

Appendix 3: Detailed description of study interventions

N	Study	Brief intervention description	Intervention description
N.	Author Year Country	Brief Intervention description	Intervention description (detailed) Length intervention Predominant Intervention type Comparison
1	Anzaldo-Campos 2016 Mexico	Two interventions: Nurse care support and peer-led diabetes self-management education intervention (called Project Dulce). Nurse care support and peer-led diabetes self-management education intervention. A technology-enhanced intervention, using cell phone uploads of glucose and BP levels and text message support.	Two interventions, called the Project Dulce Model: 1. Nurse care management through a combination of a multidisciplinary team of clinicians and nurse, as well as trained peer-led diabetes self-management education (this collectively is the called Project Dulce (PD) model. Clinicians underwent 16 hours of training and monthly ongoing education. The nurses, trained in diabetes care, provided personalized education to patients, in accordance with national guidelines. They also liaised with the peer educators, who either had diabetes themselves or lived or worked with people with diabetes. They underwent a training programme, modified for a Mexican population. Addressing fears pertaining to insulin use and addressing self-management was a focus of their educational sessions. 2. The PD intervention above, was combined with a technology-enhanced intervention, using cell phone uploads of glucose and BP levels and text message support (called the PD-TE intervention). Participants received free glucose monitors and training, they were asked to check their sugars twice a day for one month, then two days per week thereafter. The glucose data was uploaded to a central system and medical staff monitored these readings. Text messages, surveys, videos and brochures were also sent out to participants. Length: The first intervention (PD) comprised eight weekly sessions with peer educators for two months, then monthly sessions thereafter up to 10 months in total. For the PD-TE group, text messages, surveys, videos and brochures were also sent throughout the 10 months. Predominant EPOC intervention type: Patient-centred Comparison: Usual general practice care

2	Basudev 2016 UK	Virtual clinic integrating primary and specialist care	<p>The intervention involved four steps. Initially it involved identification of the target patients (HbA1c > 8.5%). The second step involved a virtual clinic meeting (with around 20 cases), involving the community diabetes (specialist) team and practice team. The management plan for each patient was determined. The care was then allocated to primary, intermediate or secondary care. The third step involved the patient consultation, agreeing an individualised plan of management in collaboration with the patient, including therapy changes and addressing patient goals. The fourth step involved a 3-month review by the community diabetes team.</p> <p>Length: The intervention lasted 12 months with three-monthly reviews by the community diabetes team after the initial consultation.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual general practice care.</p>
3	Blackberry 2013 Victoria, Australia	Telephone coaching by nurses to support diabetes management and self monitoring	<p>The PEACH study:</p> <p>GP based nurse led telephone coaching; dealing with lifestyle issues, medication adherence and dosing, self monitoring of their disease, how to take greater initiative in the therapeutic alliance with their doctor, facilitating appropriate intensification of medications to achieve treatment goals. Nurses did not have prescribing rights.</p> <p>Length: In the first six months there were five telephone-coaching sessions at intervals of six weeks in the first six months, a coaching session at 8 and 10 months, a face-to-face coaching session at 12 months and a final coaching session at 15 months.</p> <p>Predominant EPOC intervention type: Patient-centred</p> <p>Comparison: Usual general practice care</p>
4	Capozza 2015 USA	Text-message based behavioural intervention for T2DM	<p>Receipt of 1-7 text diabetes-related messages per day, depending on the choices they made at enrolment. The content of the text messages were reviewed by certified diabetes educators and patients had control over the types and frequency of the messages. Users could turn off the program by texting the word 'stop'. The core messages related to diabetes education and health improvement (medication reminders, glucose testing reminders, BP measurement reminders and encouraging weight loss). Patients could reply to messages to get feedback.</p> <p>Length: 6 months of text messages</p> <p>Predominant EPOC intervention type: Patient</p> <p>Comparison: Usual care</p>
5	Choe	Pharmacist case	The case manager was a clinical pharmacist who was already established as a pharmacotherapy consultant at the clinic before the start of the intervention. The

