Do eHealth interventions targeting poor diet, alcohol use, tobacco smoking and vaping adequately serve adolescents from disadvantaged backgrounds? Findings from a systematic review

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**Introduction and Aims:** Chronic disease disproportionately affects disadvantaged populations. Preventing risk behaviours including poor diet, alcohol use, tobacco smoking and vaping in adolescence is critical for reducing chronic disease risk. While eHealth interventions provide effective prevention, it is unclear whether they adequately serve disadvantaged adolescents, including those living in geographically remote and/or lower socioeconomic areas. We aimed to synthesise evidence for the effectiveness of eHealth interventions targeting disadvantaged adolescents in preventing poor diet, alcohol use, tobacco smoking and vaping.

**Design and Methods:** Seven electronic databases were systematically searched. Eligible studies were randomised controlled trials and quasi-experimental trials of eHealth interventions targeting diet, alcohol use, tobacco smoking and vaping among adolescents, that reported at least one marker of socioeconomic status or geographical remoteness. Two reviewers screened, extracted data, and assessed risk of bias.

**Results:** 3216 articles were identified and screened. Sixteen were deemed eligible and data extraction is currently underway. Eleven studies were among adolescents of low socioeconomic status (targeting poor diet [n=8]; alcohol use [n=2], and tobacco smoking [n=1]), four were among adolescents living in geographically remote areas (targeting poor diet [n=3], and alcohol use [n=1]), and one study focused on adolescents of low socioeconomic and geographically remote backgrounds (targeting alcohol and tobacco smoking). No studies targeted vaping.

**Discussions and Conclusions:** Preliminary findings suggest a potential gap in eHealth interventions targeting adolescents from disadvantaged backgrounds in preventing poor diet, alcohol use, tobacco smoking and vaping. Addressing these health risk behaviours among disadvantaged adolescents has the potential to provide positive benefits to health and narrow health inequities.

**Implications for Practice or Policy:** These findings highlight the need for effective eHealth interventions specific to disadvantaged adolescents to address health inequities and may be able to inform the development of such interventions.

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