Peer Support in the Management of Chronic Disease

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American College of Chest Physicians
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Program Results
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Fundamental Role of Social Connections and Support

Human beings are more effective and happier when they have someone

- they can talk to about personal matters
- who <u>cares about them</u>
- who can *help them* when they need help

The risk of death associated with social isolation is greater than the risk associated with cigarette smoking

House, Landis & Umberson. *Science*, 1988 *241*: 540-544. Holt-Lunstad, Smith, & Layton *PLOSMedicine*, 2010, 7: July e1000316 www.plosmedicine.org

References for Peer Support Interventions in Asthma

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- Fisher, E. B., et al. (2009). A randomized controlled evaluation of the effect of community health workers on hospitalization for asthma: the asthma coach. *Archives of Pediatrics and Adolescent Medicine*, 163(3), 225-232.
- Fox, P., et al. (2007). Improving asthma-related health outcomes among low-income, multiethnic, school-aged children: results of a demonstration project that combined continuous quality improvement and community health worker strategies. *Pediatrics*, 120(4), e902-911.
- Krieger, J.W., et al. (2002). The Seattle– King County Healthy Homes Project: implementation of a comprehensive approach to improving indoor environmental quality for low-income children with asthma. *Environmental Health Perspectives*, 110, 311-322.
- Krieger, J. W., et al. (2005). The Seattle-King County Healthy Homes Project: A Randomized, Controlled Trial of a Community Health Worker Intervention to Decrease Exposure to Indoor Asthma Triggers. *American Journal of Public Health, 95*, 652-659.
- Margellos-Anast, H., et al. (2012). Improving asthma management among African-American children via a community health worker model: findings from a Chicago-based pilot intervention. *The Journal of asthma: official journal of the Association for the Care of Asthma, 49*(4), 380-389.
- Nelson, K. A., et al. (2011). A randomized controlled trial of parental asthma coaching to improve outcomes among urban minority children. *Archives of pediatrics & adolescent medicine, 165*(6), 520-526.
- Primomo, J., et al. (2006). Evaluation of a community-based outreach worker program for children with asthma. *Public health nursing*, *23*(3), 234-241.

Asthma Coach for Mothers of Medicaid-Covered Children Hospitalized for Asthma



STUDY DESIGN

Randomized Controlled Trial

Children, aged 2 - 8

Hospitalized for Asthma

Very Low Income; almost all in homes withouth fathers

Enrolment only contingent on willingness to complete reimbursed assessments

Thus, assess reach of intervention to generalizable sample

Total enrolment = 189

96 Asthma Coach, 93 Usual Care

Standardized Approach

7 Key Asthma Management Behaviors

Asthma Action Plan

Use of Controller Medications

Use of Responder Medications

Regular Physician Visits

Partnership with Physician

Avoidance of Second-hand Smoke

Avoidance of Cockroach Allergen

Defined Schedule of *Planned* Contacts

Nondirective & Flexible Approach

Flexible application of schedule

- If not interested, "check in" next month
- Thus, No Such Thing as A Drop-Out

Staged Approach – Key behaviors addressed according to mother's readiness to do them

Accept feelings, reluctance to pursue recommendations

Flexible contact by phone, home visit, accompany to physician visit, neighborhood locations

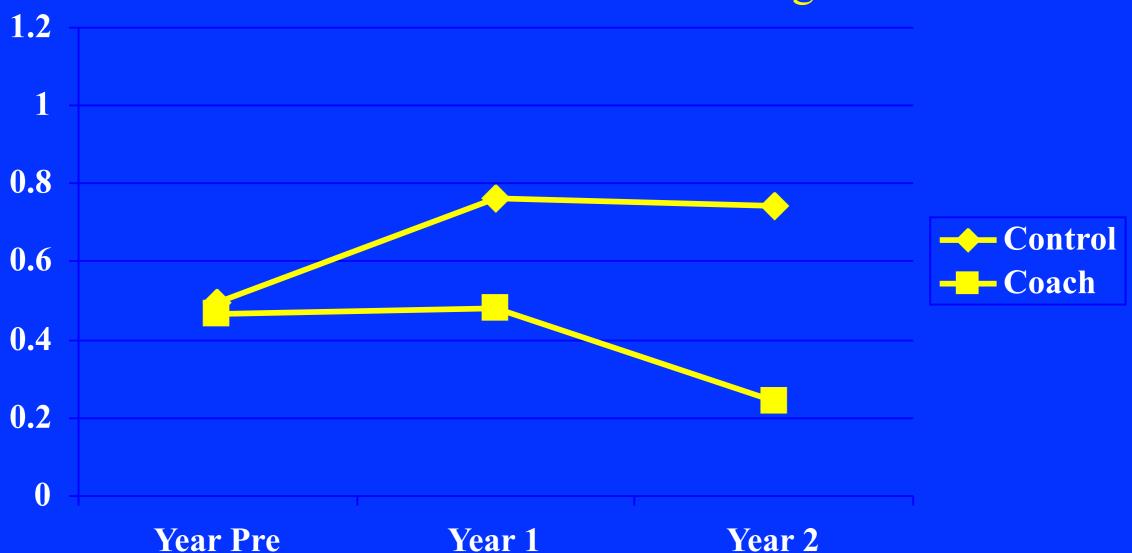
Coaches Reach "Hard to Reach"

Substantive Contact (Face-to-face or by phone in which at least one key management behavior discussed)

- 35% within 7 days of assignment of Coach
- 63% with 1 month
- 92% within 3 months
- Averaged more than 1 contact per quarter throughout last year of 2-year intervention

Hospitalizations

Admissions in Year Prior to Randomization (Year Pre) and 1st and 2nd Years of Coach Program



Interaction of Group X Time significant, p < .02. Year 1 is adjusted by subtraction of index hospitalization. Thus Year 1 mean reflects hospitalizations other than index.