	2005 Michigan, USA	management	<p>clinical pharmacist evaluated patient's therapeutic regimens based on efficacy, safety, adverse effects, drug interactions, drug costs and monitoring. All therapeutic recommendations were discussed with the primary care provider before significant therapy alterations. The pharmacist also followed up on these recommendations. Face to face consultations between pharmacist and physician were included.</p> <p>Length: Initial one-hour consultation with patient and monthly telephone contact thereafter and saw patients in conjunction with their routine primary care visits for one year.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care.</p>
6	Crowley 2015 USA	Intensive telemedicine intervention for veterans	<p>An advanced comprehensive diabetes care (ACDC) program, including telemonitoring, physician guided medication management, self-management behavioural support and physician guided depression management. It was delivered via a telephone using existing staff in the VA.</p> <p>VA home technology (HT) nurses delivered the intervention. Usual care involves HT nurses ringing patients, but they do not deliver a comprehensive diabetes management intervention like ACDC. In terms of telemonitoring, patients were asked and prompted to perform SMBG daily and to submit this on their HT-issued equipment. They were called by a HT nurse if they did not submit data for three days. In terms of self-management every two weeks a HT nurse rang the patient, delivering a diabetes self-management support module. This was a 30-minute telephone call every 2 weeks- reviewing blood glucose data, reconciling medications and reviewed adherence. For the physician medication management component, the HT nurse then contacted the study physician (an endocrinologist) and medication changes (such as insulin changes) were transmitted back to the HT nurse via an EHR- the nurse then relaying this on to the patients. In terms of depression, if the baseline or three-month PHQ9 was high, a psychiatrist or primary care physician input was made.</p> <p>Length: Daily telemonitoring, two weekly calls by a home technology nurse, input by endocrinology to nursing staff at two weekly intervals over six months.</p> <p>Predominant EPOC intervention type: Organisational</p> <p>Comparison: Usual care but received an educational packet in addition.</p>
7	Dale 2009 England	Two intervention telecare groups: a) Peer-support telecare intervention b) Diabetic specialist nurse telecare support	<p>Two intervention telecare (telephone) groups: a) Telephone peer-delivered intervention. b) Diabetic specialist nurse telecare support</p> <p>The telecare support was intended to supplement routine care by motivating adherence to the advice provided by the GP or practice nurse at the time of change (medication and/ or lifestyle) in diabetes care.</p> <p>Length of intervention: The first telecare call was made 3-5 days later and a standard package offered support 7-10, 14-18 28-35, 56-70, 56-120 days later.</p> <p>Training for the telecare support was with a two days training programme (motivational interviewing, active listening skills).</p> <p>Peer supporters recruited through a diabetes care user group. Otherwise they were trained as above. Two were excluded from the trial as they could not master the techniques.</p>

			<p>The trained peer supporters had a median diabetes duration of 10 years and 6/9 had T2DM.</p> <p>They were paid a small fee and had access to an experienced DSN educationalist. They were invited to 6 monthly review meetings.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
8*	<p>DePue 2013</p> <p>U.S. Territory of America Somoa</p> <p>Cluster RCT</p>	<p>Nurse–Community Health Worker Team in American Somoa</p>	<p>Nurse–Community Health Worker Team: Nurse case manager (NCM) and four community health workers with a minimum of high school education- all staff underwent training. A field director supervised the research.</p> <p>Length: The NCM met with all patients at least once over 12 months, conducting group sessions with patients at high risk, providing feedback to physicians and oversight of CHW visits. The CHWs helped patients make and keep healthcare appointments, helped patients understand diabetes, reinforced adherence to medications and provided support. Patients at higher risk were seen weekly in a group meeting conducted by the NCM with CHW assistance or, if unable to attend the group meeting, they were seen individually by CHWs.</p> <p>Patients at moderate risk were seen monthly by CHWs and patients at lower risk were seen every 3 months. All individual visits occurred at the patient’s home, workplace, or at TC, per the patient’s choice. Family members were encouraged to attend these visits. BG and BP were monitored at each visit and urgent levels were referred immediately to the TC physician during clinic hours or to the hospital emergency department.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care. Patients also received a self-care diabetes book and a risk profile was placed in their medical chart.</p>
9	<p>Edelman 2010</p> <p>North Carolina and Virginia, USA.</p>	<p>Enrollment into a general medical clinic (GMC) with an internist, pharmacist and a nurse or educator that met seven times over 12 months</p>	<p>Patients in the intervention arm were assigned to a group medical clinic (GMC) that met on the patient’s preferred half-day. Each group had 7-8 patients and a care team (a primary care internist, a pharmacist, a nurse or certified diabetes educator).</p> <p>The groups met every 2 months (7 visits over 12 months).</p> <p>Patients were given \$10 for each GMC session they attended. The care team met the group at each visit and each group met the same care team at each visit. Each provider could be a member of more than one care team.</p> <p>Each GMC session lasted 90-120 minutes visit: BP and home glucose values were checked at each GMC session; education assessment was then delivered by nurse or educator- the patients chose certain topics so the education sessions were tailored to the member’s needs. The pharmacist and PCP reviewed the medical record, BP and glucose levels at each session and an individualized management plan directed at improving HbA1c and BP was formulated (medications and lifestyle based). The Primary Care Provider was then informed.</p> <p>Signed attendance contacts to boost attendance, telephone contact if needed to change management based upon lab results.</p> <p>All patients received usual primary care on top of this.</p>

