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Better lung health for all

Inequalities in Pulmonary Rehabilitation

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Learning outcomes

- To develop an understanding of health inequalities relevant to people living with chronic respiratory disease
 - To develop an understanding of factors influencing inequalities in pulmonary rehabilitation
 - To critically consider strategies aiming to reduce inequalities in pulmonary rehabilitation
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“Health inequalities are **not inevitable** and **can be significantly reduced**... avoidable health inequalities are unfair and putting them right is a matter of social justice. There will be those who say that our recommendations cannot be afforded, particularly in the current economic climate. We say that it is inaction that cannot be afforded, for the human and economic costs are too high”

Professor Sir Michael Marmot

Fair society, healthy lives: the Marmot review (2010; pp.35)



Health equity

“Having the personal agency and fair access to resources and opportunities needed to achieve the best possible physical, emotional and social well-being”

Health inequities

“Preventable differences in health outcomes closely linked to social, economic and environmental conditions”

*Peterson et al., 2021 [pp.742]
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*Reproduced from
Peterson et al., 2021
[pp.743,745] CC-BY-NC*

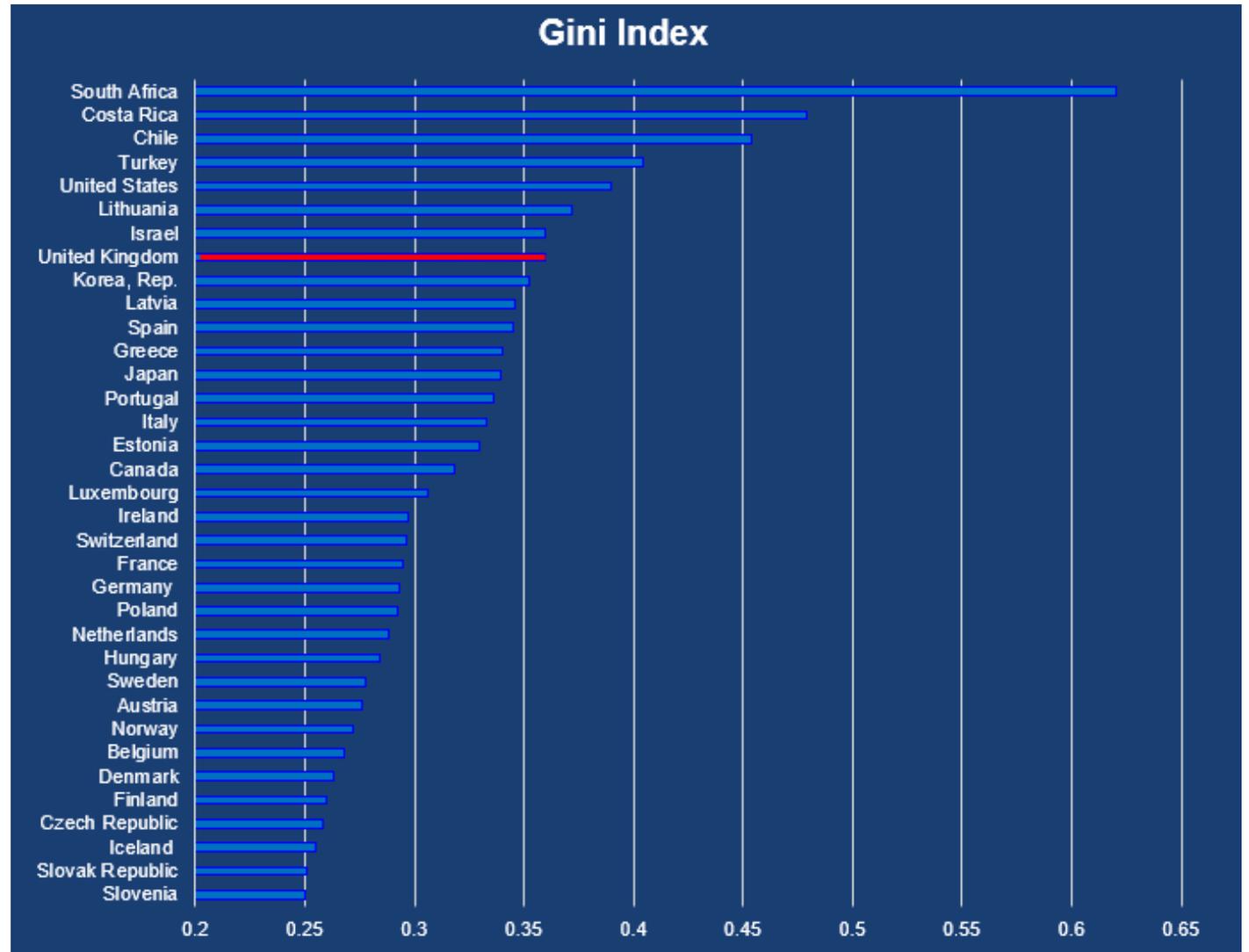


FIGURE 2 The Health Equity Framework Across the Life-Course

0 ~ “perfect equality”
1 ~ “perfect inequality”

