Better community respiratory care

Dr Roland Meyer

Respiratory Physician

Southern DHB

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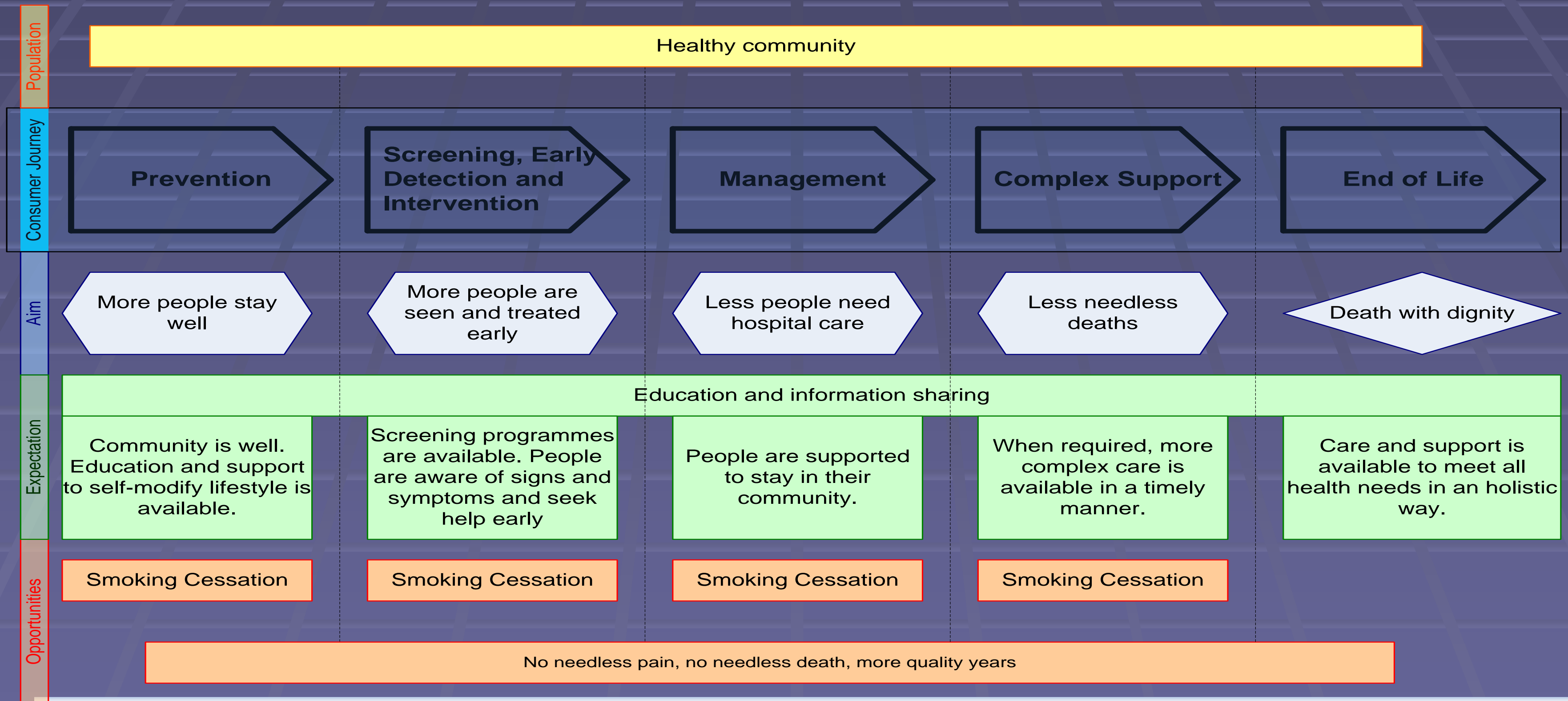
Integration : What is needed?

- **Raise profile of disease**
- **Strong management in primary care**
- **Good communication between 1° and 2° care**
- **Services closer to patient**
- **No duplication**
- **Multidisciplinary**
- **"Appropriate care in appropriate place"**

Model of care



Integration :The key to success

- Show the outcomes for patients
- Easy access , less barriers ("the fee system")
- Easy process, less "red tape" (reimbursements, what is DHB funded and what is not?, has just changed again?, responsive within HSS in deficit)
- Transparent – well communicated (="no threat")
- "Shared Vision"
- Clinical leaders (engaged, empowered, supported=can sustain)

NZ respiratory care 2009/10

- Uneven, variable
- Often “hospital centric” , poor access for many
- Little flexibility , responsiveness
- Unmet need (undiagnosed COPD, OSA)
- Avoidable morbidity / mortality
- Prevention: Only a little
- Screening: None