Chronic Disease – 8,760

- $8,766 = 24 \times 365.25$
- 6 hours a year in a doctor's office or with other health professional.
- 8,760 hours "on your own"
 - Healthy diet
 - Physical activity
 - Monitor status
 - Take medications
 - Manage sick days
 - Manage stress Healthy Coping
 - Arrange medical appointments and testing
 - Sleep

8760 - Evidence

- Only predictor of reduced HbA1c in diabetes self management: Length of time over which contact was maintained (Norris et al., *Diabetes Care* 2002 25: 1159-1171.)
- Psychosocial interventions > 3 mos more effective in depressive Sx, QOL (Forsman Health Promo Int 2011 26: i85-i107)
- Duration of intervention/contact in weight loss (Wing and Hill Ann Rev Nutr 2001 21:323-41. Wing, Tate, et al. NEJM 2006 355:1563-71. Wadden et al. Obesity 2009 17: 713-722.)
- Meta-analysis of Smoking Cessation by Kottke (JAMA 1988 259: 2882-2889)
 - "Success was ... the product of personalized smoking cessation advice and assistance, repeated in different forms by several sources over the longest feasible period."

Peer Supporters as Sources of Chronic Disease Self Management Support

- Not professionals
- Often have the health problem they are assisting with – e.g., people with diabetes helping others with diabetes
- Share perspectives, experience of those they help
- People believe them because they are "like me"
- Can teach how to implement basic self management plans (e.g., healthy diet, physical activity, adherence to medications)
- Have time!!!

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Program Development Center at the University of North Carolina-Chapel Hill

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Foundation, Bristol-Myers Squibb Foundation,
Sanofi U.S.



Collaborative
Quality
Improvement,
Knowledge
Management

Regional Networks, Consultation for Program Adoption



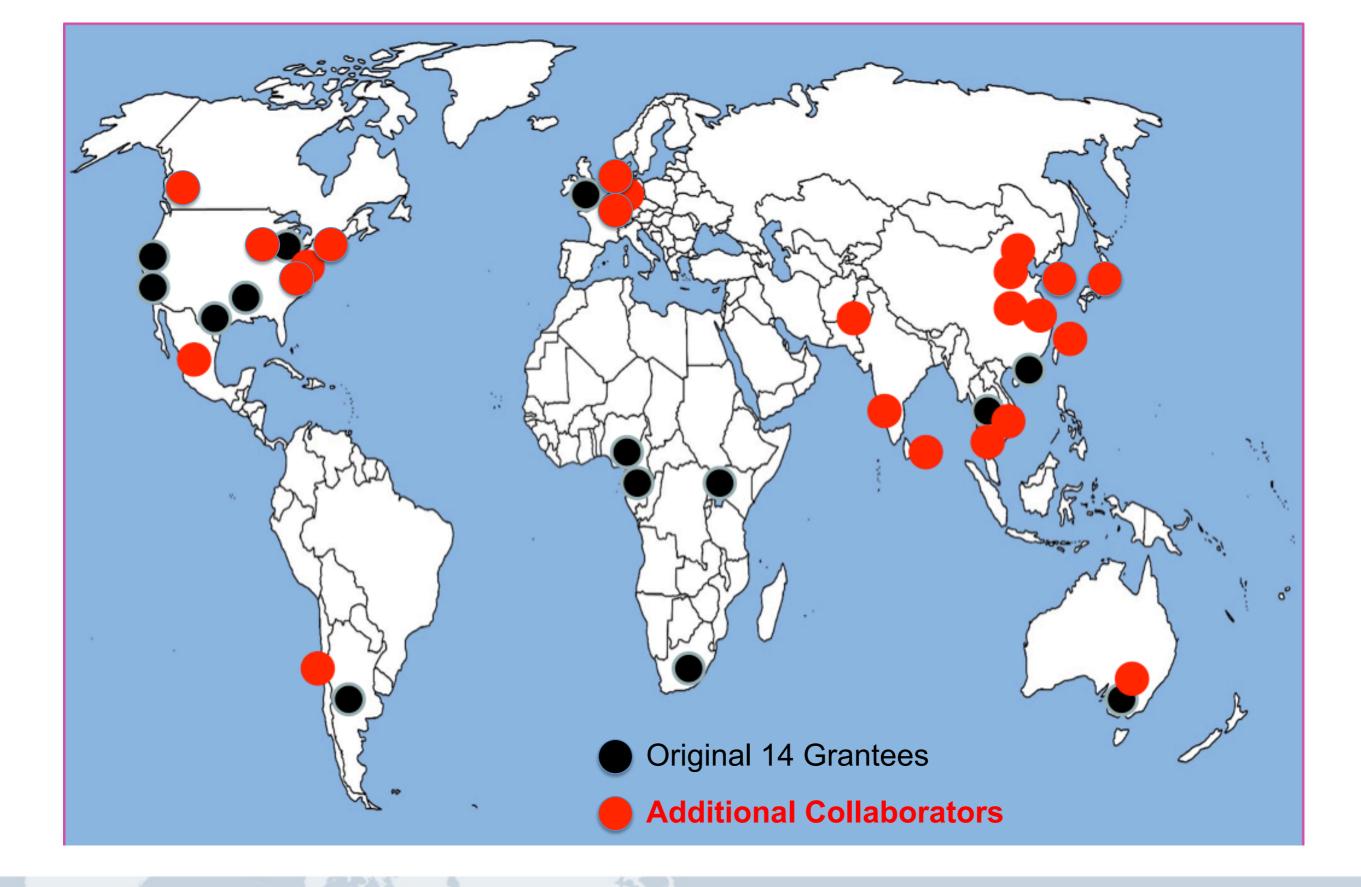
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Peer Support Around the World