Income inequality for member states of
Organisation for Economic Co-operation
and Development in 2015

Sitthiyot & Holasut, 2020



*Reproduced from: Sitthiyot & Holasut, 2020
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Deprivation



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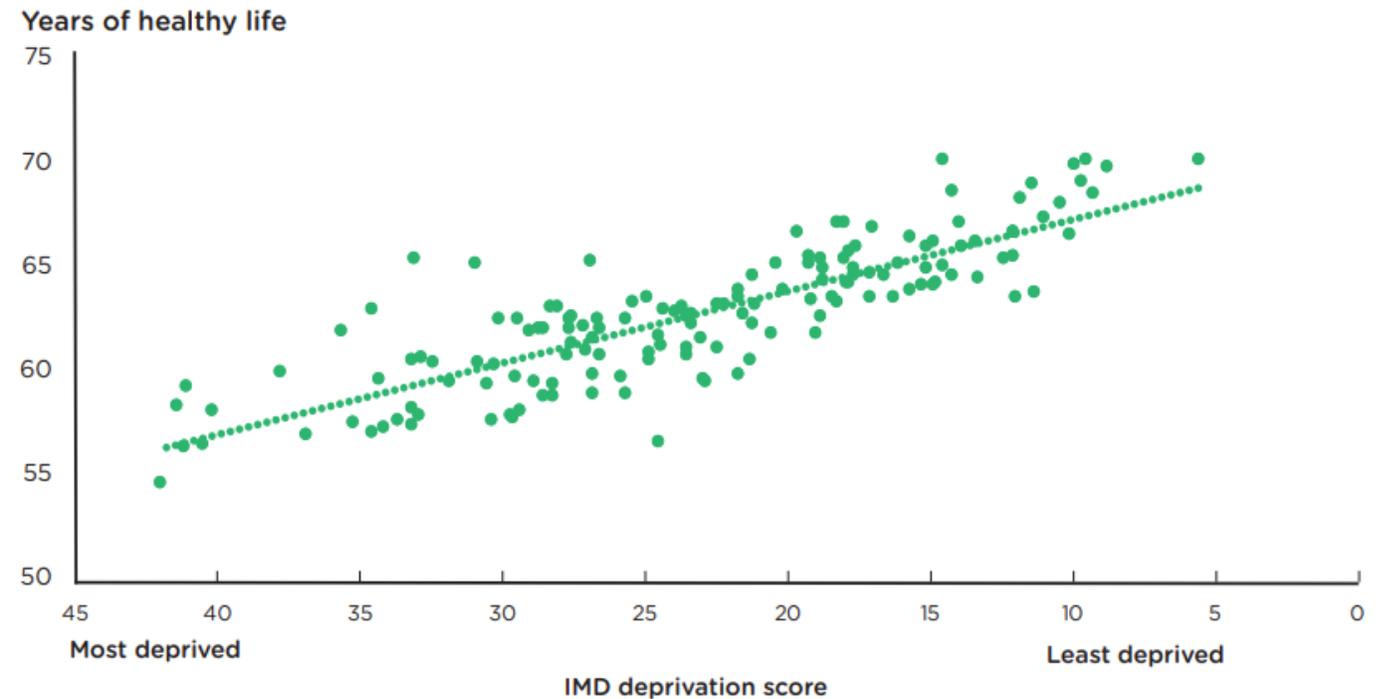


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UK Indices of Multiple Deprivation 7 domains of deprivation

- Income
- Employment
- Health Deprivation and Disability
- Education, Skills Training
- Crime
- Barriers to Housing and Services
- Living Environment

