



Asthma
Australia

GASP

Giving Asthma Support to Patients

Experts at the coalface



What is GASP



- Asthma prevalence in Australia is among the highest in the world, affecting approximately 2 million people:
 - 45% with sub-optimal control
 - More than 70% don't have asthma action plan
- There is a need for a standardised, structured and simple enabling program to achieve best practice asthma management in primary health
- GASP is a unique opportunity to facilitate, enhancing patient interactions whilst utilising technology to support evidence-based treatment decisions
- GASP enables the tailoring of care whilst standardising treatment

GASP background New Zealand



J Prim Health Care. 2014 Sep 1;6(3):238-44.

Giving Asthma Support to Patients (GASP): a novel online asthma education, monitoring, assessment and management tool.

Ram FS¹, McNaughton W².

⊕ Author information

Abstract

BACKGROUND AND CONTEXT: Giving Asthma Support to Patients (GASP) is a unique online tool developed to provide asthma education at point of care, and to provide health care professionals in primary care with skills and knowledge to undertake a structured asthma assessment.

ASSESSMENT OF PROBLEM: A retrospective cohort study was undertaken to evaluate the effectiveness of GASP. Data for patients aged 5-64 years seen in primary care (Waitemata region of Auckland) with uncontrolled asthma who had completed a minimum of two GASP assessments between 1 November 2008 and 17 April 2011 were extracted from a secure, self-populating database. Outcome measures were compared between each patient's visit 1 and 2 assessments.

RESULTS: A total of 761 patients provided data using GASP. There was a significant reduction between GASP assessments in the risk of exacerbations, hospital admissions, emergency department presentations, requirement for corticosteroids, and bronchodilator reliance.

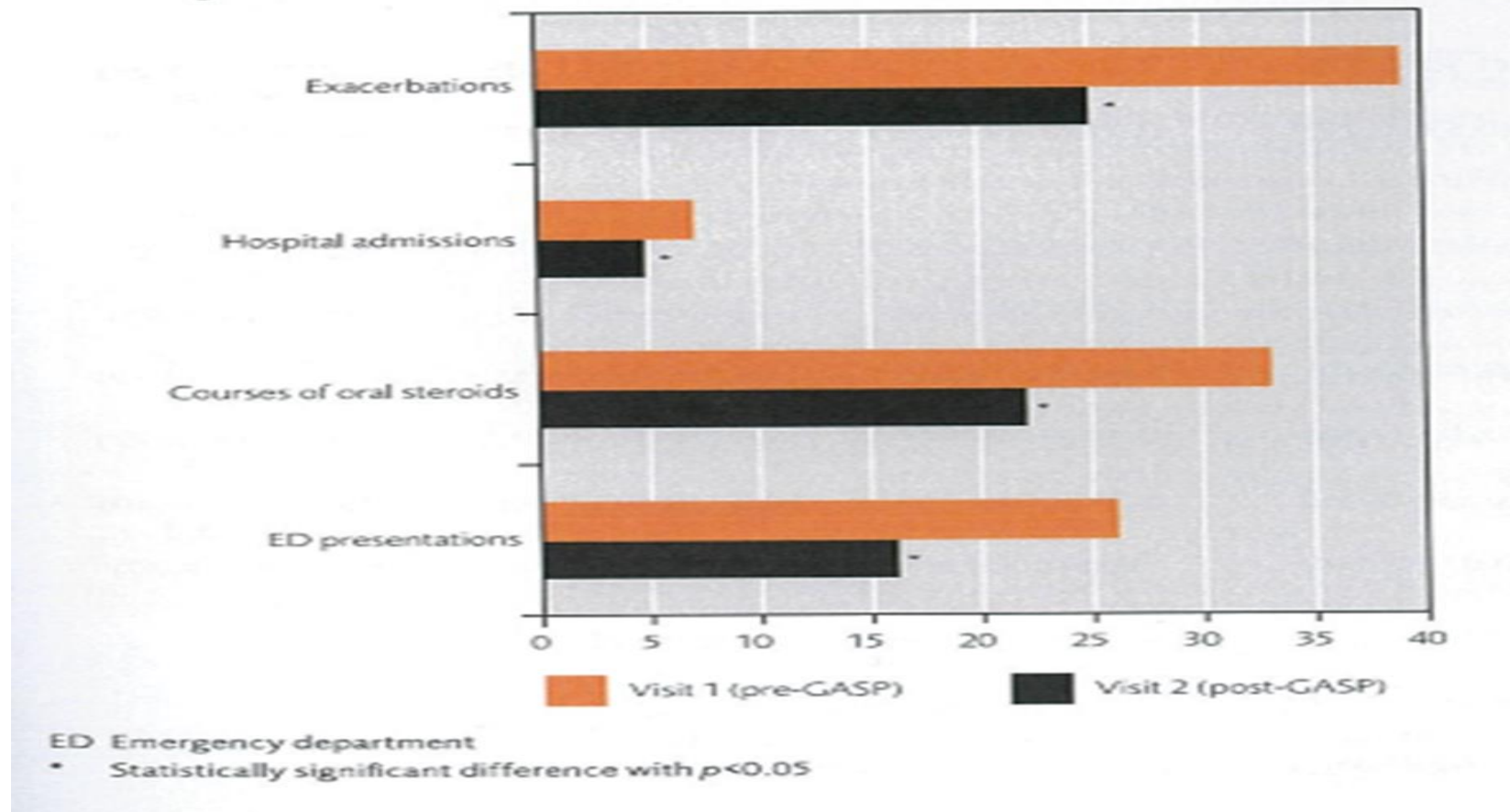
STRATEGIES FOR IMPROVEMENT: Results from this retrospective cohort study are promising. A randomised controlled trial of the use of GASP in primary care is warranted to confirm these findings. The effectiveness of the GASP tool also needs to be further investigated in Maori and Pacific populations.

