

Change Champions – Hospital Avoidance: Alternatives to the Emergency Department

24 Hour Hotline For Patients With Chronic Obstructive Pulmonary Disease Reduces Hospital Admissions

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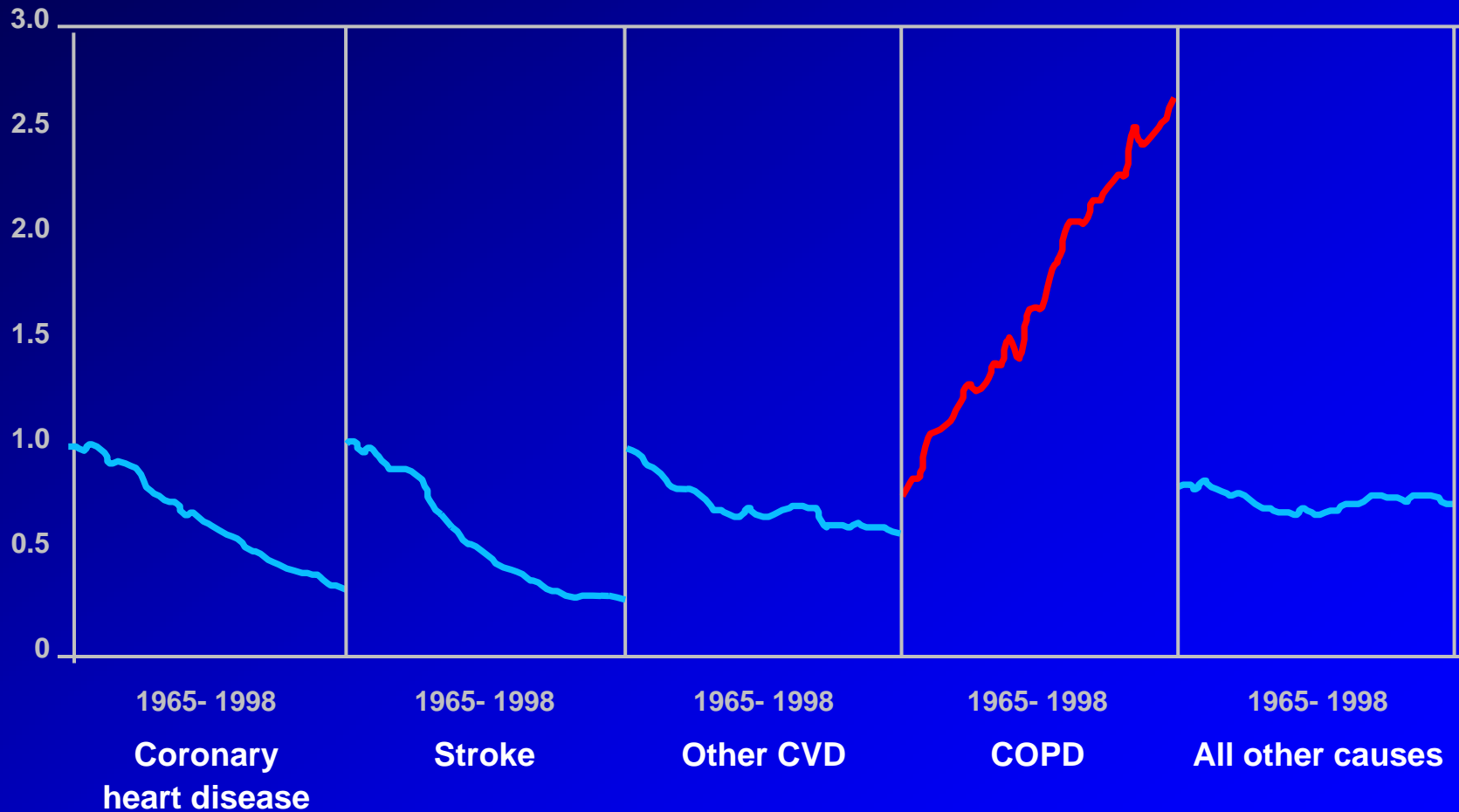