			<p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care.</p>
10	Edelman 2015 USA	Nurse case management	<p>A single nurse with experience in case management delivered both the tailored behavioral intervention and the control.</p> <p>For the intervention arm, the content was tailored to each patient's individual barriers to controlling blood sugar or BP. This content was divided into a series of topical modules addressing one or more behaviors appropriate for improving control of BP or blood sugar, and included physical activity, weight reduction, low salt intake, smoking cessation, medication adherence, management of hypoglycemia, and blood glucose monitoring. The modules assessed barriers to specific behaviors, and the nurse then tried to engage the patient in problem-solving in order to determine actions for overcoming these barriers. In addition, barriers that might generalize to a number of problems—specifically, low levels of disease knowledge, poor memory, poor social support, and concern about the quality of physician-patient decision-making—were addressed on their own. Fidelity was assessed by two nurse-investigators (KP, BG), who listened to a sample of 5 % of total calls for delivery of intended content.</p> <p>Length: The nurse rang intervention and control patients 12 times in total over 24 months every 2 months.</p> <p>Predominant EPOC intervention type: Organisational</p> <p>Comparison: "Attention Control". The control patients received calls that were not tailored; these calls provided traditional didactic information on a range of topics that had no relationship to HTN, DM, or any of the behaviors we were trying to improve (e.g., flu shots, skin cancer prevention). Content was tightly scripted, designed to limit the potential for productive interaction between nurse and patient, and was informed by standard guidelines as stated on government websites.</p>
11	Farmer 2012 UK	Nurse-led, multilevel intervention to support medication adherence	<p>Nurse- led, consultation-based intervention to support patients with adherence to taking glucose lowering medications.</p> <p>This was a multi-level intervention, targeting both health professional and patient behaviour. Initially there was training for the clinic nurses provided by a clinical psychologist and an intervention facilitator' as the first part of the intervention. The aim was to strengthen patient motivation to take OGLM regularly and support medicine taking through action-plans.</p> <p>8 weeks after recruitment, patients were invited to the intervention visit to record and review their medication; and then randomised to either an intervention to support medication or adherence, or to standard care.</p> <p>There were 2 components in the intervention delivered to patients. (1) nurses elicited patient beliefs about intention to take their medications as prescribed. Positive beliefs were reinforced verbally and non-verbally, through provision of tailored information. Negative beliefs were addressed using problem solving and the nurse facilitated patients in action planning.</p> <p>The intervention consultation took 30 minutes, with 20 minutes for data collection, which both intervention and control patients received.</p> <p>Predominant EPOC intervention type: Organisational.</p>

			Comparison: Usual care. The standard care visit lasted approximately 20 minutes, during which data were collected. Same nurses delivered this.
12	Forjough 2014 USA	Three intervention groups, reflecting the individual and combined effects of a behavioural and technology intervention; a chronic Disease Self-Management Program (CDSMP) and a diabetes self-care software on a personal digital assistant (PDA).	<p>Four arms in the trial:</p> <ul style="list-style-type: none"> a) Chronic Disease Self Management Program (CDSMP) b) Personal digital assistant (PDA) c) Both CDSMP and PDA d) Usual care <p>CDSMP: Involved a 6-week, classroom-based program for diabetes self-management. Based upon 1999 paper showing effectiveness of CDSMP. Its goal was to increase self-efficacy to decrease chronic disease related symptoms and avoidable healthcare utilization. It teaches participants techniques to facilitate enhanced decision making, action planning, and effective communication. CDSMP workshops hosted in clinical environments and community-based settings. Fidelity to classes not monitored. Master trainers/ lay leaders underwent 4 days of training- and the lay leaders used pre-scripted materials.</p> <p>PDA: This intervention arm were taught how to use a diabetes self-care software. It was loaded onto a handheld device and was called "Diabetes Pilot". The Diabetes Pilot allowed recording and some monitoring of blood glucose, BP, medication usage, physical activity and dietary intake on the PDA. One-to one instruction by a project coordinator covering key areas such as data entry, foot database utilization and reports was provided. Participants were instructed to input information daily. Training effectiveness was not assessed.</p> <p>CDSMP and PDA group received both. The CDSMP was a 6 week program, based in a classroom. Unclear how many workshops. The PDA arm: Uncertain, participants asked to use it daily and input information into it. Primary outcome 12 months, followed up to 24 months</p> <p>CDSMP: 6 weeks PDA: Uncertain, possibly 2 years</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care along with Texas Diabetes Council patient education materials.</p>
13	Frosch 2011	A video behavioural support intervention by nurse educators with a workbook	Intervention participants received a 24 minute long CDC program with an accompanying booklet called "Living with Diabetes: Making lifestyle changes to last a lifetime"- this was developed by the Foundation for Informed Decision Making. The participants were also entitled to have up to 5 sessions of telephone coaching with a bilingual nurse educator, trained in patient-centred approaches to diabetes management and motivational enhancement- with a goal to collaborate with participants in identifying behavioural goals and a behavioural plan.

