

National Allied Health Research Forum 2024

Improving Lung Health for  
Aboriginal and Torres Strait  
Islander Peoples:  
the Breathe Easy, Walk Easy  
Lungs for Life (BE WELL)  
project

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# Acknowledgement of Country

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‘Breath of Country’  
Jason Luscombe, Wiradjuri Artist

*This painting tells the story of living with the lung disease.*

*No matter how you are feeling or where you are, you always breathe in Country. Country means kinship, community and support.*

*Within the lungs, I’ve shown the support that people with chronic obstructive pulmonary disease get from family. Outside of the lungs is the support from medical services.*

*For Indigenous people with chronic obstructive pulmonary disease they need to breathe Country, and have family and medical support to maintain a good life with this disease.*



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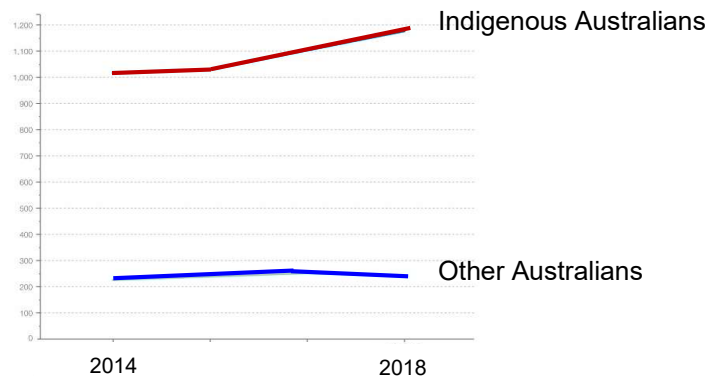
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## COPD in Indigenous Australians

- Prevalence of COPD is **2.5 times** that of other Australians
- Mortality rate from COPD is **3 times** national average
- Hospitalisation rates for COPD **5 times** of other Australians (AIHW 2014)
- COPD most common cause of potentially preventable hospitalisations in Indigenous Australians (4<sup>th</sup> Australian Atlas of Health Care Variation 2021)

Rates for Aboriginal and Torres Strait Islander people across years

Figure 2.8: Number of potentially preventable hospitalisations – COPD per 100,000 people of all ages, age and sex standardised, by Aboriginal and Torres Strait Islander status, 2014–15 to 2017–18



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4<sup>th</sup> Australian Atlas of Clinical Variation 2021

# Pulmonary Rehabilitation

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- A supervised **exercise training** and health **education** program (Alison, 2017)
- Recommended as best practice management in COPD guidelines (Yang, 2024)
- Australian Commission on Safety and Quality in Health Care



## Standard 5: Pulmonary Rehabilitation



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# Evidence for Pulmonary Rehabilitation- Level 1 & 2 evidence



Exercise capacity\*



Dyspnoea & Fatigue\*



Quality of life\*



Hospitalisation# & LOS^



Mortality # Δ



Healthcare costs<sup>□</sup>

\*McCarthy, Cochrane Review 2015; # Puhan, Cochrane Review 2016 / Jenkins, 2024;

^Ries, 2007; ΔLindenauer, 2020; □ Griffith, 2000



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## Lack of culturally safe pulmonary rehabilitation programs

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- PR programs offered in mainstream hospital and community out-patient departments by non-Indigenous staff - **culturally unsafe** environments
- Low attendance of Aboriginal and Torres Strait Islander Peoples with COPD at these programs

**Racism blamed for Aboriginal patients' distrust of NSW public health system** **ABC**

ABC Central West / By Joanna Woodburn  
Posted Mon 15 Mar 2021 at 10:14am, updated Mon 15 Mar 2021 at 10:22am

15<sup>th</sup> March, 2021



Jamie Newman, CEO  
Orange Aboriginal Medical  
Service



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## The Fourth Australian Atlas of Healthcare Variation

2021



## 2.1 Chronic obstructive pulmonary disease (COPD)

High rates of hospitalisation **unacceptable** for:  
– Indigenous Australians

### Why is this important?

Chronic obstructive pulmonary disease (COPD) is a serious, chronic lung disease that impairs quality of life and shortens lives. Approximately 8% of people in Australia aged 40 years and over and 29% of those aged 75 years and over have at least moderate symptoms of COPD.<sup>1</sup> COPD accounts for a substantial number of hospital bed days every year in Australia – for example, 392,434 bed days in 2017–18. Better health care can sometimes keep people with COPD well enough to reduce their need for hospitalisation.