Definition

COPD is “a disease state characterised by progressive development of airflow limitation that is not fully reversible. The airflow limitation is usually both progressive and associated with an abnormal inflammatory response in the lungs to noxious particles or gases”

(Global Initiative for Chronic Obstructive Lung Disease International Working Party 2001)

Percent change in age-adjusted death rates - US 1965 - 1998



Background

COPD: the size of the problem

- 5th leading cause death & 3rd leading cause of disease burden in Australia
- Affects over approx 1.3 million Australians (available data indicates that COPD could effect 1 in 6 people over the age of 45)
- Frequent “acute exacerbations” (AECOPD)
 - 1000 pts in hospital on any one day
- Estimated to cost the health system between \$800-900million every year

Sydney West Area Health Service

- Located in the west of Sydney metropolitan region
- Approximately one in eight COPD hospitalisations and deaths in NSW are residents of Sydney West Area Health Service
- Standardised separation rates in 2004 – 2005 for Western Sydney residents were 20-40% higher than the NSW state average

Western Sydney



Typical day in Western Sydney



Not....



Unfortunately –
our surrounds are
more like this

Respiratory Ambulatory Care (RAC)

- Multidisciplinary assessment clinics
- Pulmonary rehabilitation
- Outreach
- Respiratory Hotline

Respiratory Hotline

- 24 hour telephone support service
- Assists patients and carers in early intervention in acute exacerbations
- Interventions guided by personalised COPD Action Plan which includes specific instructions regarding medications

Getting started

- Investigated hotlines / telephone triage services
- Reviewed policies, procedures & guidelines developed by other services
 - Legalities including patient privacy
- Involved key stakeholders
- Developed decision making algorithms

Hotline

- Staffing options
- Mobile phone
- Light weight laptop
- Electronic copies of patients individual COPD action Plans
- Back up plan

Hotline Patient Database

Pts referred to RAC are given access to the Hotline after;

- Multi-disciplinary assessment
- Medical record review
- Action Plan development
- Emergency antibiotics, steroids etc
- Education +++

Receiving a call

Protocol / guideline based questions

- Main complaint
- Is someone there with you?
- Chest pain?
- Cough / sputum?
- Increased SOB?
- Ankle swelling?
- Fevers?
- Treatments so far?

Receiving a call

Decision to manage the pt at home or refer for acute intervention is dependent on a number of factors including:

- severity of exacerbation / complaint
- severity of underlying COPD
- comorbidities present
- competence of patient / caregiver in implementing Action Plan

Follow up care

If a patient requires an ambulance

- Offer to call ambulance / next of kin
- Call ahead to receiving hospital
- Reassure patient until help arrives