	USA	followed by 5 sessions of telephone coaching.	<p>The first session was 60 minutes in length (2 weeks after enrollment), the second and third were 30 minutes, fourth and fifth were 15 minutes. Interval between telephone coaching was open to participants and nurse educators to negotiate. Both groups received a telephone call one week after enrollment to review intervention materials.</p> <p>Five coaching sessions (spread over a max duration of 2.5 hours) and a 24-minute DVD to watch, as well as a booklet on lifestyle changes in diabetes.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care. Participants also received a 20-page brochure entitled "4 steps to control your diabetes for life" developed by the NIH.</p>
14	Guerci 2003 France	A self-monitoring of blood glucose intervention Auto-Surveillance Intervention Active (ASIA) study.	<p>Self monitoring of blood glucose (SMBG):</p> <p>Patients received initial training by their GP at the initial inclusion visit. Patients were required to perform at least six capillary assays a week (3 different days, including the weekend).</p> <p>Standardised management including medications, blood glucose level, diet and physical exercise. Five visits were conducted during the intervention. At each visit, a clinical evaluation was performed. Laboratory values took place at 3 visits. At the third visit the GP could modify the treatments based upon the SBGM. At each consultation the patients were advised about management for T2DM.</p> <p>The intervention period was 24 weeks. Followed up every 6 weeks.</p> <p>Five visits were conducted during the intervention. At each visit, a clinical evaluation was performed (weight, SBP, DBP). Laboratory values took place at 3 visits.. At the third visit the GP could modify the treatments based upon the SBGM. . At each consultation the patients were advised about management of T2DM.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
15	Heisler 2010 USA	Reciprocal peer support	<p>Initial face to face meeting in groups of 4-18 (in two age cohorts to aid cohesion and help patients get an age matched peer partner). Patients received \$20 for the initial and 6 monthly assessment.</p> <p>Reciprocal Peer support (RPS) 3 hour group session facilitated by a care manager and research associate. Action planning on laboratory results. Training in peer communication, paired with an age-matched peer for peer support. Encouraged to call each other at least once per week.. Given a DVD on communication skill and a diabetes self management work book. Also offered three 1.5 hour group sessions at months 1,3 and 6- entirely patient-driven to discuss progress on action plans. Facilitation by a care manager or research associate.</p> <p>The care managers went through training- 4 hour course on motivational interviewing.</p>

			<p>Nurse care manager (NCM) was usual care: Attended a 1.5 hour session, led by the NCM, to discuss the results from the initial assessment, review results, ask questions and get information. Their care manager's phone number was given and follow up phone calls and face to face meetings were encouraged. Patients were provided with diabetes self management educational materials. In effect this is enhanced usual care- as many patients are not aware of and do not avail of this.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: The comparator was enhanced usual care with nurse care management.</p>
16	Jacobs 2012 USA	A pharmacist assisted medication program intervention	<p>PAMPERED (pharmacist assisted medication program enhancing the regulation of diabetes) study:</p> <p>An initial pharmacist-patient clinic visit at baseline involved obtaining a comprehensive medication review; performing a targeted physical assessment including checking BMI, BP and a foot examination; education on diabetes; ordering laboratory values; reviewing, modifying and monitoring the patient's medication and providing detailed counselling on all therapies; facilitating self-monitoring of blood glucose; and providing reinforcement of dietary guidelines and exercise. These recommendations were based on most recent guidance. Approval by the patient's PCP was required before a treatment recommendation was made.</p> <p>Patients were required to attend a minimum of three visits with the pharmacist; at baseline, 6 months and 12 months for focused preventive and secondary diabetes management. Additional visits arranged as clinically appropriate. Laboratory outcomes checked at baseline, 6 and 12 months. On average 6.5 office visits with a pharmacist occurred over the 12 months.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care.</p>
17	Jameson 2010 USA	A pharmacist collaborative management intervention	<p>One pharmacist provided the intervention to the entire intervention group. This pharmacist was a board certified pharmacotherapy specialist, had an American Society of Health-System Pharmacists diabetes management traineeship, a postgraduate course in diabetes management from the American Diabetes Association and an educators training program.</p> <p>Patients met the pharmacist at the primary care site for an assessment of medication adherence, barriers to optimizing glucose control and a medication review. Individualized education was provided regarding self-management, lifestyle, medications and monitoring. Guidelines were followed. This included early switching to insulin after failure of 2 oral medications. The PCP approved any changes.</p> <p>After this visit, subsequent visits depended on control. Telephone calls also included.</p> <p>Initial visit. Telephone calls also included. Thereafter conducted as needed- as subsequent visits depended on control.</p> <p>Average 6 office visits and 3 telephone calls per patient over a one-year period. Office visits lasted between 30-60 minutes. Phone calls 10-20 minutes.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Probably usual care.</p>