### What did we find?

Between 2014–15 and 2017–18, the rate of COPD hospitalisations per 100,000 people nationally increased by 8%. In 2017–18, the rate of hospitalisations for COPD was **18.1 times as high** in the area with the highest rate compared with the area with the lowest rate.

In 2017–18, the rate for Aboriginal and Torres Strait Islander people was 4.8 times as high as the rate for other Australians. Rates were also higher in remote areas and in socioeconomically disadvantaged areas than elsewhere.

### What can be done?

The high rate of hospitalisations for COPD reported in this chapter is unacceptable, and we must implement the strategies we know can improve the health of people with this condition. This is particularly important for the groups with higher rates of hospitalisation for COPD: Aboriginal and Torres Strait Islander peoples, and those living outside metropolitan areas or in socioeconomically disadvantaged areas.

Pulmonary rehabilitation – that is, health professional-led programs of exercises and education strategies to improve breathing and function – can reduce hospitalisations among people with COPD by 36–56%.<sup>2,3</sup> Priority should be given to improving access to culturally safe pulmonary rehabilitation programs for Aboriginal and Torres Strait Islander people with COPD, and people living in remote areas of Australia. There should also be a focus on improving data collection and reporting for pulmonary rehabilitation programs to help health services and general practices monitor their effectiveness in improving patient outcomes. Pharmacist interventions, including providing education about medicines and lifestyle, and influenza vaccination are other interventions that can reduce hospitalisations for people with COPD.<sup>4</sup>

Smoking cessation can improve lung function in people with COPD.<sup>5</sup> Reducing smoking rates is key to reducing hospitalisations for COPD.

- Priority is to improve access  
to culturally safe PR



## Aim of BE WELL

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- Partner with NSW-based Aboriginal Community Controlled Health Services (ACCHS) to implement evidence-based, culturally-safe PR for Indigenous people with COPD