"Go to" Source on Peer Support

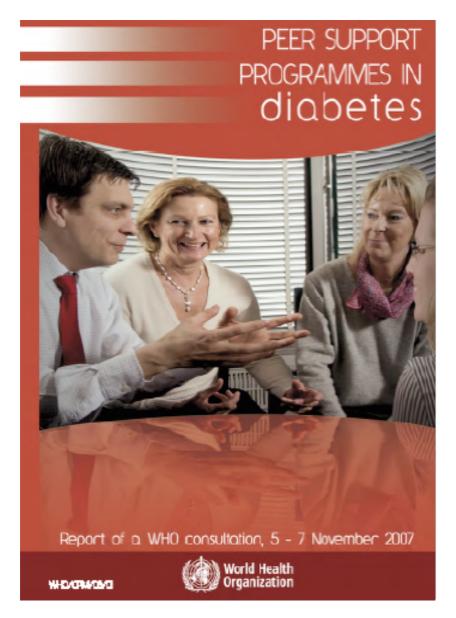
Build the Evidence Base

Enhanced
Quality and
Availability
of Peer
Support
Worldwide





WHO Consultation, November, 2007



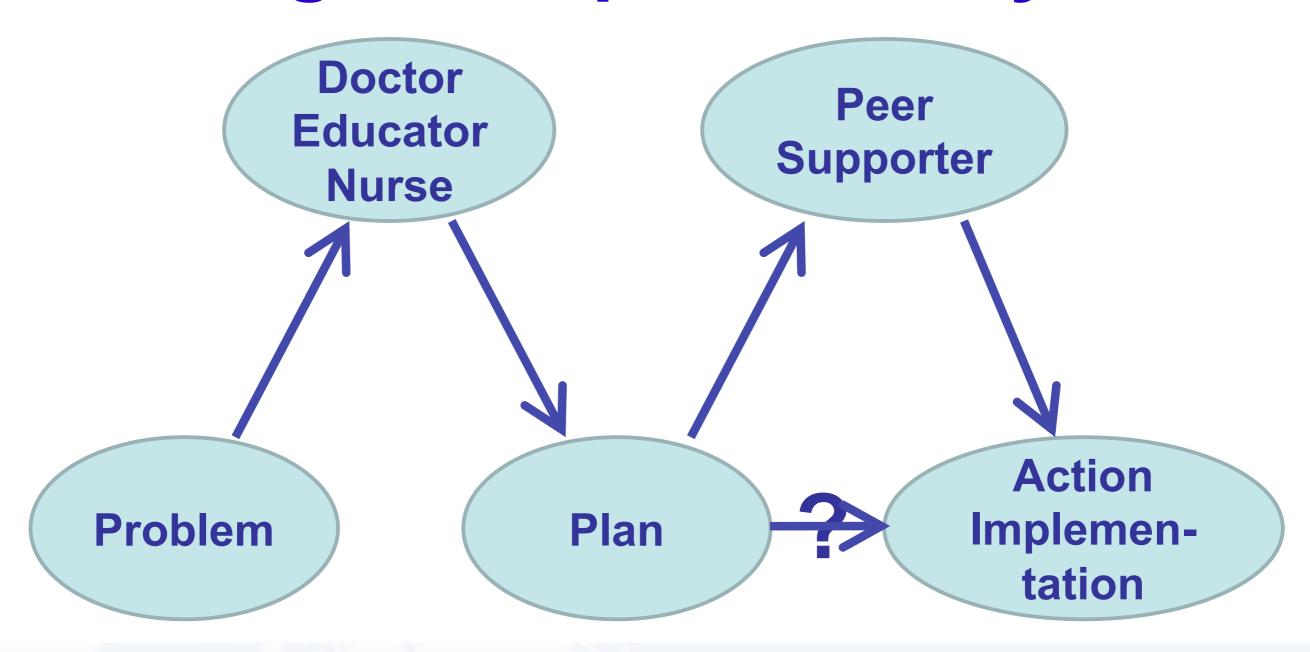
Australia Mexico Bangladesh **Netherlands** Bermuda **Pakistan** Brazil **Philippines** Saudi Arabia Cameroon Canada Singapore Switzerland (WHO) China Egypt Turkey Gambia Ukraine **United Kingdom** India United Republic of Indonesia Tanzania Jamaica **United States**

- 1. Key functions are global
- 2. How they are addressed needs to be worked out within each setting

Key Functions of Peer Support

Assistance, consultation in applying management plans in daily life

Assistance in applying management plan in daily life



Key Functions of Peer Support

- Assistance, consultation in applying management plans in daily life
- 2. Social and Emotional Support
- 3. Linkage to clinical care
- 4. Ongoing support, extended over time

Global Standardization with Local Adaptation

KEY FUNCTIONS
Assist in managing diabetes in daily life
Social and emotional support
Link to clinical care
Ongoing support

Local, Regional, Cultural Influences Diverse **Implementation** of Key **Functions**

Key Functions of Peer SupportIn Asthma Coach

- Assistance, consultation in applying management plans in daily life

- 2. Social and Emotional Support
- 3. Linkage to clinical care
- 4. Ongoing support, extended over time

Assistance in Daily Management

Of 7 Key Asthma Management Behaviors

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Crisis Interventions

- Enrolling patients in free programs i.e. 100 Neediest
 Cases Assistance with Rent and Utilities
- Referrals to crises nursery for children &/or homeless shelters, food pantries, clothing sources
- Support groups for bereaved families, domestic violence, smoking, abuse
- Help with finding foundation funding for medications when they have no insurance or money
- Referrals to low-income clinics
- Help with finding employment, with typing resumes, or completing an job application
- Resources if a parent abandons the child, and the grandmother or aunt is left to care for the child without financial support
- Legal adoption information

Respected but Not Authoritarian: Names Participants Use for Coaches

- Miss Mya
- Miss Angela
- Miss Debra
- Asthma Lady
- Asthma Teacher
- Asthma Girl
- Auntie Debra

- That Lady about Asthma
- My Asthma Coach
- Asthma Nurse
- Asthma Doctor
- Ms. Asthma Doctor
- Asthma Friend

