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# PEOPLE WITH CANCER LIVING IN THE MOST DEPRIVED AREAS OF WALES ARE MORE LIKELY TO HAVE ANOTHER SERIOUS CONDITION AT DIAGNOSIS

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#### Background

People diagnosed with cancer are living longer and increasingly with other health conditions. People living in more deprived areas tend to have more chronic health conditions and their relationship with cancer is not well understood. We therefore examined the association between other health conditions incidence, prevalence and survival for the four most common cancers and all cancer cases (excluding non-melanoma skin cancer) in the Welsh population.

### Methods

We extracted data on all malignant cancer cases from the WCISU's population-based cancer registry for

#### **Results**

1 in 4 people with cancer were already living with another serious condition at the time of diagnosis. 30% of patients diagnosed in the most deprived areas already had an illness at diagnosis compared to only 21% in the least deprived areas. 1-year Survival decreased as the number or severity of the illness increased with patients in the most deprived group having approximately 10 percentage points lower survival than the least deprived.

## Counts and proportions (%) for All malignancies excluding NMSC across Wales, by deprivation and Charlson score grouping, 2011–2015



diagnosis periods 1995-2015. Cases were linked to a Primary Care Cluster Network and to Patient Episode Database for Wales hospital data for the preceding year to establish pre-existing health conditions. The data was analysed using the Charlson Comorbidity Index, which is a validated tool used by healthcare professionals to predict risk of death and the burden of a disease.

Starting at zero, a patient's score can increase because of how severe their illness or illnesses are or because of the number of conditions they have.

For incidence and prevalence, we calculated proportions of patients with Charlson score 0, 1 and 2+, and proportions with each health condition examined. We calculated one-year net survival by Charlson score or condition. Where possible, analysis was by cancer type, age-band, area deprivation, rurality, sex and stage at diagnosis.

#### 1 year survival (%) by deprivation and Charlson score



## Conclusion

Patients diagnosed in more deprived areas of Wales were more likely to have an existing condition at cancer diagnosis. Cancer survival worsened as the severity or number of existing conditions increased.

#### References

Charlson ME, Pompei P, Ales KL, MacKenzie CR. (1987) A new method of classifying prognostic comorbidity in longitudinal studies: development and validation. *Journal of Chronic Diseases*. 40 (5), 373 – 383.