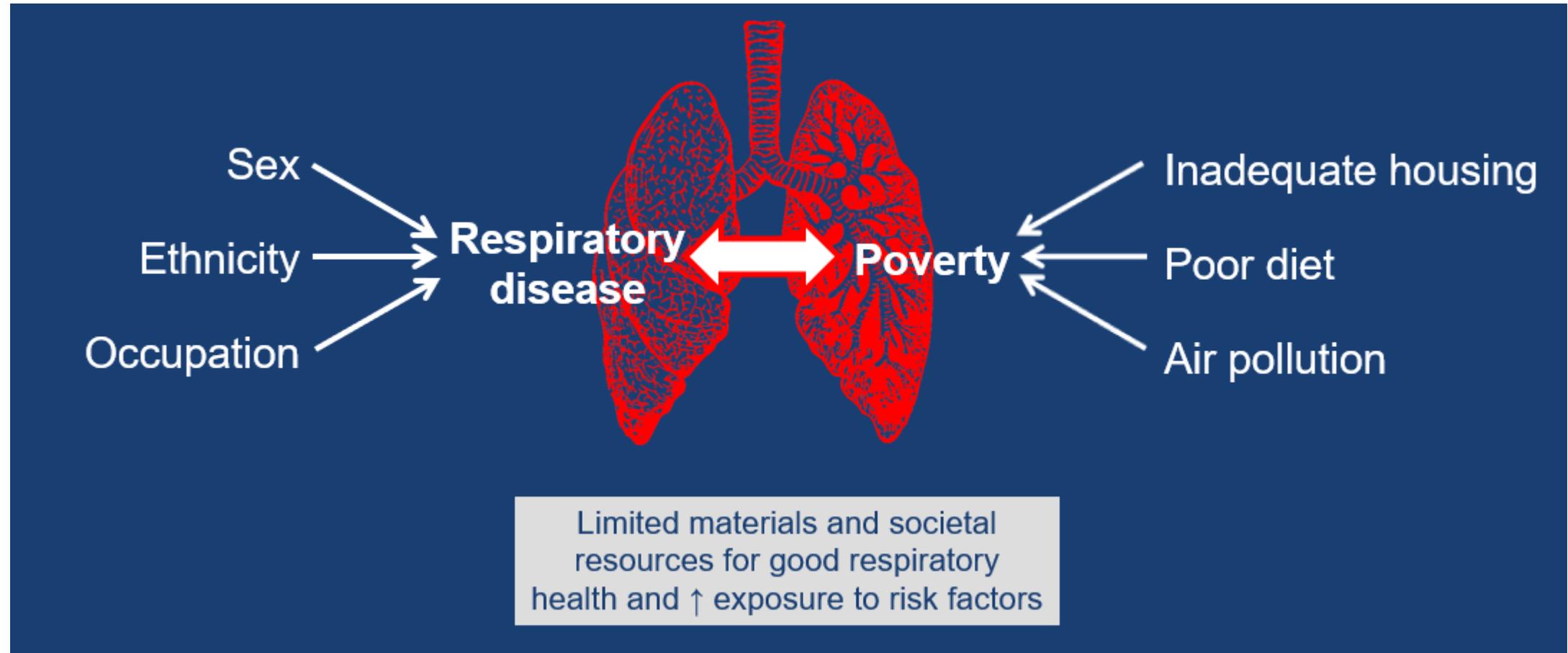
*Ministry of Housing, Communities and Local
Government, 2019*



Marmot et al., 2020 [pp.22]



Chronic respiratory disease



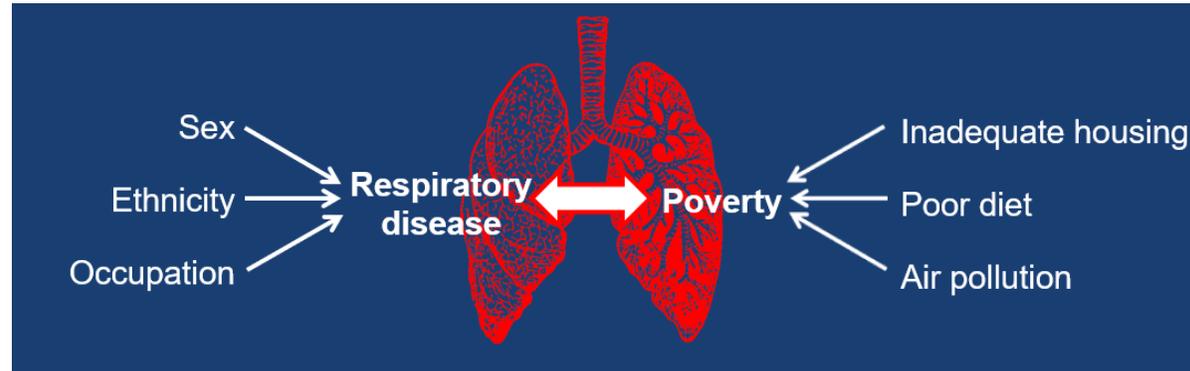
Chronic respiratory disease



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Asthma &
Lung UK

Survey of 5997 people with COPD

3731 (62%) **frequent exacerbators** more likely to:

- Have low annual household income (\leq £20 000 (AOR: 1.72, 95% CI 1.36 to 2.17))
- Live in cold and damp housing (AOR: 1.78, 95% CI 1.50 to 2.11)
- Report previous occupational exposure to airborne pollutants (AOR: 1.12, 95% CI 1.00 to 1.25)