LESSONS: The findings of this study of GASP show its potential and support its use in the primary care setting.

PMID: 25194251

New Zealand 2011 audit

Figure 2. One or more exacerbation, hospital admissions and oral corticosteroid requirement comparing screening visit (visit 1, before GASP initiated) to visit 2, record after using GASP



GASP evaluation plan Australia



- Pre-post period of treatment audit design
 - Target: 300 patients
- Primary outcome:
 - Flare-up and need for medical intervention
- Secondary outcomes:
 - # Courses of OCS
 - Frequency of SABA use
 - # unplanned GP/hospital visits for asthma
 - Ownership of updated asthma action plan
 - Asthma control
- Supervised by UNSW Prof Nick Zwar

The GASP package



- Intensive asthma education programme for practice nurses
- Nurse-led model of care
- Web based GASP assessment with decision support functionality based on the Australian Asthma Handbook
- Expert clinical support
- Data base provides continuous quality improvement potential
- Aim to integrate database with practice software platform

GASP clinical governance team



GASP assessment framework



GASP
Giving Asthma Support to Patients

PATIENT SELECTED: **anthony flynn (14/06/1975)** Patient Consult Trigger Advice Action Plan Decision Support My Account

Base Measurements

Height* (cm) Weight* (Kg) BMI

Eg. 58 KGs Automatic Calculator | Please update height & wei

Triggers

Emotion/Stress Hormonal Aerosols Animals Cold/Dry air Exercise
 Dust/Dust mite Food/Drinks Mould/Damp Colds/Flu Occupational Medicines
 Pollen Smoke Outdoor Air Pollution Perfumes/Scents Fuel Combustion

Irritants

Medications

SABA* SABA Usage LABA LAMA

ICS / Combination* ICS Dosage Non Steroidal Preventer

Symptom Score (In the last 4 weeks)

Nocturnal Symptoms* Daytime Symptoms*

Activity Limitations*

Flare-ups (In the last 12 months)

