

# inspired

Behind this presentation is an idea  
that will improve patient care

## Dental Presentations at Acute Hospital Emergency Departments

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# Background

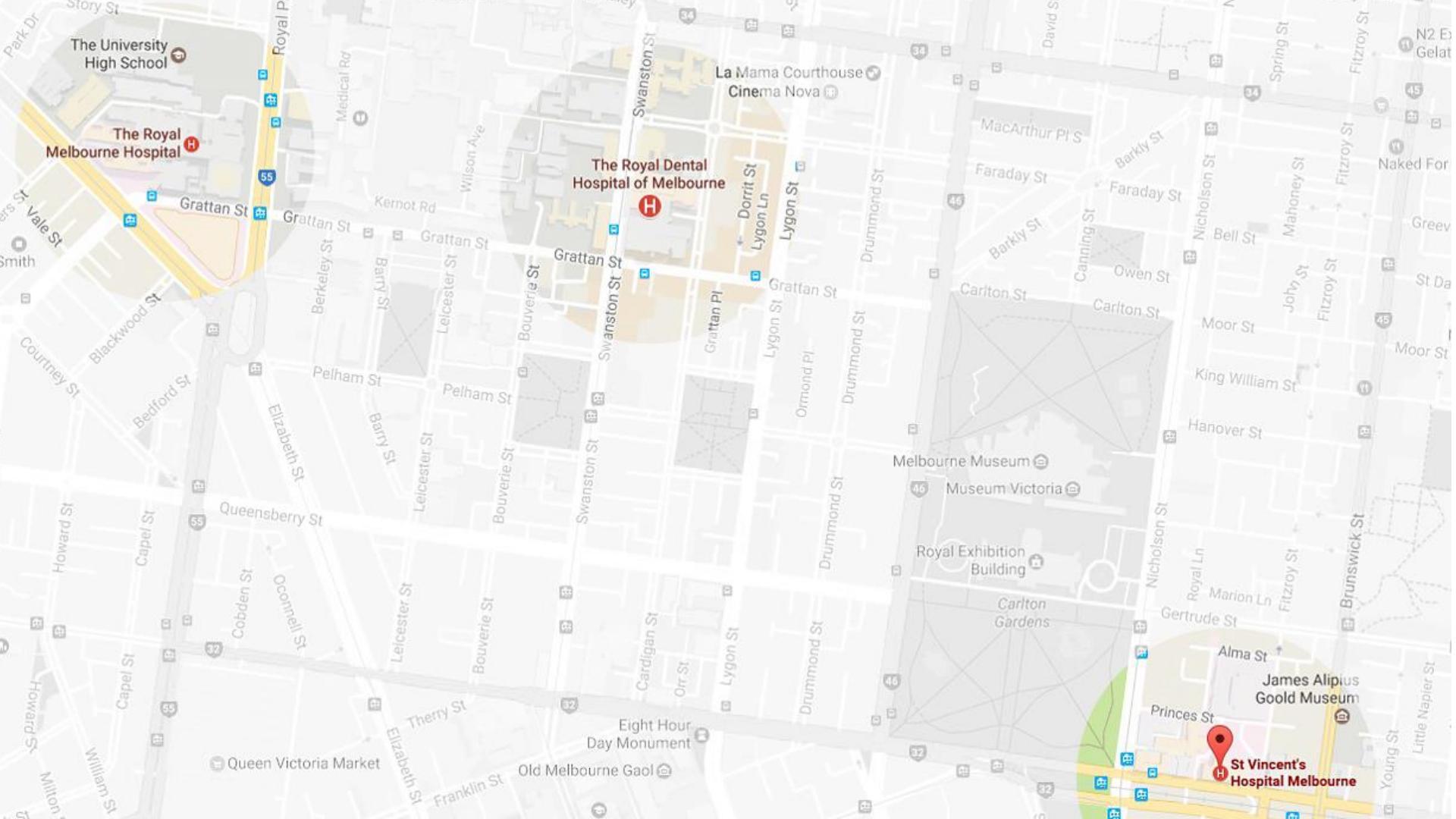
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- Hospital Emergency Departments strategically located to serve as interface between the public and the health care system
- Use for preventable dental conditions such as toothache, periodontal disease and dental infections has been recognised as expensive and inefficient, resulting in serious cost and resource implications for the health system  
[Cohen et al, 2003]
- Internationally dental complaints account for 1% - 4% of ED presentations  
[Skapetis et al, 2011]
- Australian study reported 1% of ED presentations were primarily of a dental nature, with two thirds dental abscesses and toothache  
[Verma & Chambers, 2014]

