



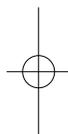
PEER SUPPORT PROGRAMMES IN diabetes



Report of a WHO consultation, 5 - 7 November 2007

WHO/CPM/08/01

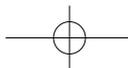




PEER SUPPORT
PROGRAMMES IN
diabetes



*Report of a WHO consultation,
5 - 7 november 2007*



PEER SUPPORT
PROGRAMMES
IN DIABETES

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*LIST
OF
ABBREVIATIONS*

ACRONYM	FULL TITLE
CDSMP	Chronic Disease Self-Management Program
HbA1C	Glycated haemoglobin
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
WHO	World Health Organization

1. CONCLUSIONS AND RECOMMENDATIONS

PEER SUPPORT IN DIABETES MANAGEMENT

Research to date indicates that peer support is a promising approach for diabetes management. However, there is still much to learn about how best to organize and deliver effective peer support programmes, which types of programmes are best for different types of patients and settings, and how best to integrate peer support interventions into other health services. With some notable exceptions, most evidence on peer support interventions has been generated from high-income, Anglo-Saxon countries. Generalization to low- and middle-income countries - and to different cultures - should be made with caution. Further research is required before recommending peer support interventions as a policy option for diabetes management.

RECOMMENDATIONS FROM MEETING PARTICIPANTS

Meeting participants made the following specific recommendations concerning the use of peer support in diabetes management.

Who is a peer?

1. Peers either have diabetes or are affected by diabetes; an example of the latter is a parent of a child with diabetes.
2. Peers are formally recognized, but not compensated. Their role and contributions to diabetes care are acknowledged by their communities; but they are volunteers, not employees.

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What is the role of peers?

3. Peers are advocates for people with diabetes in their community.
4. The role of peers is distinct and does not replace the roles of professional health workers involved in diabetes care.
5. The programmatic development and roles of peers is defined by their community, and varies depending upon their community's needs and resources.
6. In general, peer support programmes either develop within the existing health-care system, or as an extension of an ongoing nongovernmental programme.
7. A patient-centred approach, including negotiated goal setting and problem solving, is featured in all peer support programmes.

How are peers trained?

8. The development of standardized curricula and training helps ensure the sustainability of peer support programmes.
9. The development of effective communication among programmes assists further development and improvement. Modern communication methods such as the Internet are useful in this process.

How are peers evaluated?

10. Peer support programmes are evaluated objectively and results are used to guide further service improvement.
11. Economic evaluation helps justify the expense of peer support programmes.

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2. MEETING SCOPE AND PURPOSE

Diabetes is a global public health problem¹. With current trends prevailing, the number of affected individuals is likely to more than double in the next two decades^{2,3}.

People with diabetes need more than medical treatment from their health-care providers: they also need support in mastering and sustaining complex self-care behaviours that enable them to live as healthily as possible. There is ample evidence that without sustained support, many will not succeed in managing their condition well, leading to poor health outcomes, including avoidable expensive and debilitating complications. Yet for professional health workers, it is often impossible or too costly to provide this support on a one-on-one basis.

In response to this need, peer support interventions are being implemented increasingly and are believed by some to be an appropriate way for health systems to help their patients manage chronic conditions. These interventions are based on the assumption that people living with chronic conditions have a great deal to offer one another in terms of knowledge and emotional support. If effective, peer support models would be a promising addition to public health systems that face severe resource constraints and increasing needs among patients living with diabetes and/or other chronic conditions.

A World Health Organization (WHO) consultation on peer support programmes in diabetes was convened in November 2007 to address the following questions:

- What is the evidence on the effectiveness of peer support interventions in diabetes management?
- If peer support interventions are effective, what are the specific determinants of their success? Are some particular models more effective than others?
- Is there evidence on cost-effectiveness of peer support interventions?
- What different settings have evaluated peer support interventions?
- What are the questions that would still need to be answered before peer support interventions could be recommended as a viable policy option for diabetes management?

