

COVID-19 Impact on Pathological Cancer Diagnoses in Northern Ireland, Netherlands and Aotearoa New Zealand



Same storm, different boats

- ▶ The initial approach to the pandemic differed between the countries studied:
 - ▶ Aotearoa New Zealand (NZ) adopted a COVID-19 Elimination Policy, which involved border closure and a strict initial national lockdown.
 - ▶ N. Ireland (NI) and the Netherlands (NED) adopted Containment and Mitigation policies involving only limited travel and quarantine measures.



Methods

- ▶ Each national cancer registry (NI, NED, NZ) provided aggregate population level data for pathologically diagnosed (PD) Breast, Lung and Colorectal cancers for the pre-pandemic period (2017-2019) and the pandemic period (2020).
- ▶ Information also collated on the number of COVID-19 cases and deaths per 100,000 population in each country.

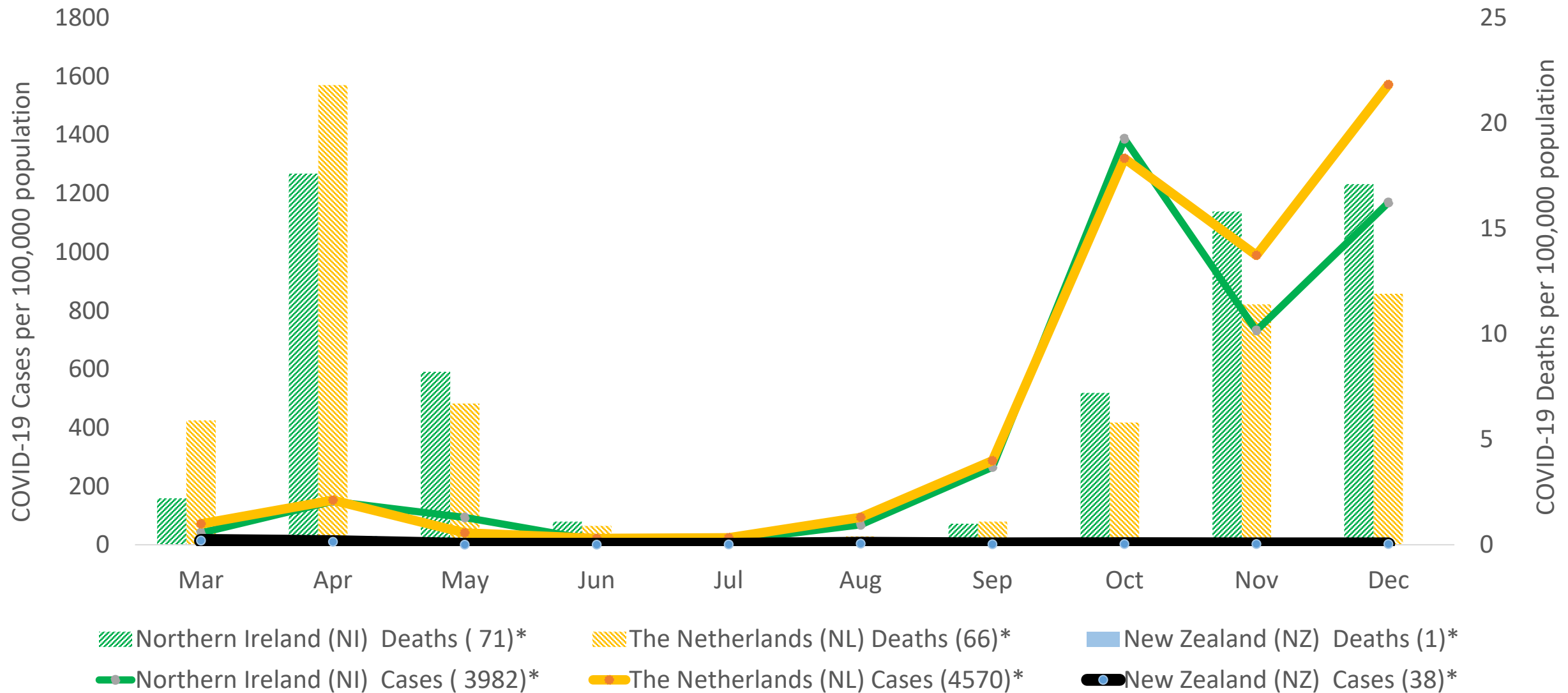
Why use Pathological Diagnoses (PD)?