If a patient requires Action Plan implementation

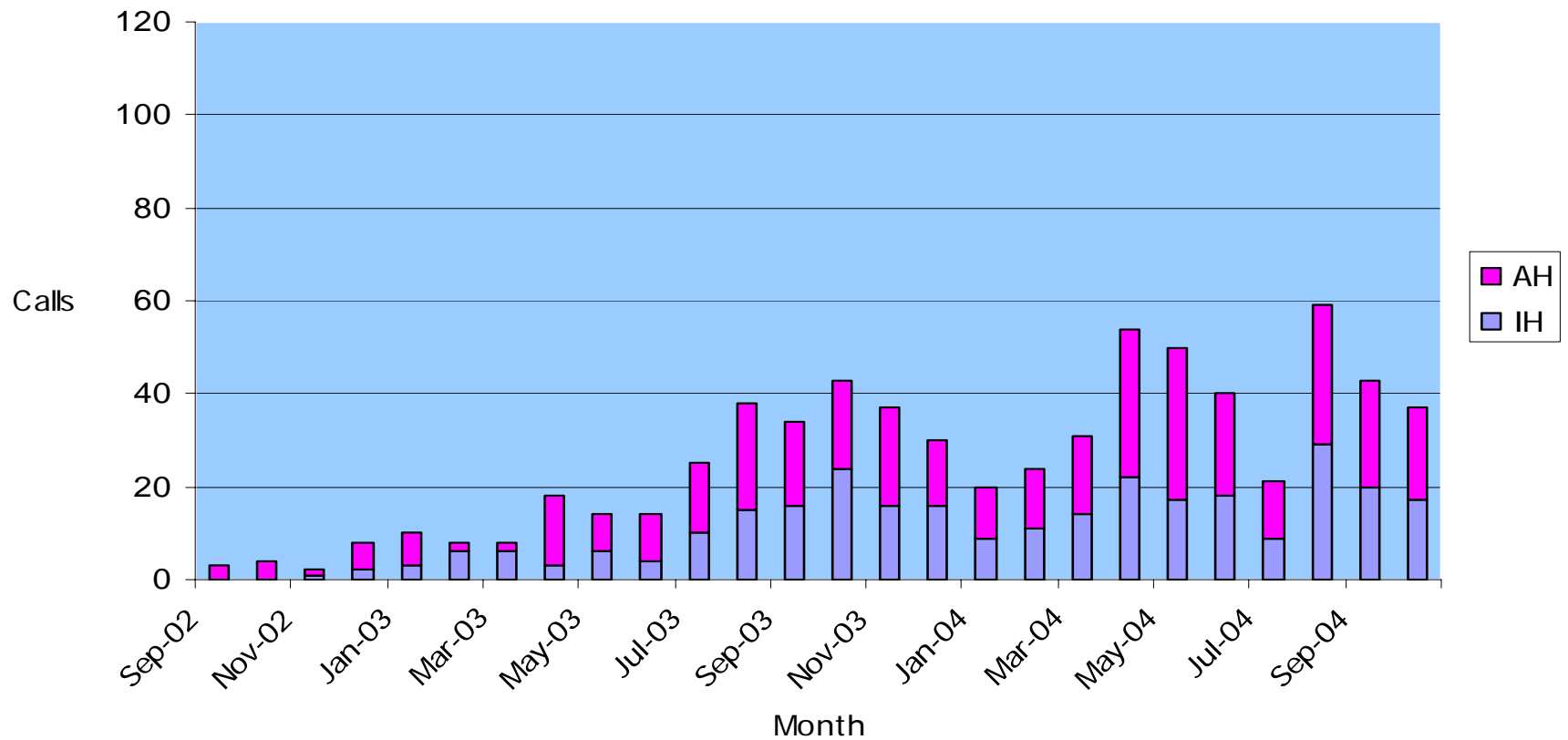
- Follow up home visit
- Follow up calls if after hours
- GP / Consultant notification next working day

Results

- 2 audits
 - 2002 – 2004
 - 2006 – 2008
- Received over 1000 calls
- Averted over a hundred 000 calls
- Assisted in implementation of Action Plan in excess of 250 times

