



greenstonefamily **clinic**  
doctors . accidents . minorsurgery

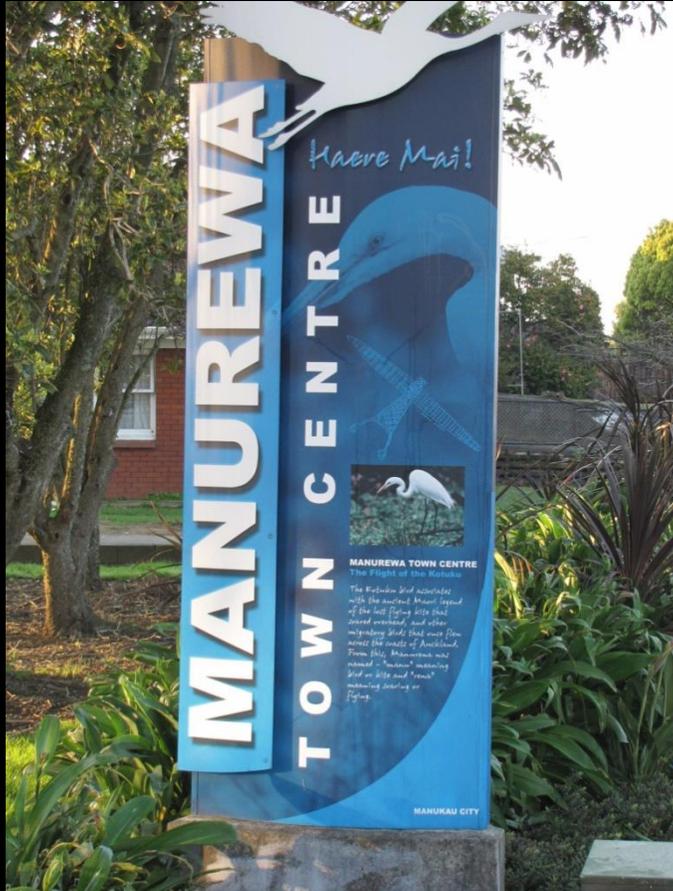
# Asthma Clinics for Children in General Practice



# Outline:

- Why start an asthma clinic?
  - The Equity Issue
- What to do?
- What did we roll out?
- What happened?
- What worked and what did not?

# Manurewa's Population



- 27% One parent families
- 25.3% indigenous Māori (NZ 14.9%)
- 33% Pacific peoples (NZ 7.4%)
- 27% 0-14 years

Statistics New Zealand 2013. 2013 Census data:  
QuickStats about Manurewa Local Board

CMDHB, 2011

# Why start an asthma clinic?

- Subjective reports from General Practitioners
- Audit data from 2013
- Nurse Practitioner and child health champion
- Cases of Amy and Mary
- An equity issue

# The Equity Issue:

- Prevalence rates higher in Maori
- Hospitalisation rates higher among Maori and Pacific children
- Perhaps higher rates of severe asthma symptoms cause for increased morbidity

	Maori	Pacific	European
Asthma ever in 6-7yr olds	31.7%	21.2%	25.9%
Asthma ever in 13-14 year olds	24.7%	19.2%	25.2%
Wheeze in the last 12 months 6-7 year olds	27.6%	22.0%	24.2%
Wheeze in the last 12 months: 13-14 yr olds	30.8%	21.1%	31.7%
Night time waking with wheeze (6-7 year olds)	5.8%	5.7%	2.6%
Night time waking with wheeze (13-14 year olds)	4.9%	3.8%	2.7%