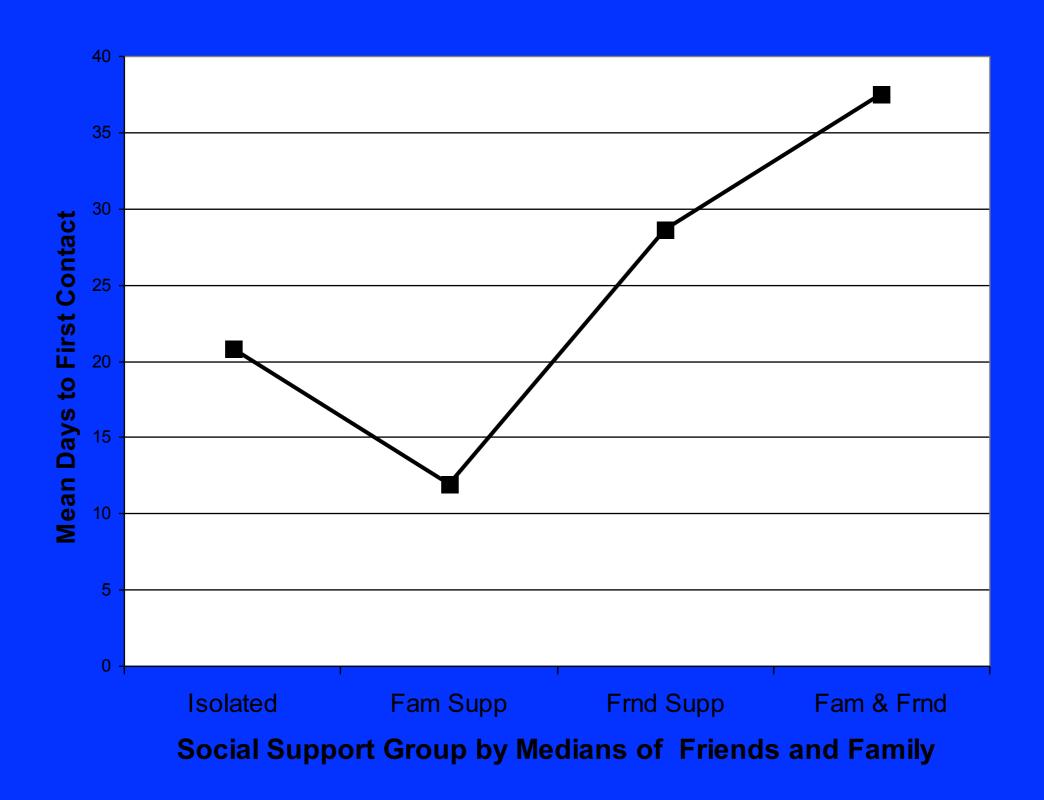
Social Isolation

How many friends [family members] do you have with whom you can talk about personal matters?

How many ... whom you can call on for favors?

High Family / High Friend High Family / Low Friend Low Family / High Friend Low Family / Low Friend

Latency to Protocol Contact by Level and Source of Social Support Group



Is the Asthma Coach more likely to:

Number Choosing Help you to "take charge" of your child's asthma 78 care "Take charge" of your child's asthma care 51 Motivate you to take care of [Child's] asthma 29 Show you how to take care of [Child's] asthma 66 Help you to do what you think is right for your child's asthma 14 Push you to do what she thinks is right for your child's asthma

Key Functions of Peer SupportIn Asthma Coach

- Assistance, consultation in applying management plans in daily life
- 2. Social and Emotional Support
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Linkage to Clinical Care

Of 7 Key Asthma Management Behaviors

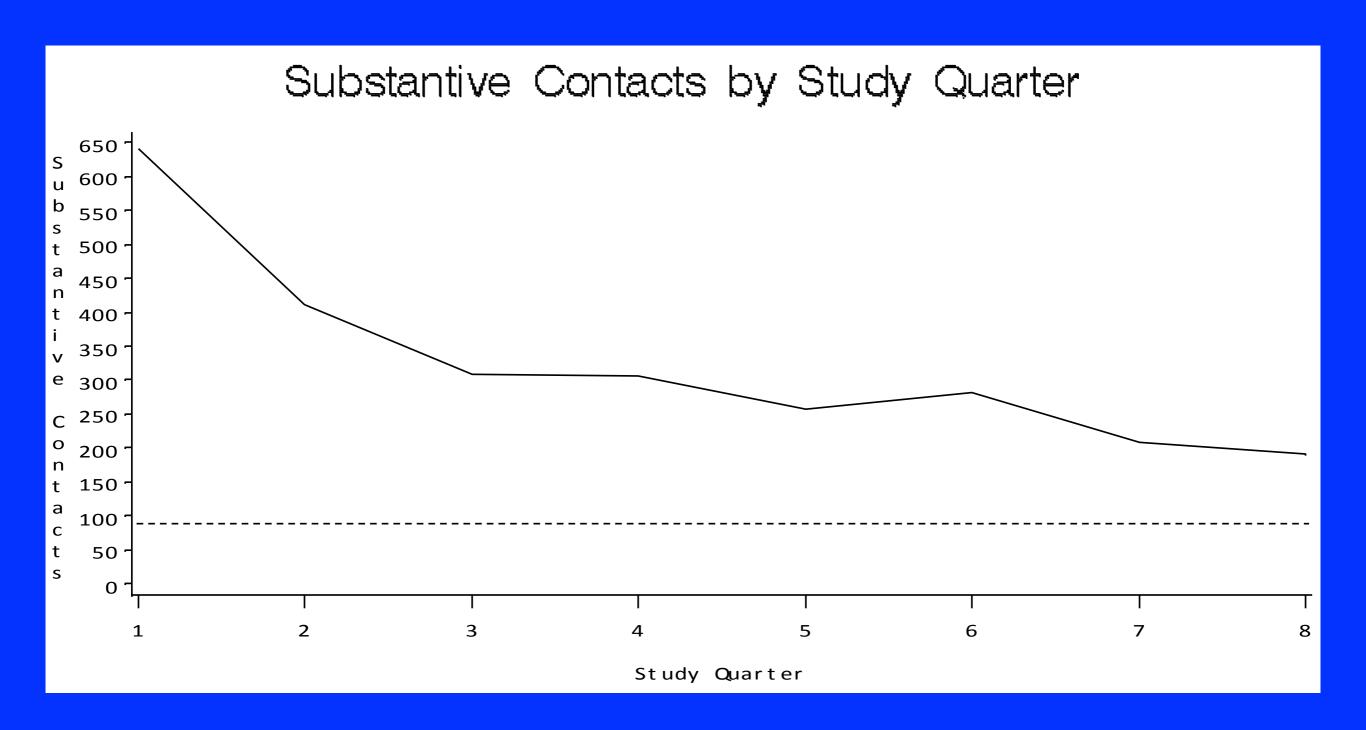
Asthma Action Plan, including plan for responding to persistent symptoms