3. WHAT IS PEER SUPPORT, AND WHY IS IT A POTENTIALLY IMPORTANT POLICY OPTION?

Peer support has been defined as support from a person who has experiential knowledge of a specific behaviour or stressor and similar characteristics as the target population⁴. Within peer support interventions, people with a common illness experience share knowledge and experience that others, including many health workers, often cannot understand. The success of peer support has been hypothesized to be due in part to the non-hierarchical, reciprocal relationship that is created through the sharing of similar life experiences⁵.

Peer support interventions (described in further detail in the next section) provide a potentially low-cost, flexible means to supplement formal health system support for people with diabetes. WHO estimates that more than 180 million people worldwide have the condition, and that this number is likely to more than double by 2030³. Up to three million people die annually from diabetes-related conditions⁶, almost 80% of which occur in low- and middle-income countries⁷. In the next 10 years, total deaths due to diabetes are projected to increase by more than 50% without urgent action⁷.

For these hundreds of millions of people, the diagnosis of diabetes imposes multiple daily demands on them and their families. Typical self-care activities include adjustment of food intake to meet the daily needs, regular physical activity, foot care, medication administration (insulin or oral hypoglycaemic agents, medication to prevent complications), home glucose monitoring (blood and/or urine); regular medical monitoring visits, and other health behaviours (for example, dental care, proper clothing); all of which may vary depending on diabetes type.

Other essential self-management functions include recognizing and acting upon 'red flags' symptom changes or exacerbations; making appropriate decisions concerning when to seek professional assistance; and communicating and interacting appropriately and productively with health workers and the broader health system.

Effective patient self-management is essential for positive health outcomes⁸⁻¹¹. It has been suggested that up to 99% of all health-related decisions are made by patients, without input from formal health services¹². Patients and their caregivers need to be informed about self-management strategies, and be motivated and skilled to implement them on a daily basis over the course of time. To effectively support patients in their myriad functions, health systems must shift from regarding patients as passive recipients of care, to supporting them as active decision-makers.

To date, evidence has been mixed about how best to support patients in self-management¹³⁻¹⁶. Formal disease education is necessary, but insufficient in isolation, to produce positive health outcomes. A broader skills training appears essential, and programme effectiveness also seems related to the amount of contact time spent between the educator and the patient, as well as the availability of ongoing follow-up and support¹⁷.

Juxtaposed to these findings is the reality of the global shortage of health workers. In total, over four million new health workers are needed in 57 low- and middle-income countries to meet basic health service requirements¹⁸. Around the world, health systems are struggling with the growing demands of more and more people with diabetes. Creative solutions are necessary to ensure that patients receive the support that they need.

If proven successful, peer support interventions may help patients with diabetes self-manage more successfully without putting additional strain on the global shortage of health workers. Peer support models are especially promising for resource-constrained health systems, as they are much less resource-intensive than interventions requiring concentrated health worker involvement. As such, peer support interventions are a potentially important policy option for low- and middle-income countries.

4. HOW IS PEER SUPPORT ORGANIZED?

Peer support programmes differ in their organizational structure. Some programmes are group-based, whereas others consist of one-to-one interaction and support. Certain programmes rely on health workers as educators and facilitators, while others are led entirely by people living with the disease (lay leaders). In selected high-income country settings, remote peer support (for example, via Internet or telephone) is now being used as an alternative or complement to face-to-face contact. Each of these modalities is described in further detail within this report.

HEALTH WORKER-LED GROUPS WITH PEER EXCHANGE

Health worker-led group visits convene patients who share a similar health problem together with a health worker or team. Formats vary, but generally allow patients to obtain emotional support from other patients and learn from their experiences, while also receiving formal education and skills training from health workers¹⁹.

Group visits offer many advantages over traditional one-to-one visits with health workers¹⁹.

- They make more efficient use of health workers' scarce time.
- They allow time for more detailed provision of information.
- They facilitate peer support from patients facing similar self-management challenges.
- They can incorporate easily the participation of families and other carers.

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PEER-LED FACE-TO-FACE SELF-MANAGEMENT PROGRAMMES

Some programmes use peers - rather than health workers - as educators and trainers. Peers are thought to be especially effective as leaders because having diabetes, they serve as excellent role models for participants.

Many peer-led programmes around the world are modelled on the principles and format of the Chronic Disease Self-Management Program (CDSMP)²⁰. The programme is given in 2.5-hour sessions, once a week, over six weeks. The programme includes training in cognitive symptom management; methods for managing negative emotions such as anger, fear, depression, and frustration; and discussion of such topics as medications, diet, health-care workers, and fatigue.