# Background

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- ED staff have limited training in the diagnosis, investigation and management of dental emergencies [Skapetis et al, 2011]
- Care provided for dental related problems in EDs often palliative and limited to prescribing pain relief medications and antibiotics [Needleman et al, 2013; Okunseri et al, 2014]
- ED dental visits rarely result in definitive care, since care only addresses symptoms but does not treat underlying cause of the dental disease [Cohen et al, 2003; McCormick et al, 2013]
- Where non-definitive care is provided, patients often make multiple return visits to the ED with the same complaint [Cohen et al, 2013; Davis et al, 2010]
- Continuous use of EDs for dental conditions places additional burden on the ED staff, and takes up time and space in the ED leading to overcrowding and increased waiting times for patients with urgent health conditions [Needleman et al, 2013; McCormick et al, 2013]



# Aim

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- Aim
  - To pilot and evaluate a model to identify patients with primary dental presentations at the EDs of RMH and SVHM and divert them to RDHM
- Objectives
  - Understand the characteristics of dental related admissions and presentations to the RMH and SVHM with the aim to identify patients who could be most appropriately managed at RDHM
  - Reduce the number of dental related admissions and ED presentations treated at the RMH and SVHM by trialing diverting appropriate patients for treatment to RDHM over a 6 month period
  - Evaluate the patient diversion process and determine the facilitators and barriers to implementation

# Methods

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- Baseline data collection 2013-15 from two major acute hospitals (RMH & SVHM)
- Developing guidelines for diversion trial
- Training ED staff
- 6 month Diversion Pilot Oct 2015 – Mar 2016
- Number of patients
- Patient demographics
- Presentation characteristics
- In-patient admissions

# Training for ED Nurses

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- Training package developed for ED triage nurses to enable them to identify appropriate patients for diversion
  - Differentiate between patients requiring urgent and non-urgent dental or medical treatment

# Results - Baseline

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- Dental ED presentations 2013/14 & 2014/15
  - Number admitted
  - Top 3 primary diagnosis
  - Presentation time – business, RDHM after hours, RDHM out of hours
  - Duration in ED