Regular Physician Visits

Partnership with Physician

Key Functions of Peer SupportIn Asthma Coach

- Assistance, consultation in applying management plans in daily life
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- 4. Ongoing support, extended over time



Dashed horizontal line = 1 contact per participant per quarter

Systematic Review of Peer Support

- 01/01/2000 5/31/2011: "peer support," "coach," "promotora" etc.
- 66 separate studies
- 52% from US
 Others: Canada, UK, Pakistan, Bangladesh, Brazil, Mozambique, New Zealand
- 31% Pre/Post-Natal Care
 Others: Asthma, Diabetes, CVD, HIV, Smoking cessation, Mental health, Drug Use
- Overall, 56/66 (84.8%) showed benefit of peer support
- 6/6 with asthma showed benefit of peer support

Results of Systematic Review

		RCTs	All Controlled Studies		
	Objective Measure	Objective or Standardized	Objective Measure	Objective or Standardized	
Sig Between Group	5	22	7	28	
Sig Within Group	2	5	3	7	
Nonsig	27/32 =	= 84.4%	35/4	2 = 83.3%	
Counter	0	2	0	2	

Results from Projects Funded by Peers for Progress



January 2012 Health Affairs Special Issue: Confronting the Growing Diabetes Crisis

DOI: 10.1377/hlthaff.2011.0914 HEALTH AFFAIRS 31, NO. 1 (2012): 130-139 ©2012 Project HOPE— The People-to-People Health Foundation, Inc. By Edwin B. Fisher, Renée I. Boothroyd, Muchieh Maggy Coufal, Linda C. Baumann, Jean Claude Mbanya, Mary Jane Rotheram-Borus, Boosaba Sanguanprasit, and Chanuantong Tanasugarn

Peer Support For Self-Management Of Diabetes Improved Outcomes In International Settings

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Muchieh Maggy Coufal is the program manager of the Peers for Progress Program Development Center.

Linda C. Baumann is a professor emerita at the University of Wisconsin–Madison School of Nursing.

Jean Claude Mbanya is a professor of medicine and endocrinology at the University of Yaoundé Land ABSTRACT Self-management of diabetes is essential to reducing the risks of associated disabilities. But effective self-management is often shortlived. Peers can provide the kind of ongoing support that is needed for sustained self-management of diabetes. In this context, peers are nonprofessionals who have diabetes or close familiarity with its management. Key functions of effective peer support include assistance in daily management, social and emotional support, linkage to clinical care, and ongoing availability of support. Using these four functions as a template of peer support, project teams in Cameroon, South Africa, Thailand, and Uganda developed and then evaluated peer support interventions for adults with diabetes. Our initial assessment found improvements in symptom management, diet, blood pressure, body mass index, and blood sugar levels for many of those taking part in the programs. For policy makers, the broader message is that by emphasizing the four key peer support functions, diabetes management programs can be successfully introduced across varied cultural settings and within diverse health systems.

Evaluation



Feasibility Reach, Efficacy Sustainability Adoption

Green & Kreuter (2005). *Health promotion planning: An educational and ecological approach* (4th ed.). McGraw-Hill



Feasibility Reach, Efficacy Sustainability Adoption

in all 14 project sites



Green & Kreuter (2005). *Health promotion planning: An educational and ecological approach* (4th ed.). McGraw-Hill



Feasibility Reach, Efficacy Effectiveness Sustainability Adoption

Implemen in all 14 HbA1c = 8.92% project si

Green & Kreuter (2005). *Health promotion planning: An educational and ecological approach* (4th ed.). McGraw-Hill



Feasibility Reach, Efficacy Sustainability Adoption

in all 14 project si

Mean baselii HbA1c = 8.92 Mean HbA1c Reduction = 1.345 % points
Reduced Hospitalizations

Green & Kreuter (2005). *Health promotion planning: An educational and ecological approach* (4th ed.). McGraw-Hill



Feasibility Reach, Efficacy Sustainability Adoption

in all 14 project si

Mean baseli HbA1c = 8.92 Groups in Uganda, South Africa continue without funding; increase participation

Green & Kreuter (2005). *Health promotion planning: An educational and ecological approach* (4th ed.). McGraw-Hill



Feasibility Reach, Efficacy Sustainability Adoption

in all 14 project si

Mean baseli HbA1c = 8.92 In Texas, WellMed extends program from 15 test sites to regular care in all 23 sites

Green & Kreuter (2005). *Health promotion planning: An educational and ecological approach* (4th ed.). McGraw-Hill



Cost Effectiveness

Peer Support in Hong Kong, over a one-year period:

- Hospitalizations 0.205 per patient relative to 0.329 among controls
- Day admissions 0.125 per patient relative to 0.351 among controls.

In FQHC in Denver, Peer Supporters

- Shifted costs away from urgent care, inpatient care, and outpatient behavioral health care
- Increase utilization of primary and specialty care visits.
- ROI = 2.28:1.00.