Pattemore et al., (2004)- ISAAC Study, MOH, 2008

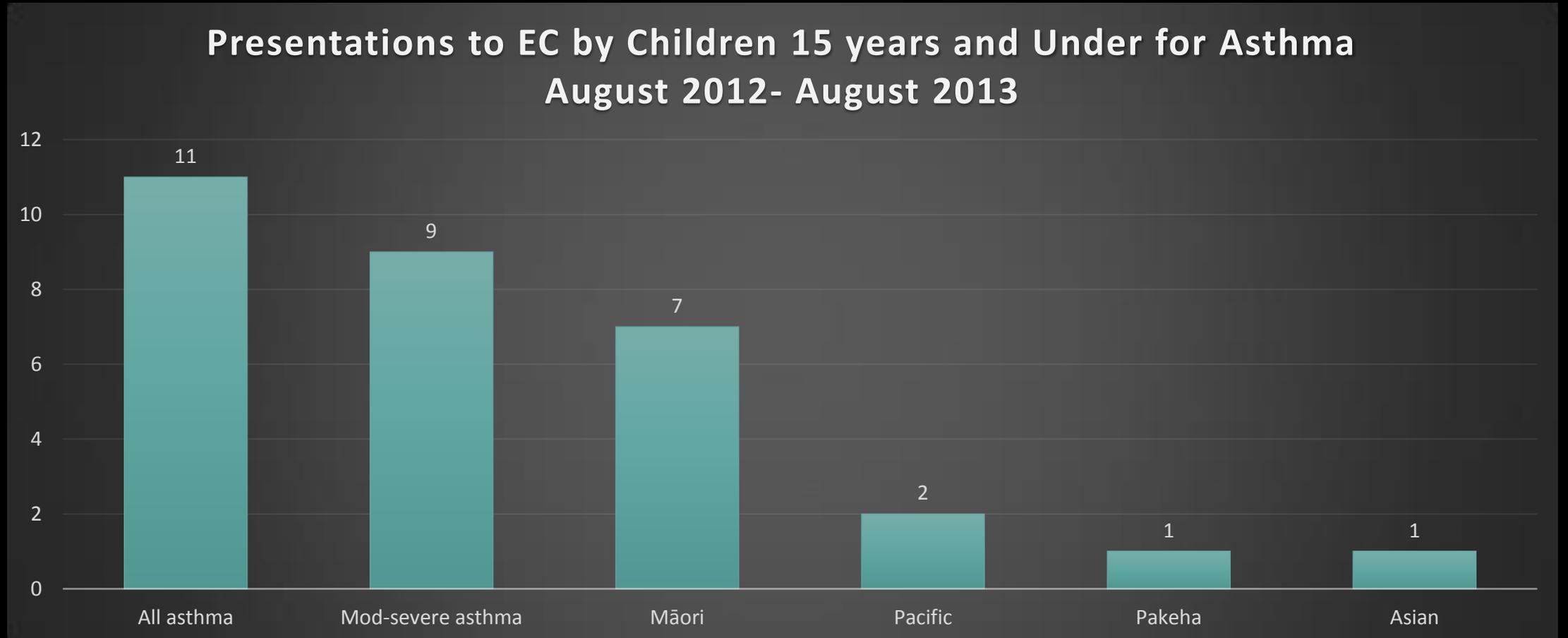
# The Equity Issue

Medical condition	Number	% of total admissions
Asthma and wheeze	31,390	15.4%
Acute bronchiolitis	29,431	14.4%
Acute respiratory infections	28,418	13.9%

Hospital admissions for conditions with a social gradient in children aged 0–14 years (excluding neonates) by primary diagnosis, New Zealand 2009–2013.