- ▶ For tumour sites selected - majority of cancers are pathologically diagnosed.
- ▶ Data from pathology labs is **accurate** and was available **faster** than official registrations.

Cancer site	Proportion of cancers pathologically diagnosed	
	UK*	NED
Breast cancer	99%	99.8%
Colorectal cancer	89%	96%
Lung cancer	70%	82%

* 2018 data

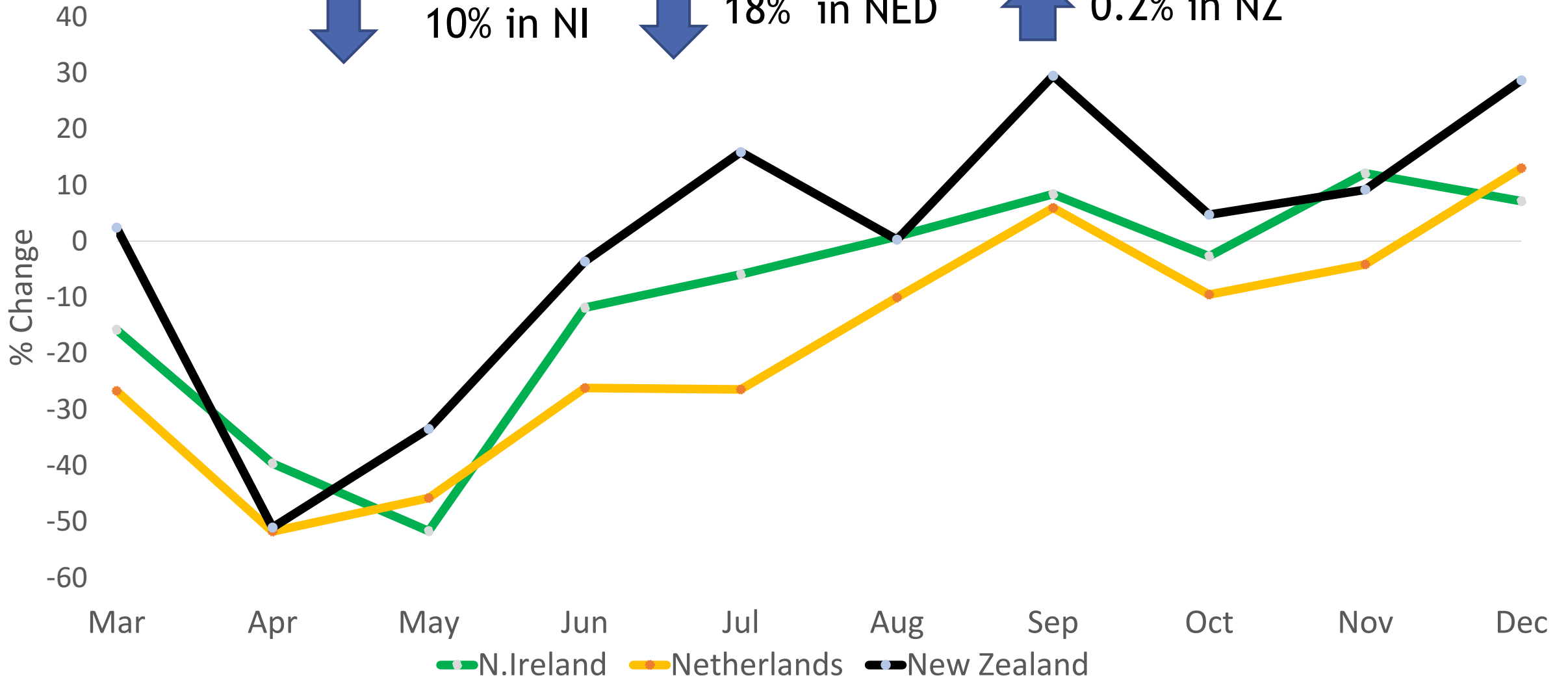
COVID-19 cases and deaths, per 100k population, 2020



