

Guiding Good Choices for Health (GGC4H): Barriers and Challenges to Data Collection in a Pediatrics-based Pragmatic Prevention Trial

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**NIH PRAGMATIC TRIALS
COLLABORATORY**

Rethinking Clinical Trials®

Guiding Good Choices for Health (GGC4H)

Overall aim

Evaluate feasibility and effectiveness of implementing Guiding Good Choices in 3 large integrated healthcare systems:

Kaiser Permanente Northern California

Kaiser Permanente Colorado

Henry Ford Health System

working in partnership with University of Washington, developers and distributors of GGC

Guiding Good Choices for Health (GGC4H)

- **6 virtual sessions**
 - Specific parenting skills
 - Strategies to promote bonding
- **2 RCTs → GGC reduced**
 - Alcohol, marijuana, cigarette use
 - Symptoms of depression
 - Antisocial behavior
 - Effects sustained for 4-6 years (Grades 10-12)
- **GGC also strengthened families**
 - Better communication
 - Closer relationships
 - Less family conflict



GGC4H: Longitudinal Cluster-Randomized Trial

- Randomize 75 pediatricians within 3 HCS and 10 clinics
- Recruit ~3,600 adolescents to study – 2 Cohorts
- Offer GGC to all parents in intervention arm
- **RE-AIM*** measurement framework
 - Implementation: Reach, adoption, implementation fidelity, participant engagement and skills
 - Effectiveness: Evaluate GGC's impact on adolescent health

* Reach, Effectiveness, Adoption, Implementation, Maintenance

Adolescent Health Outcomes

- **Primary – Substance use initiation with 4 indicators**
 - Alcohol, Cannabis, e-Cigarette, Tobacco Use
- **Secondary – Other impacts from prior trials**
 - Depression Symptoms, Antisocial Behavior
- **Exploratory – Available in EHR, not previously evaluated but plausibly linked to GGC**
 - Anxiety Symptoms, Health service utilization (inpatient, ED)
- **Mechanisms to GGC impact**
 - Risk and Protective Factors
 - Family, Peer, Individual, School

Data Collection: EHR Opportunities & Assets

- **Clarity database**

- Tracks appointments and encounters
- Refreshed in real time or daily

- **Virtual Data Warehouse**

- Database developed over 20 years to support multisite HCS research
- Enrollment, demographics, encounters, diagnoses, pharmacy, laboratory, PROs, claims
- Data are harmonized, standardized across member sites, continually updated

- **Skilled data collection team**

Data Collection: EHR Needs & Challenges

Eligibility



- Cohort identification
- Well-visit identification
- Pediatrician reminders: Well-visits and GGC recommendation

Adolescent Health



Data collected during routine clinical care:

- Substance use
- Mental health
- Medical diagnoses
- Utilization – ED, inpatient, outpatient

GGC Cost-Effectiveness



- Decision-support systems: utilization and accounting
- Clinical encounters: Service unit cost
- Services provided at non-HCS facilities but paid for by HCS



4 issues

1. Data not collected.
2. Data not collected consistently.
3. Data collected but not consistently stored in EHR.
4. Data stored in EHR can be hard to extract.

Adolescent Behavioral Health Survey

GGC4H YOUTH OUTCOMES

Primary	Secondary	Exploratory	Mechanisms
Substance Use Age of Initiation Substances Examined Alcohol, Marijuana, Cigarettes, E-Cigarettes, Inhalants, Opioids, Other Drugs	Depression (PHQ-9) Antisocial Behavior Ever, Past-Year Substance Use Lifetime Frequency Past-Year, Past 30-day Past 30-day Amount	Anxiety (GAD-7) Screen & Social Media Time Sexting	Risk & Protective Factors Parent & Family Individual Peer School

- **Well-validated measures, strong psychometrics**
- **Rich data, but not pragmatic to collect**
- **Flexible – can adjust items judiciously in response to**
 - Developmental changes in adolescents
 - COVID

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Guiding Good Choices for Health (GGC4H)

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