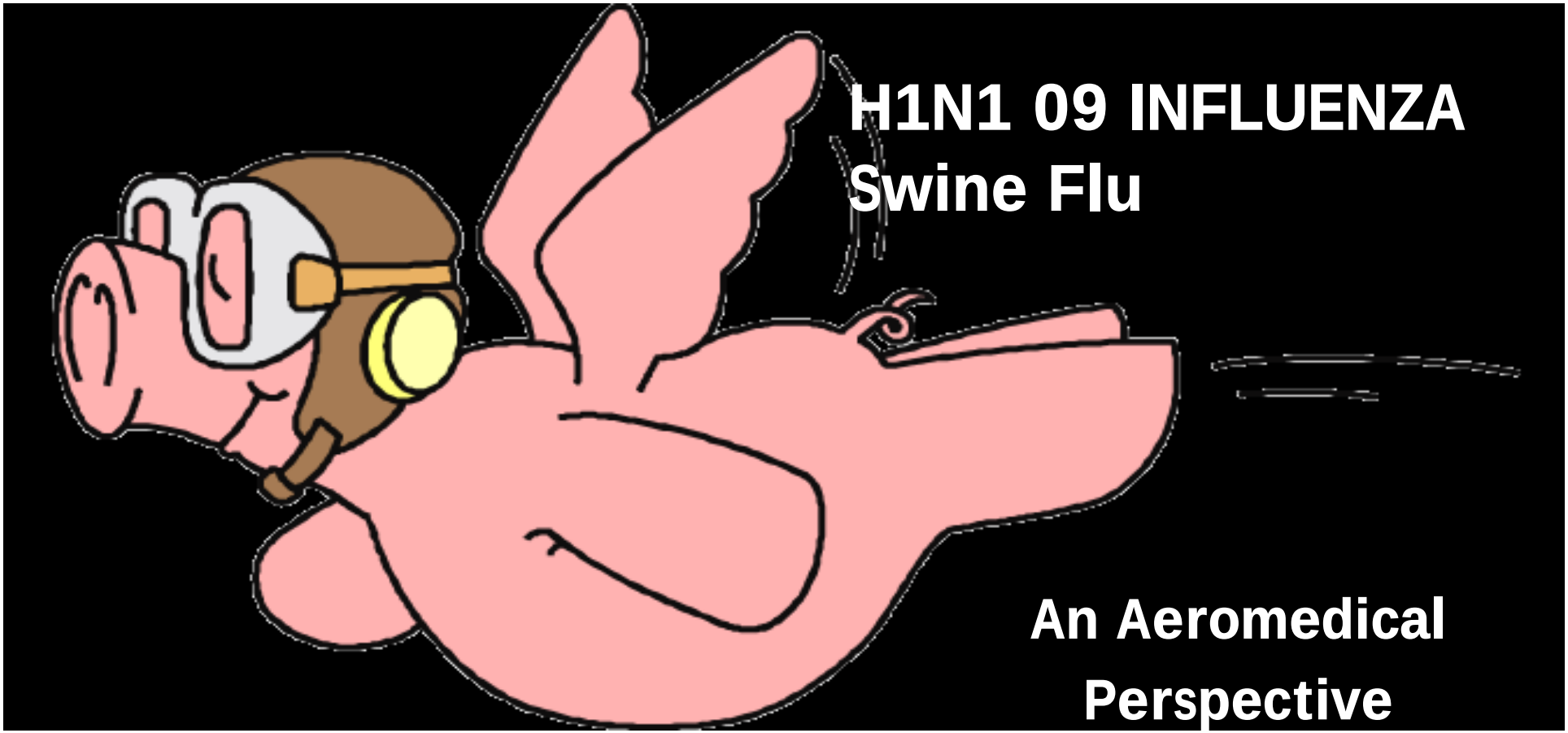

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Acknowledgement

Co Author of published paper (AENJ 201013:3 P53-60)