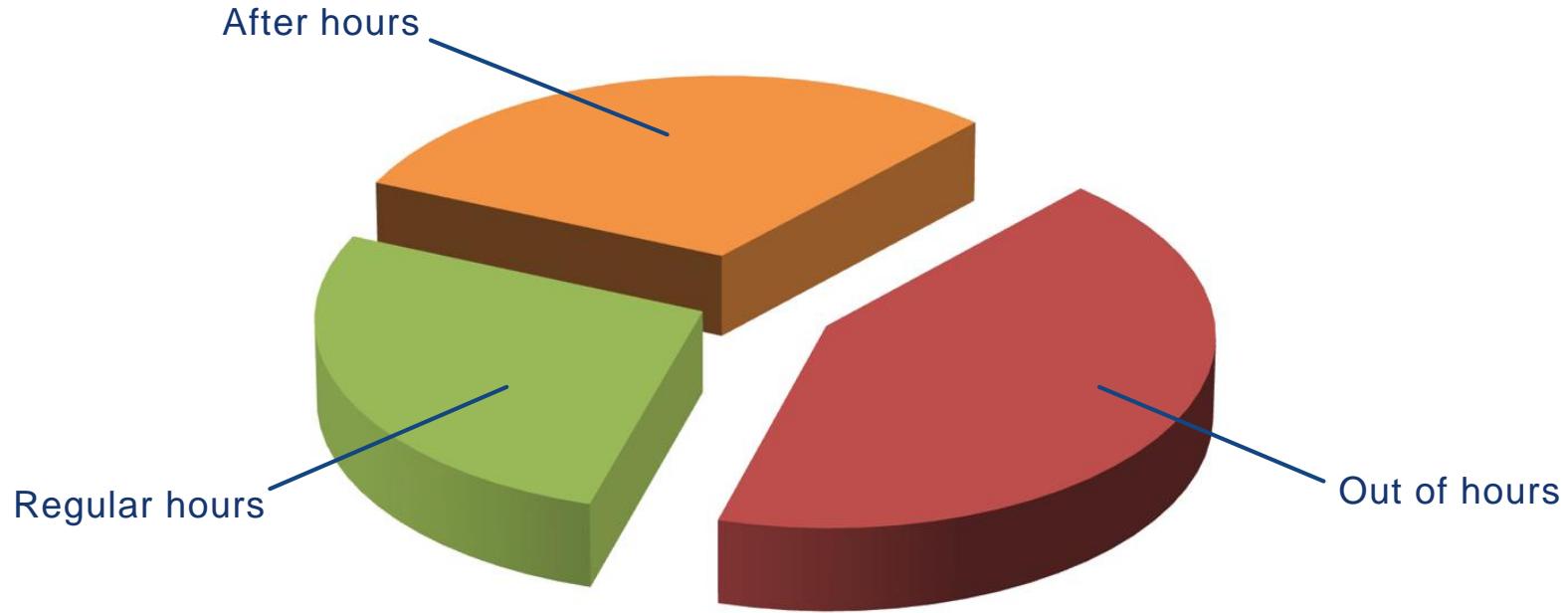
# Results - Pilot

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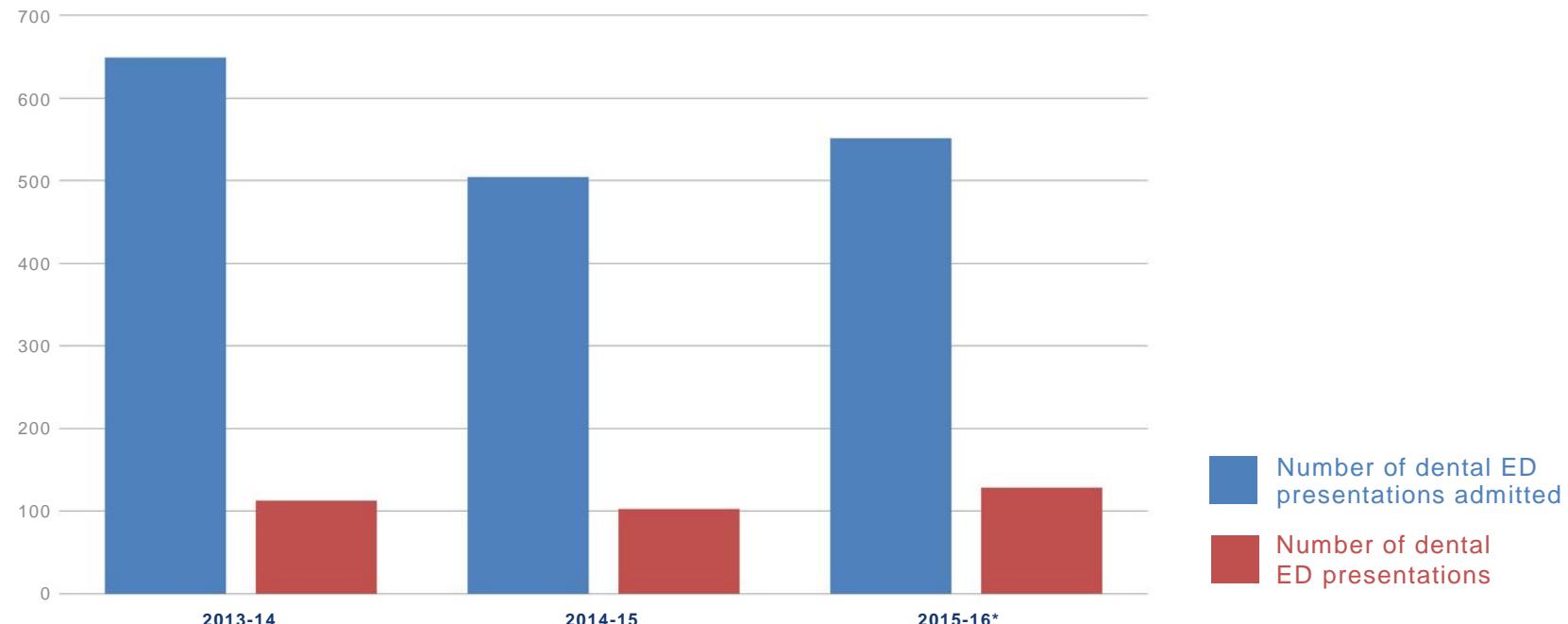
- Dental ED presentations *Oct 2015 – Mar 2016*
  - Number admitted
  - Top 3 primary diagnosis
  - Presentation time – business, RDHM after hours, RDHM out of hours
  - Duration in ED
  - *Number diverted to RDHM*