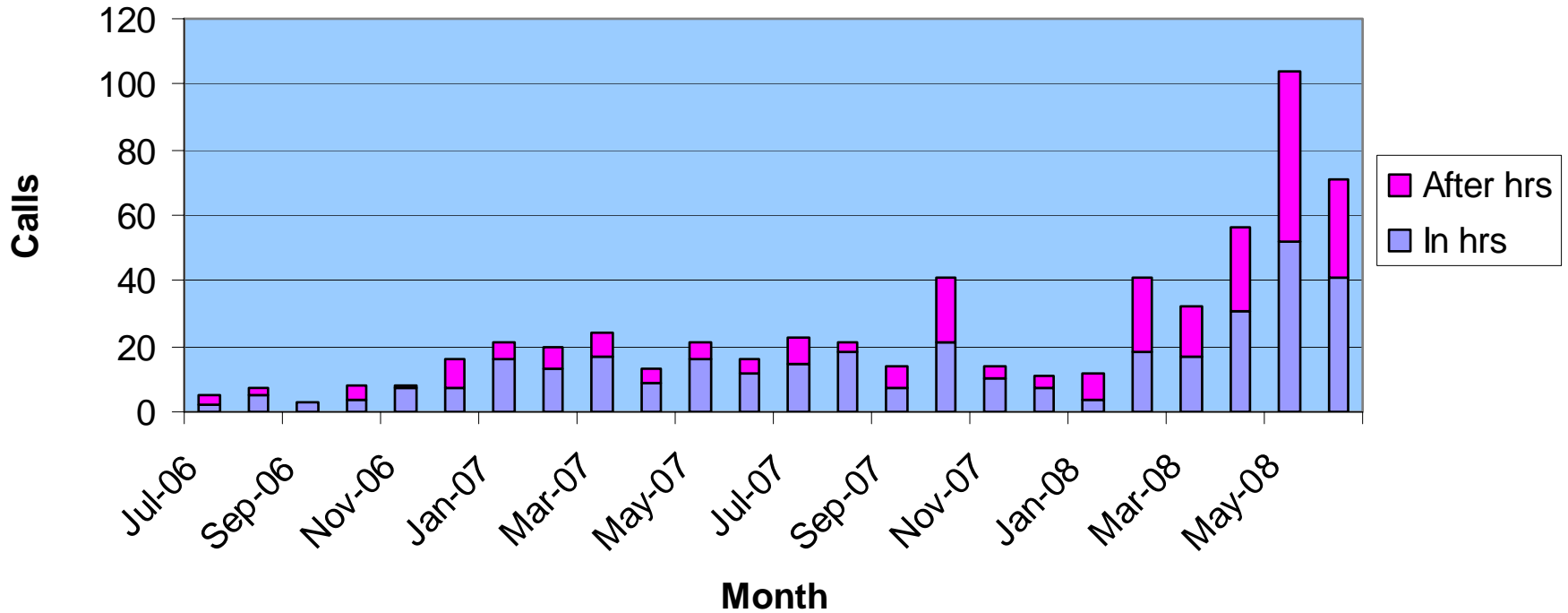
Calls 2002 - 2004

No of Calls Sept 2002 - Oct 2004 (n=675)



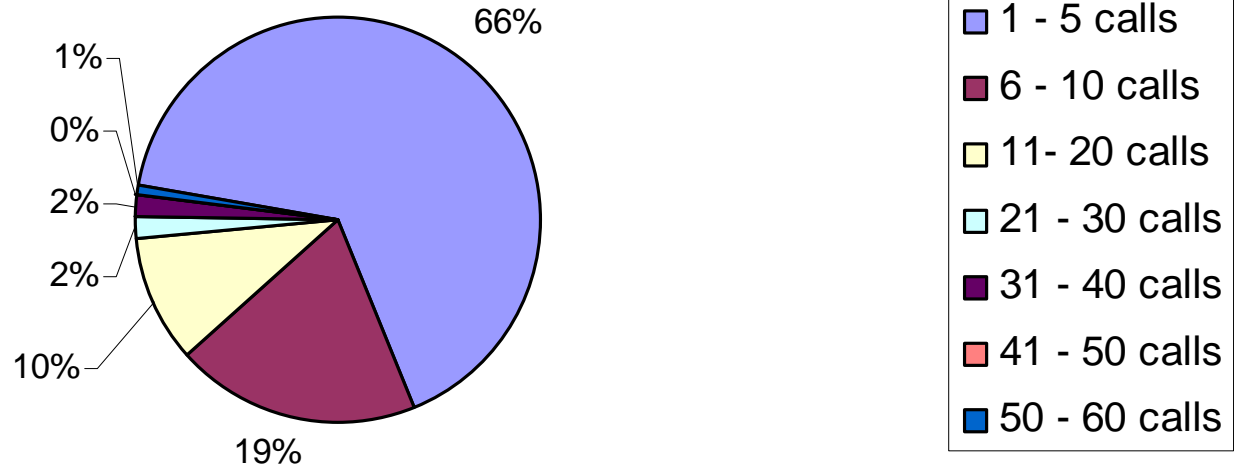
Calls 2006 - 2008

No of calls July 2006 - June 2008 (n = 602)