Williams et al., 2022

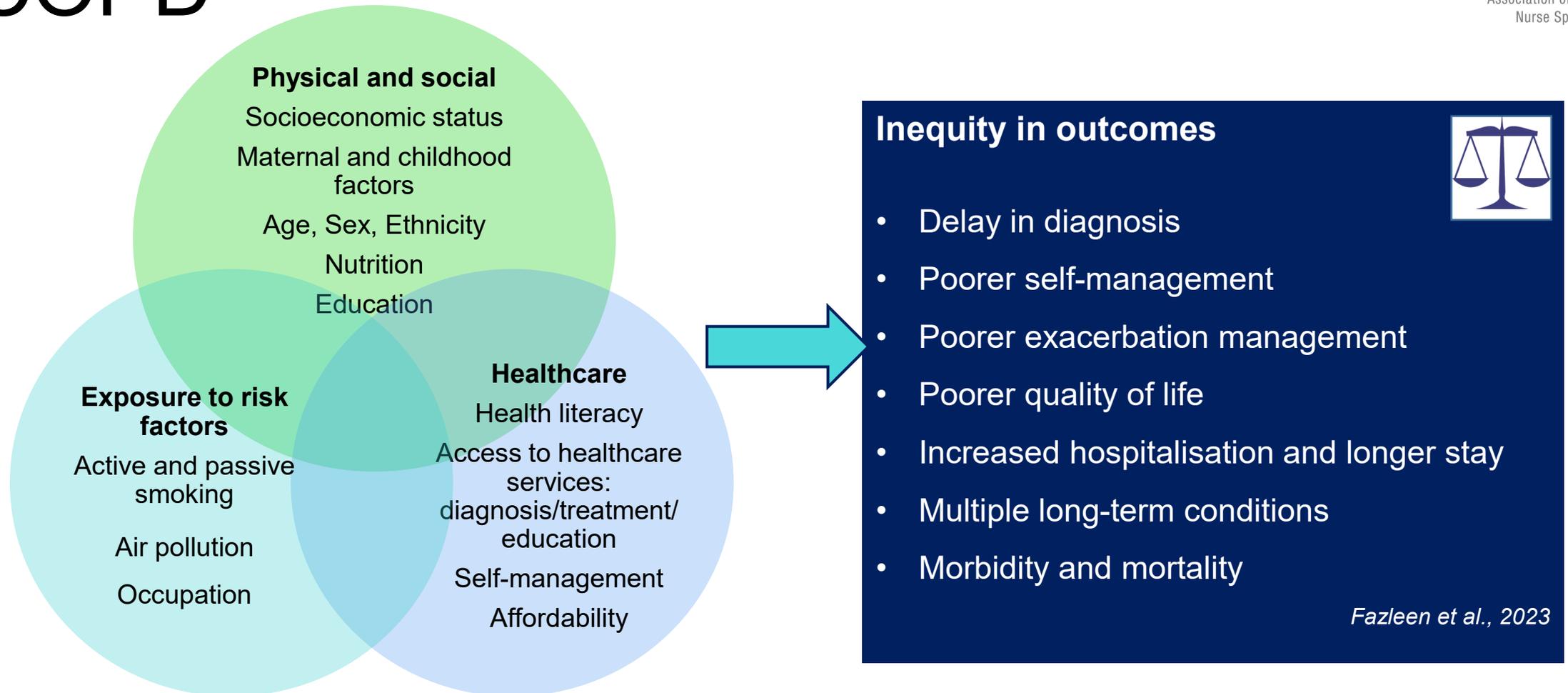
COPD



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Inspired by: Fazleen et al., 2023

Collins et al., 2018; Doiron et al., 2019; Duan et al., 2021; Knox-Brown et al., 2023; Poureslami et al., 2022

Fazleen et al., 2023. Health inequality and COPD. In: Sinha et al., 2023. Inequalities in Respiratory Health (ERS Monograph). Sheffield: European Respiratory Society.