(Whitley et al. J Hlth Care Poor Underserved 2006 17: 6-15)

Diabetes Initiative of the Robert Wood Johnson Foundation

- 3 of 4 projects in cost analysis emphasized peer supporters
- Cost per Quality Adjusted Life Year (QALY) = \$39,563 (well below \$50,000 criterion for good value)

(Brownson et al., The Diab Educator. 2009 35: 761-769)

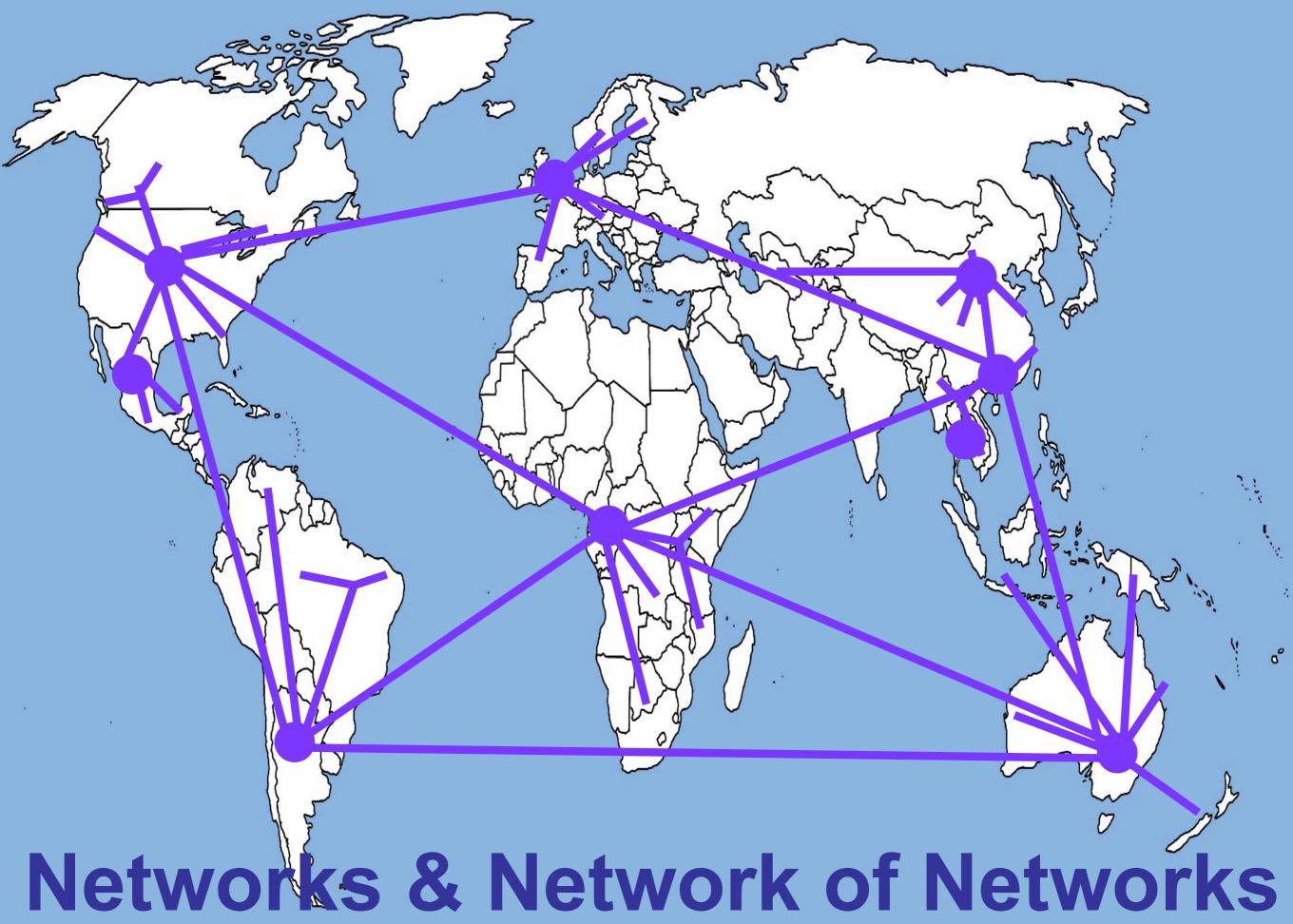
Asthma CHW Project with Medicaid Covered Children in Chicago

- Three to four CHW home visits over 6 mos and liaison with care team
- ROI: \$5.58 saved per dollar spent

(Margellow-Anast et al. J. Asthma 2012 49: 380-389)

Peers for Progress
Peer Support Around the World





Who We Are

Learn About Peer Support

> Promote Peer Support

Get Connected

Take Action

Tools & Training

News & Events

Peers for Progress is a program of the American Academy of Family Physicians Foundation and supported by the Ell Lilly and Company Foundation





Peers for Progress is building a Global Network of Peer Support Organizations, and invites you to join in this global endeavor.

>JOIN THE GLOBAL NETWORK



peersforprogress.org

IDEA EXCHANGE



A summer of Peer Support in Thailand Note: This is the first in a two part series by two University of North Carolina Masters of Public Health students...

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Peer Supporter Training Resources Series
Training Peers to Deliver a Church-Rased

HEADLINES & FEATURES



Updated Peers for Progress Publications List This is a continually updating list of recent Peers for Progress publications and presentations. This current version...

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PfP Guide to Program Developmen FEEDBACK

SCIENTIFIC EVIDENCE



Community Health Workers Assisting with Childhood Asthma

Peretz and colleagues reported the results of a New York based Asthma program to address asthma in the community. As...

>READ MORE

E-NEWSLETTER

CONTACT PEERS FOR PROGRESS



National Peer Support Collaborative Learning Network

For organizations providing and managers of peer support programs

Collaboration of Peers for Progress with National Council of La Raza and, we hope, other major organizations

Webinars on topics of interest, e.g.,

- Affordable Care Act opportunities for funding peer support
- Evaluation of peer support programs
- Building the business case for peer support
- Keys to quality and effectiveness of peer support programs
- Approaches to sustaining the peer supporters
- Addressing depression and other emotional health issues

Produce: Documents for the field – quality improvement as well as policy oriented

Sponsored by Bristol-Myers Squibb Foundation *Together on Diabetes Program*

To join: jlbr@email.unc.edu





Communities Organizations Housing Social Networks Families Behavior Early Development Metabolic Inflammatory Epigenetic Genetic