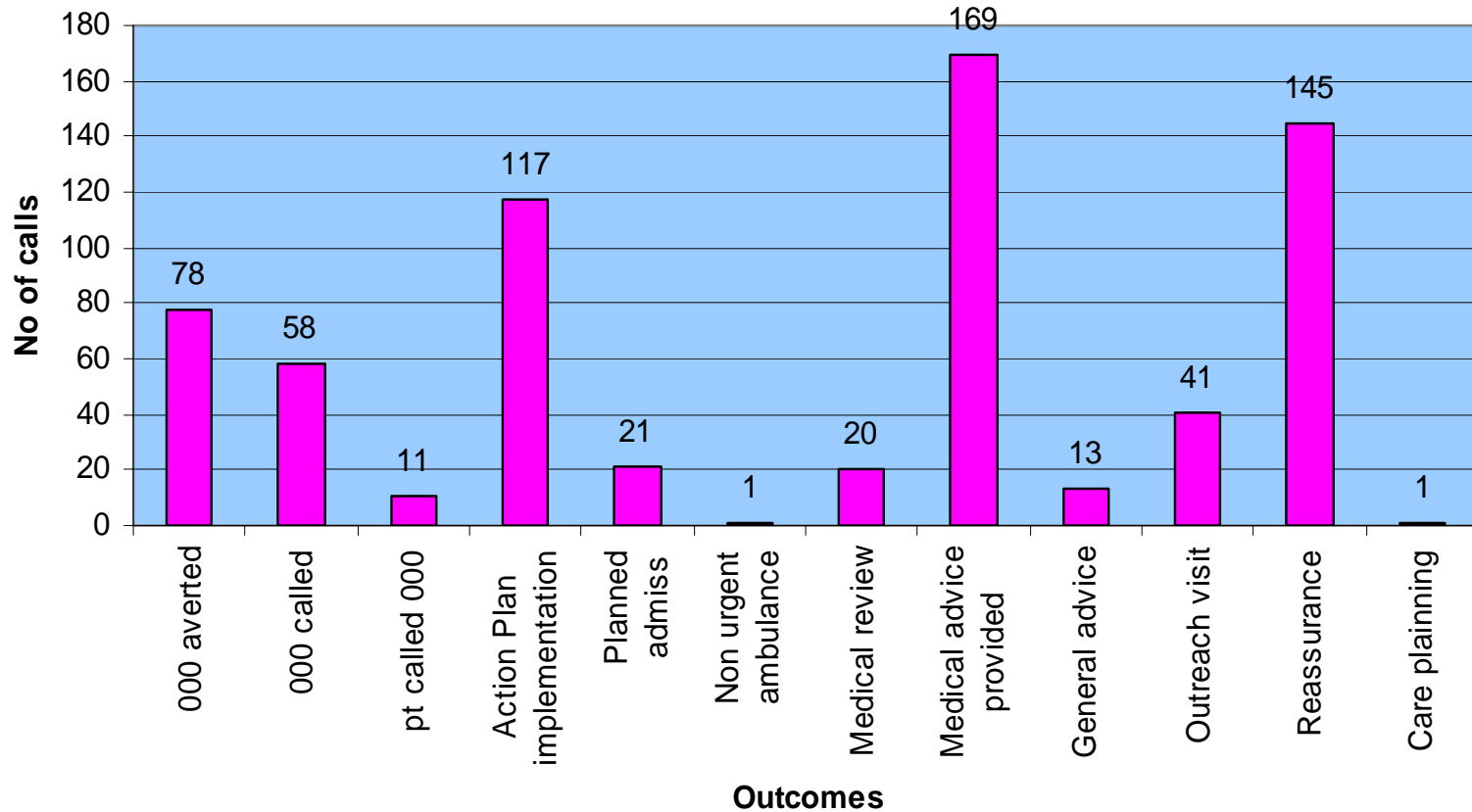
Calls / patient

Calls/ patient 2006 - 2008 (n=131)