Lay leaders teach the courses in an interactive manner designed to enhance participants' confidence in their ability to execute specific self-care tasks. The goal is not to provide disease-specific content, but rather to use interactive exercises to build self-efficacy and other skills that will help participants better manage their chronic conditions and live actively. A vital element is exchange and discussion among participants and with peer leaders.

BOX 1. Project Dulce: combining nurse case management and peer education for a minority population, as reported in Ms Martha Funnell's background paper

Project Dulce is a culturally specific diabetes management and education programme for Latino patients without health insurance in California, United States of America. This programme includes case management and medication adjustment by a nurse and a group education programme conducted in Spanish by a trained peer educator. This peer-based programme consists of an 8-week curriculum that covers all major aspects of diabetes care, with an emphasis on overcoming cultural misconceptions about diabetes and supporting patients to take charge of managing their disease. Project Dulce has demonstrated significant reductions in glycated haemoglobin (HbA1C) values and a trend towards reduced hospital expenditures²¹.

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4. HOW IS PEER SUPPORT ORGANIZED?

PEER COACHES

Peer coaches are a more informal, flexible means of providing peer support for patients with diabetes. They meet one-to-one with other patients to listen, discuss concerns, and provide support. Peer coaches usually are individuals who have coped successfully and who can serve as positive role models.

Peer coaches may be especially effective at helping patients develop strategies to incorporate complex treatment regimens into their everyday routines. They discuss their own experiences and address patients' concerns and fears. As with other forms of peer support, peer mentoring may help both the patient and the coach.

REMOTE PEER SUPPORT

Remote peer support can occur via email, Internet or telephone. These programmes are sometimes preferable to face-to-face interventions because they address physical access barriers. In addition, some patients prefer the relative anonymity of remote support modalities. Remote peer support can be one-to-one or group-based.

Internet-based programmes offer several benefits¹⁹, including:

- Convenience for leaders and participants;
- Relative anonymity for patients;
- Worldwide access and information exchange (in some cases); and
- Ability to reach large groups of people at a low cost.

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BOX 2. The New Zealand experience in peer support interventions as presented at the meeting by Dr David Simmons

Data from several areas of New Zealand demonstrate the recent increase in diabetes and diabetes complications. There are several, locally-developed New Zealand self-help groups that participate in both peer-to-peer support and various patient assistance programmes, such as stores that sell diabetes supplies. An example is Diabetes Auckland, a non governmental organization that provides several services. These include both introductory courses for people with diabetes, including grocery shopping tours; and training programmes for nurses. They also provide information in a range of formats including a quarterly magazine, a website, an information telephone line, and a lending library.

FUNCTIONS, COMPETENCIES, AND TRAINING OF PEER SUPPORTERS

Most programmes define peer supporter functions in a manner that is complementary – and not repetitive – with those of local health workers. Some common functions are as follows:

- Teaching problem solving skills;
- Teaching communication skills;
- Teaching decision-making skills;
- Finding health-care resources;
- Developing a plan for the future;
- Understanding the management principles of diabetes, healthy eating, activity and medications; and
- Understanding and managing psychological responses to diabetes.

Core competencies for peer supporters include the need to communicate clearly, to be willing to learn, to have confidence, and to be flexible and dependable.

Very little is known about the specific training required for peer supporters, and even less is known about the supervision needed or the qualities or qualifications that enable supporters to become effective in their roles.

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4. HOW IS PEER SUPPORT ORGANIZED?

BOX 3. The Jamaica Lay Diabetes Facilitators Education Program as reported at the meeting by Ms Lurine Less

In Jamaica, 17.9% of the adult population has diabetes. It is the second leading cause of death in the country. The Jamaican programme is sponsored by the Diabetes Association of Jamaica, a nongovernmental organization founded in 1976. Lay educators are trained by the Diabetes Association to conduct education programmes throughout Jamaica. Peer educators are selected based on attainment of secondary level education and being a member of the community. Training consists of four-hour basic diabetes information taught by a physician, chiropodist, nutritionist and a lay diabetes educator. Those attaining more than 90% on post-training testing receive a certificate from the Diabetes Association and the Ministry of Health as a Lay Diabetes Facilitator.