18	Jovanovic 2004 USA	Diabetes case management by a nurse or dietician	<p>Case Management:</p> <p>Intensive diabetes case management was provided to the intervention group in addition to primary care.</p> <p>Study staff met with all patients at the beginning and end of the trial to assess overall health status and collect study outcomes. Quarterly assessments of outcomes were performed.</p> <p>The case manager was either a nurse or a dietician (working in close collaboration with an endocrinologist). Evidence based practice in terms of insulin initiation was agreed with collaboration with the PCP. Potential barriers to care were identified and educational strategies designed to address these barriers. American Diabetes Association goals for diabetes, BP and lipid treatment were used. Flexibility to allow individualized targets allowed. All patients educated about self-management and given a monitor. Diabetic educators assessed lifestyle behaviours and gave patients strategies to improve self-care. Transportation issues addressed to improve visit completion.</p> <p>Unclear how many meetings or interaction with a case manager occurred over the 36 months</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care from primary care provider.</p>
19	Keogh 2011 Ireland	Psychological family intervention	<p>Psychological family intervention for poorly controlled Type 2 diabetes.</p> <p>Three weekly sessions delivered by a health psychologist who had received 16 hours of training in motivational interviewing. The first two sessions lasted 45 minutes, taking place in the patient's home, with a family member. The third and final session was a 10-15 minute telephone call. Each session was tailored to the patient's needs involving a/ challenging negative perceptions of diabetes, 2/ examining how negative perceptions influenced self management and 3/ developing ways to improve self management and mobilise family support. Techniques such as exchange information, elicitation of change talk, reducing resistance, building self-efficacy, problem solving and goal setting were used.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care.</p>
20	Kim 2009 USA	A Community-based, culturally tailored behavioral intervention	<p>Culturally tailored comprehensive T2DM management intervention for Korean American immigrants.</p> <p>A community based self-help intervention program for type 2 diabetes mellitus (SHIP- DM) involving structured psycho-behavioural education, home glucose and BP telemonitoring and individualized telephone counselling from a bilingual nurse.</p> <p>It consisted of three concurrent programs.</p> <p>First, a 2 hourly weekly education session was delivered for 6 weeks. This was delivered at a community site by trained nurses and a nutritionist- to enhance knowledge and promote diabetes self-care behaviours for glucose control.</p>

			<p>Secondly, there was home glucose monitoring and teletransmission- this lasted for 24 weeks after the educational program- each patient received monitors and a teletransmission system. Nurses could view this information.</p> <p>Thirdly, monthly telephone counselling by a bilingual nurse for 24 weeks was provided according to a standardized protocol- to reinforce new knowledge, to discuss problems, find solutions and provide emotional support. These lasted 10-25 minutes.</p> <p>At least 7 (one meeting and monthly telephone contact X 6 months)</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care with delayed intervention.</p>
21	Krein 2004 USA	Case management by nurse practitioners	<p>Collaborative case management.</p> <p>All participants in trial given a blood pressure monitor, educational material and a periodical newsletter</p> <p>Two nurse practitioner care managers worked with patients and their primary care providers, monitoring and coordinating care for the intervention group for 18 months, through telephone calls, collaborative goal setting and treatment algorithms.</p> <p>There were two nurse case managers. One nurse was present at each site, providing 20 hours of care per week, to approximately 60 patients each. They had a 2 days training program on collaborative goal setting- and training updates at 6-month intervals.</p> <p>Patient contact was predominantly by telephone, though face-to-face contact could happen. Case managers encouraged self-management, diet exercise, provided reminders of screenings and tests, monitored home glucose and BP measures and identified medication changes as needed. Medications treatment algorithms were given to the case managers. Every change was approved by the PCP- being notified of changes by email.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care. Patients also received educational materials. All participants in trial were given a blood pressure monitor, educational materials and a periodical newsletter.</p>
22	Long 2012 USA	Two interventions: Peer mentoring Financial incentivisation of patients	<p>Two intervention groups, one control. Received €25 for filling out a survey at Month 0 and Month 6. Also were notified of their starting HbA1c level and of the ADA and VA recommendations.</p> <p>1/ Peer mentoring: Patients in this group matched to a peer supporter within 1-3 weeks. Peer reviewers were all African American patients with prior poor T2Dm control in the past but well controlled recently. They were matched by sex and age (+/- 10 years).</p> <p>Training: They received a 1-hour long 1:1 training session informed by motivational interviewing techniques. Uncertain who trained the peer mentors.</p> <p>No monitoring of the calls. The mentor-mentee contacts were all telephone calls. Mentors were incentivized with \$20 per month if they talked at least once per</p>