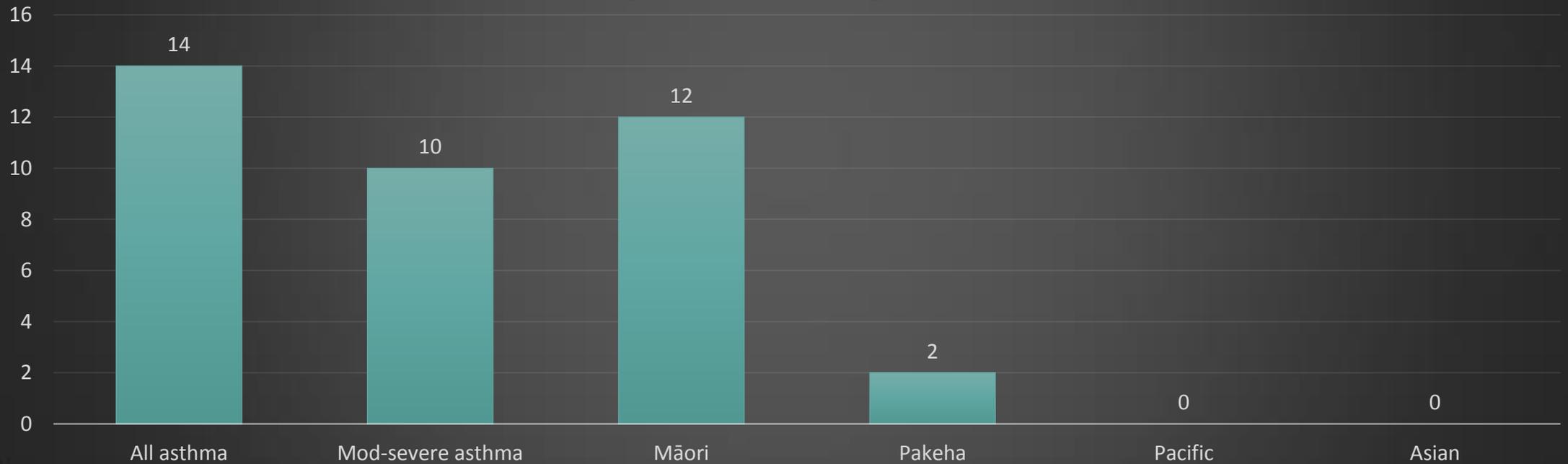
Simpson J, Oben G, Wicken A, Adams J, Reddington A, Duncanson M. (2014) Child Poverty Monitor 2014 Technical Report. Dunedin. NZ Child & Youth Epidemiology Service, University of Otago

# Equity Issue Applied:



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**Presentations to OOH Care for Children 15 years and Younger with Asthma  
August 2012-August 2013**



# Starting Points:

- Educational intervention reduces risk of :
  - Emergency department visits (RR 0.73, 95% CI 0.65 to 0.81)
  - Hospital admissions (RR 0.79, 95% CI 0.69 to 0.92)
  - Unscheduled doctors visits (RR 0.68, 95% CI 0.57 to 0.81)

# Starting Points:

- BTS/Sign Guidelines
  - Written asthma plans
  - Good spacer technique
  - Flu vaccines
  - Smoking cessation
  - Follow up of patients presenting to Emergency Department within 30 days
  - Housing
- Paediatric Society of New Zealand's *Management of Asthma in Children Aged 1-15 year*
  - Focus on application of above to context of New Zealand
- Starship's *Asthma: Management of Acute Asthma*

## Starting Points:

- Cost for a small-medium General Practice
  - Diabetes models of care cost prohibitive
  - The “Annual Asthma Review”
  - As needed phone and in clinic follow up

# What we did:

- Created the list
  - Classification of asthma
  - Preventer prescription in past year
- Substituted flu vaccine recall letter for “Annual Asthma Review”
- Training of nurses to deliver asthma review
- Booked and opportunistic appointments using standardised template



Name: Minnie Mouse  
NHI: ABC1234

### Paediatric Asthma Action Plan

Doctor: Karen Hoare  
This plan issued: October 05, 2015



Expires and needs replacing on: Tuesday, 5 January 2016

Medicines up to date as of: 16/01/2006

#### WELL - No cough or wheeze



- No day or night time cough or wheeze
- Play and behaviour same as other children

Use 1 puff of your Orange Flixotide (50 mcg per dose) inhaler morning and night, via spacer

Use 2 puffs of your Blue Salamol (100mg per dose) inhaler and when required

#### MILD COUGH OR WHEEZE OR GETTING A COLD - Child not distressed



- Mild-moderate daytime cough or wheeze.
- Occasional cough at night.
- Cough or wheeze when excited or running.
- Needing Reliever to control symptoms
- Go to see your doctor

Use 1 puff of your Orange Flixotide (50 mcg per dose) inhaler morning and night, via spacer

Use 4 puffs of your Blue Salamol (100mg per dose) inhaler Every 3-4 hours and before exercise and when required, via spacer

Please come and see nurses at Greenstone Clinic

#### ASTHMA WORSE - Short of breath, Child becoming distressed



- Moderate daytime cough or wheeze.
- Unable to play like other children.
- Slept very little due to asthma.
- Only able to sit quietly, no energy.
- Go to see your doctor

Use 1 puff of your Orange Flixotide (50 mcg per dose) inhaler morning and night, via spacer