Underdiagnosis of COPD

Diagnosed
COPD
2.4 - 7 million

Estimated total
COPD
16 million

56 - 85%
Undiagnosed/misdiagnosed

US estimates

Stang, 2000

HOW THINGS WERE Canterbury 2009

Examples of challenges faced by patients

-Access often difficult, e.g.,

- Spirometry
- Sleep
- Pulmonary Rehabilitation
- Respiratory physician

-No care pathways; variable care management

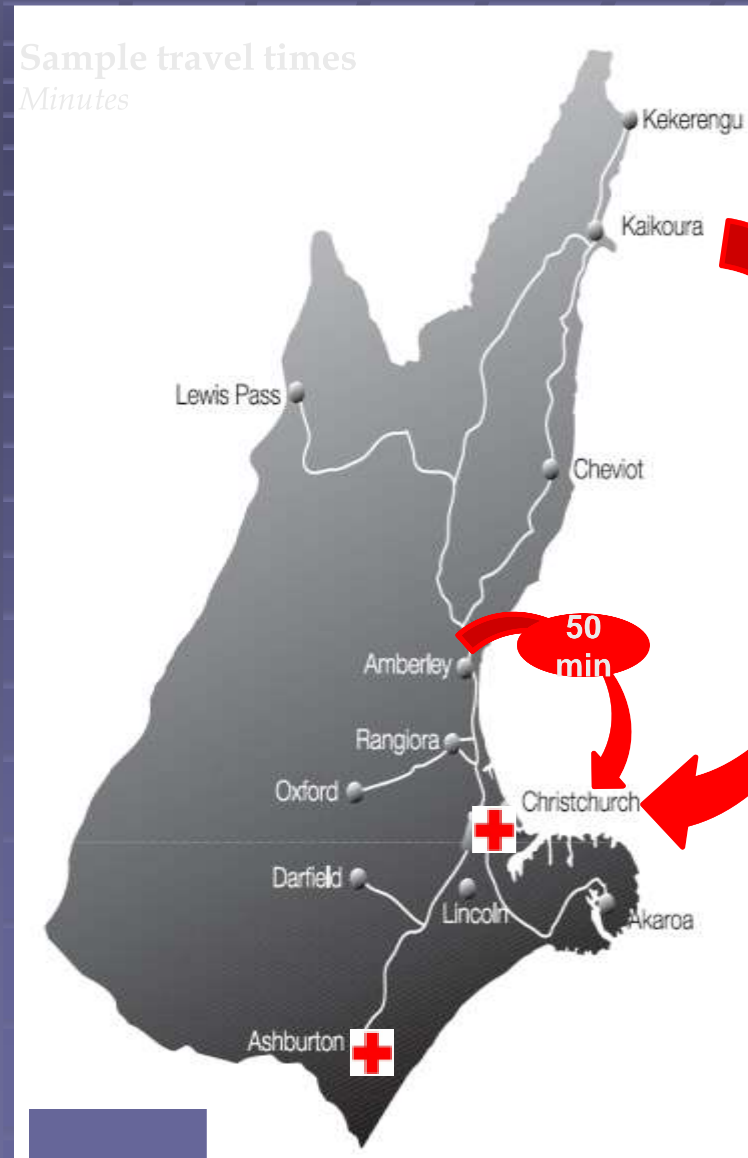
-Little combined communication between primary and secondary care

-Insufficient information for appropriate triage, leading to

- Clinician uncertainty
- Treatment delays

-Only <5% of referrals for Pulmonary Rehabilitation from GPs

-Patients with chronic lung problems often do not know what to do if they are unwell

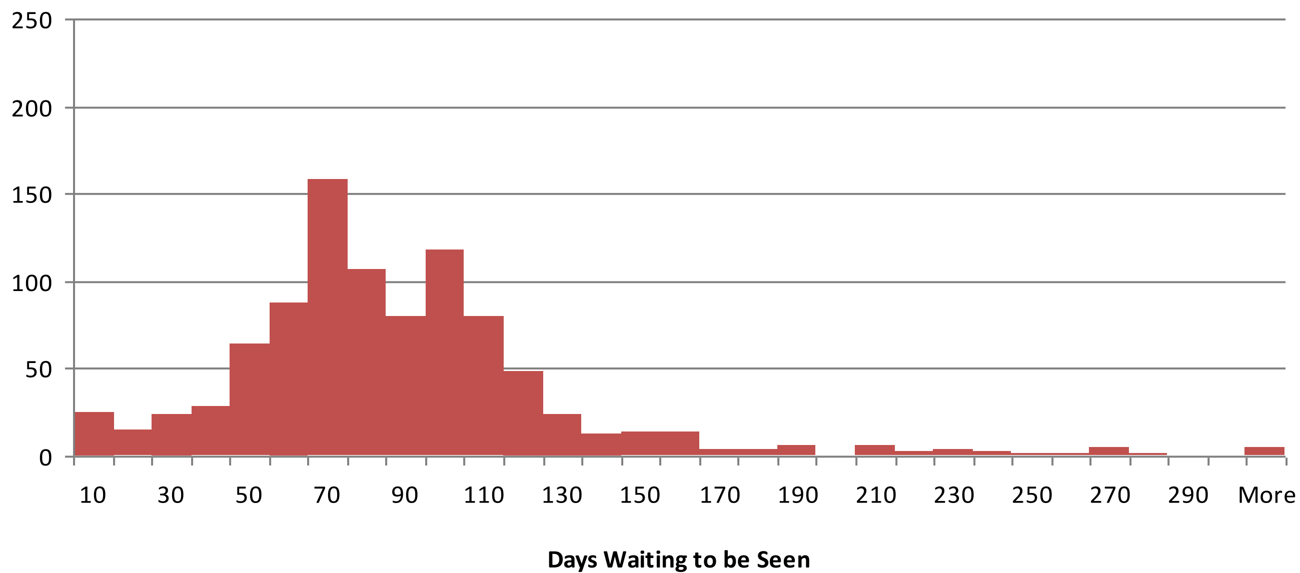


THE BURDEN

- **COPD disease burden:**
  - **65,000 smokers (6-8y of life)**
  - **COPD known to GP ? 7,000**
  - **COPD Consultations ~42,000**
  - **15,000 do not yet know what is wrong**
  - **By the time they do ½ of lung has "gone"**
  - **High admission rate**
  - **High mortality rate**
  - **High co-morbidities (Lung cancer, diabetes, cardiovascular disease, anxiety/depression)**
- **Asthma disease burden: Estimated 50,000 people**
- **OSA disease burden:**
  - **Estimated 20,000 people**