			<p>week with their mentee. Mentors were also given \$25 after the training session and after an exit interview.</p> <p>Peer mentoring: Aiming to have 4 calls per month for 6 months. The Results showed 38% mentors talked 4 times per month during the first month and by Month 6, that reduced to 16%</p> <p>2/ Financial incentives In the financial incentive arm, participants were told that they would receive \$100 at 6 months if their HbA1c level decreased by 1%, and \$200 if it reduced by 2% or to 6.5%.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
23	<p>Maislos</p> <p>2002</p> <p>Israel</p>	<p>A mobile clinic providing interdisciplinary care</p>	<p>Interdisciplinary care via a mobile clinic offered by the Western Negev Mobile Clinic Diabetes Program (WNMCDP).</p> <p>WNMCDP is a weekly mobile diabetes clinic aimed to provide interdisciplinary care for patients, in primary care facilities. An initial visit involved a meeting with a diabetologist, the dietician and a nurse educator. After this regular follow visits were scheduled. The team held a weekly evening meeting at the clinic and the nurse and dietician have an additional weekly meeting at the primary care site. At the meeting, all patients received dietary counselling and have a session with the nurse educator. Continuation of treatment and follow up visits are scheduled according to the patient's condition. Special emphasis was placed on education, to improve compliance and lifestyle behaviours.</p> <p>Mobile clinic visited weekly.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care.</p>
24	<p>Mathers</p> <p>2012</p> <p>UK</p> <p>Cluster RCT</p>	<p>Patient decision aid to improve decision quality and glycaemic control</p>	<p>PANDAs study: using patient decision aid (PDA):</p> <p>A complex intervention with three components; PDA, healthcare professional training workshop and use of PDA in a consultation.</p> <p>Development of PDA done with MRC framework- to facilitate decision making between clinicians and patients</p> <p>Doctors and nurses involved with diabetes care in the practice attended a 2-hour training session on how to use the PANDAs decision aid (shared decision making, communication skills, the evidence of different treatment options).</p> <p>The PANDAs decision aid was given to the patient prior to the consultation with the nurse or GP- it included information about insulin or other treatments, presented probabilities of outcomes, it clarified patient values and gave structured guidance. The patient then saw the GP and nurse, facilitated with the use of the PANDAs aid.</p> <p>This was a one off intervention given on 1 day</p>

			<p>Predominant EPOC intervention type: Professional.</p> <p>Comparison: Usual care.</p>
25	<p>McDermott 2015 Australia Cluster RCT</p>	<p>Community-based health-worker led case management approach to the care of Indigenous adults with poorly controlled type 2 diabetes in primary care services in remote northern Australia</p>	<p>Each site allocated to the intervention arm recruited an Indigenous health worker resident in the community (selected by the health service) to work as part of the primary care team, and allocated a caseload of between 9 and 26 clients. The health workers with low caseloads worked part-time. All health workers at the commencement of the study received an intensive 3-week training in clinical aspects of diabetes and other chronic condition care, including how to support patients in self-management skills, advice on medications, routine foot care, nutrition, smoking cessation, follow up referrals to other providers, and scheduled tests.</p> <p>Length: During the 18 month intervention period, the health workers attended two workshops where they underwent refresher training, including in Good Clinical Practice and reflective practice. During these sessions, they reported on their patients' progress and shared approaches to problem solving with the clinical support team and peers.</p> <p>Predominant EPOC intervention type: Organisational</p> <p>Comparison: Usual care.</p>
26	<p>McMahon 2005 USA</p>	<p>Web-based care management</p>	<p>Web based care management involving training and giving a notebook computer, glucose and blood pressure monitoring devices and access to a care management website. The website provided educational modules, accepted uploads from monitoring devices and had an internal messaging system for patients to communicate with the care manager. Given free internet.</p> <p>Training to each participant for mean of 2.3 hours. Home BP monitoring encouraged three times weekly. Glucose monitoring frequency was individualized. Participants could communicate with a care manager through the website. If they did not use the website for two weeks, they were contacted by phone.</p> <p>An advanced practice nurse reviewed patient information and provided recommendation to the PCP about treatment changes, based upon guidelines.</p> <p>Episodes: Unclear, one training session and then self-usage of web management (patients contacted if they didn't use after 2 weeks). 1 year.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care. All participants attended a self-management educational session (prior to randomization).</p>
27	<p>Mons 2013 Germany</p>	<p>Supportive telephone counseling</p>	<p>Supportive telephone counseling intervention led by practice nurses of the participating GP practices- monthly over 12 months. Each nurse was trained before hand. Each call lasted 10 minutes, was structured and included questions on patients' physical and mental condition, medication adherence, symptoms, and lifestyle advice. The items were designed to motivate the patients, identify barriers and help self-management.</p> <p>Monthly over 12 months. Over 90% had 10-12 sessions.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>