BOX 4. Experiences in Peer-to-Peer Training on the Isle of Wight, as reported at the meeting by Dr Arun Baksi

In the Isle of Wight, United Kingdom, prospective peer advisors are selected from volunteers who have diabetes or serve as diabetes caregivers. The programme objectives are to enable peer advisors to assist health workers in the provision of diabetes education, be effective participants in committees, play a role in monitoring equity, accessibility and quality of service and provide one-to-one support and advice.

Peer advisor training occurs at two levels. The first level of training happens over 18 weeks (90 minutes per week), after which written and oral examinations are administered. If successful, the peer advisors are expected to provide one-to-one support for others with diabetes, be effective committee members and function as trainers for other advisors. An additional six-session training course teaches diabetes management at a higher level of complexity.

BOX 5. The Peer to Peer Experience in Indonesia as reported at the meeting by Dr Sidartawan Soegondo

Pandu Diabetes (Diabetes Champions) was organized by the Indonesian Diabetes Association to meet the challenges of providing support in a country with 245 million people and 17 000 islands, combined with very few endocrinologists, most of whom are based in urban centres. The aim of Pandu Diabetes is to create leaders and motivators among people with diabetes, to activate those involved in diabetes care, to improve diabetes self-care, to serve as community role models, and to provide peer support. Peer candidates must be lay people who have well-controlled diabetes, and expressed motivation to help others with their condition. Their training is regionally-based although there is an annual national camp. Candidates are selected and trained in a four-tier competitive process. Subjective evaluation reveals uniform enthusiasm for the programme. Major barriers include travel logistics and lack of uniform training and follow-up. Plans have been developed to overcome these barriers.

5. WHAT IS THE EVIDENCE OF PEER SUPPORT FOR DIABETES?

Lack of specificity in terminology has led to some degree of confusion about the effectiveness of peer support interventions. The published literature contains a range of terms for peer support interventions, including for example: diabetes education and self-management²²; expert patient programmes²³; lay health workers in primary and community health care²⁴; and self-management education programmes by lay leaders²⁵. Taking into account these and other relevant terms, key studies in each peer support intervention category are reviewed below.

HEALTH WORKER-LED GROUPS WITH PEER EXCHANGE

A 2005 Cochrane review concluded that adults with diabetes who participated in group-based training programmes showed improved diabetes control (fasting blood glucose and HbA1C) and knowledge of diabetes in the short- (4–6 months) and long-term (12–14 months), while also having a reduced need for diabetes medication. The review also concluded that there is some evidence that group-based education programmes reduce blood pressure and body weight, and increase self-empowerment, quality of life, self-management skills and treatment satisfaction. However, as only a small number of studies evaluated those outcomes, the authors called for more research to confirm their findings and examine longer-term sustainability of health outcomes²⁶.

Based on the limited number of studies, mainly from high-income countries, results were equivalent among interventions delivered by physicians, dieticians and nurses, as long as the health workers were trained to deliver a diabetes education programme. Delivery of programmes to groups of 4–6 participants, or 16–18 participants, did not appear to alter their effectiveness²⁶.

A separate review of over 30 studies calculated as much as a 0.76% reduction in HbA1C levels immediately following diabetes self-management education. Because a 1% decrease in HbA1C is associated with a dramatic reduction in myocardial infarctions, microvascular disease and death, a 0.76% reduction is an enormous benefit. Contact time with an educator was the most significant predictor of reduction in HbA1C: 23.6 hours for every 1% absolute decrease in HbA1C. However, the benefit declined 1–3 months after the intervention ceased, suggesting that without support, health behaviours revert over time. The reviewers called for further research to develop interventions effective in maintaining long-term glycaemic control¹⁷.

Interventions based on therapeutic patient education using the principles of empowerment, participation and adult learning have been most efficacious to date. In these programmes, health-care workers collaborate with patients to help them: obtain knowledge and skills, attain self-selected goals and overcome barriers, and seek out appropriate care recommendations and support. Rather than follow organized lesson plans that prescribe content in a specific manner and order, these programmes encourage patients to apply newly-acquired knowledge and to exchange information and experiences, enabling participants to learn from each other. Several randomized controlled trials have found improvements in glycaemic control, diabetes-specific quality of life, self-efficacy and other patient-centred outcomes among participants in these group sessions, compared with control groups^{27–30}.

