



Exploring Innovative Delivery Strategies for Substance Use Prevention Among Adolescents: Effectiveness, Cost-Effectiveness and Process Evaluation

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Problem Statement

Georgia has one of the highest rates of injection drug use globally and ranks among the highest in Europe for adolescent alcohol and tobacco consumption.

Implementation Challenge

- ▶ Common barriers include teachers' high workload and low motivation for taking on additional programs.
- ▶ Georgian policymakers are hesitant to scale up programs without clear, local evidence of effectiveness and cost-efficiency.

Goal

- ▶ To evaluate and compare the effectiveness, cost-effectiveness, and scalability of two delivery strategies for the UnPlugged program: Primary Teacher Delivery (PTD) and a novel Online Expert Delivery (OED).

Why?

- ▶ Intervening during adolescence is the most effective strategy to prevent substance use disorders.
- ▶ This research addresses an urgent need for evidence-based primary prevention in Georgia.
- ▶ The findings can offer a scalable and cost-effective prevention model for other Lower-Middle-Income Countries (LMICs).



Implementation Framework

- ▶ The **UnPlugged** program, a school-based curriculum focused on Life Skills Training.
- ▶ It is designed for 13-year-old/7th-grade students and consists of 12 interactive sessions delivered by trained facilitators.
- ▶ Its efficacy was confirmed by a large European Union-funded cluster randomized trial (EU-DAP), which found significant reductions in cigarette smoking, alcohol use, and cannabis use among students.

- ▶ **What:** The project is guided by the Practical, Robust Implementation and Sustainability Model (PRISM). The PRISM framework extends to the RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) framework for evaluation.
- ▶ **Why:** PRISM allows for a dynamic, multilevel examination of how the UnPlugged intervention interacts with the Georgian school context, its recipients (students, teachers), and the implementation infrastructure. This is crucial for understanding real-world implementation and planning for sustainability.
- ▶ **Elements to Address:** We will use the RE-AIM domains to comprehensively evaluate the implementation process across students, teachers, administrators, and policymakers.



Barriers and Facilitators to Implementation

Documented Barriers:

- ▶ **Recipients:** High teacher workload and low motivation for additional tasks.
- ▶ **Infrastructure:** Insufficient resources and a historical lack of teacher training.
- ▶ **External Environment:** Policymaker demand for local evidence on effectiveness and cost before committing to a national scale-up.

Documented Facilitators:

- ▶ **Recipients:** A 2012 pilot study in Georgia found strong motivation among school staff and high engagement from students.
- ▶ **External Environment/Infrastructure:** The Ministry of Education (MoE) is interested in expansion pending positive evidence and has established a Psychosocial Service infrastructure that can support implementation.

Other pre-implementation work done:

- ▶ A formative evaluation and pilot study of UnPlugged was conducted in Georgia in 2012, which demonstrated the program's cultural compatibility.
- ▶ This project includes a comprehensive formative research phase to further refine the intervention, involving student focus groups, teacher nominal group technique sessions, and surveys.