28	O'Connor 2014 USA Cluster RCT	Telephone Outreach to Improve Medication Adherence and Metabolic Control in Adults With Diabetes	<p>The telephone intervention was delivered by interventionists who were pharmacists, diabetes educators, or nurse health managers trained in the use of the study protocol and intervention. Those randomized to the intervention, who had recently been prescribed a new medication for poorly controlled T2DM, received a single structured telephone call to ascertain if the patient had started the medication. Positive reinforcement was made to those who had started. For those who had not started, the interventionist probed for reasons of non-adherence and resolved to solve any barriers.</p> <p>Length: One phone-call lasting < 5 minutes. Most calls occurred within 2-6 weeks after prescription date.</p> <p>Predominant EPOC intervention type: Organisational</p> <p>Comparison: Usual care.</p>
29	Odegard 2005 USA	A pharmacist intervention care management intervention	<p>Pharmacist intervention was composed of a diabetes care plan (DCP), a regular pharmacist-patient communication on diabetes care progress and pharmacist-provider communication on the subject's diabetes care progress. Medication related problems were identified. The intervention commenced one week after baseline data interview. A face-to-face appointment created this DCP which was communicated to the PCP.</p> <p>Weekly face-to-face or telephone communication was kept with the patient and the pharmacist- then reduced to monthly when deemed necessary over a 6-month period.</p> <p>On average there were 4.5 telephone contacts and 2.1 in person visits.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care.</p>
30	Palmas 2014 USA	Community health worker (CHW) intervention in an Hispanic population	<p>12-month CHW intervention or enhanced usual care</p> <p>Two full time CHWs delivered a multicomponent intervention that included one-to-one visits, group visits and telephone follow up. They used the Small Steps, Big Rewards framework. Goal setting and discussing barriers were features of the visits. A needs assessment was performed throughout the year.</p> <p>Episodes of care: Aimed for 4 1:1 visits, 10 groups sessions and 20 follow up phone calls over the year per subject.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: 'Enhanced usual care'. Spanish-language educational material posted every three months, preceded by phone calls, to ensure participants received the brochures.</p>
31	Phillis-Tsimikas	Peer-led diabetes education programs in high-risk Mexican	<p>Assessments at month 0, 4 (post intervention) and 10- intervention participants were given a glucometer and a small gift card. The Project Dulce (intervention) group received eight weekly 2 hour diabetes self management classes for two months; and then monthly support groups, each 2 hours in length, led by a trained peer educator. Before the intervention those individuals, living in this community, with diabetes, that had traits of being a good leader were identified</p>

	2011 USA	Americans	<p>and trained over a 3 month period. Peer educators spent 40 hours learning the curriculum, behavior modification techniques etc. Then they co-taught a session with a trainer, before being supervised giving a session before doing it alone. The curriculum covered many aspect of diabetes management. If patients were noticed not be meeting targets for diabetes care, the peer educator would direct them to the PCP- they would not make any medication related changes themselves.</p> <p>Episodes of care: Unclear how many, but envisaged as 8 weekly classes for two months, then monthly for the next three months.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
32	Polonsky 2011 USA Cluster RCT	Self blood glucose monitoring	<p>STeP (Structured Testing Programme) is a 12-month Cluster RCT assessing efficacy of structured self-monitoring of blood glucose (SMBG) in T2DM patients (none on insulin).</p> <p>Both physicians and patients participated in a collaborative programme to gather, interpret and act upon the structured SMBG data, at 3 monthly intervals, to make treatment modifications.</p> <p>The study's duration was 12 months with patient visits occurring at initial screening and baseline followed by visits at months 1, 3, 6, 9, and 12.</p> <p>At all subsequent visits (months 1, 3, 6, 9, and 12), ACG and STG clinic staff collected laboratory samples, recorded changes in medications, and performed brief physical examinations. Point-of-care A1C equipment (A1CNow+ test kit; Bayer Healthcare, Tarrytown, NY) was provided to all practices for clinical use only to assure that differential availability of the equipment did not affect outcomes. Patients in both groups brought their meters to each subsequent visit for electronic data uploading; physicians and clinic staff were blinded to these data and all other study-collected measures. Patients also reported all changes made to their diabetes regimen since their last visit. All patients completed the STeP questionnaire and a post-visit questionnaire to record physician discussion of SMBG results and recommendations for pharmacologic and lifestyle changes that occurred during the visit.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: 'Enhanced usual care': quarterly diabetes focused physician visits, free blood glucose meters and strips and they were evaluated at months 1, 3, 6, 9 and 12 (like the intervention group).</p>
33	Protheroe 2016 UK	Lay Health Trainer (LHT) interviews with patients, creating a self-management plan, with supportive phone calls	<p>A structured interview with a Lay Health Trainer (LHT) and development of an individualised patient self-management plan and follow up thereafter with phone calls. The LHTs were trained on diabetes care and lifestyle advice, but they did not provide medical or nursing advice. They provided information to participants regarding advantages and disadvantages of behaviour change.</p> <p>Length: The intervention lasted 6 months. An initial structured interview was followed by up to three two-monthly support phone calls from the LHT for a maximum of 6 months.</p> <p>Predominant EPOC intervention type: Organisational</p>