Hospital Admissions* Unscheduled Visits* Increased Inhaled Meds*

Oral Steroids* Oral Steroids Frequent Flare-ups

Technique/Adherence/Notes

Inhaler Technique* Medication Adherence*

Peak Flow Meter Asthma Action Plan* Notes

History

Allergic Rhinitis Psychological Spirometry Atopic Dermatitis
 GORD Mucus Socioeconomic Intubated
 F/H Asthma and/or atopy Food Hypersensitivity OSA Allergen Skin Test/RAST

Smoking* Cigs Day Smoking Yrs Pack Yrs Influenza Vaccine Age Diagnosed

Never

Spirometry

	Pre Bronchodilator					Post Bronchodilator			
	Predicted	LLN	Recorded	%Predicted	Z-Score	Recorded	%Predicted	Z-Score	FEV1 Increase
FEV1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	ml/ml
FVC	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	ml/l%
				Ratio	<input type="text"/>			Ratio	<input type="text"/>

So what happens?

- Alerts
- Assessment of current asthma control
- Risk assessment
- Treatment recommendations

All aligned with Australian Asthma Handbook, updated (National Asthma Council)



Decision Support

Medical Management Guidelines

ALERT: Frequent use of short-acting β_2 agonists is a sign of poorly controlled asthma, and may indicate or increase risk of asthma flare-ups. (AAH v1.0).

Asthma Symptom Control

Poor control of asthma, review recommendations, three to four uncontrolled characteristics present.

Risk assessment

Risk Factor For Flare-Ups

Poor Control of Asthma.

Inadequate ICS (not prescribed ICS, poor adherence, incorrect inhaler technique).

Psychological or socioeconomic problems.

Woman is of childbearing age: If pregnant, do not withhold preventer treatment. Step up the regimen as necessary (according to Asthma Action Plan) to regain or maintain control.

≥ 1 severe flare-up in last 12 months.

Exposure to smoking (Passive), irritants (none), mould as an allergen (<http://www.asthmahandbook.org.au/table/show/40>).

Poor adherence

Poor device technique

Poor lung function. FEV1 < LLN

Risk Factor For Developing Fixed Airflow Limitations

Exposures: tobacco smoke, noxious chemicals. Occupational exposures.

Risk Factors For Medication Side-Effects

Local side effects: high-dose or potent ICS or incorrect inhaler technique.

Recommendations

Consider stepping up to ICS/LABA combo (high dose) and review in 1–3 months.

- > 800 μ g Budesonide/formoterol (Symbicort)
- > 500 μ g Fluticasone propionate/salmeterol (Seretide)
- 200 μ g Fluticasone Furoate/vilanterol (Breo Ellipta)
- > 500 μ g Fluticasone propionate/formoterol (Flutiform)

Consider adding Tiotropium (Spiriva respimat) 2.5mcg x2 puffs OD

Management of aspirin-exacerbated respiratory disease involves avoidance of aspirin and NSAIDs. Aspirin desensitisation is available and needs to be discussed with the GP if patient would like to consider. (AAH 1.0).

Before considering any increase in dose or addition to treatment regimen, carefully check inhaler technique and consider accuracy of asthma diagnosis. (AAH v1.0).

Before considering any increase in dose or addition to treatment regimen, carefully check adherence and exposure to triggers and consider accuracy of asthma diagnosis. (AAH v1.0).

Adherence to preventers is significantly improved when patients are given the opportunity to negotiate the treatment regimen based on their goals and preferences. (AAH v1.0).

What else?

- Tailored trigger advice
- According to those triggers selected
- Standardised 'trigger management' recommendations

All aligned with AAH



Trigger Advice

Maintaining Asthma Control

- Always carry your reliever.
- Take any prescribed preventer medication daily, even when feeling well.
- Know your triggers and avoid them where relevant. For most people triggers are only a problem when their asthma is not well-controlled.
- Know how to recognise your symptoms and act quickly when you have them.
- Re-read your Asthma Action Plan regularly and confirm that it's updated by your doctor or nurse at least every 12 months or whenever your medication is changed.
- Understand what good asthma control feels like and see your doctor if your asthma is not under control.