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H1N1 Influenza 09

- H1N1 first confirmed case April 2009 – North America
  - Swine flu - novel but not new
    - An animal influenza virus that has undergone transformation into a human influenza virus
- June 2009 –WHO declares Pandemic H1N1
  - Human to human transmission occurring at a community level across multiple countries and WHO regions
- April 2010
  - 213 countries affected
  - 16 455 deaths worldwide

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Effects in Australia

- 37693 confirmed cases
- High risk people
  - Pregnant
  - Younger children
  - Chronic lung diseases & other medical conditions
- 13% hospitalised
- 14% of those requiring ICU
- 191 H1N1 Influenza 09 related deaths
- Deaths affecting younger people

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Effects on RFDS (Qld) Surge capacity & demand for services

- Initially little effect on RFDS due to Queensland Health (QH) policy of non aeromedical transport for suspected H1N1 infected patients

- July 2009 – notification from QH of pandemic modeling indicating dramatic increased demand for aeromedical transport would be required

- RFDS (Qld) went into planning mode

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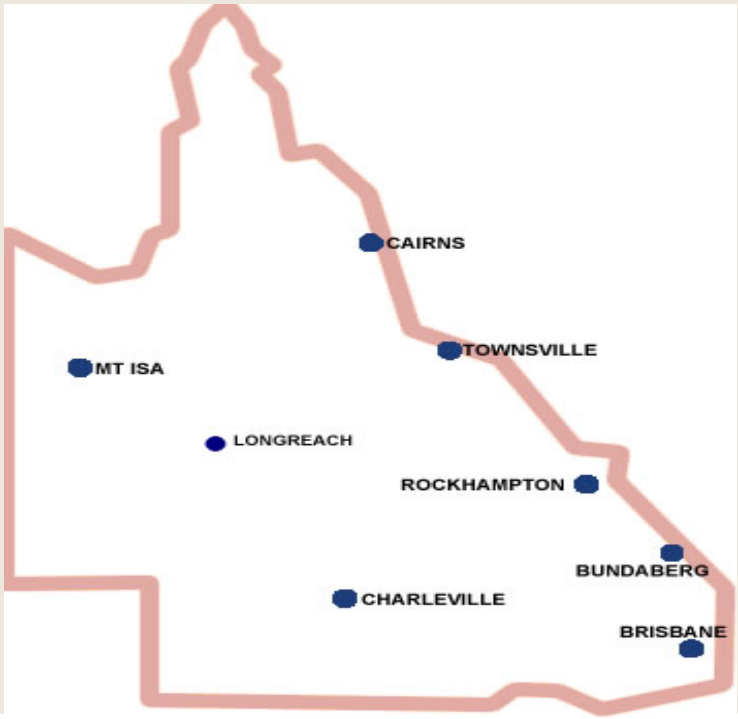
RFDS Aeromedical Bases in Qld

- Brisbane – 2 aircraft
- Bundaberg – 1 aircraft
- Rockhampton – 2 aircraft
- Townsville – 1 aircraft
- Cairns – 1 aircraft
- Mt Isa – 2 aircraft
- Charleville – 1 Aircraft shared as clinic aircraft



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Surge capacity plan

- **Tier 1**
  - Brisbane capacity increase from 2 day and 1 night aircraft and crew to 2 day and 2 night planned and rostered for
- **Tier 2**
  - 2nd Rockhampton aircraft to transfer to Cairns and crewed for day and night (to accommodate increased North Qld demand)
- **Tier 3**
  - Reconfigure clinic aircraft into aeromedical configuration

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Identified issues with surge plan - staffing

- **Tier 1**
  - Annual leave, study leave cancellation and recalling staff from administrative roles to achieve required staffing levels to man BNE aircraft for 2 day and 2 night shifts
  - Rostered in stand by mode
- **Tier 2 and 3**

FN staffing very problematic – consideration of:

