RESPIRATORY DISEASE

Using data to assist in the proactive care of populations at risk

The COVID-19 pandemic has raised everyone's awareness of the risk of clinically vulnerable patients developing a serious systemic disease that can result in significant morbidity and mortality. Chronic respiratory disease is a category of conditions, including COPD and asthma, where the risk of hospitalization and death is increased. Those with a diagnosis of a chronic respiratory condition, compared to those without, carry a mortality risk of 1.63.*

As care providers, identifying patients in our practice with COPD and asthma, providing education, optimizing their care, and supporting self-management of their condition could help improve those patients' outcomes.

As healthcare providers, it is useful to know the answers to questions like:

- How many patients in my practice have COPD or asthma?
- What is the prevalence of COPD or asthma in my practice?
- How does this compare to what I might expect to see for my practice demographics?
- What might be the reason for variance between the prevalence in my practice and what I might expect to see in a population similar to my practice?
- What is the prevalence of people in my practice with COPD who are also smokers or physically inactive?
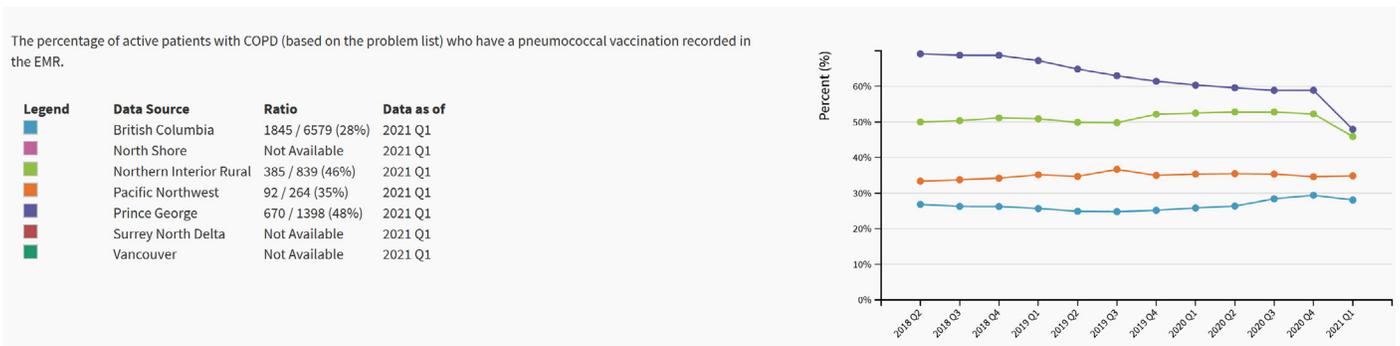
HDC Discover has a number of measures **that may help you better understand respiratory disease in your practice,** and implement practice improvements where you see fit. Measures such as:

- COPD prevalence
- Asthma prevalence
- COPD and non-smoker
- COPD and post bronchodilator spirometry at any time
- COPD and activity assessment in the last year
- COPD and pneumococcal vaccine
- Asthma and FEV1
- Asthma and non-smoker

* Williamson, E.J., Walker, A.J., Bhaskaran, K. et al. Factors associated with COVID-19-related death using Open-SAFELY. Nature 584, 430–436 (2020). https://doi.org/10.1038/s41586-020-2521-4

Here's how to use **HDC Discover to better understand patients with respiratory disease in your practice,** and implement practice improvements where you see fit:

1. Login to **HDC Discover**
2. Go to the Prevalence domain.
3. Look at asthma and COPD prevalence and mark them them as "favorites".
4. Compare your prevalence for these conditions to what would be expected for your practice and to what you are seeing in your community and or provincially.
5. Look at your practice population pyramid and compare the age distribution with other practices or groups.
6. Look at the other more specific indicators listed on the previous page.

The percentage of active patients with COPD (based on the problem list) who have a pneumococcal vaccination recorded in the EMR.

Legend	Data Source	Ratio	Data as of
	British Columbia	1845 / 6579 (28%)	2021 Q1
	North Shore	Not Available	2021 Q1
	Northern Interior Rural	385 / 839 (46%)	2021 Q1
	Pacific Northwest	92 / 264 (35%)	2021 Q1
	Prince George	670 / 1398 (48%)	2021 Q1
	Surrey North Delta	Not Available	2021 Q1
	Vancouver	Not Available	2021 Q1

Questions to Consider:
- Is there a variance between the numbers seen above? Consider what might account for the variance, for example:
  - Screening for and confirming the condition
  - Documentation and coding of the condition in problem list
  - Population demographic
  - Geographic location and socioeconomic factors of the population
  - Smoking behavior of population
- How might your demographics affect the prevalence of the condition?
- How does your screening and diagnosis confirmation (spirometry) for COPD and asthma look?
  - Are there opportunities for improvements here?
- How does your documentation for activity and COPD look?
  - What are the opportunities for documentation or patient discussions?
- What is the rate of tobacco use and tobacco use documentation in COPD and asthma patients?
  - Are there opportunities for documentation, patient discussions or self-management supports here?
- Finally, what is your rate of pneumococcal vaccination documentation in COPD patients?
  - Are there any opportunities here?

HDC is here to support you and your practice. If you have any questions or would like to know more about other resources available to support your QI efforts, please reach out to us at **info@hdcbc.ca.**