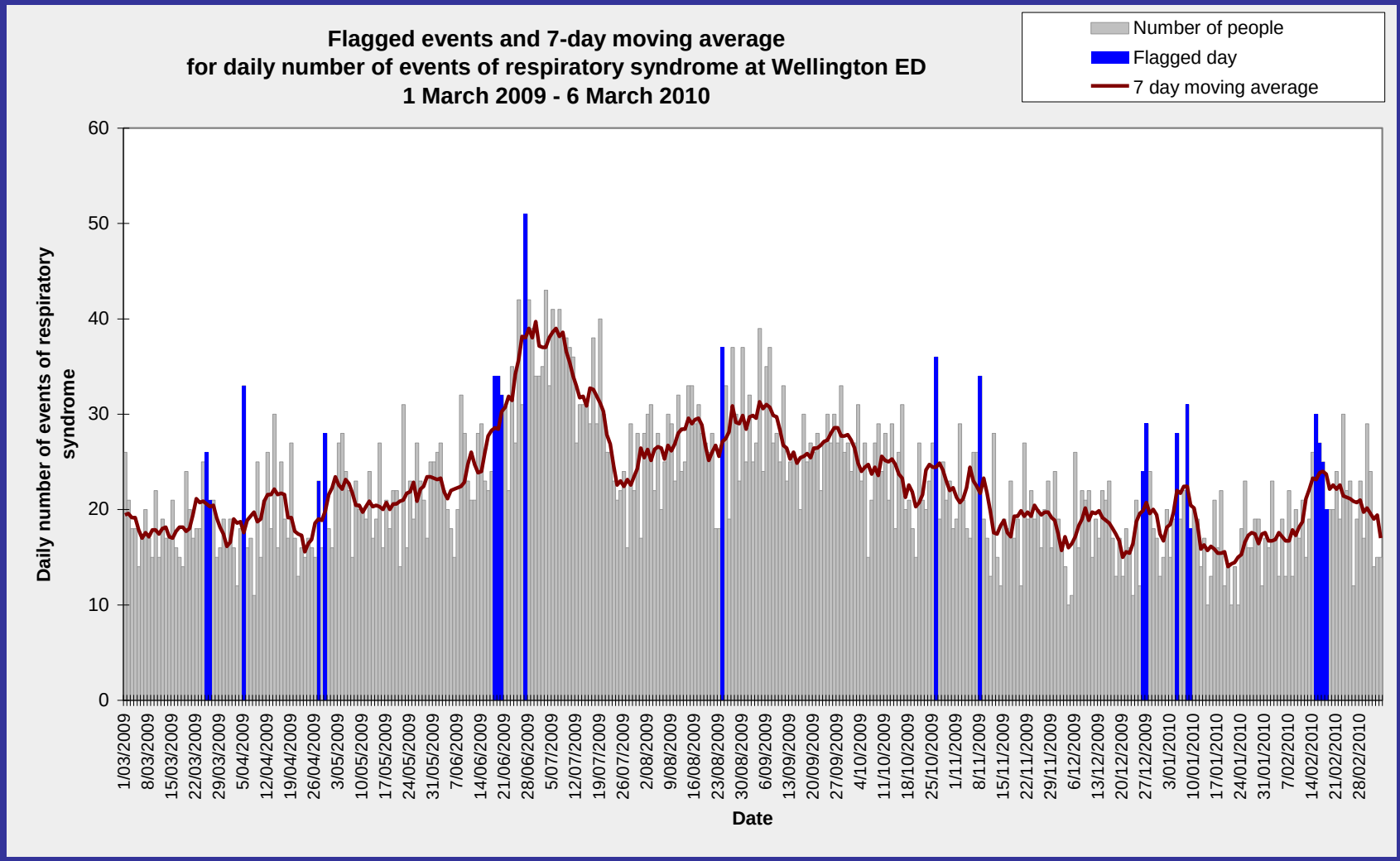
Data analysis

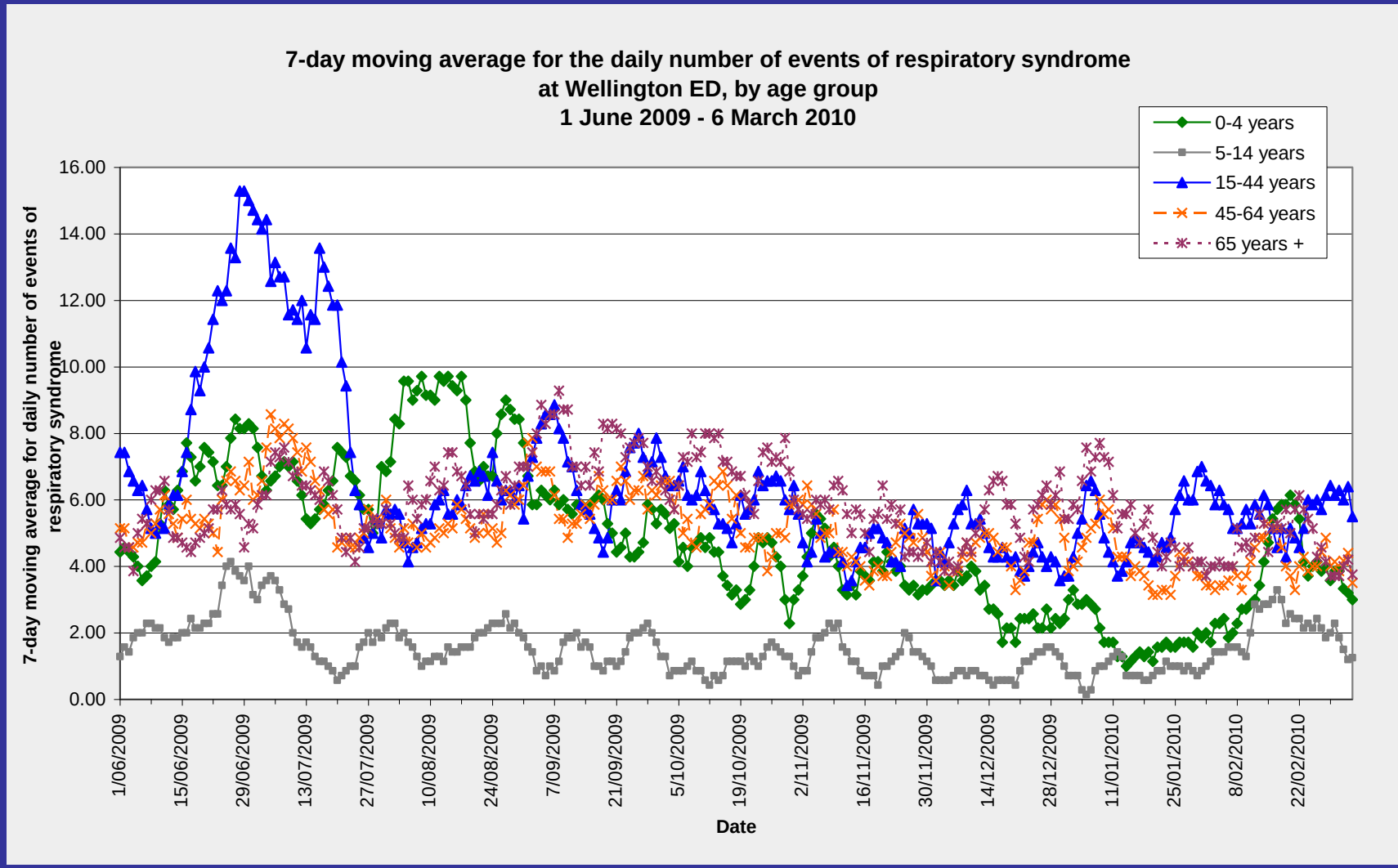
Information interpretation

Public Health response

+Evaluation and communication

What happened in the pandemic?



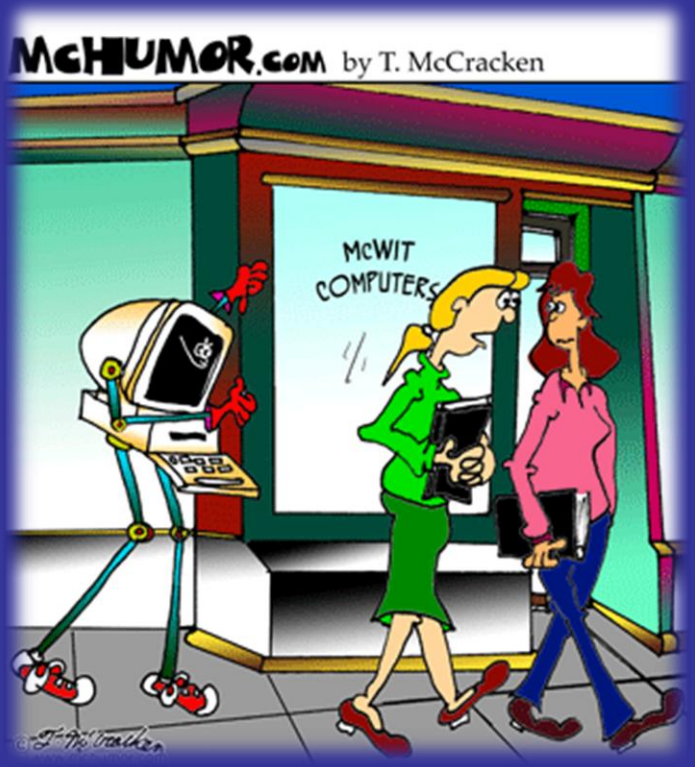

7-day moving average for the daily number of events of respiratory syndrome
at Wellington ED, by age group
1 June 2009 - 6 March 2010
0-4 years
5-14 years
15-44 years
45-64 years
65 years +
7-day moving average for daily number of events of respiratory syndrome
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1/06/2009
15/06/2009
29/06/2009
13/07/2009
27/07/2009
10/08/2009
24/08/2009
7/09/2009
21/09/2009
5/10/2009
19/10/2009
2/11/2009
16/11/2009
30/11/2009
14/12/2009
28/12/2009
11/01/2010
25/01/2010
8/02/2010
22/02/2010
Date

Time to reflect…..

- 2 year pilot study ending – RPH to evaluate system
- Potential extension – other DHBs or syndromes
- New name

Recommendations

- Invest time into relationships
- Think of your audience in system design
- Choose projects wisely



Thanks to.....

- Dr Deborah Read – RPH
- Kylie Mason and Erin Holmes– MoH
- Paul White - MaF
- Sandra Allmark – Wellington ED
- Dr Vicki Vertongen – Wellington ED
- Dr Amanda D’Souza , feasibility study