- Further leave cancellations
- Employment of locums (scarce as employed in overwhelmed ED's)
- Accessing FN's from other RFDS sections

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Challenges for aeromedicine – infectious diseases & control measures

- Paucity of literature of aeromedical environment and transmission of infectious diseases – what does exist relates to commercial jet aircraft
- Risk of disease transmission in RFDS type aircraft is unknown and indeterminate
- Ideally – don't transfer infectious patients aeromedically
- Reality – patient requires transfer to higher level of care, distances in QLD demand aeromedical transfer

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Prevention of transmission of infectious diseases in the aeromedical environment

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Challenge – The Aeromedical Environment

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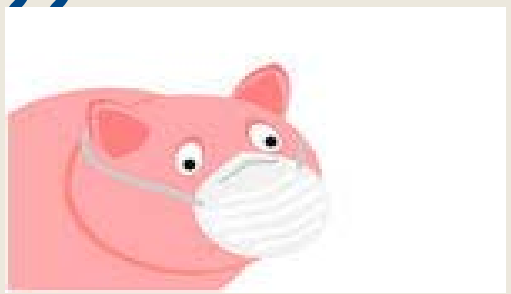
How to minimise risk of transmission to crew and other patients??

- PPE
- Respirator choice – N95 high particulate respirator
- Fit testing staff – including pilots



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How to minimise risk of transmission to crew and other patients??

- Use of alcoholic based hand rub

- Isolation measure – curtain between cabin and cockpit

- Decontamination measures

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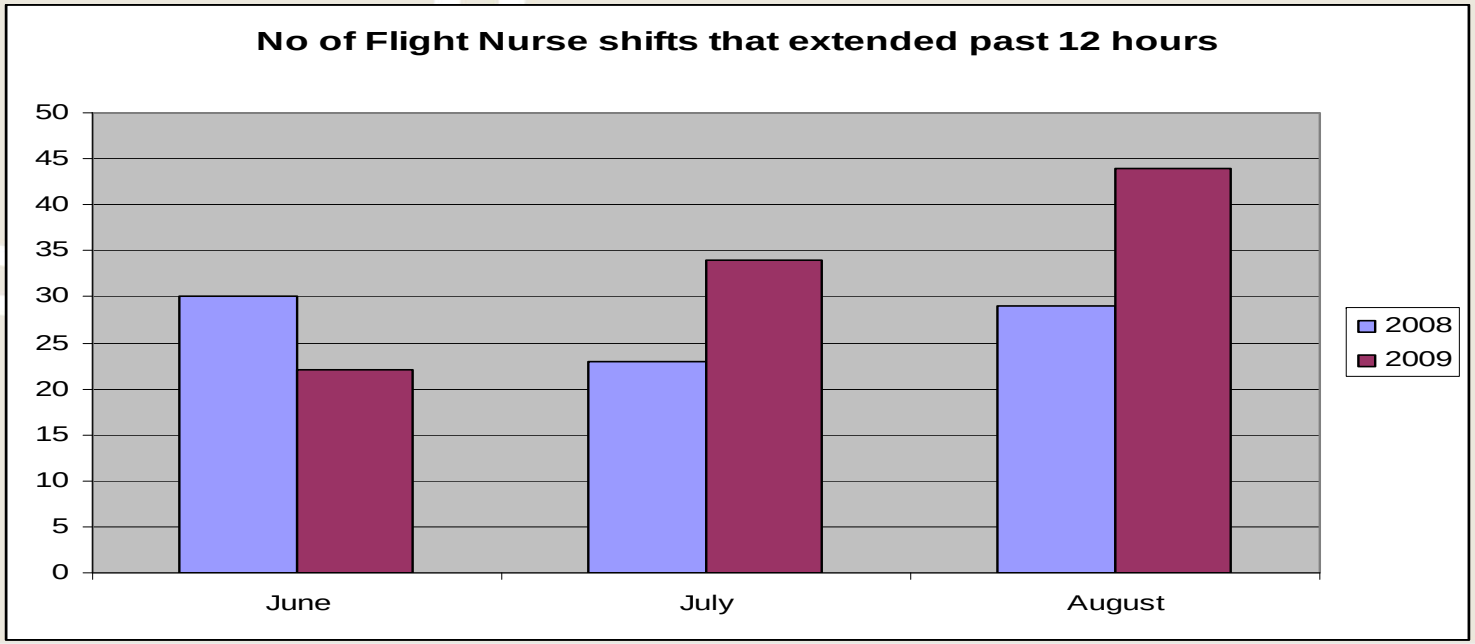
Effect of Decontamination measures on turn around times