Emotions/stress

- Emotions such as being stressed, anxious, happy or excited can trigger asthma symptoms and flare-ups in some people.
- Laughter can be a common trigger, especially for young children

What to do?

- Consider your emotional well-being as part of your general health. Identify the key sources of stress in your life, and learn techniques to manage stress and anxiety when they occur.
- Keep your asthma under good control so emotions are less likely to have an impact.

Hormonal

- Up to 40% of women find their asthma worsens pre-menstrually and some find it is worse during menstruation
- Due to hormonal changes in menopause, some women find their asthma changes significantly at this time
- Asthma control worsens in pregnancy in around one third of women

What to do?

- Keep your asthma under control with the right medication
- See your doctor for a review of your asthma if you are experiencing hormonal asthma changes (e.g. menopause; flare-ups with menstruation)
- If pregnant, aim to maintain optimum asthma control by perfect adherence to your asthma preventer medicine

Cold/Dry air

- Some people find that cold or dry air can cause a flare-up of their asthma

What to do?

But wait, there's more..

- Asthma action developed or updated
- Writeable
- Mandatory

AAP development discussed and defined with patient in accordance with the AAH and escalation recommendations



Asthma
Australia

ASTHMA ACTION PLAN

Take this ASTHMA ACTION PLAN with you when you visit your doctor

NAME anthony flynn	DOCTOR'S CONTACT DETAILS	EMERGENCY CONTACT DETAILS
DATE 2018-09-10		Name _____
NEXT ASTHMA CHECK-UP DUE _____		Phone _____
		Relationship _____

WHEN WELL Asthma under control (almost no symptoms)

ALWAYS CARRY YOUR RELIEVER WITH YOU

Your preventer is: **Breo Ellipta 200/25**
(NAME & STRENGTH)
Take **1** puffs/tablets **one** times every day
 Use a spacer with your inhaler

Your reliever is: **APO-Salbutamol Inhaler, 100 mcg**
(NAME)
Take **2** puffs **as needed**
When: You have symptoms like wheezing, coughing or shortness of breath
 Use a spacer with your inhaler

OTHER INSTRUCTIONS Peak flow* (if used) above:
E.g. other medicines, trigger avoidance, what to do before exercise

WHEN NOT WELL Asthma getting worse (needing more reliever than usual, having more symptoms than usual, waking up with asthma, asthma is interfering with usual activities)

Keep taking preventers: **Breo Ellipta 200/25**
(NAME & STRENGTH)
Take **1** puffs/tablets **one** times every day
 Use a spacer with your inhaler

Your reliever is: **APO-Salbutamol Inhaler, 100 mcg**
(NAME)
Take _____ puffs
 Use a spacer with your inhaler

OTHER INSTRUCTIONS Peak flow* (if used) between _____ and _____
E.g. other medicines, when to stop taking extra medicines Contact your doctor

IF SYMPTOMS GET WORSE Severe asthma flare-up/attack (needing reliever again within 3 hours, increasing difficulty breathing, waking often at night with asthma symptoms)

Keep taking preventers: **Breo Ellipta 200/25**
(NAME & STRENGTH)
Take **1** puffs/tablets **one** times every day
 Use a spacer with your inhaler

Your reliever is: **APO-Salbutamol Inhaler, 100 mcg**
(NAME)
Take _____ puffs
 Use a spacer with your inhaler

OTHER INSTRUCTIONS Peak flow* (if used) between _____ and _____
E.g. other medicines, when to stop taking extra medicines Contact your doctor today
Prednisolone/prednisone: _____ each morning for _____ days

DANGER SIGNS Asthma emergency (severe breathing problems, symptoms get worse very quickly, reliever has little or no effect)

DIAL 000 FOR AMBULANCE

Call an ambulance immediately
Say that this is an asthma emergency
Keep taking reliever as often as needed
 Use your adrenaline autoinjector (EpiPen or Anapen)

Peak flow* (if used) below:

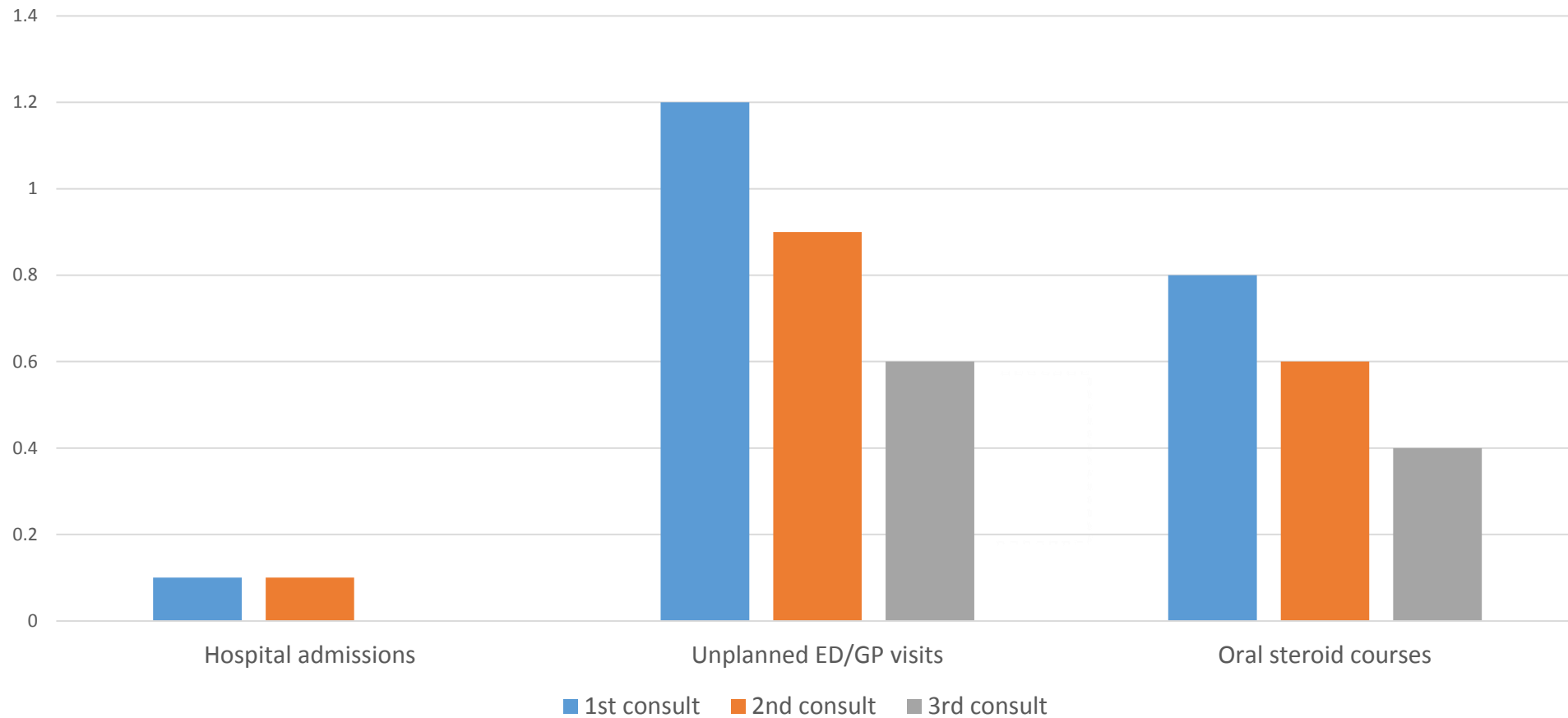
National Asthma Council Australia
Leading the break against asthma
nationalasthma.org.au

* Peak flow not recommended for children under 12 years.