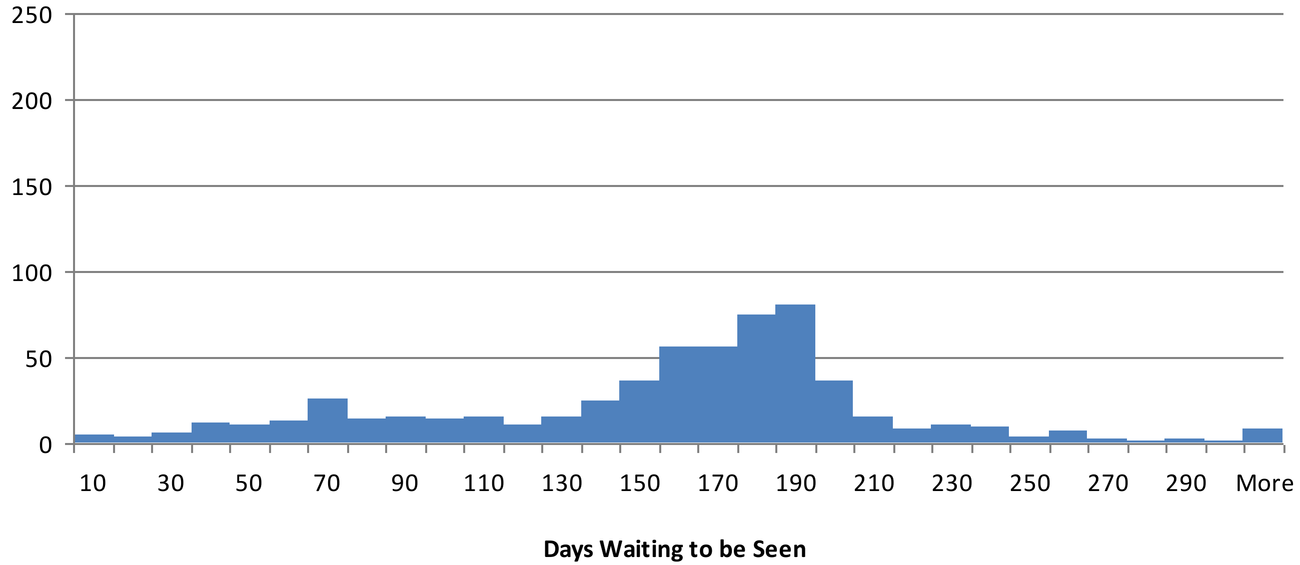
Hospital services the past – GP referral

- "thank you for seeing… urgently. She has been troubled by worsening dyspnea. A recent Chest Xray suggests interstitial lung disease…."
- Triaged "urgent/ next available " Cat4
- *Dear ..your GP has referred you for a specialist assessment- this has been accepted under the "urgent / next available" category, you should be sent an appointment within the next 4 months."*


Triage 4 - Urgent FSA's Seen In Respiratory Since 2007
250
200
150
100
50
0
10
30
50
70
90
110
130
150
170
190
210
230
250
270
290
More
Days Waiting to be Seen

GP referral (2)

- “thank you for seeing…. She has been troubled by debilitating cough . A recent Chest Xray was reported to be normal….”
- Triaged “routine ” Cat5
- *Dear ..your GP has referred you for a specialist assessment- this has been accepted under the “routine” category, you should be sent an appointment within the next 6 months.”*



Triage 5 - Semi Urgent FSA's Seen In Respiratory Since 2007
250
200
150
100
50
0
10
30
50
70
90
110
130
150
170
190
210
230
250
270
290
More
Days Waiting to be Seen

COPD frequent admissions

- **54 Canterbury patients “frequent respiratory admissions” in 2005/06**
- 1 with 10 admissions; 1with 9; 3with 8; 4 with 7; 11with 6; 8with 5 and 27 patients with 4 admissions each in 1 year period
- •
- **Patient X**
- ○ 8 resp IP episodes (1-12d LOS, total 31d—CWD 13.2)
- 2 general medicine IP episodes (2 , 6d – CWD 1.2)
- ○ 2 cardiology (1 ,2d—CWD 1.1)
- ○ Resp OPD x 3; Cardiology OPD x2; ClinPsychol OPD x 2
- ○ CRO Education visits x3, physio x 11
- ○ Diagnostic test appt x4
- ○ OPD cancellations x3
  - Usually NOT seen by GP in between
- •

Obstructive sleep apnea

- Mr X, age 54, snorer since early 20s
- Reports of apnea since early 40s
- Always “heavy’ but 20kg gain last 10y
- Never feeling refreshed AM
- High BP for years, now on 3 meds , 3monthly checks
- Went off the road during 200km trip
- OE: BMI =39, rhinitis, BP=165/100, neck 48cm
- Epworth sleepiness score =16/24
- Sleep study: Apnea-Hypopnea-Index=65

- **2009: Intent for patients, the public**:
- Better access to health services
- Less delay
- Less uncertainty
- More equitable
- Better outcomes –less morbidity
- Less hospital visits –better chronic disease management

the Canterbury initiative

working together

- **2009: Intent for health professionals** :
- Better supports and systems by using pathways
- Better networks across the sector
- New skills and recognition for it
- When referring :
  - Less uncertainty
  - More transparency
  - Less “red tape”
- Less gridlock, reduced waiting lists

Pathways

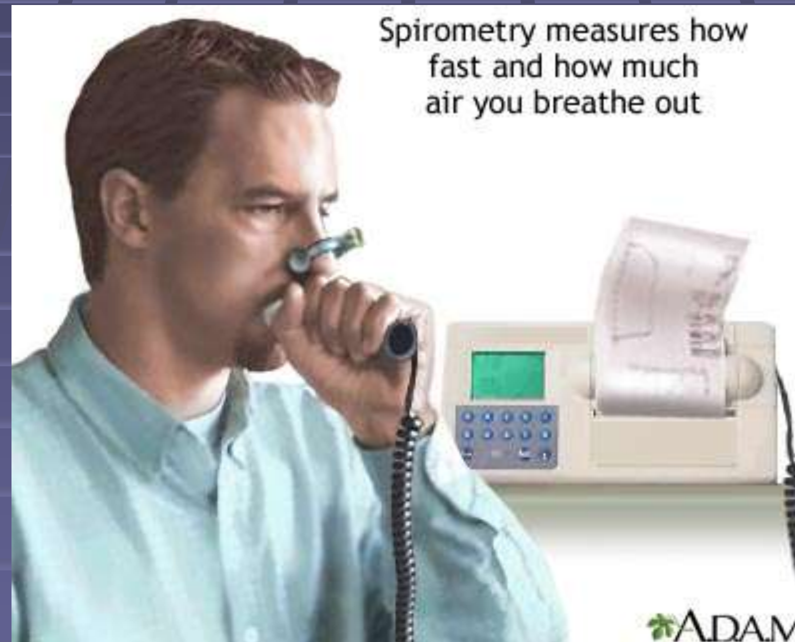
- Greater awareness
- Improved access
- Empowerment