Use 6 puffs of your Blue Salamol (100mg per dose) inhaler Every 1-2 hours and when required, via spacer

#### EMERGENCY. Severe or sudden onset, child distressed, gasping for breath, pale, quiet, finding it hard to speak. RELIEVER NOT WORKING

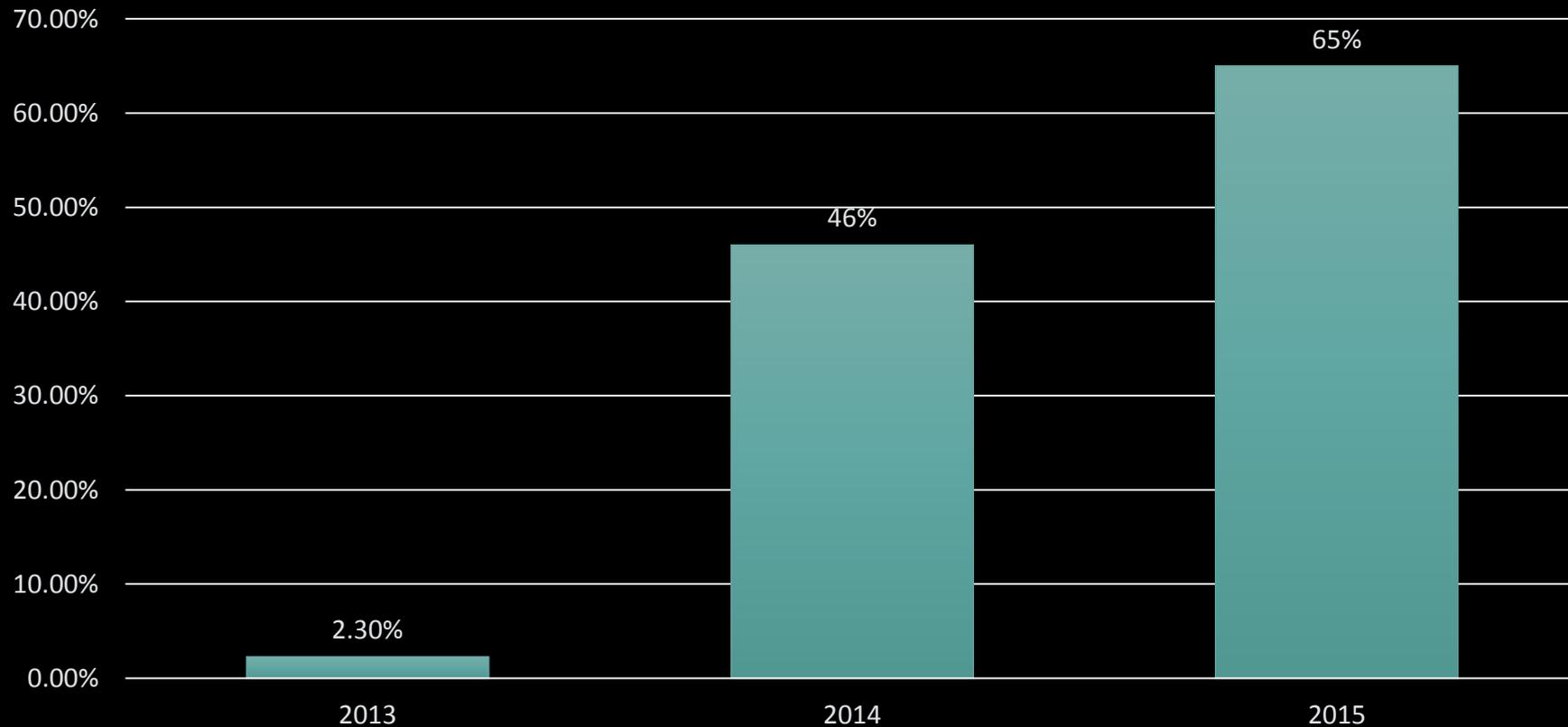


DIAL 111 for an AMBULANCE.  
Keep child calm and sit upright

Give 6 puffs of your Blue Salamol (100mg per dose) inhaler via spacer - child to take 6 breaths after each puff. Repeat 6 times. Repeat treatment every 5 minutes until ambulance arrives.