Evidence from low- and middle-income countries is scant but promising (see box 6).

5. WHAT IS THE EVIDENCE OF PEER SUPPORT FOR DIABETES?

BOX 6. Mexico's Veracruz Initiative for Diabetes Awareness

Mexico's Veracruz Initiative for Diabetes Awareness was designed to improve primary health care for people with diabetes. The one-year, randomized case-control study consisted of in-service training of health workers on diabetes management, including foot care, as well as the implementation of a structured diabetes education programme for patients and their families.

Results revealed the effectiveness of this multidimensional intervention. The number of people with diabetes and good control increased from 28% to 39% in the intervention group, while among those receiving usual care the proportion only increased from 21% to 28%. Documented foot care education increased to 76% of patients in the intervention group and only to 34% elsewhere.

Notably, the project's success was not the result of a single intervention, but rather of a systems-based approach that included patient education and self-management support. No single factor appeared to have a greater effect on outcomes than any other, although it was demonstrated that the patients who learned the most (those with scores greater than 80% on the post-intervention diabetes knowledge examination) achieved better metabolic control and greater reduction of total cholesterol³¹.

PEER-LED FACE-TO-FACE SELF-MANAGEMENT PROGRAMMES

A 2007 Cochrane review concluded that lay-led self-management education programmes for chronic conditions (including diabetes) lead to small, short-term improvements in participants' self-efficacy, self-rated health, cognitive symptom management, and frequency of aerobic exercise. However, they also concluded that there is insufficient evidence to suggest that these programmes improve psychological health, symptoms or health-related quality of life, or that they significantly alter health-care use. All reviewed studies examined primarily short-term outcomes, and only two studies considered outcomes for intervention and control participants beyond six months²⁵.

The CDSMP has been evaluated in several randomized controlled trials, which were included as part of the Cochrane review. An adaptation of CDSMP is described in the box below.

BOX 7. Lay-led chronic disease self-management in China

In Shanghai, China, a chronic disease self-management programme improved health status and reduced hospitalizations among patients with hypertension, heart disease, chronic lung disease, arthritis, stroke, or diabetes. The programme was based upon the CDSMP and was culturally adapted for the Chinese population. Essential premises of the programme were that people with chronic conditions have similar concerns and problems; people with chronic conditions can learn to take responsibility for the day-to-day management of their disease(s), and physical and emotional problems caused by their disease(s); and lay people with chronic conditions, when given a detailed leaders manual, can lead a self-management programme as effectively, if not more effectively, than health professionals. After six months, participants (compared to controls) reported significantly enhanced self-efficacy in self-management, improved health status, and better self-management behaviour.

5. WHAT IS THE EVIDENCE OF PEER SUPPORT FOR DIABETES?

PEER COACHES

To date, there are very few published evaluations of peer coach programmes. Preliminary studies conducted in the United States suggest that peer mentoring may be especially effective with individuals from minority groups, who may have a mistrust of mainstream health systems. No studies have evaluated the effectiveness of peer coaches for adults with diabetes. However, peer coaches have been shown to enhance coping and health outcomes among patients with breast and prostate cancer, women with postpartum depression, and patients with HIV/AIDS³⁴. Peer coaches also have been shown to improve self-care among heart failure patients³⁵.

Preliminary evidence suggests several key features of successful peer coach programmes:

- Sufficient training and ongoing support for peer coaches;
- Careful consideration and discussion with potential coaches on the amount of time they are able and willing to put into the programme, and their specific areas of interest; and
- Regular opportunities for peer coaches to share experiences, solve problems, provide mutual support, and receive additional training and appropriate recognition for their efforts.

REMOTE PEER SUPPORT

Remote peer support has been shown to be a viable option in high-income countries that have widespread household penetration of telecommunication and Internet technologies.