Barriers and Facilitators to Implementation

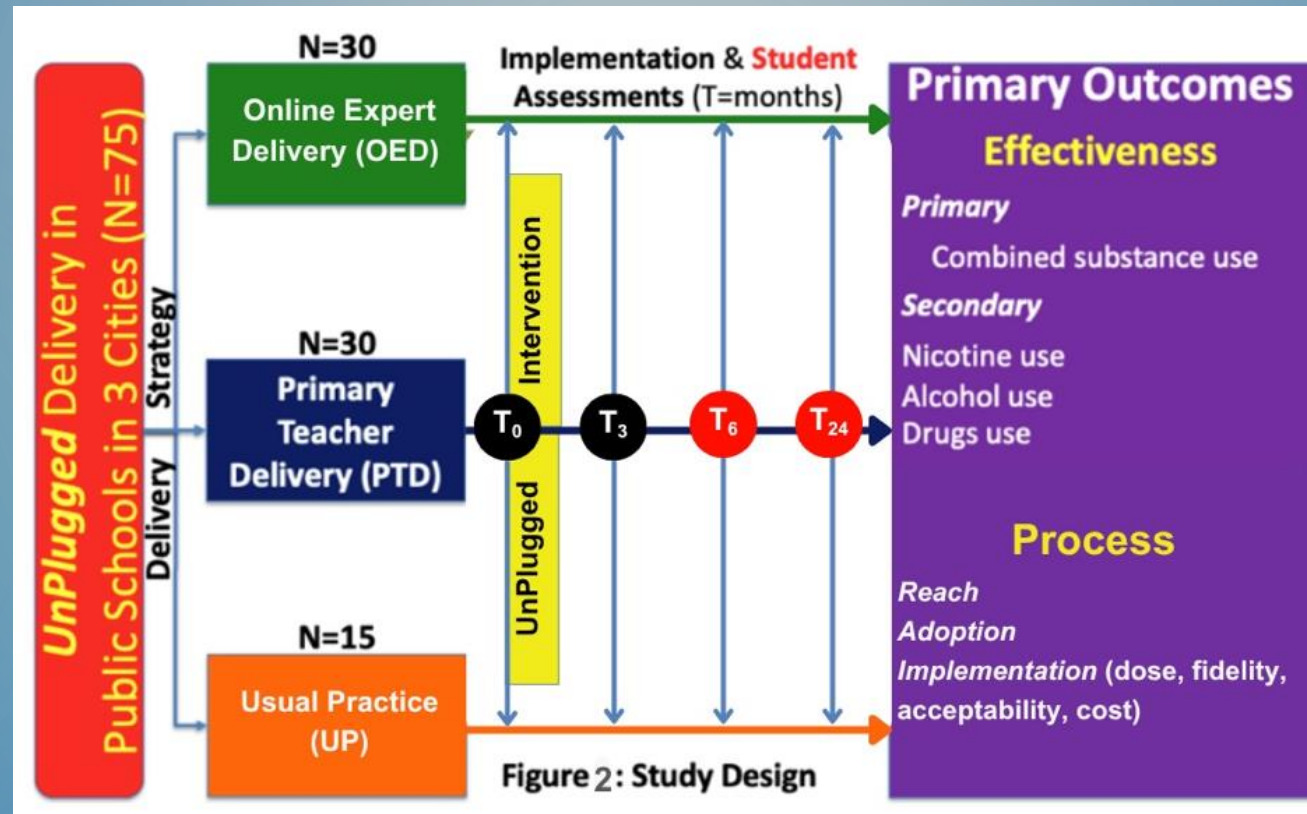
Selection of implementation strategies

- ▶ **Training & Education:** Standardized 3-day training for all implementers (PTD and OED) and development of educational materials.
- ▶ **Support & Quality Monitoring:** Fidelity checklists and voluntary "Audit and Feedback" sessions to create a peer-support network. Random check of recordings (10%).
- ▶ **Incentives:** Financial remuneration for schools' administrative support and teachers' participation in assessments; non-monetary incentives for students.
- ▶ **Restructuring:** Testing a novel OED strategy to overcome barriers related to teacher workload.
- ▶ **Stakeholder Engagement:** A Community Advisory Board (CAB) with students, teachers, parents, and MoE officials to guide the project.



Results

- ▶ **Design:** multi-wave, cluster-randomized controlled trial design with an embedded process and economic evaluation (Type II hybrid design).
- ▶ **Aim 1:** Conduct an exploratory mixed-methods assessment to identify barriers and facilitators to delivery.
- ▶ **Aim 2:** Conduct a cluster RCT with 75 schools in 3 cities, enrolling approximately 20,250 students.



Conclusions and Next Steps

Anticipated Conclusions

- ▶ The study will generate definitive local evidence on the effectiveness and cost-effectiveness of PTD and the innovative OED model for the UnPlugged program in Georgia.
- ▶ The novel OED model, if effective, could provide a highly scalable and cost-efficient solution to overcome implementation barriers in Georgia and other LMICs.

Next Steps

- ▶ **Policy & Advocacy:** Develop a targeted advocacy strategy and disseminate findings directly to the Ministry of Education and NCDC to support the integration of the most effective delivery model into the national education strategy.
- ▶ **Capacity Building:** Continue to strengthen local research capacity through mentorship, shared resources, and integration of training modules into Ilia State University's curricula.
- ▶ **Future Research:** Leverage the established student cohort and rich dataset for future research on the long-term trajectories of substance use and the durability of intervention effects.
- ▶ **Global Impact:** Make all training materials and key findings freely available to the broader public health community to support similar initiatives in other LMICs.



Targeted Questions for Discussion

- ▶ Given the implementation challenges (e.g., high teacher workload), what are the panel's thoughts on the feasibility and potential reception of the **Online Expert Delivery (OED)** model in a real-world school setting?
- ▶ How can we best ensure the **long-term sustainability and institutionalization** of the UnPlugged program post-trial, beyond our planned advocacy with the Ministry of Education?
- ▶ What are the key considerations for adapting the **fidelity monitoring and implementer support** mechanisms (e.g., Audit and Feedback sessions) to be most effective and least burdensome for both PTD and OED arms?
- ▶ Considering the goal of scalability to other LMICs, which aspects of the **implementation framework (PRISM/RE-AIM)** and findings do you believe will be most critical to highlight for an international audience?



▶ Thank you!



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