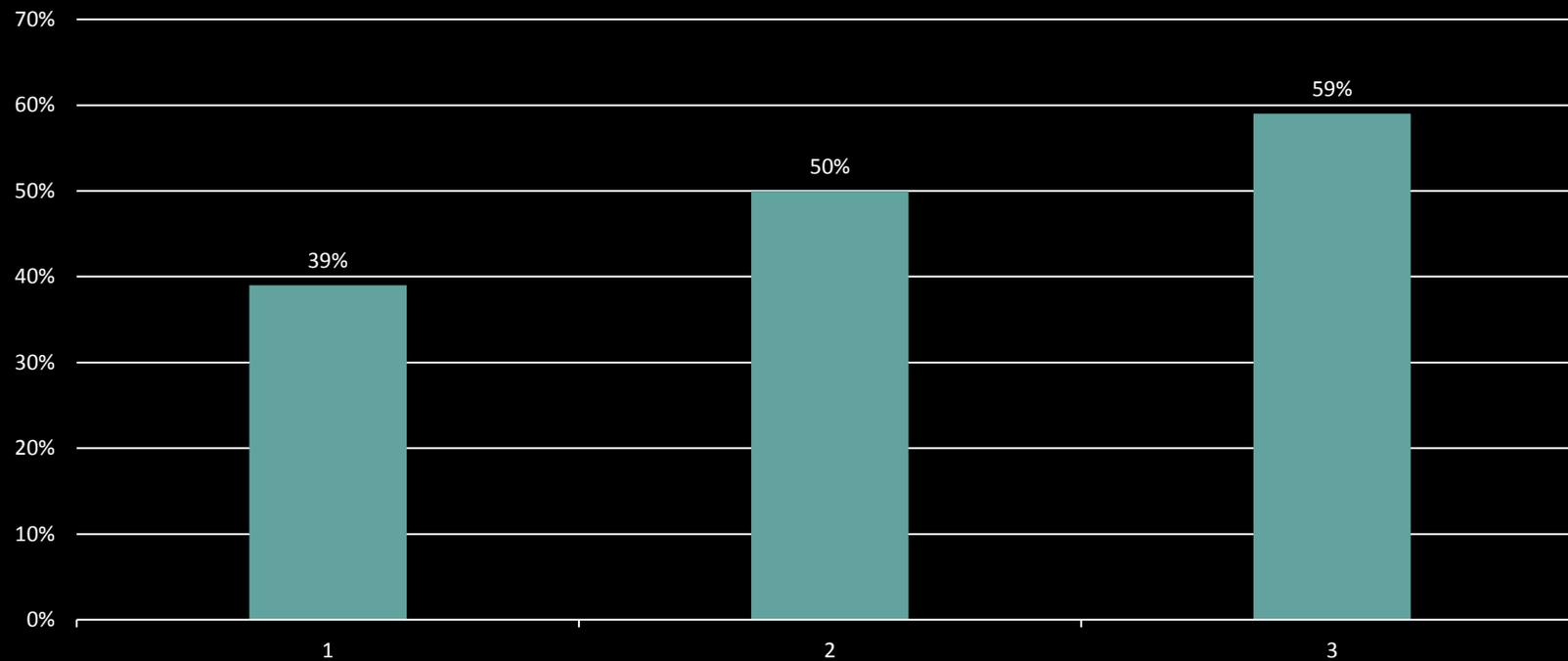
# Progress over three years:

**Percentage of children on preventor medication for asthma  
with an up to date asthma management plan**



# Progress over three years:

Rates of flu vaccination in under 16 year olds with  
asthma eligible  
for a free flu vaccine