Emotional Status

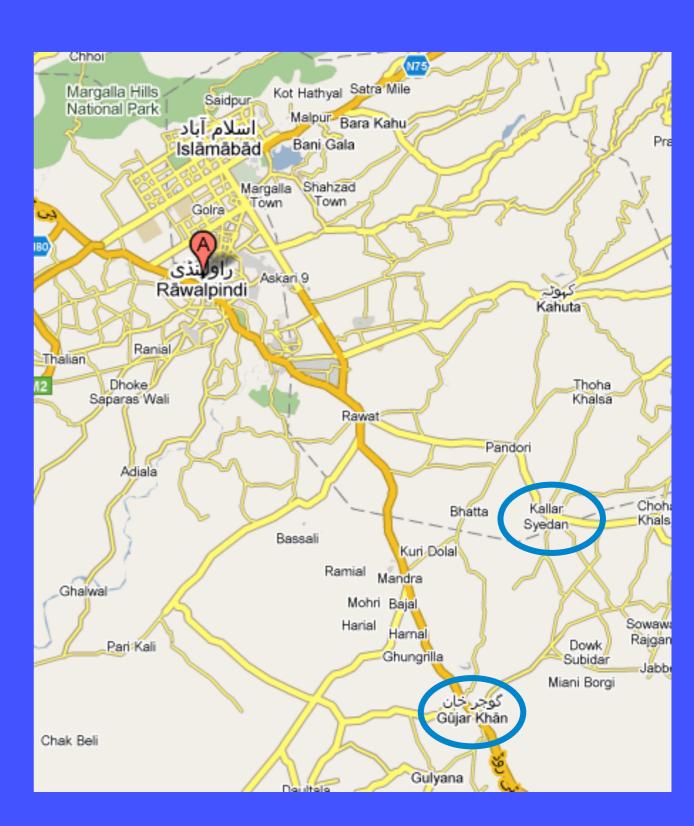


Community Health Workers in Pakistan – CBT for Post-Partum Depression

Rural Gujar Khan and Kallar Syedan, Basic Health Units: 15,000 – 20,000 people Physician, midwife, vaccinator 15-20 CHWs, "Lady Health Workers"

CHWs

Completed 2ndry education
Responsible for ≈ 100 households
Primarily general health education
and preventive maternal and
child care
≈ 96,000 CHWs cover 80% of
Pakistan rural population



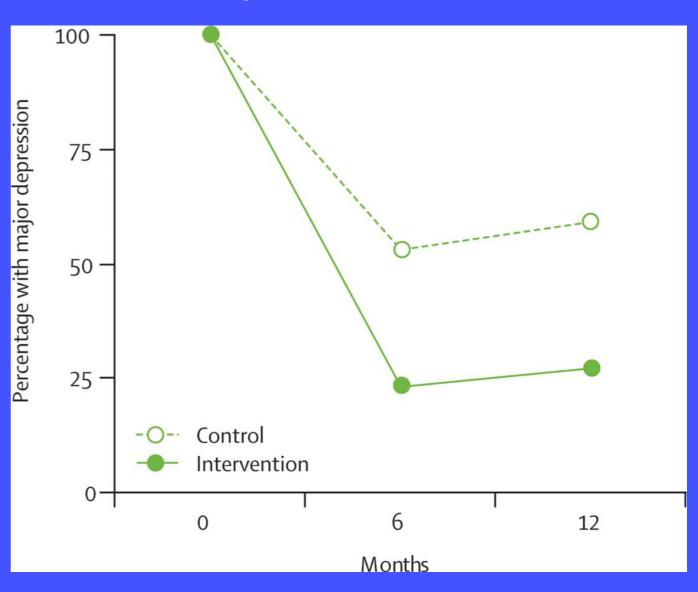
Community Health Workers in Pakistan – CBT for Post-Partum Depression, cont.

40 Communities randomized to intervention and usual care All women entering 3rd trimester evaluated for depression 463 out of 1787 (26%) meeting DSM-IV criteria for major depression offered CBT in intervention communities Manual based intervention, "Thinking Healthy Programme"

- Active listening
- Collaboration with family
- Questioning to promote change in beliefs thought to engender depression
- Homework

Integrated into regular CHW care

- Weekly in last month pre-delivery
- 3X in 1st postnatal month
- 9 monthly sessions thereafter



Rahman et al. Lancet 2008 372:902-909

PEARL, JADE and Emotional Distress

JADE (Chan et al. *Diabetes Care* 2009 32: 977–982.)

- Structured Care
- Doctor-nurse team 4X/year
- Nurse follow-up on adherence/self-care 6-8X/ year

PEARL (Chan, Am Diab Assoc, June, 2012)

- Peers work through and trained by nurses
- Peer support classes
- Individual contacts average of 17 over 12 months

Peer support reduced stress and non-compliance in patients with negative emotions (DASS>17)