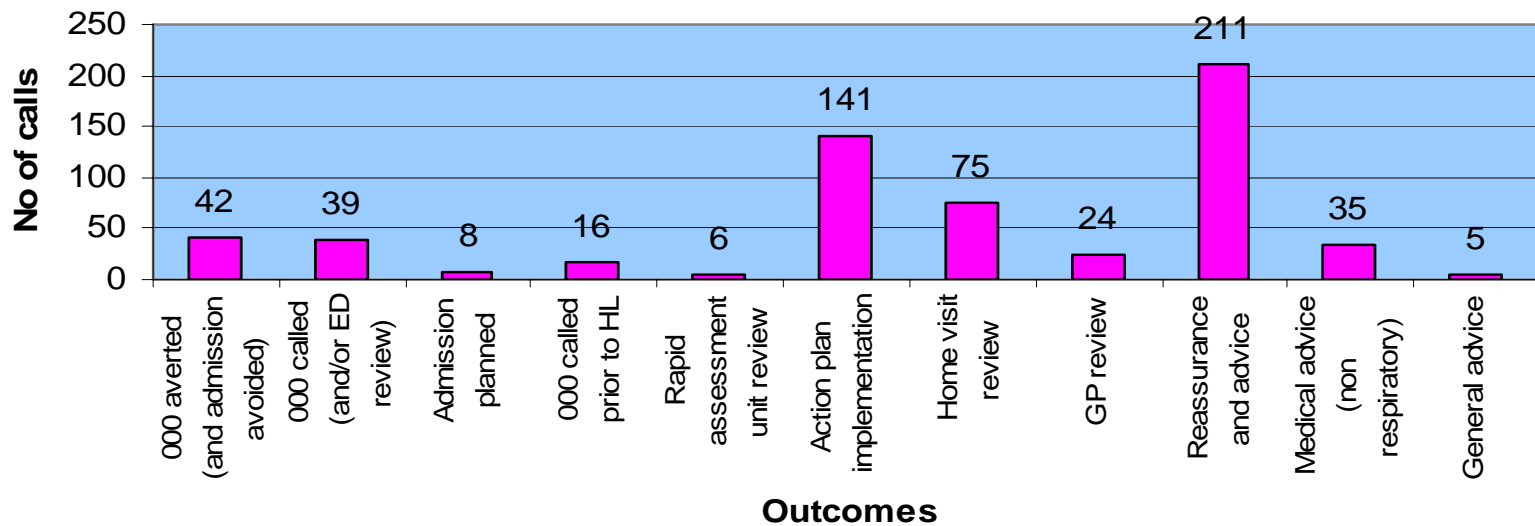
Outcomes I

Outcomes September 2002 - October 2004 (n=675)



Outcomes II

Outcomes July 2006 - June 2008 (n=602)



2002 – 2004 vs 2006 - 2008

	2002-2004	2006-2008
Total calls	675	602
000 averted	12%	7%
Action Plan Implementation	17%	23%
Reassurance and Advice	21%	35%
Medical	25%	6%

Costs

- Approx \$20 040/ year
 - Phone
 - Laptop
 - Internet / remote access
 - On call payment

Savings

- Ambulance \$158
- Admission approx \$4000 (\$775 / day in general ward for 5 days)
- Cost neutral after averting 5 admissions

Safety

- No adverse a results
 - Err on the side of caution
- Patient satisfaction – 100%

Summary

- Nursing / Medical combined success!
- Prevented crisis situations & reduced urgent, unplanned Emergency Department presentations and NO adverse events
- Improved QOL for patients and their carers
- Promoted greater coordination of care between the hospital and community

Summary 2

- Program essentially run by nurses can decrease unplanned ED presentations
- Success based upon;
 - Experienced Respiratory Nurses
 - Knowledge of the patients
 - Patients knowledge of the staff