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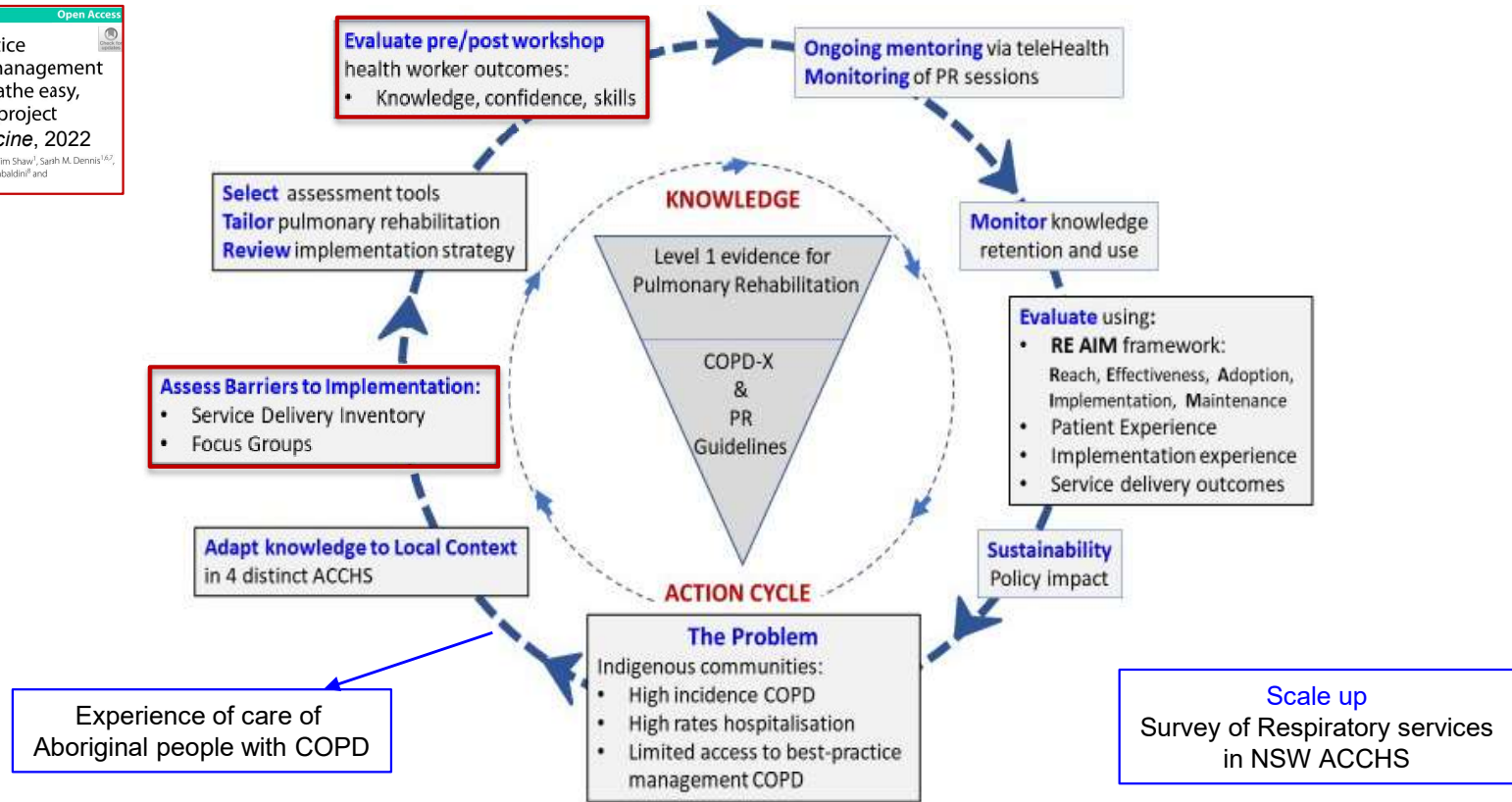


# Breathe Easy Walk Easy Lungs for Life (BE WELL) Project

**STUDY PROTOCOL** Open Access

Implementing evidence into practice to improve chronic lung disease management in Indigenous Australians: the breathe easy, walk easy, lungs for life (BE WELL) project (protocol) *BMC Pulmonary Medicine*, 2022

David P. Meharg<sup>1,2</sup>, Christine R. Jenkins<sup>1,4</sup>, Graeme P. Maguire<sup>3</sup>, Stephan Jan<sup>1</sup>, Tim Shaw<sup>1</sup>, Sarah M. Dennis<sup>1,6,7</sup>, Zoe McKeough<sup>1</sup>, Vanessa Lee<sup>1</sup>, Kylie G. Gwynne<sup>8</sup>, Debbie McCowen<sup>1</sup>, Boe Rambaldi<sup>9</sup> and Jennifer A. Alison<sup>1,10,11</sup>



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**4 ACCHS partnered with BE WELL**

# Capacity building

- 2 day BE WELL workshop plus follow-up support  
Patient assessment, exercise prescription and training
- Online education of AHW to provide 'yarning' education for patients

## 7 Yarning Topics

- How the lungs work
- What can go wrong with the lungs – COPD
- Medications, how to use inhalers and action plans
- Why exercise is important
- Managing breathlessness
- Managing anxiety, depression, stress
- Healthy eating

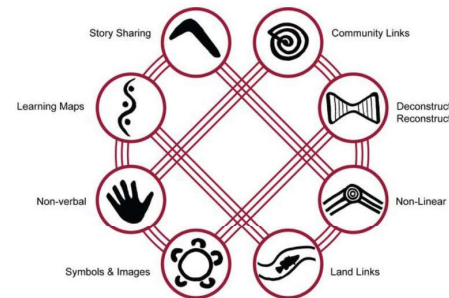
AHWs involved in all aspects of PR



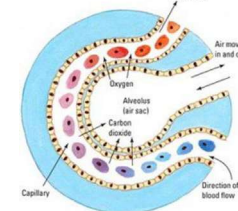
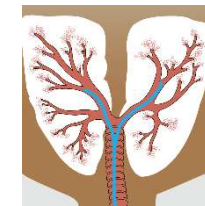
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## Aboriginal pedagogy 8-ways of learning



