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School attainment and performance at 16 years old for childhood cancer survivors: a population-based cohort study using linked education and hospital data from England

Selina Nath¹, Tony Stone¹, Joseph Lam¹, Eleanor Bedford¹, Harry Brown¹, Lauren Cara Louise Hickinbottom¹, Kella Jackson¹, Lewis Paget¹, Immie Smith¹, and Tilly Stanley¹

¹UCL Great Ormond Street Institute of Child Health, London, United Kingdom

Introduction

Childhood cancer survivors (CCS) experience educational disruptions during and following treatment. However, longitudinal and population-based evidence on their educational outcomes remains limited. This study investigates differences in educational attainment and performance between CCSs and non-cancer peers for General Certificate of Secondary Education (GCSE) at age 16 in England.

tors, clinicians, and policymakers and young people surviving cancer and their families about the challenges faced by CCSs, supporting targeted interventions and educational planning.

Methods/analysis

We use ECHILD, which links health (Hospital Episode Statistics, HES) and education (National Pupil Database, NPD) records for children born in NHS-funded hospitals. We included individuals born from September 1997 to August 2005 ($N = 2,247,662$), taking GCSEs between 2013/14 and 2020/21. Cancer diagnoses were identified using HES ICD-10 codes. We compare CCSs and non-cancer peers on sociodemographic characteristics (sex, index of multiple deprivation quintile, maternal age, and ethnicity). Differences in GCSE attainment and performance between CCS and non-cancer peers will be quantified according to and accounting for sociodemographic characteristics. We will use generalized linear regression to estimate relative risks and 95% CIs for achieving expected levels at GCSEs, and linear regression to compare standardized scores between groups.

Results

23,704/15,359,240 (0.15%) had a cancer diagnosis between 0–16 years old. Prevalence was higher in males (54%) compared to females (46%), and highest in the most deprived quintile (Q1:27%) compared to the least deprived quintile (Q5:17%). Full findings will be presented.

Conclusion

This study provides longitudinal evidence on the educational outcomes of CCSs in England. Findings will inform educa-