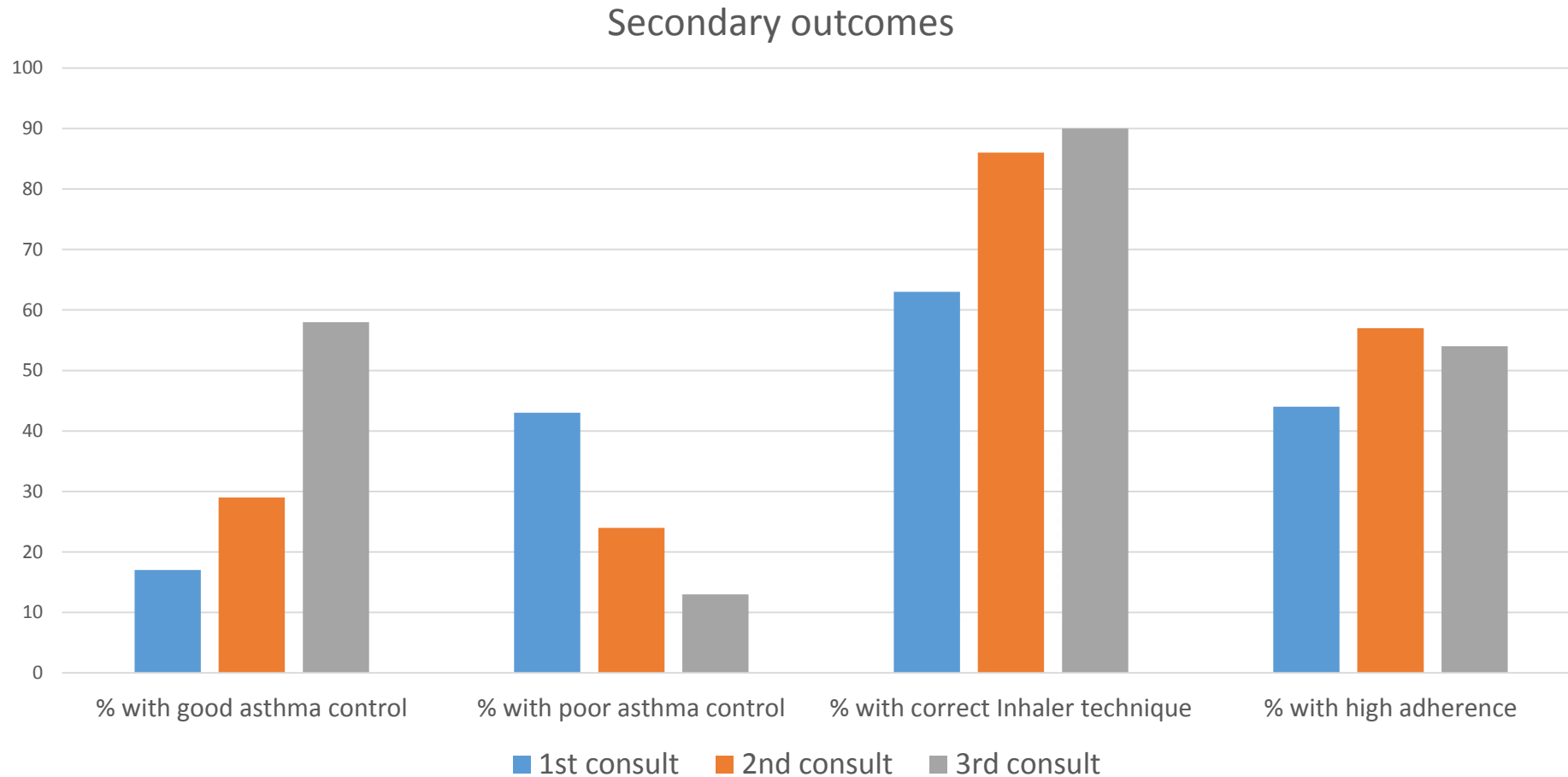
Preliminary results: primary outcomes across sequential consultations