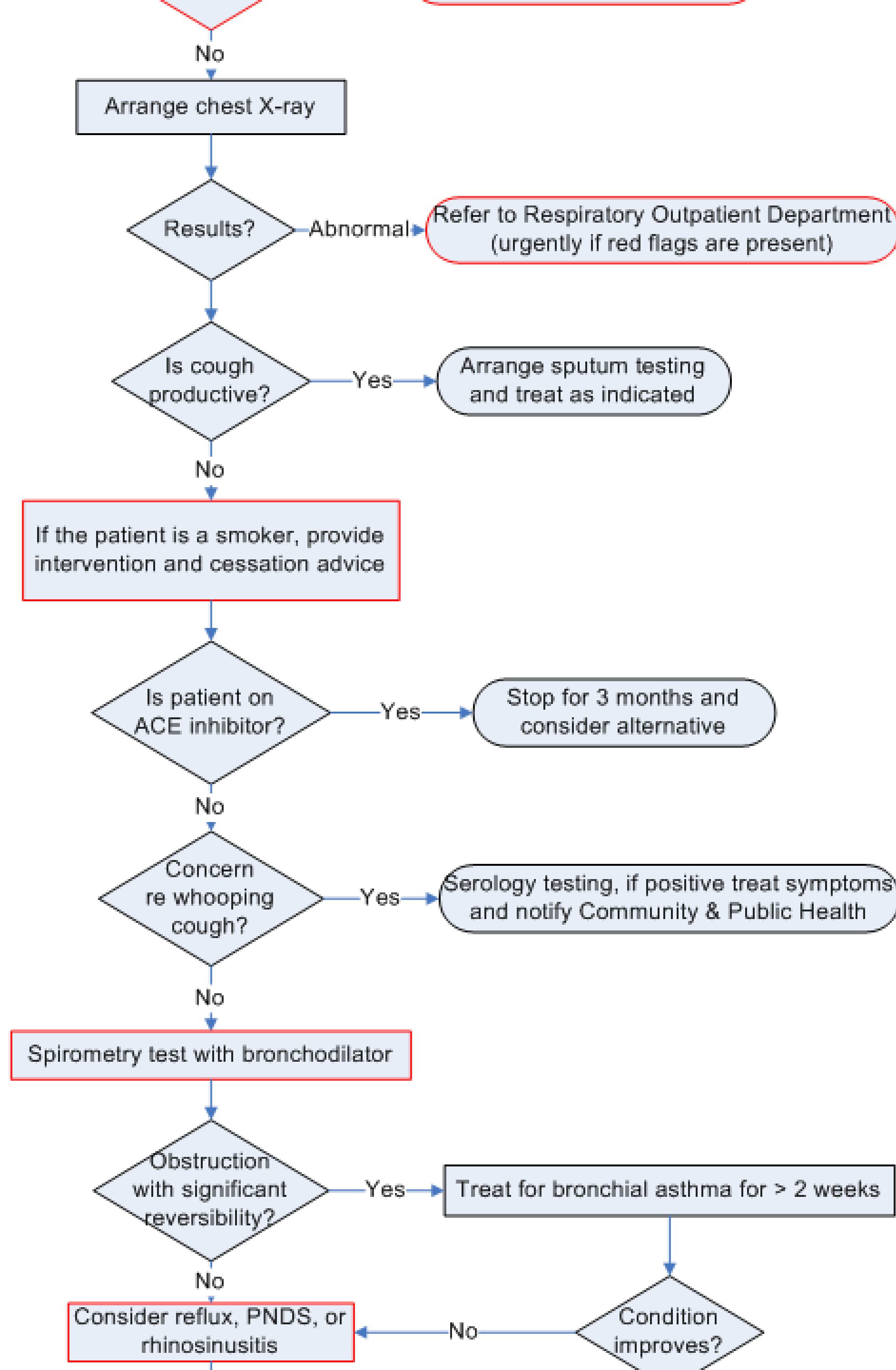
the Canterbury initiative

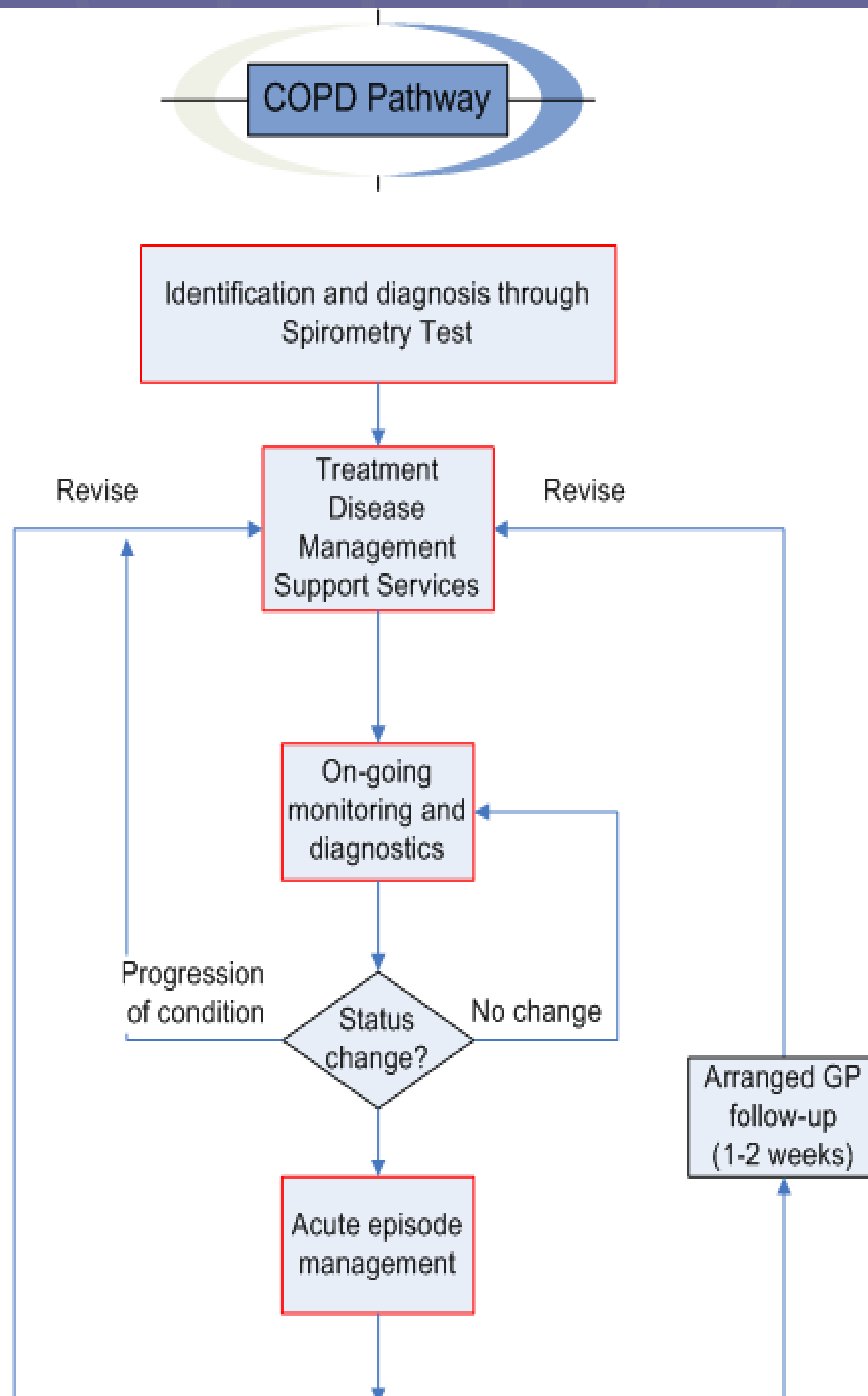
working together

- www.healthpathways.org.nz
  “health” p1thw1ys”
- **Respiratory**
-
- **In This Section**
- COPD
- Chronic Cough
- Dyspnoea
- Haemoptysis
- Adult Sleep Disordered Breathing
- Outpatient Referral - Respiratory
- Community Respiratory Physician
- Respiratory Nurse Facilitators
- Sleep Assessment Providers
- Spirometry Providers

What actually is the diagnosis? Community based tests




No
Arrange chest X-ray
Results?
Abnormal
Refer to Respiratory Outpatient Department (urgently if red flags are present)
Is cough productive?
Yes
Arrange sputum testing and treat as indicated
No
If the patient is a smoker, provide intervention and cessation advice
Is patient on ACE inhibitor?
Yes
Stop for 3 months and consider alternative
No
Concern re whooping cough?
Yes
Serology testing, if positive treat symptoms and notify Community & Public Health
No
Spirometry test with bronchodilator
Obstruction with significant reversibility?
Yes
Treat for bronchial asthma for > 2 weeks
No
Consider reflux, PNDS, or rhinosinusitis
No
Condition improves?


COPD Pathway
Identification and diagnosis through Spirometry Test
Revise