Telephone-based peer support interventions have led to improvements in outcomes among patients with cancer, arthritis, and HIV/AIDS³⁶⁻⁴⁰. Results for diabetes also are promising: when compared with control participants, who received only group-based nutrition counselling, intervention participants who received additional telephone support from community diabetes advisors demonstrated superior physical activity outcomes. The majority (86%) of participants identified the telephone support as important to their success⁴¹.

Internet-based peer support programmes for diabetes have been associated with some health-related improvements. The D-Net programme provided information, personal coaching from a health professional, and the opportunity to participate in a peer-directed but professionally-monitored chat room. The purpose of the chat room was to provide a forum for participants to interact with their peers to express their feelings and obtain support for behaviour change. While all groups improved in behavioural, psychosocial and biological outcomes, the addition of the peer coaches did not significantly improve results⁴². In another recent intervention, an Internet version of the CDSMP was evaluated among participants with diabetes, heart disease, and chronic lung disease (see box below).

BOX 8. Self-Management @ Stanford Healthier Living as presented at the meeting by Dr Kate Lorig and reported in Dr Michele Heisler's background paper

Kate Lorig and colleagues developed an Internet version of their CDSMP with content similar to the original face-to-face programme. Two trained peer moderators facilitated the six-week workshops and helped participants by reminding them to log on at least three times each week, modelling action planning and problem solving, offering encouragement, and posting to the bulletin boards. After 12 months, intervention participants reported significantly improved levels of health distress, fatigue, pain, and shortness of breath, compared with usual care controls. However, there were few significant differences in self-reported health behaviour or health-care utilization. Improvements in the online group were similar to those achieved in the face-to-face groups⁴³. Evaluation of a similar workshop designed specifically for people with diabetes is currently underway.

5. WHAT IS THE EVIDENCE OF PEER SUPPORT FOR DIABETES?

SUMMARY OF FINDINGS AND LIMITATIONS

In summary, research to date indicates that peer support is a promising approach for diabetes management. However, there is still much to learn about how best to organize and deliver effective peer support programmes, which types of programmes are best for different types of patients and settings, and how best to integrate peer support interventions into other clinical and outreach services.

Strength of evidence varies across peer intervention modalities. Health worker-led groups with peer exchange have shown the most robust and compelling outcomes. Several randomized controlled trials have demonstrated improved glycaemic control, diabetes-specific quality of life, self-efficacy and other patient-centred outcomes among participants in these group sessions. Peer-led face-to-face self management programmes have been shown to lead to small, short-term improvements in participants' self-efficacy, self-rated health, cognitive symptom management, and frequency of aerobic exercise. Analogous Internet-based programmes have yielded similar results. No studies have evaluated the effectiveness of peer coaches for adults with diabetes, but peer coaches have been shown to enhance coping and health outcomes among patients with other chronic conditions.

Across peer support intervention types, health gains tend to diminish over time. Available evidence indicates that ongoing support may be required to sustain benefits over the long-term.

With some notable exceptions, most evidence on peer support interventions has been generated from high-income, Anglo-Saxon countries. Generalization to low- and middle-income countries - and to different cultures - should be made with caution. Individuals living with diabetes, their families and communities, and health workers are likely to have widely varying views of the roles and contributions of peer support across different parts of the world. The implications of variations in health system structures and supports also require further consideration.

It also is important to note that across the literature, there is a lack of consensus about the specific definition and role of the peer supporter. Different terms are used throughout the literature, including community health worker, *promotores de salud*, community health advocate, and lay health educator/worker. Some are volunteers, some paid, some focus on diabetes or another specific disease, others on several. Moreover, the title of peer supporter or a related term does not necessarily confer a minimal level of education or preparation for the position.

Further research would be required before recommending peer support interventions as a policy option for diabetes management. Key research questions are described in the following section.

6. WHAT QUESTIONS ABOUT PEER SUPPORT STILL NEED TO BE ANSWERED?

Because the knowledge base on peer support is still very small, further research is needed on the effectiveness of interventions across different populations and diverse settings. Some specific issues for research are highlighted below.