NSW Education & Communities, 2012



A mixed methods study of Aboriginal health workers' and exercise physiologists' experiences of co-designing chronic lung disease 'yarning' education resources *BMC Public Health*, 2023

David P. Meharg<sup>1,2</sup>, Sarah M. Dennis<sup>1,3,4</sup>, Justin McNab<sup>1,5,6</sup>, Kylie G. Gwynne<sup>7</sup>, Christine R. Jenkins<sup>8,9</sup>, Graeme P. Maguire<sup>10</sup>, Stephen Jan<sup>9</sup>, Tim Shaw<sup>11</sup>, Zoe McKeough<sup>1</sup>, Boe Rambaldini<sup>1</sup>, Vanessa Lee<sup>1</sup>, Debbie McCowen<sup>12</sup>, Jamie Newman<sup>13</sup>, Scott Monaghan<sup>13</sup>, Hayley Longbottom<sup>13</sup>, Sandra J. Eades<sup>10,16</sup> and Jennifer A. Alison<sup>1,17</sup>

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## Capacity building

- Funded Cert IV allied health assistant for AHW
- Developed research skills – assessment/measurement, data management

## Infrastructure

- Exercise and clinical equipment
- Some funding



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## Participants and outcomes measures

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### ACCHS

- 3 ACCHS provided PR programs which are ongoing - 43 participants

### Aboriginal Health Workers, Physiotherapists, Exercise Physiologists

- Increased knowledge, confidence and skills in providing the exercise and education components of PR (n=24)
- Measured by questionnaires and objective tests



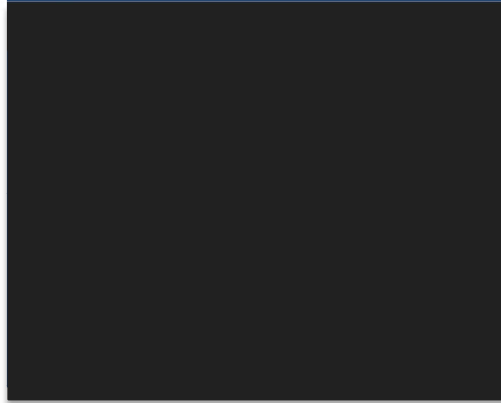
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# Indigenous knowledge and perspective of COPD & PR

Interviews of Aboriginal people with COPD (n=20)

What is COPD?



What is PR and its benefits?



A qualitative study of Aboriginal peoples' healthcare experiences with chronic obstructive pulmonary disease.  
Meharg DP, Dennis SM, Gwynne KG, Jenkins CR, Maguire GP, Jan J, Shaw T, McKeough Z, Rambaldini B, Lee V,  
McCowen D, Newman J, Longbottom H, Eades SJ, Alison JA. *Qualitative Health Research* 2024, accepted



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# Raising Community Awareness of COPD and PR