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Staff health & post exposure prophylaxis

- Staff who fit the criteria of ‘vulnerable’ or ‘at risk’ could decline the tasking of an ILI patient
- Post ILI exposure prophylaxis of Tamiflu made available to staff
- Staff Fluvax® vaccination and Panvax ® vaccination when available
- 1 operational employee confirmed to have H1N1 09

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H1N1 09 related workload activity

Difficult to determine accurate figures

- Most patients transferred from lower level facility with minimal diagnostic capabilities to a higher level facility i.e. transferred prior to definitive diagnosis
- Internal register – a number of ICD-10 codes fitted ILI
- Specific code for suspected H1N1 09 was not determined until half way through the outbreak
- RFDS unable to access pathology results to determine diagnosis

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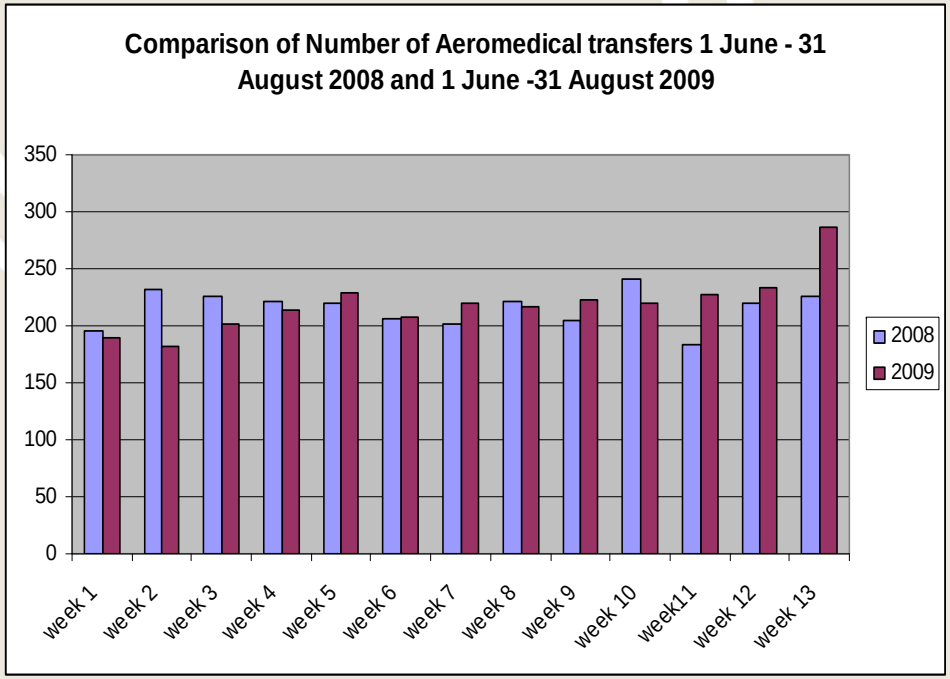
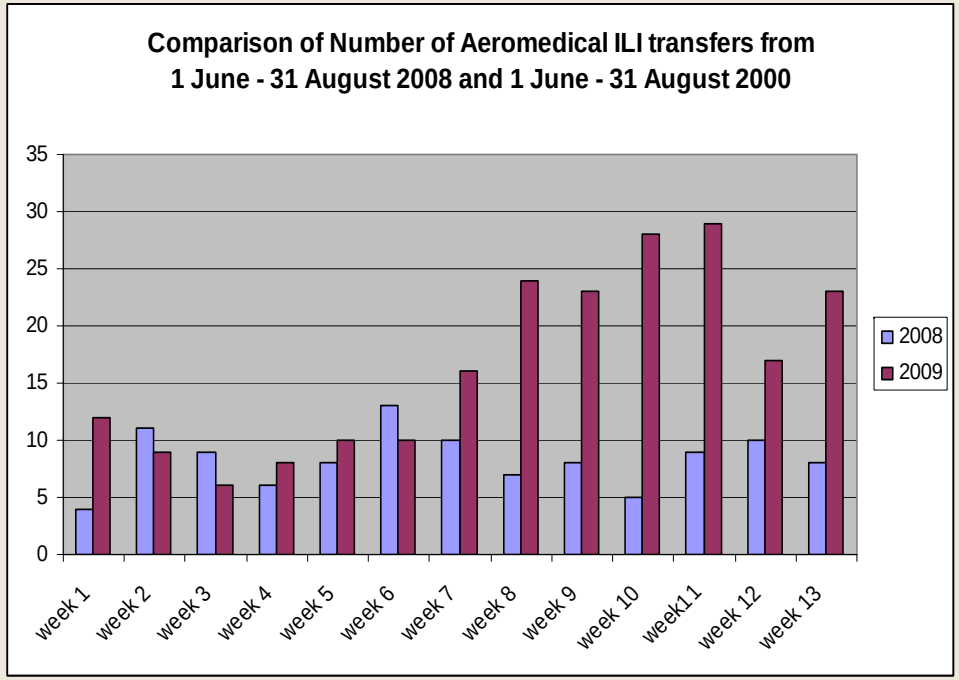
Aeromedical activity