- The ways in which peer support interventions can most effectively complement and extend formal health services, such as nurse case management or primary health care.
- The optimal mix of modalities in peer support interventions, among face-to-face and remote contact, as well as group-based and one-to-one formats.
- The cross-cutting key functions that should be provided by all peer supporters regardless of programme format.
- The specific interventions that can be implemented effectively by peer supporters.
- The dose response of peer support interventions – the minimally-effective intensity and duration of contact needed for a positive health outcome, as well as the incremental benefits of additional and/or prolonged contact with peer supporters.
- Regional and cultural variations in the acceptability and effectiveness of different peer support interventions.
- The minimal level of training and supervision required for peers.

- The qualities or qualifications that enable a person to become an effective peer supporter.

Key indicators for the effectiveness of peer support interventions should include:

- Patients' self-reported quality of life and emotional distress;
- Patients' adherence to behavioural and medication prescriptions;
- Patients' knowledge, attitudes, self-efficacy, autonomy and ability to function in their life roles and at work or school;
- Among clinical parameters: presence or absence of symptoms (hypo or hyperglycaemia), HbA1C, cardiovascular risk factor control, hospitalizations and emergency room visits, health-care resource consumption, and the presence or development of long term diabetes or cardiovascular complications; and
- Expenses (costs) and savings (benefits) associated with the intervention.

Cross-site evaluation also should be conducted, where possible. It would likely combine the evaluation of individual projects, a number of which may include experimental designs using control groups, wait-list control groups, and comparison groups; and overall analysis integrating observations across individual projects.

6. WHAT QUESTIONS ABOUT PEER SUPPORT STILL NEED TO BE ANSWERED?

All evaluations should examine all five dimensions of the RE-AIM model⁴⁴:

- Reach into the target population;
- Efficacy or effectiveness of the intervention;
- Adoption by target settings or institutions;
- Implementation-consistency of delivery of intervention; and
- Maintenance of intervention effects in individuals and populations over time.

This evaluation framework facilitates an expanded assessment of interventions beyond efficacy to multiple criteria that may better identify the translatability and public health impact of peer support interventions.

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ANNEX 1 :
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The four background papers abstracted below will be published in their entirety in a supplement to Family Medicine, which will be devoted to peer-to-peer education in diabetes and published in mid-2008.

In her background paper entitled *Different Models to Mobilize Peer Support to Improve Chronic Disease Self-Management and Clinical Outcomes: Evidence, Logistics, Evaluation Considerations, and Needs for Future Research*, Dr Michele Heisler noted that interventions that mobilize and build on peer support are an especially promising way to improve self-management support for patients with diabetes. The most effective models appear to combine peer support with a more structured programme of education and assistance. To date, most efforts to increase self-management and peer support among patients have focused on clinic-based group visits, peer-led training sessions, and support groups. Peer-to-peer and clinician-led group visits and training sessions improve outcomes for participating patients with diabetes and other chronic diseases. Yet, many patients face difficulties attending regular face-to-face meetings. In even the most successful trials of face-to-face group visits and self-management training sessions, many participants do not attend the sessions. Thus, it is useful to examine the range of different models for effectively mobilizing peer support in conjunction with health-care provider support to improve diabetes outcomes.

An important issue for many patients with diabetes is accessing sufficient support on a regular basis for effective self-management. In the face of the growing numbers of older adults with chronic illnesses and significant resource constraints facing health systems worldwide, it is increasingly important to develop and evaluate low-cost interventions that build on available resources and can empower patients to provide greater mutual assistance. In particular, novel strategies are needed to increase between-visit support via community-based programmes, telephone-based

programmes, and programmes using new communication technologies for the large numbers of patients with limited health literacy.

Peer support models provide a potentially low-cost, flexible means to supplement formal health-care support. Peer support models also potentially benefit both those “receiving” the support and those providing it. Reciprocal models for both receiving and providing peer support are currently being rigorously evaluated. The unifying feature of these programmes is that they seek to build on the strengths, knowledge, and experience that peers can offer.

There is still much to learn about how best to organize and deliver effective programmes, which types of programmes are best for different types of patients, and how best to integrate peer support interventions into other clinical and outreach services.