Multiple LTC



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↓ functional capacity and quality of life, ↑ healthcare utilisation, cost, and all-cause mortality

Makovski et al., 2019; Soley-Bori et al., 2021; Jani et al., 2019

PSYCHOSOCIAL



BEHAVIOURAL

SOCIOECONOMIC

- **Socioeconomic deprivation and lower education level** associated with ↑ prevalence of multiple LTC
- Occurs a **decade earlier** in those more socioeconomically deprived

Skou et al., 2022

REDUCING HEALTHCARE INEQUALITIES

The Core20PLUS5 approach is designed to support Integrated Care Systems to drive targeted action in healthcare inequalities improvement

Target population

CORE20 PLUS5

Key clinical areas of health inequalities

Source: NHSE, 2023



Department
of Health &
Social Care

Major Conditions Strategy Strategic framework

1



Rebalancing the health and care system towards proactive prevention by **managing personalised risk factors**

2



Embedding early diagnosis and treatment **in the community**

3



Managing multiple conditions effectively – including through **aligning generalism and specialism**

4



Better connection and **integration between physical and mental health services**

5



Shaping services and support around people, giving them **more choice and control over their care**

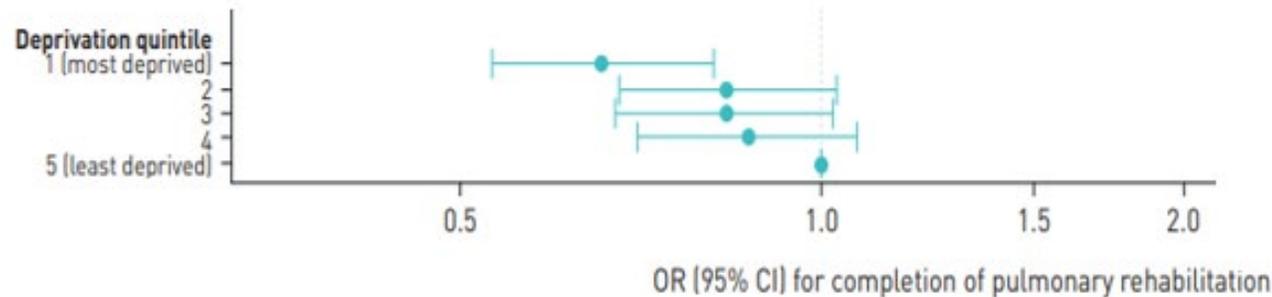
Source: Department of Health & Social care, 2023



Pulmonary Rehabilitation

People living with COPD in more socioeconomically deprived areas are less likely to complete PR than their counterparts living in the least deprived areas

Steiner et al., 2017; Royal College of Physicians, 2020; Stone et al., 2021



BUT clinical outcomes of those who do complete are comparable

*Reproduced from: Stone et al., 2021 [pp.7]
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Pulmonary Rehabilitation



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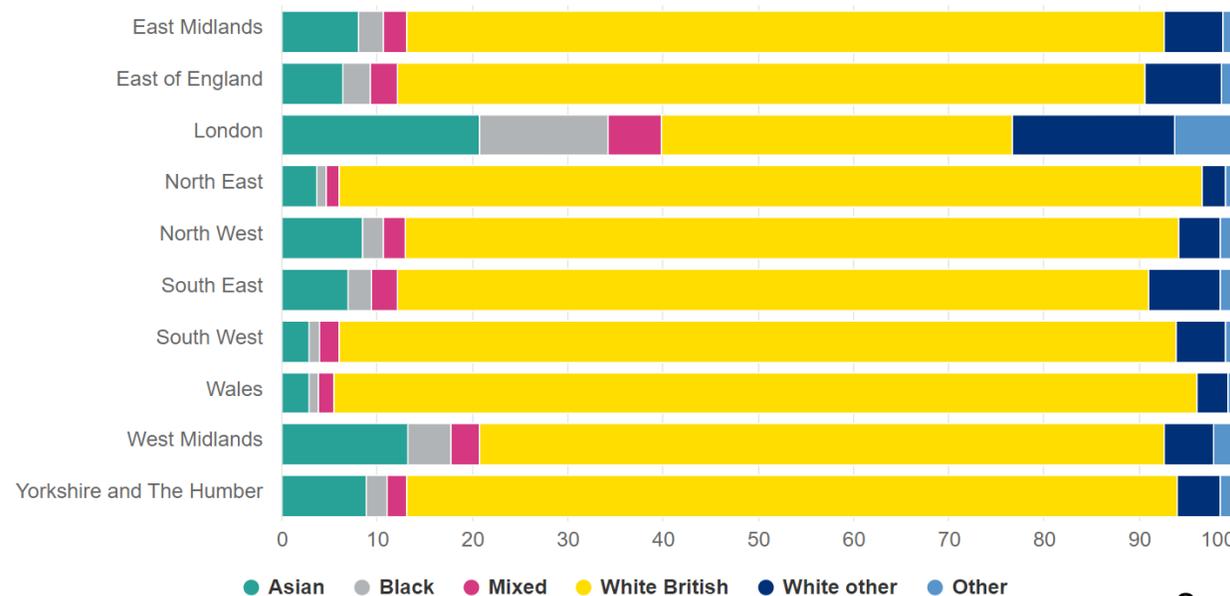
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Ethnicity of PR attendees is predominantly White British

Royal College of Physicians, 2020

Consider the context..