Primary outcomes: average incidence reported per person per consultation



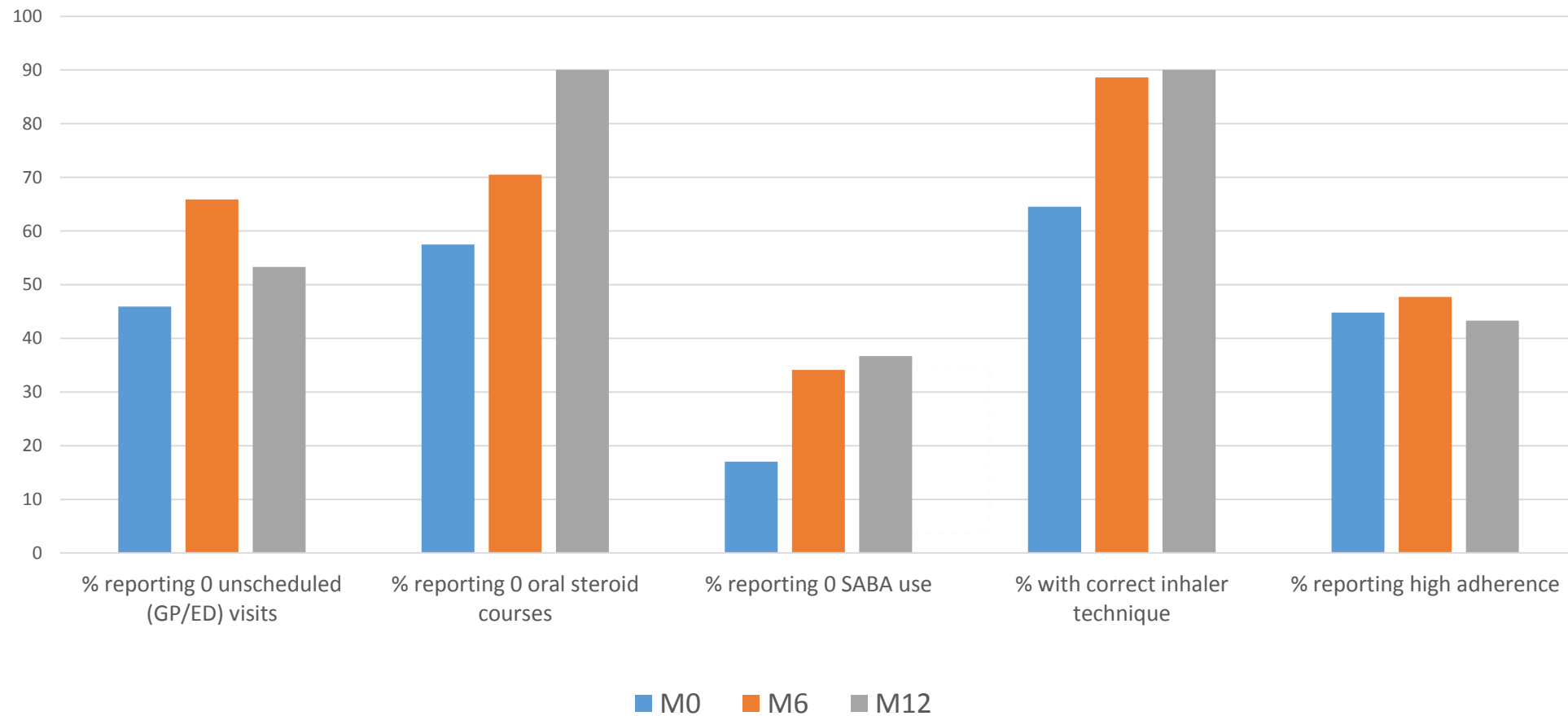
Preliminary results: secondary outcomes across sequential consultations



Preliminary results: Selected primary and secondary outcomes at recommended program timepoints



Outcomes at each timepoint



GASP long term



- Real potential to change the game in primary care, considering;
 - Attrition is a significant challenge, both practice and patient
 - Necessary commitment to new model of care
 - Practices need to allocate space and time for practice nurses to use their skills and the GASP tools
- We see this as a model scalable more widely and potentially applicable to other chronic diseases



**Who wants to
sign up?**