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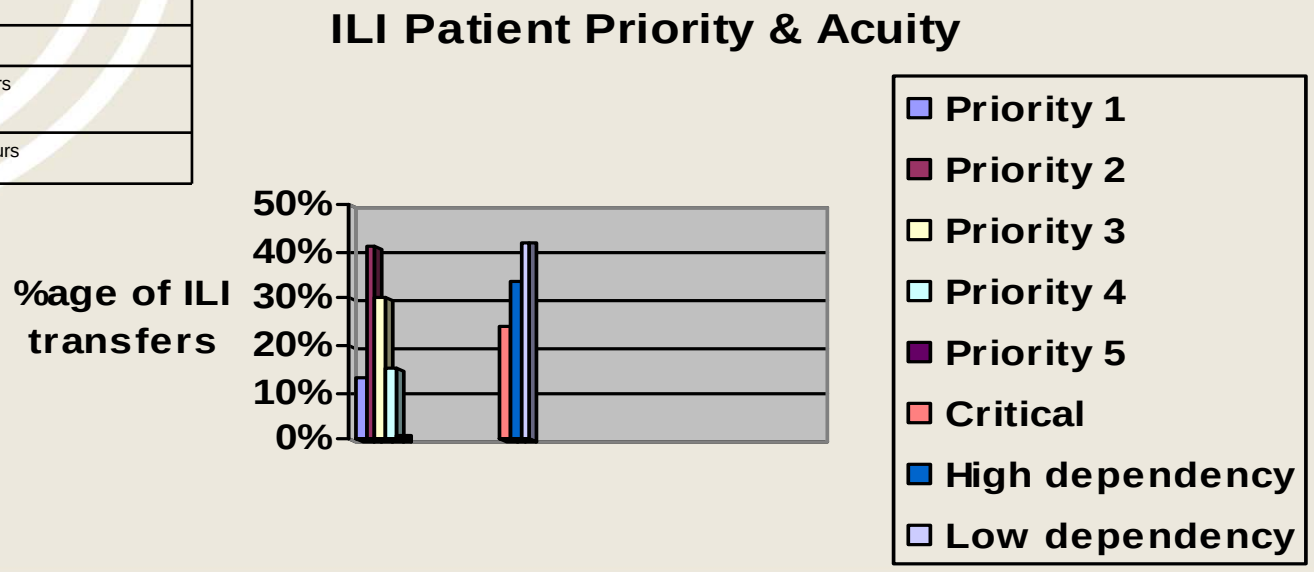
Priority of ILI transfers