Treatment Disease Management Support Services
Revise
On-going monitoring and diagnostics
Progression of condition
Status change?
No change
Arranged GP follow-up (1-2 weeks)
Acute episode management

Education is a very important component of COPD management at all stages.

Patient Information

- Support Services
- COPD Self-Management Plan
- The Asthma and Respiratory Foundation has the following COPD fact sheets
  - COPD at a glance
  - Energy Savers
  - Home Exercises
  - COPD & Stress
  - Talking with your doctor about COPD

Useful Websites for Patients

www.copdfoundation.org

www.copd-international.com

www.lungusa.org - Including "Living Life to the Fullest with COPD" and "Living Well with Chronic Lung Disease"

www.lunguk.org - Including "COPD: living with chronic obstructive pulmonary disease" and "Going on holiday with a lung condition“

Staying Well

www.asthmanz.co.nz has fact sheets with tips for making homes healthier.

Keep living rooms at 18-20⁰ and bedrooms at 16⁰ at night to prevent cold related illness.

Disability allowance may be available through WINZ to assist in paying heating bills.

Community Energy Action - subsidies for home insulation

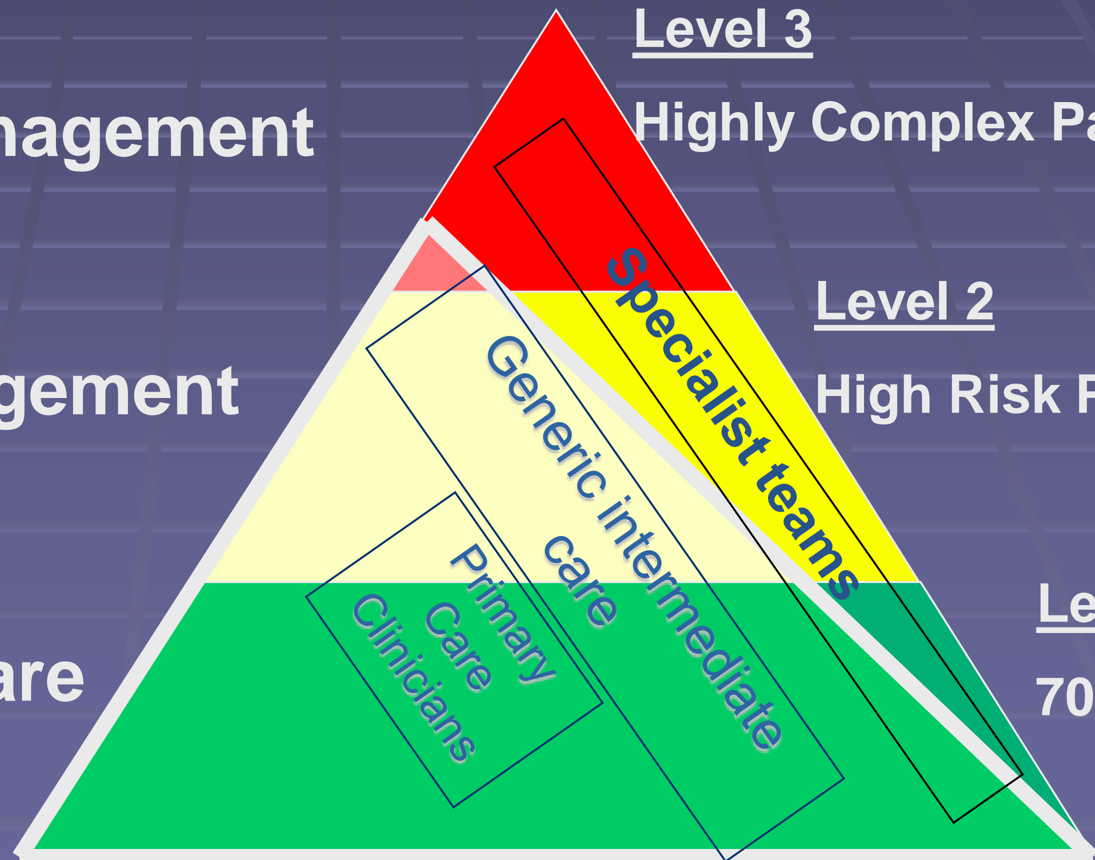
Patients may be eligible for the ‘Warm Families’ programme.