Areas of England and Wales by ethnicity



Source: Office for National Statistics, 2022

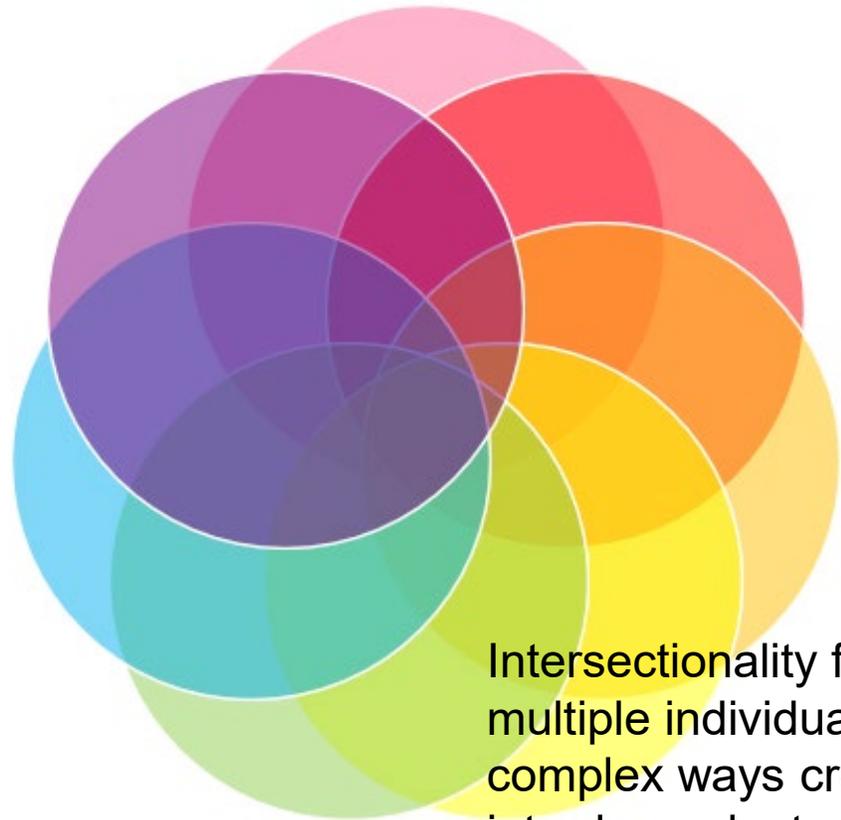
Intersectionality



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- Race
- Ethnicity
- Gender identity
- Socioeconomic status
- Language
- Religion or belief
- Sexuality
- ... and many more!



Intersectionality focuses on the way that multiple individual factors intersect in complex ways creating overlapping and interdependent systems of exclusion
Crenshaw, 1990

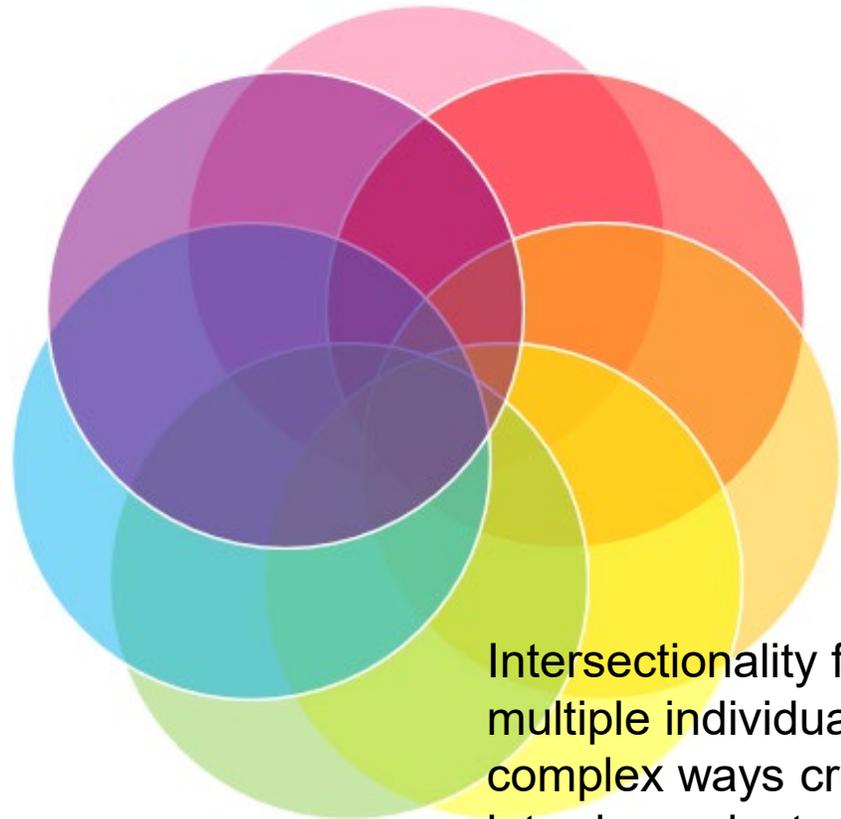
Intersectionality



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Intersectionality focuses on the way that multiple individual factors intersect in complex ways creating overlapping and interdependent systems of exclusion