Patient Priority Category	Definition
1	response time less than 1 hour
2	response time between 1-3 hours
3	response time between 3-6 hours
4	response time between 6-24 hours
5	response time greater than 24 hours



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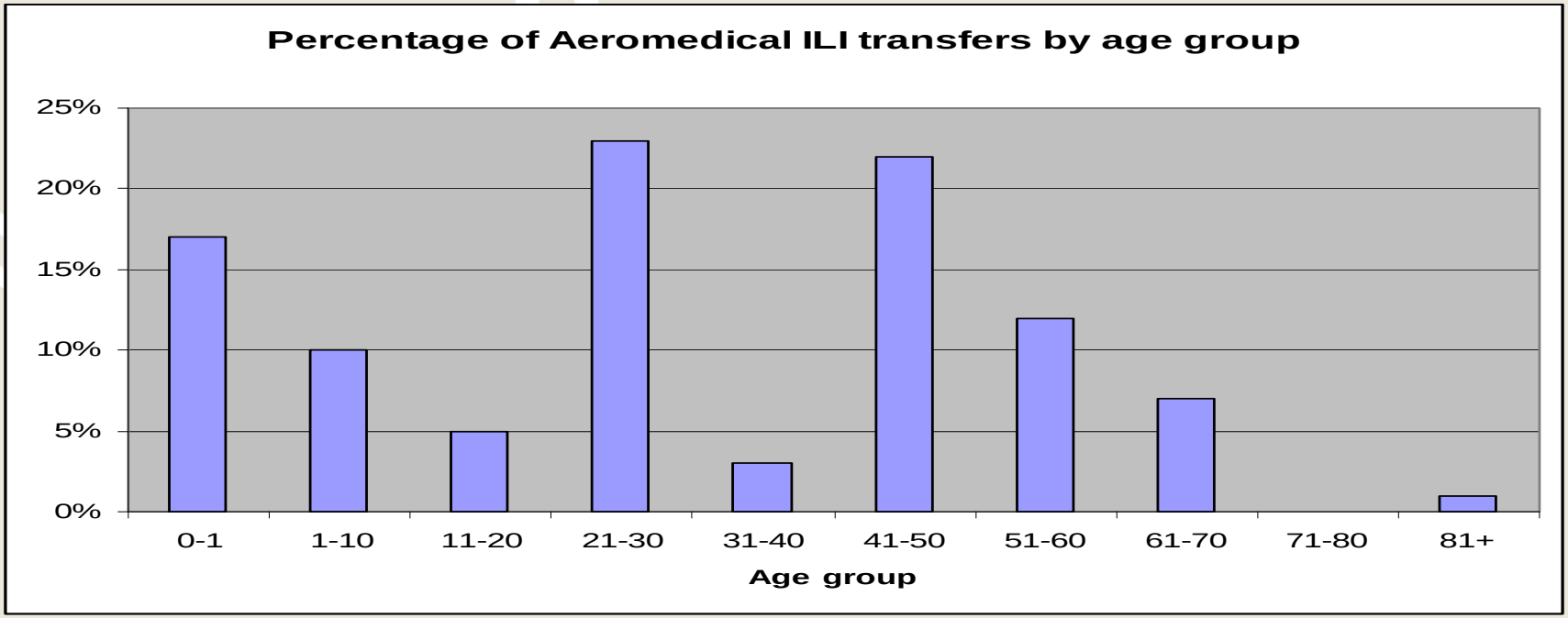
ILI transfers by age