Model for LTC

Case Management

Disease Management

Supported Self Care



Level 3

Highly Complex Patients

Level 2

High Risk Patients

Level 1

70-80%

AUSTRALIAN LUNG FOUNDATION

COPD-X Checklist

Diagnosis and Management of COPD

C – Confirm diagnosis

Presence and history of symptoms:

- ☐ Shortness of breath
- ☐ Cough
- ☐ Sputum production

Smoking – history and willingness to quit:

- ☐ Smoker ☐ Pack years
  - Willingness to quit ☐ high ☐ medium ☐ low
- ☐ Previous smoker
- ☐ Non-smoker
- ☐ Other smoking-related disease

Anyone who smokes and/or has shortness of breath and sputum production could have COPD

Spirometry - measure FEV_1 and FEV_1/FVC and assess reversibility of airflow limitation

Spirometry is essential for case-finding, to differentiate between asthma and COPD, and to determine the degree of disease severity.

	Pre-bronchodilator	% pred	Post-bronchodilator	Reversibility* (%)
FEV_1				
FVC				
FEV_1/FVC				

[illegible]

Based on spirometry results – FEV_1 % of predicted post-bronchodilator.

60–80% = Mild
40–59% = Moderate
<40% = Severe

COPD is defined as post-bronchodilator FEV_1/FVC <0.70 and FEV_1

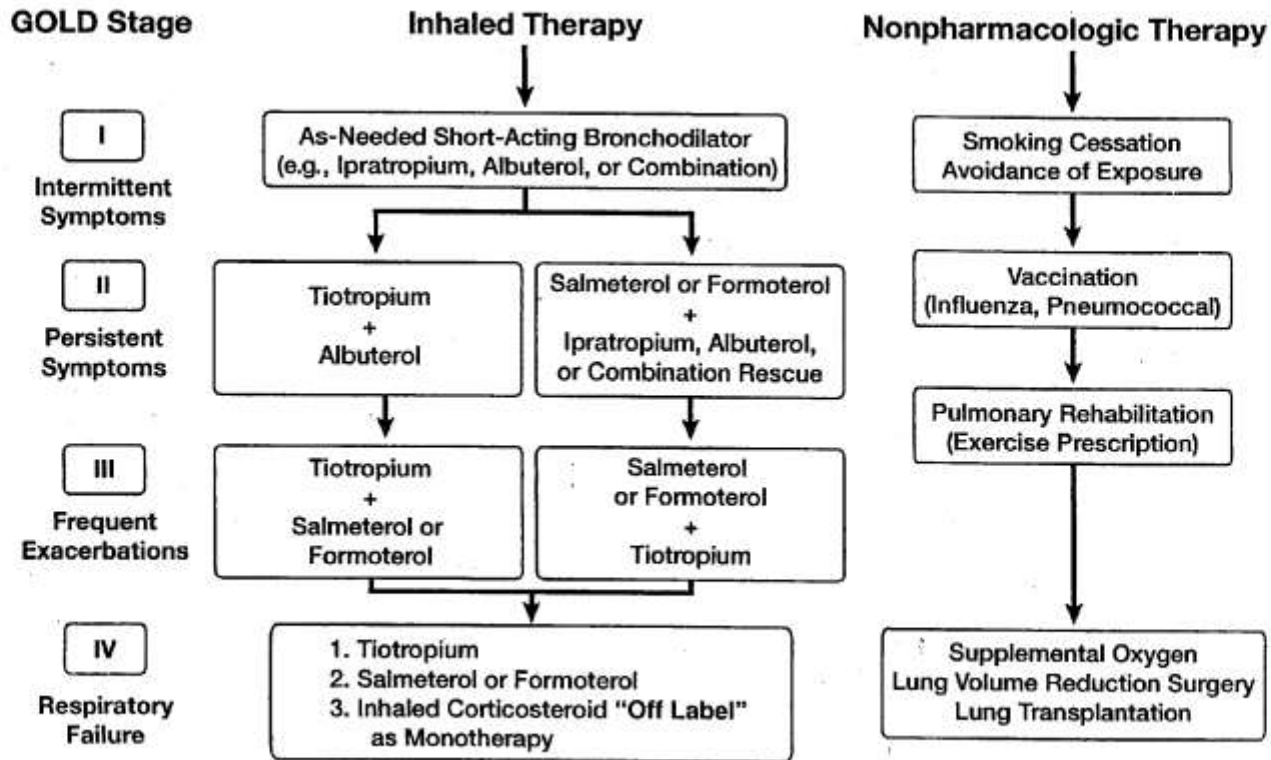


Figure 6 Clinical algorithm for the treatment of chronic obstructive pulmonary disease by Global Initiative for Chronic Obstr Disease (GOLD) stage. Clinical stages are defined symptomatically. (Reprinted with permission from *BMJ*.[45])

SHORTNESS OF BREATH SCALE

This shortness of breath scale may help you to recognise when your breathing becomes difficult.