Crenshaw, 1990

Protected characteristics

- Age
- Gender reassignment
- Being married or in a civil partnership
- Being pregnant or on maternity leave
- Disability
- Race including colour, nationality, ethnic or national origin
- Religion or belief
- Sex
- Sexual orientation

Equality Act 2010



Knowing our population

Essential for us to understand the needs of our local CRD population

Includes understanding culture as part of an intersectionality-informed approach

Gardiner & Singh, 2022

International Journal of COPD Dovepress
open access to scientific and medical research

Open Access Full Text Article ORIGINAL RESEARCH

Whakawhanaungatanga: the importance of culturally meaningful connections to improve uptake of pulmonary rehabilitation by Māori with COPD

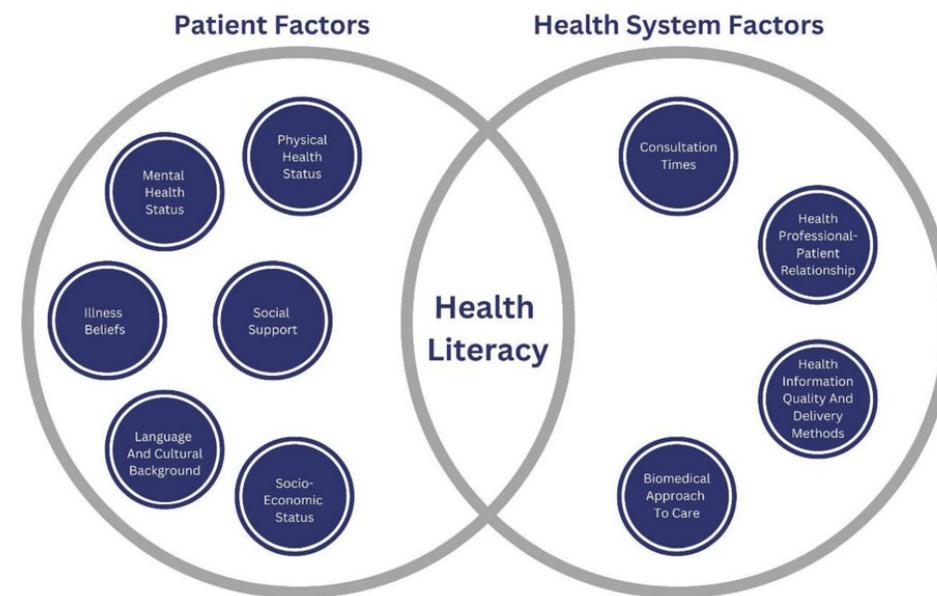
Review Article

Exercise-based interventions for Indigenous adults with chronic lung disease in Australia, Canada, New Zealand, and USA: a systematic review

David P. Meharg^{1,2}, Kylie Gwynne^{2,3}, John Gilroy¹, Jennifer A. Alison^{1,4}

Access to pulmonary rehabilitation for people from culturally and linguistically diverse communities: A cohort study

Clarice Y. Tang DPhysio^{1,2,3} | Mark Lavercombe FRACP^{4,5,6} | Anne M. Southcott FRACP^{4,6} | Nicholas F. Taylor PhD³ | Felicity C. Blackstock PhD^{2,3}



Maddocks et al., 2023 [pp.197]
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Knowing our population

Essential for us to understand the needs of our local CRD population

Includes understanding culture as part of an intersectionality-informed approach

Gardiner & Singh, 2022



- ❖ How and where can we involve local people living with CRD in our PR service planning and delivery?
- ❖ How can we work collaboratively to co-produce service initiatives, ensuring that minority voices are engaged and heard?