20% of patients have significant depression, anxiety and stress

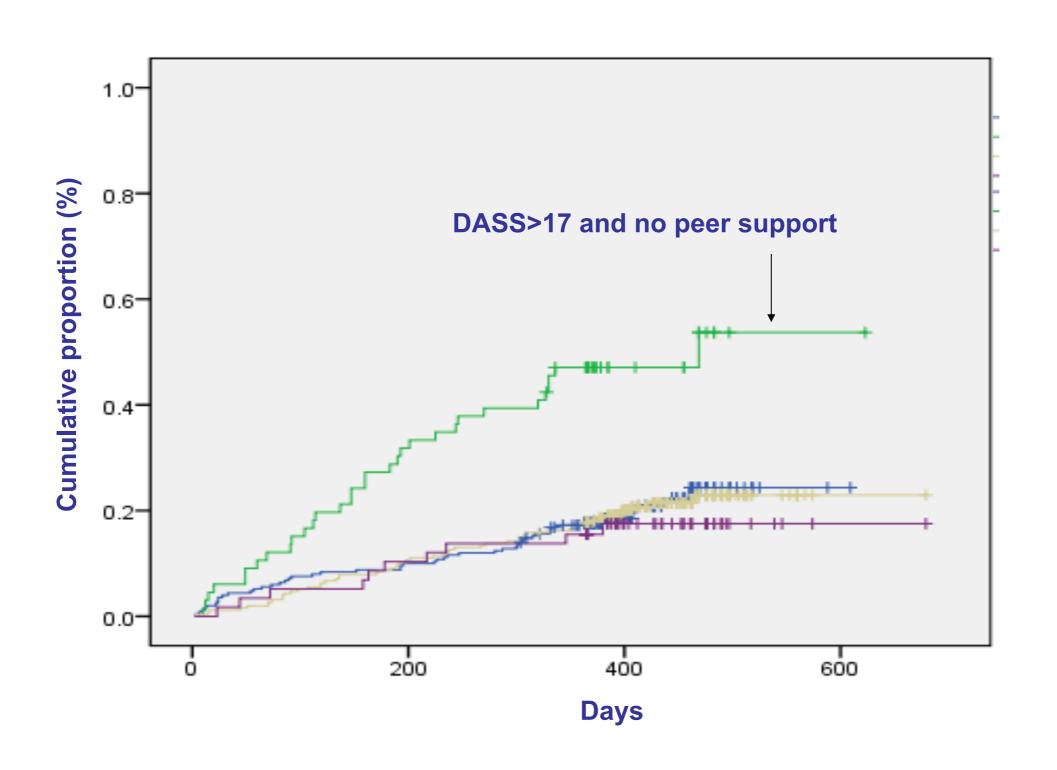
Changes in scores	Group	N	Mean±SD	р
DASS_sum	JADE+PEARL	48	11.9±16.7	0.033
	JADE	62	5.9±15.3	
DASS_depression	JADE+PEARL	48	4.3±6.2	0.044*
	JADE	62	2.2±5.9	
DASS_anxiety	JADE+PEARL	48	3.5±5.8	0.036*
	JADE	62	1.5±5	
DASS_stress	JADE+PEARL	48	4.0±6.1	0.009*
	JADE	62	1.9±5.6	

DASS – Diabetes Anxiety Stress Scale

(*Adjusted for DASS_Depression_Pre, DASS_Anxiety_Pre, and DASS_Stress_Pre)

DDS – Diabetes Distress Scale

Negative emotions, peer support and hospitalizations



Lessons Learned from Failures

- Lack of Contact, e.g., 9 group meetings over 24 months
- Reactive rather than proactive, e.g., leave card with mother after delivery offering support for breast feeding
- Didactic rather than intereactive, e.g., responses to previous meeting's questions and planned presentation
- Limited rather than flexible frequency of meetings – should be as-needed as well as proactive

Frequently Asked Questions: Who is a Peer?

- Volunteer?
 - Depends on specific duties e.g., required times or extensive required services may justify payment
- Person with the disease?
 - What about patient with, e.g., diabetes, arthritis, hypertension, hypercholesterolemia, depression?
 - Recommend person with close experience with disease or other chronic diseases
 - May be exceptions for, e.g., type 1 diabetes
- Peers for Progress has defined peer support according to four key functions (assistance in daily management, social/ emotional support, linkage to care, ongoing support)
- Details of who, organizational support, payment, cover of expenses, honoraria, etc. left to individual settings and systems



Frequently Asked Questions: Quality Control, Misinformation??

- Key: Consider situation of peer supporter basically a good person wanting to do no harm but wanting to help people who often face serious obstacles
 - If provide readily accessible resources, peer supporter will use them
 - If make resources hard to access, peer supporter will try to help with whatever resources they have available
- Recognize that information is not controllable
 - Promoting good information creates channel of influence
 - Trying to control or police information (impossible task) shuts off a channel
- Solid training and careful selection for those willing to be part of team as opposed to wanting to be heroes or the source of all knowledge and help
- Clarify: key role is support and assistance, not clinical expertise
- Key is back up, support, monitoring
 - Regular supervision, opportunity for peer supporters to discuss problems
 - 24/7 contact for peer supporters (titrate according to, e.g., routine, need within 24h, emergency)
 - Becomes major value added peer supporter can get authoritative answer to questions from nurse, primary care provider, specialist prn



Frequently Asked Questions: How to Recruit and Select Peer Supporters

- Time available availability to those served is key
- Like to talk to others, happy to find out about others' children, interests, etc.
- Broad minded
 - Do not see diabetes or people's problems as simple
 - No easy answers
- Able to learn and teach basic diabetes management
- Willingness to use back up support from professionals



Frequently Asked Questions: How to Train Peer Supporters

- Goal is to be able to help others implement their management plan
- Don't need skills of nurse or dietitian
- Do need to learn skills of a patient who understands and implements diabetes management well
- Organize training around curriculum or protocol training anchored in specific tasks
- Teach skills for
 - Simple counseling (e.g., active listening, motivational interviewing)
 - Promoting behavior change



Success Factors

- Keep it simple Remember that peer support is meant to be from "people like me"
- Avoid too many details of training Remember, key is knowing, listening, and being available
- Key: ongoing support and information for peer supporters
- Back up system in place is critical
- Organizational structure to support the peer support program – whether in community or clinical setting



Benefits for Health Care Providers

- 1. Strategy for culturally sensitive outreach and follow-up
- 2. Coaching patients to assume more active roles in health care
- 3. Enhanced linkage between patients and provider teams
- 4. Strategy for chronic disease self management support
- Emerging evidence of reduced costs (e.g., hospitalization in Hong Kong)
- 6. Strategy for recognizing and promoting appropriate care for psychosocial problems
- 7. Alternative to PCP or other professional serving as amateur social worker and psychologist
- 8. "With all of this, I get to practice medicine"



Quality Control by Program Rather than Certification

"For these individuals [lay health and community workers and peer counselors], a system must be in place that ensures supervision of the services they provide by a diabetes educator or other health care professional and professional backup to address clinical problems or questions beyond their training."

(Standard 5, p. 3)

Haas, et al. (2012). National Standards for Diabetes Self-Management Education and Support. *Diabetes Care*.



Thank You!

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To join National Peer Support Collaborative
Learning Network:
jlbr@email.unc.edu