1 **MILD**
noticeable to you but not others

2 **MILD, SOME DIFFICULTY**
noticeable to others

3 **MODERATE DIFFICULTY**
but can continue activities

4 **SEVERE DIFFICULTY**
you cannot continue activities

KEEP ACTIVE

- People with COPD can feel short of breath with activity even when well
- Regular exercise makes breathing easier and helps keep you well
- Learn to walk/move at a slower pace to avoid regular stops to catch your breath

TIPS TO HELP WITH BREATHING

- Breathe in through the nose
- Breathe out with pursed or puckered lips (as if you are whistling)
- Try to keep your shoulders relaxed and lean forward with your arms supported on a hard surface

USING A SPACER

If you use a metered dose inhaler, a spacer will help get medication into the lungs. Ask your doctor about a spacer if you don't already have one.

1 Shake the inhaler well (holding it upright)

2 Fit the inhaler into the opening at the end of the spacer

3 Seal lips firmly round the mouthpiece

4 Press the inhaler **once only**

5 Take 5-6 slow breaths in and out through your mouth. Do not remove the spacer from your mouth between breaths

6 Remove spacer from your mouth

7 Repeat these steps (1 - 6) for further doses

8 Wash the spacer once a week with warm water and dishwashing liquid

Do not rinse. Drip dry.
This reduces the electrostatic charge so that the medicine does not stick to the spacer sides

COPD

(A chronic lung disease)

Management Plan

Every March see your doctor for an influenza vaccine

Supported by

This COPD Management Plan belongs to:

Helping people to breathe easier

< 20% with LTC have a plan

COPD Management Plan

No Symptoms

WORSENING SYMPTOMS

Severe

SYMPTOMS	ACTION	MEDICATIONS
WHEN YOU ARE WELL - KNOW • How much you can do each day • How your breathing is at rest and during activity • What makes your breathing worse • What your appetite is like • How well you sleep • How much sputum you have, and its colour	**LIFESTYLE TIPS** • Stop smoking and avoid smoky environments • Have something to look forward to each day • Exercise every day • Plan ahead and allow enough time to do things • Eat a balanced diet • Drink plenty of fluids • Avoid things that make you worse • Never run out of medicines • Regular medication and wellbeing check at GP	Reliever ____ @ ____ puffs ____ times a day ____ @ ____ puffs ____ Other ____ @ ____ puffs ____ times a day ____ @ ____ puffs ____ times a day ____ @ ____ times a day
WORSENING SYMPTOMS • More breathless or wheezy than usual • Change in amount and/or colour of sputum • Fever • Need to use inhalers/nebuliser more than usual • Reduced energy for daily activities • Loss of appetite • Increasing tiredness and/or poor sleep • Cough – new or increased	**WHAT TO DO** • If you have an infection (fever and/or yellow/green sputum), start antibiotics • Increase your medications • Reschedule your day to allow more time for rest • Use relaxation techniques • Clear sputum with huff and cough techniques • Eat small amounts regularly • Drink extra fluids	**Continue your usual medications. Increase or start the following medications:** ____ @ ____ puffs ____ times a day ____ @ ____ puffs ____ times a day ____ @ ____ times a day
SEVERE SYMPTOMS If no better in ____ days	**Contact the doctor for an urgent review** Daytime tel: ____ After hours tel: ____	**Continue your usual medications. Start the following medications:** ____ times a day
EMERGENCY • Very short of breath at rest • A feeling of agitation, fear, drowsiness or confusion • Chest pains • High fever	**Dial 111 for an ambulance**	Patient Name: ____ Doctor: ____ Tel: ____ Date plan prepared: / / By: ____ Review Date: / / By: ____

Pulmonary Rehabilitation works ….– if provided !

Pulm. Rehabilitation

Fitness
Strength
Endurance
Self-confidence
Coping
Medicines better used
Mood better, less isolated