Whilst ensuring to maintain our focus on individual patient needs and person-centred experience of care

Comprehensive data

Key in enabling and empowering policy-makers and HCPs to:

- **Identify the specific needs** of different communities
- **Respond with tailored strategies** for addressing inequalities
- **Track the impact** of these strategies

Gardiner & Singh, 2022



Protected characteristics
Meaningful outcomes
Multiple LTC

Reflexivity



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CRITICAL CONSCIOUSNESS

**Healthcare
system**

*Accountability and commitment to
achieving health equity*

**Healthcare
organisation**

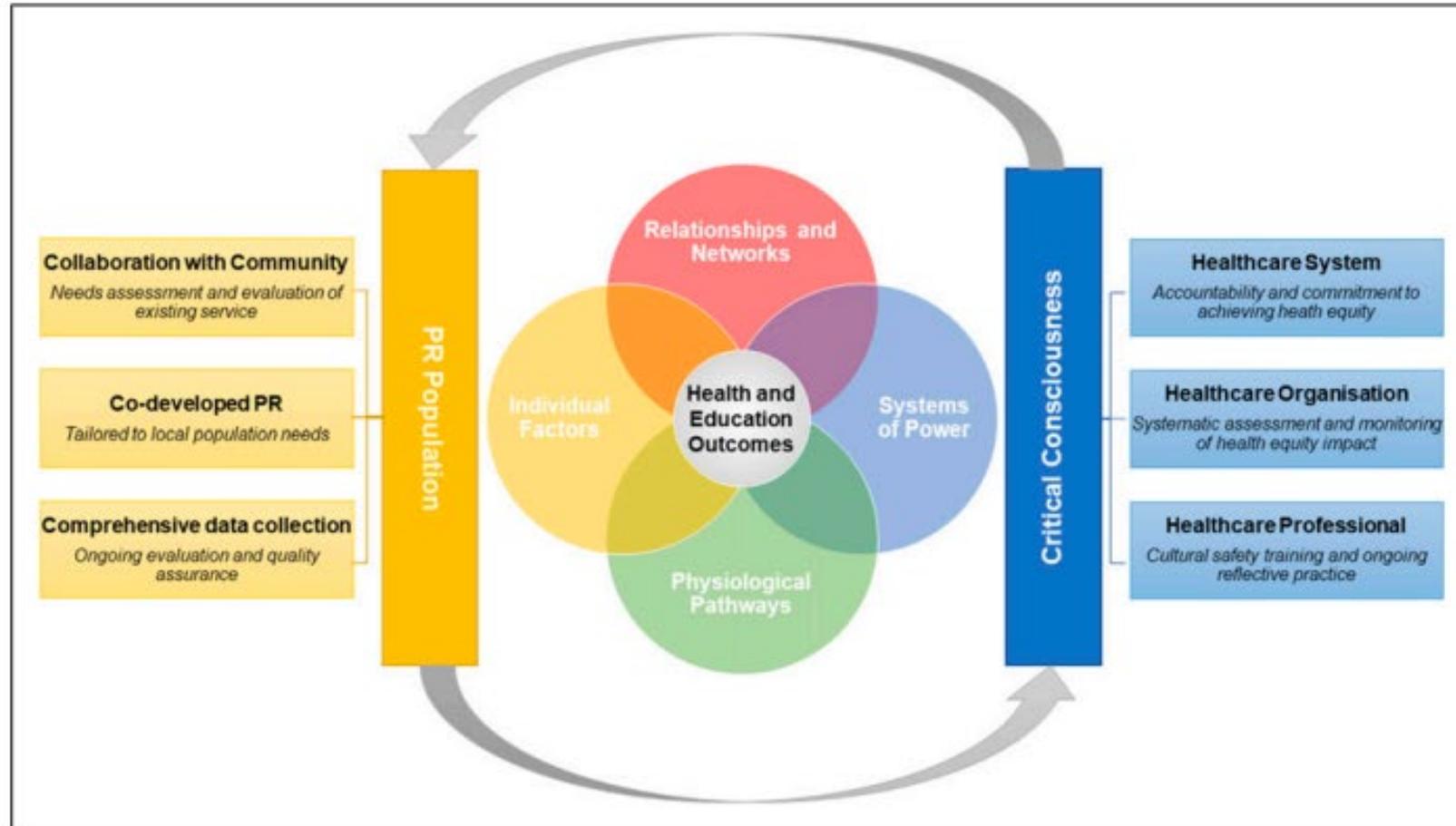
*Systematic assessment and
monitoring of health equity impact*

**Healthcare
professional**

*Cultural safety training and
ongoing reflective practice*

Gardiner & Singh, 2022; Lokugamage et al., 2023

Toward health equity in PR



Source: Gardiner & Singh, 2022

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Summary



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- There are multiple, interacting elements and influences on health equity which change over time
 - Known inequalities in prevalence and impact of chronic respiratory disease and multiple LTC
- To reduce health inequalities in PR, there is a need to identify and target factors influencing **fair access** and **personal agency to engage**
 - Building comprehensive PR delivery models based on an understanding of the **holistic needs of the local population** should be a priority for service providers and researchers

References & resources



*Scan for reference and
resource list*

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