THE IMPACT OF MATERIAL DEPRIVATION ON COVID-19 INCIDENCE AND OUTCOMES ACROSS THREE PANDEMIC WAVES IN IRELAND: A RETROSPECTIVE COHORT STUDY

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Abstract:-

INTRODUCTION

With the COVID pandemic, deprivation was seen as a significant determinant of COVID-19 incidence and mortality. This study explores outcomes of COVID-19 in the context of material deprivation across three pandemic waves in Ireland.

EXPERIMENTAL DETAILS

Between 1st March 2020 and 13th May 2021, 252,637 PCR-confirmed COVID-19 cases were notified in Ireland. Cases were notified to the national Computerised Infectious Disease Reporting (CIDR) system. Each case was geo-referenced and assigned a deprivation category according to the Haase-Pratschke (HP) Deprivation Index. Regression modelling examined three outcomes: admission to hospital; admission to an intensive care unit (ICU) and death.

RESULTS AND DISCUSSION

Deprivation increased the likelihood of contracting COVID-19 in all age groups and across all pandemic waves, except for the 20-39 age group. Deprivation, age, comorbidity and male gender carried increased risk of hospital admission. Deprivation was not a factor in predicting ICU admission or death, and diagnosis in wave 2 was associated with the lowest risk of all three outcomes.

CONCLUSIONS

Our study suggests that COVID-19 spreads easily through all strata of society and particularly in the more deprived population; however this was not a consistent finding. Ireland is ethnically more homogenous than other countries reporting a larger deprivation gradient, and in such societies, structural racial differences may contribute more to poor COVID outcomes than elements of deprivation.

Keywords - COVID-19; Material Deprivation; Ireland.