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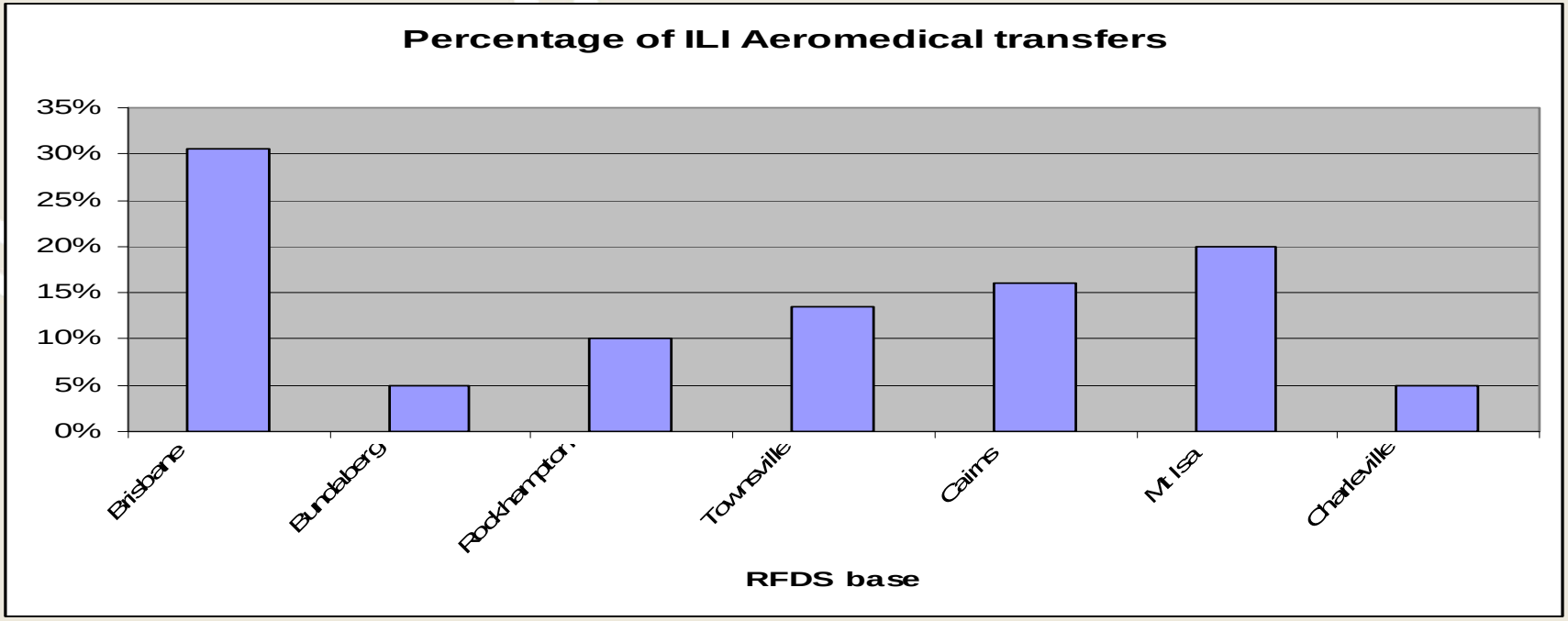
Base ILI activity



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Lessons learned

- Employee training in infection control (not just clinicians)
- Encouragement to staff protect themselves via vaccination
- Data collection inconsistencies
- Access to patient diagnosis post transfer

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Conclusion

- Surge plan developed but not tested
- Infection control requirements unique to aeromedical environment
- Cooperation and communication with key stakeholders
- **ARE WE (YOU) REALLY PREPARED FOR THE NEXT PANDEMIC??**

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