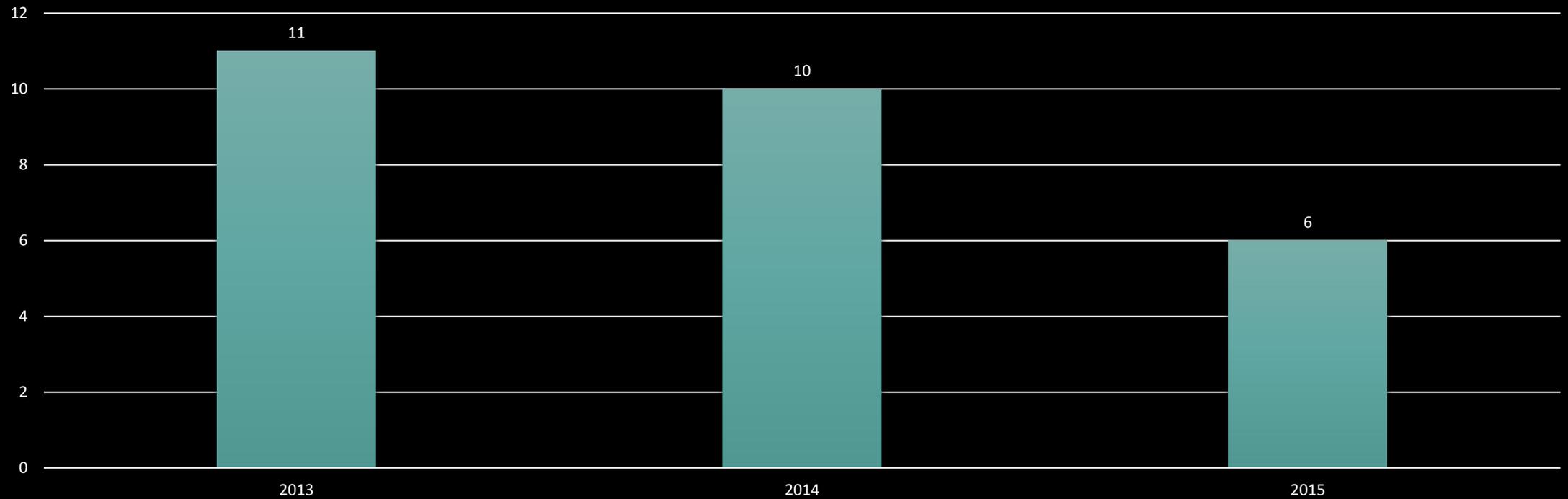


# Progress over three years:

- Spacer technique recorded increased from 8% to 57% from 2013-2015
- PEF documented increased from 30% to 61%
- Unknown smoking status decreased from 84% to 47.6%
- 100% of children recorded as smoke exposed were given “family brief advice” or personal brief advise if the child/adolescent was smoking

# Progress over three years:

Number of under 16 year olds presenting to Emergency Care from active asthma programme



# Personal Stories

...centre, which both her daughters have attended, and where parents learn how to educate their kids. Playcentre is funded at a lower rate than other types of preschool, which Mrs McDougall says doesn't

...Mrs McDougall, whose daughters are 3 and 5, would also like to see a school decile system that reflects better what parents can afford, regardless of where they live.

— Kirsty Johnston

## The frequent healthcare users: Mereana Apiata, Manurewa

Mereana Apiata wants the Government to trim the \$5 prescription charge and make doctor visits free for all children, to reduce what she considers barriers to good health care.

Miss Apiata said she and her partner Kelvin Pakeho and their daughter Fontaine, 7, and son Detroit, 4, live comfortably on Mr Pakeho's income in a warm, three-bedroom rental house in Manurewa. But they are high users of the health system. Fontaine has asthma which has put her in Middlemore Hospital twice and has led to more than 10 visits to an accident and medical clinic and regular trips to the GP.

Her chronic breathing disorder is now well-managed thanks to a good asthma management plan devised by the Greenstone Family Clinic.

The Government plans, from July 1, to extend its scheme of free GP visits for children under 6 at participating clinics, and free prescriptions, to children under 13. Greenstone's GP visits are free for enrolled patients 17 or younger — and it charges \$10



**Kelvin Pakeho, Mereana Apiata, Fontaine and Detroit.**

for students 18 and older and \$17 for adults.

Miss Apiata is glad of Greenstone's policy on children, but A&M visits cost and she has sometimes paid \$10 or \$20 when picking up multiple asthma puffers and other medicines.

Scrapping GP fees for all children and reducing the pharmaceutical charge would help them.

— Martin Johnston

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# Learning Points:

- Flexibility within the nursing staff
- All nurses involved and confident in asthma management
- Supportive GP's
- Structure and prompt
  - Allowed auditing
  - Missing points missed

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