Reducing mental health and substance use-related emergency department and inpatient care utilization

Ontario emergency department (ED) and acute care settings face pressures relating to mental health and substance use (MHSU)-related care. The *Supporting Transformation through Research, Evidence, and Action in Mental health (STREAM) Lab* at the *Waypoint Centre for Mental Health Care* conducted a rapid review of academic literature on interventions to reduce MHSU-related ED visits, and hospital admissions and readmissions. Based on 16 systematic and scoping reviews, we highlight key findings and considerations that may be relevant to decision-makers supporting MHSU systems planning in Ontario.

We identified several interventions that may help reduce MHSU-related ED visits, hospital admissions, and readmissions (coloured green). Evidence was inconclusive for others (coloured orange). *This table does not reflect the magnitude of effects or the strength of evidence. Interventions are operationalized in diverse ways, leading to varying outcomes across different iterations and contexts. Reviews do not consistently distinguish between avoidable and unavoidable ED visits, hospital admissions, and readmissions. Moreover, we focused solely on ED and admission outcomes; interventions included in the table below may contribute to a care continuum through impact on other outcomes or experiences.*

For adults:

Outcome of interest	Interventions
Reducing ED visits	**Community-based crisis services** that offered drop-in clinical and peer support in non-medical settings [1]
	Care planning and **linking to assertive community outreach** from the ED (reduces repeat ED visits) [2]
	Integrated and collaborative care, including integrated primary care models (reduces repeat ED visits) [3]
	Telepsychiatry, including a broad range of programs [4]
Reducing hospital admissions	**Community-based crisis services** as described above [1]
	Crisis Resolution Teams that offered time-limited, high-intensity home-based treatment services, sometimes with psychiatric support [5 6]
	ED-based short-stay units that offered enhanced assessment for people presenting to the ED with MHSU concerns [7 8 9]
Reducing hospital readmissions	**Advance statements** through which service users expressed their preferences in advance of a crisis (prevents involuntary readmissions specifically) [10]
	ED-based short-stay units as described above [7 8 9]
	Multicomponent **transitional discharge interventions** that are initiated in in-patient settings and provide transitional support into community care following discharge [11]
	Discharge coordinators or navigators, or other discharge-focused roles [12]
	Contact-based interventions such as telephone follow-up after hospital discharge [12]
	Caregiver involvement in discharge and transitional interventions [13]

For children and youth:

Outcome of interest	Interventions
Reducing ED visits	**Urgent psychiatric services** which provide rapid access to outpatient psychiatric assessment [14]
Reducing hospital admissions	**Specialized ED-based interdisciplinary psychiatric teams** in pediatric ED settings [15]
	ED-based short-stay units as described above [16]
	Urgent psychiatric services as described above [14 17]
Reducing hospital readmissions	No relevant interventions reported in the included literature

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There are several limitations to the evidence presented above:

- The existing evidence on this topic lacks methodological strength.
- Comparisons were challenging due to heterogeneity in intervention types, implementation strategies, and outcome metrics.
- Our search was not optimized to identify outcomes or adaptations for equity-denied populations, and did not capture literature addressing the role of upstream interventions, primary care, early intervention, or stepped care, nor did it capture a framework for a complete and integrated continuum of care.

Considerations for decision-makers:

Consider community crisis services, ED-based short-stay units, and urgent psychiatry services, as elements of a continuum of services to reduce avoidable hospitalizations and ED visits across the lifespan.

While operationalization varies and the evidence base is limited, these approaches emerged as having more consistent support for effectiveness based on the included literature.

Interventions should align with, complement, and strengthen a multi-component, integrated continuum of care.

- Single-component interventions appear to be less effective in reducing acute and inpatient service use.[12]
- To support care continuity, interventions should be multi-component, integrated, and inclusive of community-based and outpatient care.

Regional variation and distinct population needs should be considered.

- Available local resources should be leveraged for equity-deserving populations.
- Rural and remote areas may face distinct challenges (e.g., dispersed populations, access to specialized care).
- Collaboration with community members and organizations can support equitable intervention design and implementation.

Given the limitations in the evidence, rigorous and theory-guided intervention design, implementation, and evaluation can help to identify effective, scalable solutions.

- The current evidence does not point to a clear set of leading practices.
- Future efforts should be grounded in a strong theory of change and supported by rigorous implementation and outcome evaluation.

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Supporting Transformation through Research, Evidence, and Action in Mental Health (STREAM) Lab is dedicated to meeting the evidence needs of mental health and addictions decision-makers in Ontario and beyond. *STREAM* products focus on evidence related to health systems, delivering actionable insights that can inform planning and decision-making. *STREAM* is based at the *Waypoint Centre for Mental Health Care*. The findings in this product should not be taken to represent the views of *Waypoint* or our funders.

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