Ms Martha Funnell’s background paper entitled *Peer-Based Behavioural Strategies to Improve Chronic Disease Self-Management and Clinical Outcomes: Evidence, Logistics, Evaluation Considerations, and Needs for Future Research* points out that the diagnosis of diabetes generally evokes strong emotions and often brings with it the need to make changes in lifestyle behaviours, such as diet, exercise, medication management and monitoring of clinical and metabolic parameters. The diagnosis affects not only the person diagnosed, but also family members. While the responsibility for outcomes, such as metabolic control and chronic complications, are shared with the health-care team, the daily decisions and behaviours adopted by patients clearly have a strong influence on their future health and well-being.

Peer-based programmes should begin with collaborative goal setting. The next strategy is teaching patients problem-solving skills, with a focus on a rational problem-solving process and a positive transfer of past experiences. A third strategy of peer support programmes is the enhancement of social support. A fourth strategy is the use of communication skills that facilitate patient behaviour change. There is generally no attempt to convince or persuade the patient, or to provide advice. Instead, reflective listening and positive affirmations are used to help patients identify their own health goals and the discrepancies in their behaviour that influence achieving these goals.

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While behavioural and affective strategies and ongoing support can be effectively provided by health-care professionals through educational and case management programmes, many health-care professionals and systems are not equipped to provide the type of education and/or the behavioural and psychosocial support needed for long-term self-management. Peers can fill this need both effectively and economically and can use established and effective behavioural strategies in a variety of formats.

In his background paper entitled *Cross-cultural and international adaptation of peer support for diabetes management*, Dr Edwin Fisher concluded that peer support holds promise of making substantial contributions to improved self-management among the millions of people with diabetes around the world. A major challenge to international promotion of peer support is allowing for tailoring to population, cultural, health system and other features of specific settings, while at the same time ensuring congruence with standards for what peer support entails. One strategy to address this challenge was used in the Robert Wood Johnson Foundation Diabetes Initiative in which key functions of self-management – Resources and Supports for Self Management – were identified.

More than any other component of health care and prevention, social and peer support varies from country to country and culture to culture. Thus programme models must be flexible so they can be tailored to widely varying settings, populations, and social, cultural, organizational, and economic contexts. At the same time, definitions must be sufficiently clear to clarify what is “peer support.” Programme managers should be encouraged to use their own judgement in providing the resources and supports in ways that were feasible in their settings and responsive to the needs and perspectives of those they served.

As the challenges of curriculum development are increased by the goal of international dissemination, so too are those of evaluation. Recognizing that there would be great variability in programmatic details and designs of individual evaluation studies across multiple settings, evaluation would be challenged to quantify dimensions or features of programmes that can be measured in different sites and linked to outcomes such as metabolic control or quality of life. As with programme development, focusing on key functions of peer support rather than operational details provides one way of addressing the challenge of international evaluation.

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In their background paper entitled *Defining International Training for Peer Diabetes Educators*, Ms Anne Belton and Ms Anne Nettles noted that globally, community members experiencing similar health problems have often gravitated to each other for information and support.

All programmes using peer supporters provide some training to the supporters. However, the education varies widely from many weeks, mentoring and oral examinations, to only four hours and observation of professionals in the community. Interestingly, while many programmes have been reported in the literature, very few give more than a few lines to how they trained their peer educators.

No one training model has been shown to be superior to any other. Curricula appear to have been developed based on the content and programmes the peer educator is expected to deliver. Moving forward, it will be important to clearly define the role and nomenclature of the peer supporter. To set a framework for a curriculum that could be used to train peer supporters worldwide will require discussion on the role, how it may be the same or different in different countries, how peers will be recognized, different levels of peer support, if there be certification or a diploma of sorts, if there should be standardization of training, and if so, to what degree? Many questions remain to be asked.

ANNEX 3 : ACKNOWLEDGEMENTS

The organizers of the WHO consultation would like to acknowledge the contributions made by a number of individuals, both those who attended the meeting and those who contributed in other ways.

Background documents to the meeting were prepared by:

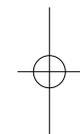
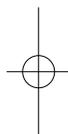
- Dr Michele Heisler;
- Ms Martha Funnell;
- Dr Edwin Fisher;
- Ms Anne Belton and Ms Anne Nettles.

Dr Charles Clark served as meeting rapporteur.

Dr JoAnne Epping-Jordan further developed the meeting report prior to publication.

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PEER SUPPORT
PROGRAMMES IN
diabetes