## Community engagement

- COPD Awareness day
- Art Competition



Jason Luscombe  
Wiradjuri Country  
*Breath of Country*

Koreen Bartman (Andrews)  
Kamilaroi Country  
*The Choice*

Jamilla Welsh  
Jerrinja and Wandj Wandian Country  
*Breathe of Life*



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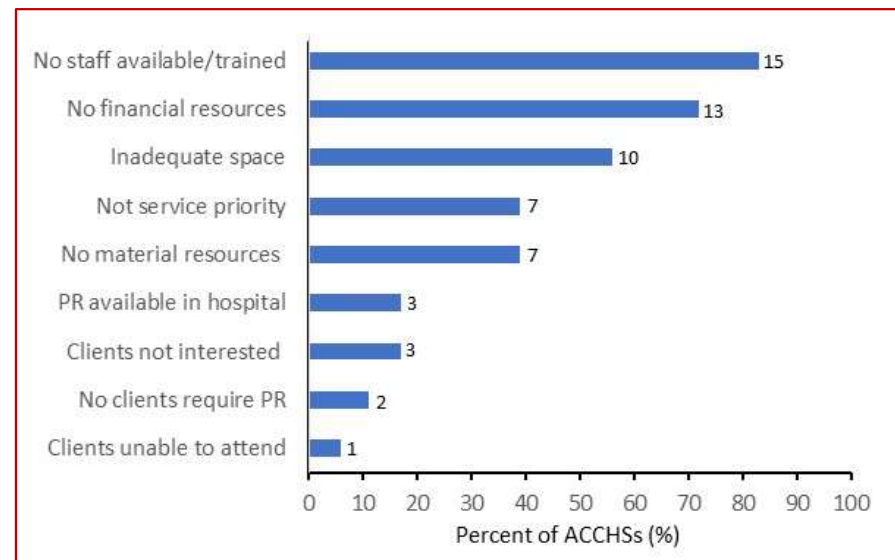
# NSW ACCHS Survey of Respiratory Services

- 41 eligible NSW-based ACCHS invited, 18 services (44%) completed the survey

Type of respiratory services	Number (% of ACCHSs)
Smoking cessation	18 (100)
Spirometry	16 (89)
Respiratory clinic (Adult)	5 (28)
Asthma/COPD education	5 (28)
Respiratory clinic (Child)	1 (6)
Pulmonary Rehabilitation	0 (0)

= commonwealth funded services

Reasons for not providing PR



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## Conclusions for Policy

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- PR is a key recommendation in Guidelines (and will be in ACSQ COPD Clinical Standards) to reduce preventable hospitalisations and improve HRQoL
- Extremely limited opportunities for Indigenous Australians to access culturally safe PR
- **Provision of PR in the culturally safe environment of ACCHSs is achievable**
  - ACCHS staff need to be upskilled- this is possible
- Policy decisions (funding) to overcome barriers requires:
  - Funding to support service provision of PR – potential MBS item number?
  - Improved infrastructure (eg. space to run PR program)
  - Increase in staffing
- Strengthening Medicare Taskforce Report recommendation:
  - to enable ACCHSs to commission primary care services for their communities



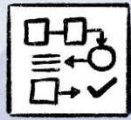


# BE WELL PROJECT SUMMARY

## PRE-STUDY



Engage and gain consent from ACCHS



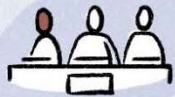
Develop research protocol



Seek community support



Submit ethics to AHMRC Ethics Committee



## RECRUITMENT & TRAINING



Complete BE WELL questionnaire

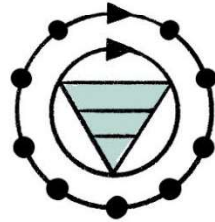


Recruit local AHWs and EPs

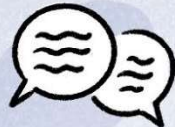


Upskill & train AHWs, EPs & physiotherapists

## KNOWLEDGE ACTION FRAMEWORK



## COMMUNITY RESEARCH



Understand the lived experience of Aboriginal people with COPD



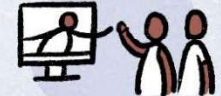
## DEVELOPING & SUPPORTING THE INTERVENTION (PR)



Establish PR programs on-site



Online education



Telehealth & on-site visits



Refine the intervention for each site

## COLLECTING OUTCOME DATA



Collect data from patients attending PR



Qualitative interviews



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se  
N

Advocacy for funding for PR in ACCHS



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# Acknowledgements

- National Health & Medical Research Council, Australia
- Global Alliance for Chronic Diseases
- Participating ACCHS - Boards and Chief Executive Officers, staff and clients, and client's families
- Investigating team



Jennifer Alison, Christine Jenkins, Graeme Maguire, Stephen Jan, Tim Shaw, Sarah Dennis, Zoe McKeough, Vanessa Lee, Kylie Gwynne, Boe Rambaldini, Debbie McCowen

**David Meharg (Project manager & PhD student)**



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