Canterbury District Health Board

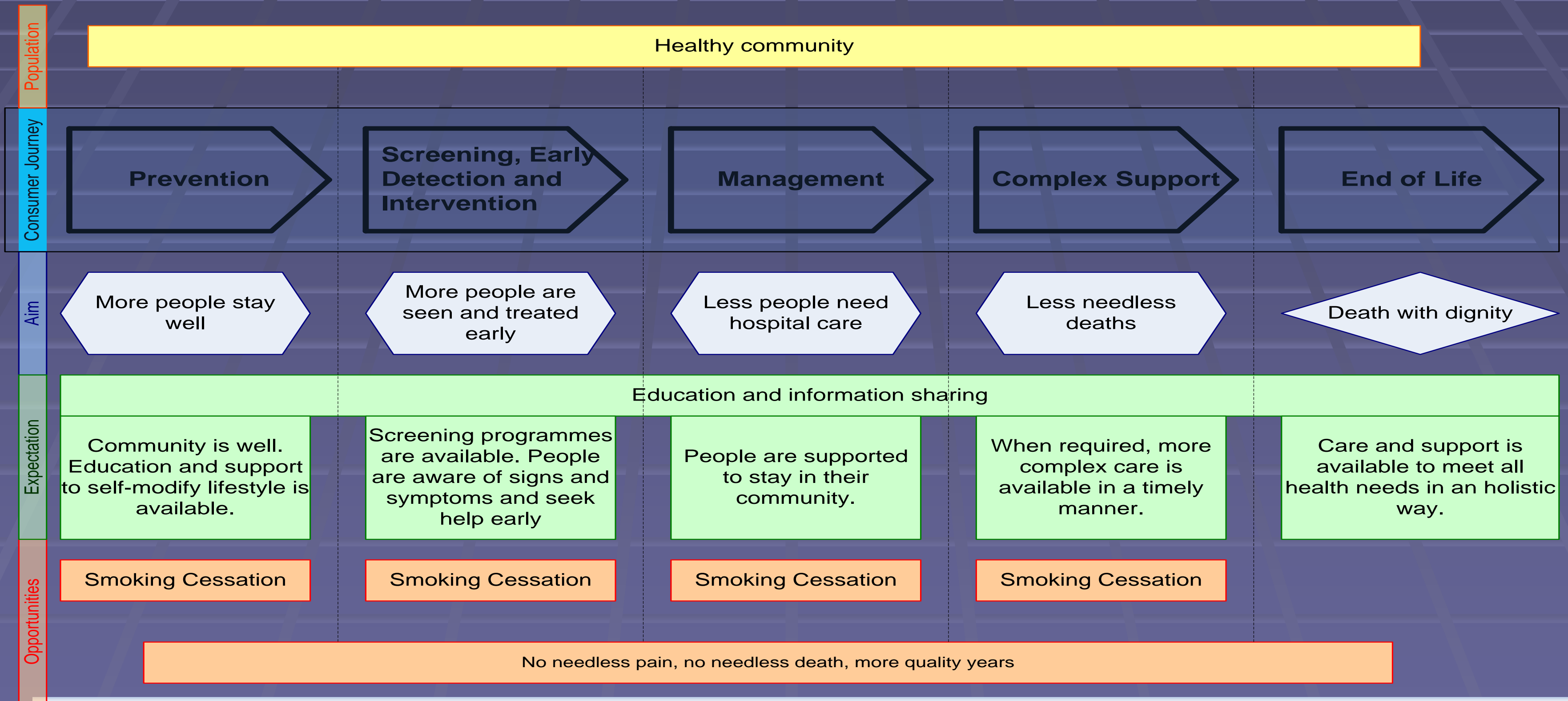
Te Poari Hauora ō Waitaha

Health Services Planning

Map of Care

Health Services Planning: Macro Map of Care Diagram

April 2007

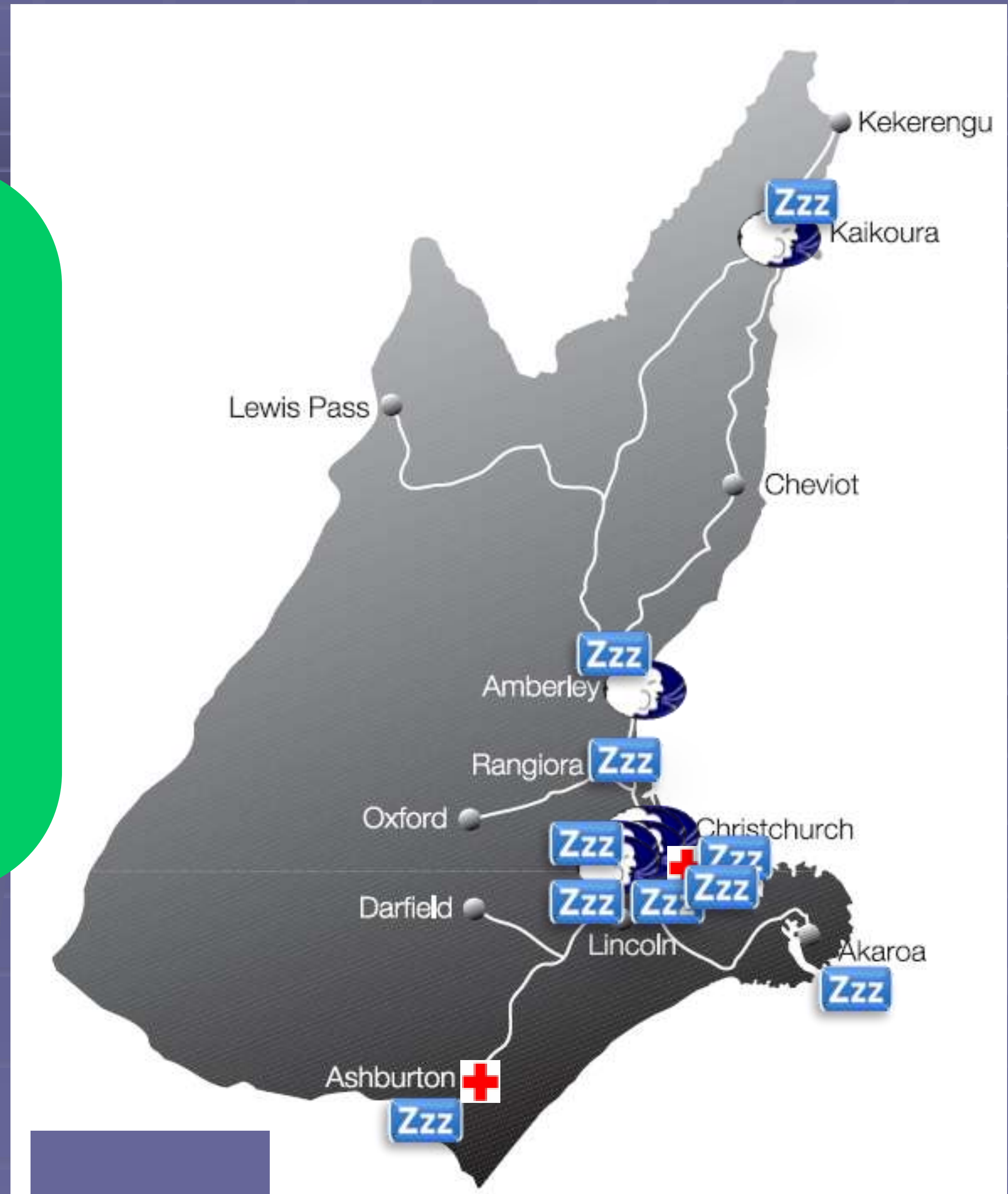


COPD Diagnosis: Systematic approach

- Assess severity in order to identify needs
    - Annual review in 1°care
    - Specialist services to support
    - Review after each significant exacerbation
- Reinforcement of smoking cessation advice
- Focus on wellness , HEHA , housing …
- Step-up management in response to increasing need
    - Pharmacological Rx, Pulm Rehabilitation
- Assessment of co-morbidities and complications
    - Psycho-social impact
    - Palliative care

2010

- 17 approved sleep providers
- 5 approved spirometry providers
- Mobile team in place
- Quality frameworks in place
- >1,000 spirometry and sleep tests
- 8 rehab programmes in community and follow-on exercise classes
- 130 patient assessments + practice education



Re-designing services: Challenges

- Vision- do we share this ?
- Priorities- aligned ? MoH, DHB, PHO, IPA,GP, SMO..
- No crisis –H1N1, EOI
- Engagement , Empowerment

  professionals , consumers
- Communication ? adequate
- Sustainable ? (who actually does the work?..)
- Waste- do we create new~ ? (reduplication, new silos, LTC)
- Where are we? No indicators/ KPI
- Focus on short-term gains: $$, political