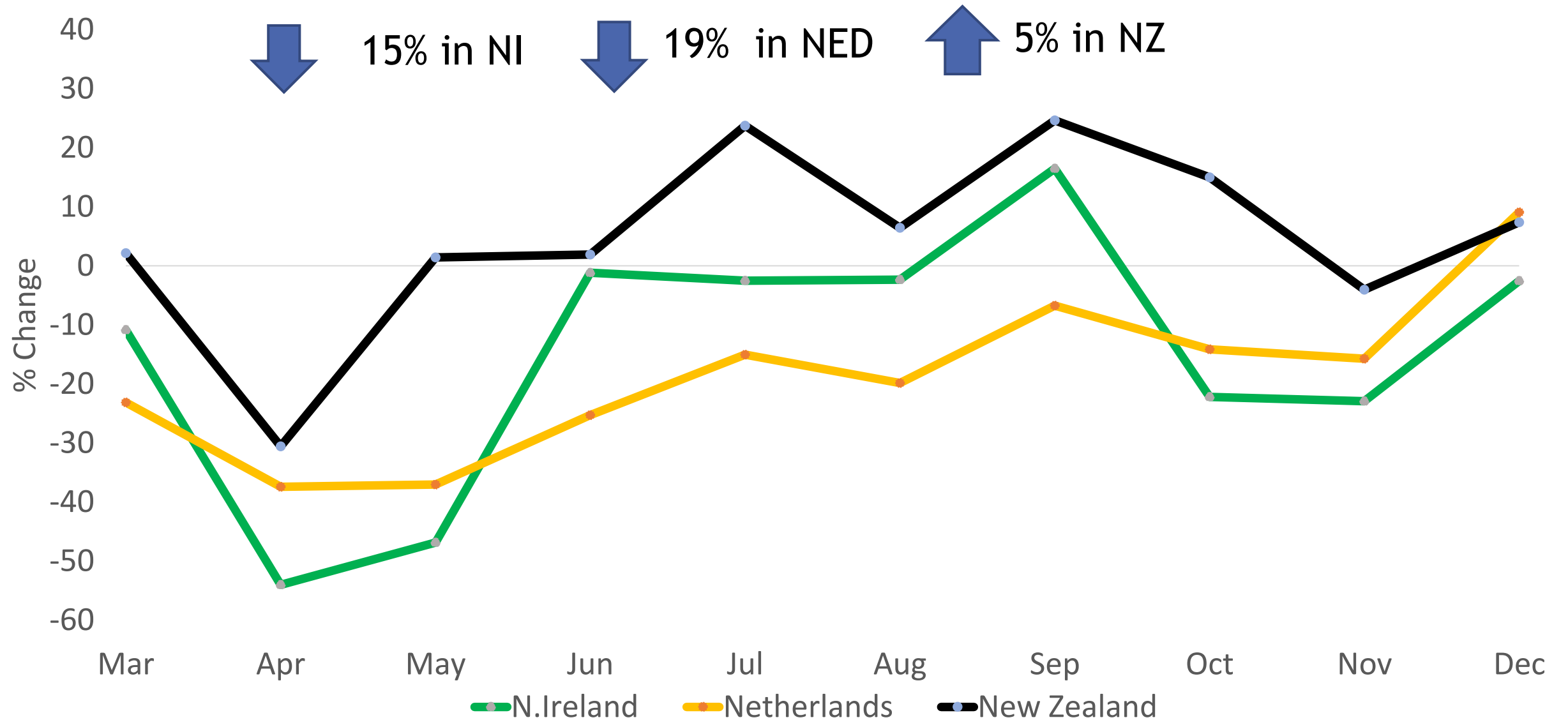
*Totals per 100,000 population

Difference between PD Breast cancer during the pre-pandemic and pandemic periods

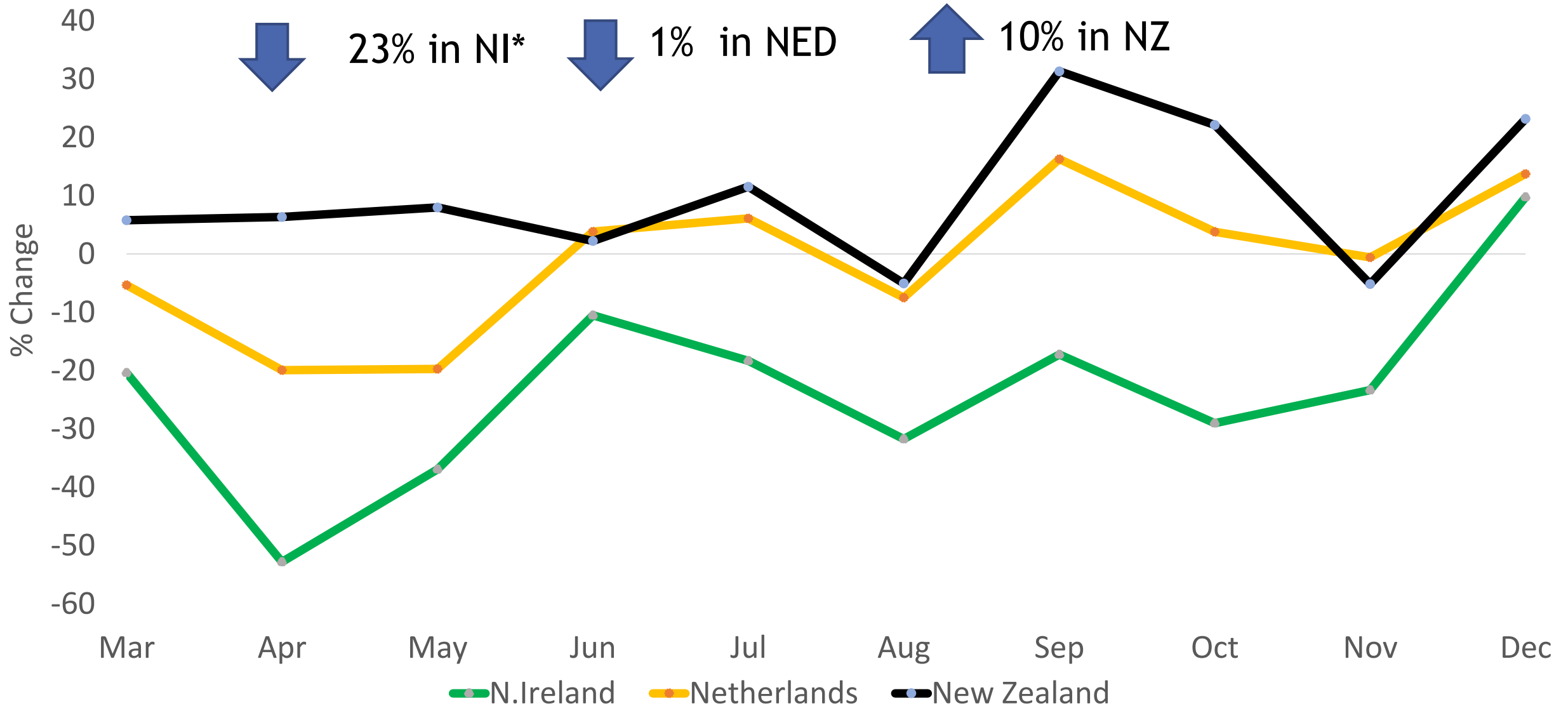
↓ 10% in NI ↓ 18% in NED ↑ 0.2% in NZ



Difference between PD Colorectal cancers during the pre-pandemic and pandemic periods



Difference between PD Lung cancers during the pre-pandemic and pandemic periods



* p<0.001

Lung cancer

Global trends indicate lung cancer incidence would be increasing year on year. In 2020, pathologically diagnosed lung cancer;



↓ 23% in NI

↓ 1% in NED

↑ 10% in NZ

The increase in PD lung cancer in NZ occurred against a background of very low levels of COVID-19 and high-levels of testing.

In NI, with 2020 cancer registrations complete, we are 'missing' about 77 lung cancer patients.

Health inequalities



Lung cancer is higher in more deprived populations.

During the pandemic there was a considerable dedication of resources to ensure the continuation of cancer services in NZ. Particular attention was placed on the existing health inequalities for Māori and Pacific peoples.

NI - widening of healthcare inequalities. In 2020 the 10% most deprived areas had a COVID-19 infection rate $2/3^{\text{rds}}$ higher than the 10% least deprived (3,052 cases per 100k vs 1,859 cases per 100k).

Key Messages

- ▶ **Concern about reduction in PD lung cancers in NI compared to both NED and NZ.**
- ▶ Elimination policy in NZ saw little change in the levels of key PD cancers.
- ▶ **NI and NED - Containment and Mitigation policies - substantial loss of PD cancers.**
- ▶ Cancer registries - key to monitoring COVID-19 impact for many years to come.
- ▶ **Need to encourage identification of “lost” patients.**



Image credit:
Barbara Kelly



The same wind blows on us all...Therefore, it is not the blowing of the wind, but the setting of the sails that will determine our direction.

Jim Rohn

<https://www.azquotes.com/quote/945547>