Kentucky Public Health Research Network

Community Outreach and Change for Diabetes Management COACH 4 DM

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Type II Diabetes in Kentucky

- 11% of KY adults have Diabetes!
  - 9th in the nation
- 6th leading cause of death in KY
- 40% of KY adults have pre-diabetes
- Estimated costs of DM
  - $2.9 billion

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Project Aim

- Evaluate the extent to which organizational QI strategies influence the adoption and implementation of evidence- based interventions identified in the Community Guide to Preventive Services
  - Sufficient evidence to recommend that Diabetes Self- Management Education (DSME) be provided to adult diabetics in community gathering places

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KY Diabetes Center of Excellence DCOE

- Six LHD
  - 2 single county LHDs
  - 4 district LHDs (6-10 counties)
- Adults with Type II Diabetes
- Goals
  - DMSE
  - Behavior change support

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COACH 4 DM Goals

- Overall Purpose: Test whether evidence-based strategies lead to systems changes and process improvements within health departments
- Method: Facilitate DCOE in design and implementation of a QI project to improve the delivery of existing DSME services

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COACH 4 DM Goals cont'd

- Utilize methods for systems change including:
  - Assess readiness for systems level change
  - Assess current practice
  - Establish process for improved service delivery
  - Evaluation of new system for service delivery

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Study Participants

- LHD designated as a DCOE (6)
- QI Champion
  - Contact person
  - Coordinate team meetings
  - Provide pre/post intervention data
- QI Team
  - DCOE staff/ ESME provider
  - 4-6 members

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Change Facilitation

- UK Center for Rural Health/ UK CCTS
- Previous training in QI facilitation
  - AHRQ Putting Prevention into Practice
  - IHI QI Collaborative
  - Embracing Quality in Local Public Health: Michigan's QI Guidebook
  - Applied quantitative methodology
  - Regulatory compliance in QI research
- Previous Experience
  - Primary Care Practices (KY Ambulatory Network)

Study Protocol

- Enrollment visit
  - Consent
  - Project overview
- Three ½ day facilitation sessions
- Weekly communication with QI teams
- Individual project periods
  - 9 months
- Data collection and evaluation

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Facilitation

Session One

- Readiness for change
- Assessment of current practice
- Overview of QI methods/ tools
  - Specific focus on PDSA
  - Specific focus on evaluation
  - Also introduce: RCA, Cause/ Effect diagram, logic models, flow mapping, brainstorming
- Tailor training to QI team needs

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Facilitation

- Sessions 2 & 3
  - Facilitate PDSA
  - Guide modifications to QI project plan
  - Provide additional QI training as needed
- Between sessions
  - Weekly contact
    - Phone
    - Email

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Logic Model

Inputs

- DCOE staff (QI team)
- DSME providers (QI team)
- Change Facilitators
- Time
- Money
- Knowledge
- Community Partners

Processes

- QI tools
- QI training
- Participation in facilitation sessions
- Collaborative conferences
- Social networking

Outputs

- QI activities
- Readiness for change
- Cycles of PDSA
- Data collection
- Program satisfaction

Outcomes

- Change in diabetes outreach: # enrolled in DCOE, # receiving DSME, # completing DSME, # referrals and referral sources, care coordination with PCP, communication with DCOEs, communication with community partners, advertising/ marketing
- Change in DSME delivery: method, location, content, timing, duration, frequency, Spanish availability
- Efficacy
- DM rates
- DM related factors rates (physical activity, food intake)
- Adoption/ Implementation of QI activities
- Increased knowledge of QI methods
- Behavior change/organizational climate change

Assumption-Improved outcomes not short term

External Factors-Previous QI experience, organizational climate

Outcomes

- Assess effectiveness of systems- based QI methods
  - Process improvement
    - Adoption/ Implementation of QI activities
  - Systems level change
    - Organizational climate
    - Behavior change
  - Knowledge of and comfort with QI
  - Utilization of pre/post surveys, post- session evaluations, direct observation, interviews

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Outcomes

- Assess impact on DCOE capacity
  - # enrolled in DCOE
  - # receiving DSME
  - # completing DSME
  - # referrals and referral sources
  - Care Coordination efforts with PCP
  - Service delivery changes:
    - Method, location, content, timing, duration, frequency, language translation availability
  - DM rates
  - DM related factors rates (physical activity, diet)
  - Utilization of pre/post intervention capacity measures

Preliminary Findings

- Reported high levels of knowledge and comfort of QI methods in general
- Specific tools: PDSA, Flow map, RCA, Fishbone diagramming, logic model, Gantt chart, forcefield, brainstorming, affinity, matrix
- Likert scale
  - 1 (no knowledge)
  - 5 (high knowledge)

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Knowledge of Specific QI tools

QI tool	1	2	3	4	5
PDSA	41%	21%	21%	10%	7%
Flow Map	24%	10%	45%	17%	3%
RCA	44%	21%	28%	7%	0%
Fishbone	51%	7%	35%	7%	0%
Logic model	35%	35%	10%	20%	0%

Comfort of Specific QI tools

QI tool	1	2	3	4	5
PDSA	52%	7%	20%	10%	0%
Flow Map	31%	7%	38%	24%	0%
RCA	58%	14%	21%	7%	0%
Fishbone	51%	14%	28%	7%	0%
Logic model	52%	17%	17%	14%	0%

How engaged is your HD in QI initiatives?

- 1-No engagement-0%
- 2-11%
- 3-24%
- 4-38%
- 5-Heavily engaged-24%

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How effective do you feel QI is in improving the performance of your HD?

- 1-Not effective=3%
- 2-10%
- 3-17%
- 4-49%
- 5-Highly effective-21%

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Summary

- High levels of knowledge and comfort of QI in general
- Discrepancies in knowledge and comfort of using specific QI tools
- Knowledge and comfort of using PDSA much lower than expected
- Perceived LHD engagement of QI high
- Perceived effectiveness of QI in HD performance improvement less than expected

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Progression of Project

- Fall/Winter 2011 data collection
- Post-test surveys
- Knowledge/comfort level of QI (same survey previously used)
- Outcomes measured discussed previously (number of referrals, etc)

Future Directions

- Provide training and facilitation to all KY LHDs
- Foster culture of continuous quality improvement

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