

## SYNOPSIS

# Review of “The Impact of Place-Based Approaches Addressing Mental Health and Substance Use Among Adolescents: A Systematic Review of the Literature”

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## One-Minute Summary

- Mental health challenges among youth have increased over the past two decades. While most interventions to support adolescent mental health focus on the treatment of mental health disorders, a more upstream social determinants approach, may be more effective for improving mental health.
- The authors of this paper conducted a systematic review that assesses the impact of place-based approaches (PBAs) on mental health and substance use outcomes among youth (aged 10 – 24). PBAs were defined as interventions that work collaboratively across two or more sectors within a locality to address health challenges (e.g., school-based programs, community food growing) and employ population- and community-level interventions to enact systemic or structural changes to improve youth mental health.
- Thirty-three publications presenting data from 22 PBA evaluations were included, with 6 evaluations assessing mental health or well-being and 16 appraising substance use. Mental health and well-being outcomes included resilience, agency, self-efficacy, depression symptoms, generalized anxiety disorder and suicidal ideation. Substance use outcomes included binge drinking, point in time alcohol and substance use, and lifetime drug and alcohol use.
- Four high/moderate quality studies reported no significant improvement in mental health or wellbeing. There was some modest impact on binge drinking reported in 5 high/medium quality studies, with positive impact on both point-in-time alcohol use, and lifetime alcohol use. The remaining studies focused on substance use showed mixed or inconclusive results.
- Place-based approaches (PBAs) have not demonstrated consistent or reliable improvements in adolescent mental health or wellbeing based on the small number of available studies. However, there is stronger and more consistent evidence that PBAs can be effective in reducing adolescent alcohol use.

## Additional Information

- Thirty-three publications reporting data from 22 evaluations of 20 PBAs were included in this systematic review, including a range of study designs. Most publications focused on substance use outcomes (n=28), while only six evaluated PBAs impact on mental health.
- Authors utilized the Mixed Methods Assessment Tool (MMAT) to ascertain a quality assessment for each included study.<sup>1</sup> Two reviewers independently assessed each included study, and any disagreements were resolved through discussion and consensus. Studies classified as high and medium quality were synthesized and reported together, with results from low quality studies reported separately.
- Not all publications provided descriptions of PBAs. Of those described, common key PBA features included: providing a menu of evidence-based interventions with implementation supports, adapting strategy to local needs and context, and focusing on individual-level change, environmental change or both. Three PBAs were evaluated across multiple included publications: PROmoting School-Community-University Partnerships to Enhance Resilience (PROSPER); Communities That Care, and The Icelandic Prevention Model. Interventions were not described in detail, but included altering physical environments, health promotion activities, and social activities. Implementation of these interventions was dependent on local context, discussion with residents and leveraging existing resources.
- Of the six studies reporting on mental health and wellbeing outcomes, two targeted local improvements, two aimed to target a broad range of wellbeing outcomes, and two measured mental wellbeing as a secondary or indirect outcome. Mental health outcomes included depression symptoms, generalized anxiety disorder, suicide-related outcomes, self-efficacy, and resilience.
- All PBAs targeting substance use explicitly aimed to reduce substance use, and all but one targeted youth up to age 25.
  - Binge drinking was the most commonly assessed substance use outcome, with the highest-quality studies (n = 5) reporting only modest impact. Three additional studies reported inconsistent or no impact. Effects were not sustained past three years and appeared to be more pronounced at younger ages compared to older ages. Youth development was a key feature of PBA design in 3 out of 4 studies that found a positive association.
  - Mixed results were found for the impact on point-in-time alcohol use (i.e., alcohol use in the past 7 – 30 days). Most high and medium quality studies (n=8) found a positive impact, with improvements ranging from a 7% greater decrease to a 38% lower likelihood of drinking compared to groups that didn't receive the intervention, observed 1–5 years after implementation. Interventions designed to address the supply of alcohol to youth and encourage youth development (i.e., leadership opportunities) were more likely to be a feature of PBAs with positive impacts compared to mixed or negative impacts.
  - Limited evidence (n=4 studies) on the impact of point-in-time substance use (e.g., marijuana, methamphetamines) was mixed, with insufficient data to report on impact nor PBA design features.
  - Most (four of six high and medium quality studies) showed positive impact on lifetime alcohol use. Notably, where impact was demonstrated, PBAs had selected interventions from an evidence-based 'menu'.
  - Results were mixed with insufficient data to draw conclusions for both lifetime marijuana use (n = 4 studies), and lifetime use of other drugs (n = 2 studies).

## PHO Reviewer's Comments

Adolescent mental health is a growing global public health concern.<sup>2</sup> With many mental health services and health care systems experiencing increased demands, there is growing interest in the field of PBAs to address social and structural determinants of health to improve health outcomes.<sup>2</sup>

Authors of this systematic review acknowledged the challenges in preventing adverse mental health outcomes using PBAs could be due to the lack of evidence-based practices. Previous research has shown that PBAs that utilize evidence-based practices demonstrate overall greater success in preventing substance use, namely alcohol use.<sup>3</sup> Lack of research and long-term studies assessing the incorporation of evidence-based practices into preventing mental health outcomes highlights an area of need. Future research could explore the effectiveness of PBAs on youth mental health to increase understanding of the mechanisms in which they work to produce positive health outcomes.<sup>4</sup>

Additional future research areas suggested assessment of the development and description of theories of change for adolescent mental health promotion as well as defining metrics to measure relevant changes within reasonable timeframes. Furthermore, exploration into systems science, could provide a greater scope of where to intervene within systems for the most impactful change to occur. This could include measuring how programs can impact populations both upstream and downstream of the intervention, mapping impact trajectories and identifying the most relevant youth mental health and wellbeing outcome metrics to best demonstrate meaningful changes in local areas/communities.

This review rates 'strong' according to the Health Evidence quality appraisal tool.<sup>5</sup> Key strengths included a clearly focused research question, appropriate inclusion criteria, comprehensive and reproducible search strategy, evidence assessed for quality in duplicate, and quality taken into consideration when interpreting results and making conclusions.

Limitations of this review include the exclusion of grey literature, potentially omitting evaluations with null or negative findings not published in peer-reviewed journals. Further, search terms used for "substance use" may have been too generic, as the authors did not include specific terms for substances (e.g., "alcohol", "marijuana", "amphetamines"), which may have missed narrowly focused studies. Due to the heterogeneity of the PBAs, study design and outcomes, it was not possible to conduct a meta-analysis, resulting in a narrative synthesis, making conclusions more prone to bias. Lastly, only countries with membership to the Organisation for Economic Co-operation and Development (OECD) were included in efforts to focus on high-income settings, which limits global generalizability.

## Additional References

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