# Presentation Time to Hospital ED

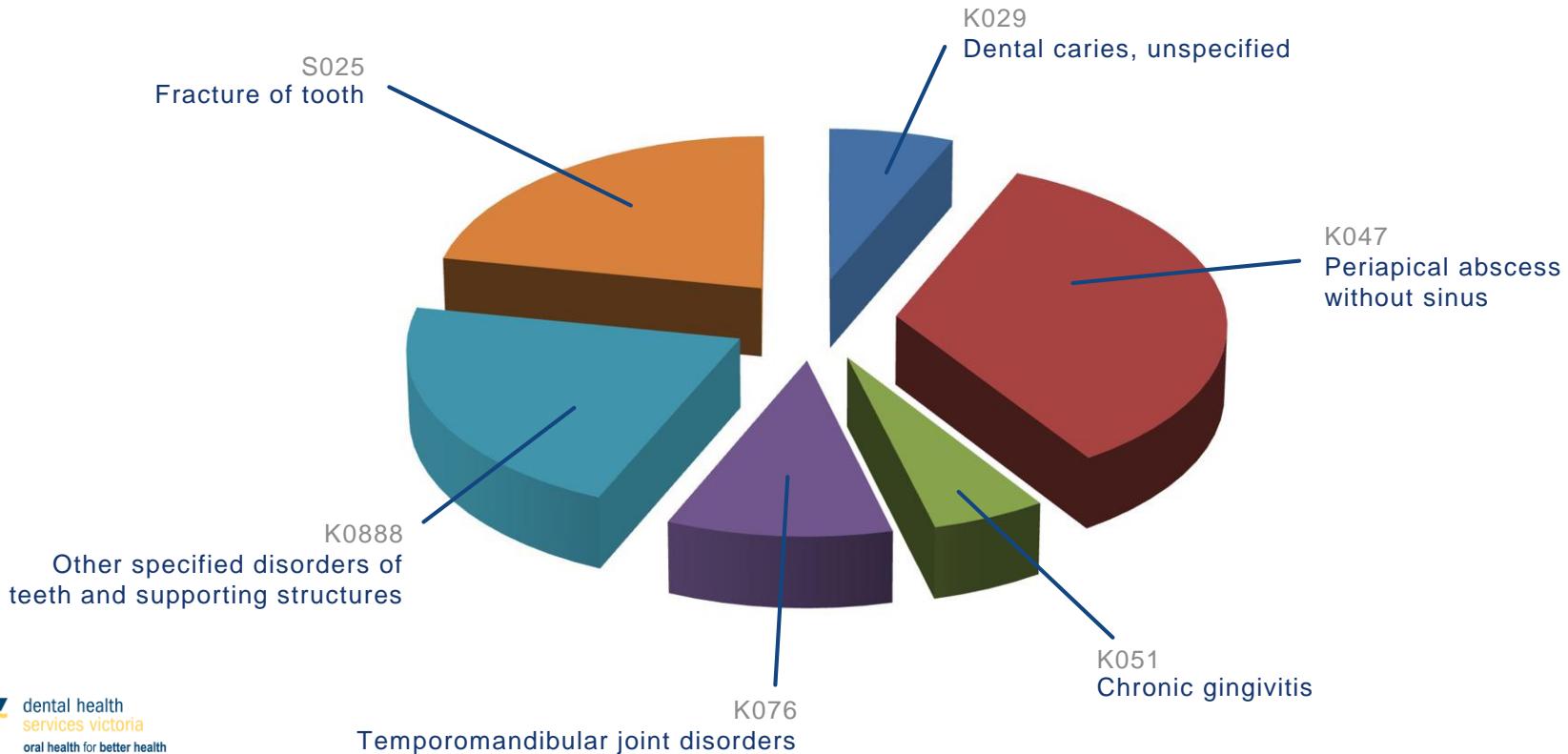
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# Dental Presentations to Hospital by Year



# Primary Diagnosis of Dental Presentations to Hospital ED 2013-2016\*



# Pilot Phase Oct 2015 – Mar 2016

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- Total of 286 patients with primary dental presentation at RMH & StVH
  - 64 (22.4%) were admitted
  - 44 (15.4%) were diverted to RDHM
  - Diagnosis profile similar to baseline

# Discussion

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- Challenges
  - Competing priorities for triage nurses
  - High staff turnover at acute hospitals (training)
  - Fees
  - Point of care treatment (patients not wanting to travel to another hospital for treatment)

# Discussion

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- Although staff at both hospitals enthusiastically embraced the project, primary dental presentations accounted for only 0.24-0.65% of ED presentations during the pilot
- As a consequence, it wasn't seen as a high priority for investment from key stakeholders

# Recommendations

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- Develop & implement policies that initiate dental diversion from EDs at the earliest possible point, including the possibility of integrating dental diversion into acute hospital triage tools

# Recommendations

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- Establish, strengthen and sustain strong partnerships between acute hospitals and RDHM and Community Dental Agencies to facilitate bi-directional relationship between oral and general health services

# Recommendations

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- Continue to undertake diversion but refine referral process with RMH and SVHM before extending the diversion process across the State
- Provide regular oral health training to ED nurses to account for the high staff turnover