			Comparison: Usual general practice care
34	Quinn 2011 USA Cluster RCT	Mobile phone-based treatment/ behavioural coaching intervention	<p>Mobile phone-based treatment/ behavioural coaching intervention</p> <p>26 primary care practices, randomly assigned to one of four groups:</p> <p>1/ Coach-only (CO) group- included a mobile diabetes management software application and a web portal. The mobile software allowed patients to enter diabetes self-care data (glucose, diet, medications) on a mobile phone and receive automated, real-time educational, behavioural and motivational messaging specific to the entered data.</p> <p>2/ Coach PCP portal (CPP)- The patient web portal augmented the mobile software and had a secure messaging centre with additional information.</p> <p>3/ Coach PCP portal with decision support (CPDS): This group had providers with access to analysed patient data that could make decisions linked to standards of care.</p> <p>All patients received a glucometer and mobile phone with 1 year unlimited free data and service plan. Diabetes educators intermittently reviewed the patient data. Patients could communicate by phone or electronically to educators. Patients also received an electronic action plan every 2.5 months.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
35	Rothman 2005 USA	A primary care-based disease management program delivered by trained pharmacists.	<p>Pharmacist intervention: Three pharmacists (trained in the outpatient department) delivered the intervention within the general medicine practice - two of them were diabetic educators. The intervention included intensive educational sessions, evidence-based algorithms, proactive management of clinical parameters and treatment recommendations that were shared with the PCP.</p> <p>A diabetes care coordinator was also part of the intervention and this person addressed health behaviour and education- this coordinator rang patients regularly.</p> <p>Pharmacists rang the patient or met them every 2-4 weeks, or more frequently if needed. Unclear if there was a face to face meeting (probably was in the General Medicine Practice. A coordinator also rang patients from time to time.</p> <p>A median of 45 contacts or care-related activities between pharmacists and patients were recorded; about 38 minutes each month.</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Usual care after a 1-hour management session that was conducted by a clinical pharmacist practitioner from the disease management team, including education and treatment recommendations approved by the PCP.</p>
36	Schillinger	Two interventions:	Two interventions in the Improving Diabetes Efforts Across Language and Literacy (IDEALL) Project:

	<p>2009 USA</p>	<p>Self-Management Support via 1/ Automated telephone self-management support (ATSM) and 2/ Group medical visits (GMVs).</p>	<p>Two self management support (SMS) systems, conducted in a safety net health system were tested against a control; a) Automated telephone self management support (ATSM) and b) Group medical visits (GMVs).</p> <p>ATSM and GVCs attempt to activate patients, routed in efficacy theory.</p> <p>ATSM: ATSM patients received automated (pre-recorded) telephone calls over 39 weeks (9 months). Patient responses triggered immediate automated education messages and/ or a subsequent nurse phone follow-up. Each call took 5-10 minutes. The mean number automated calls completed over 9 months was 21.9 (envisaged to be 39); mean number of call backs was 9.2.</p> <p>GVC: The GVC group received 90-minute monthly sessions over 9 months, with 6-10 participants, co-facilitated by a primary care physician and health educator. Participants in this group received bus tokens and snacks. Mean number of GMVs attended was 4.8 out of 9.</p> <p>There was no specific expectation regarding co-management with the primary care physician. In both interventions action plans regarding self management were generated (information in other papers).</p> <p>All participants received €15 and €25 dollars for the baseline and one year follow up assessment.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
<p>37</p>	<p>Sen 2014 USA</p>	<p>Financial incentives for home based monitoring- two interventions</p>	<p>Two intervention groups received financial incentives for home-based health monitoring. All three groups received three biometric devices, a self monitoring glucose device, a digital BP monitor and a device to automatically transmit readings from the biometric devices to the study website. All patients were instructed to use the biometric devices daily. In the intervention arms, participants who used all three devices on a given day were entered into a lottery to win something on the following day. In the daily lottery process, numbers between 0-99 were picked by the participant.</p> <p>In the high incentive intervention the average daily reward was €2.80; a two digit match (1: 100 chance) yielded a €100 award and a one digit match (1: 5 chance) yielded a €10 award.</p> <p>In the low incentive intervention, rewards were €50 and €5 respectively, expecting an average daily reward of €1.40.</p> <p>Each day all incentive arm participants were reminded by text message or email informing them of the lottery numbers. A study coordinator met with all participants at 3 and 6 months- participants were paid €25 for each visit.</p> <p>Episodes of care: daily</p> <p>Predominant EPOC intervention type: Financial</p> <p>Comparison: 'Daily home monitoring control group' received biometric devices.</p>

38	Sugiyama 2015 USA	Diabetes self-management education by trained health educators.	<p>Called the Diabetes Self-Care Study, the intervention involved community-based diabetes self-management education (DSME).</p> <p>All study participants were given glucose meters and testing strips, and received a 2-hour training on self-monitoring of blood glucose by a certified diabetes educator. Health educators, who delivered the education, completed a one-year training program and received 8 hours of curricula delivered by the study team about diabetes and its clinical presentations and complications. Additionally, they received 12 hours of training and implementation of the empowerment sessions.</p> <p>Length: Participants in the intervention group received six weekly two-hour group self-care sessions consisting of 8 to 10 persons per group, conducted in English or Spanish, and facilitated by health educators. In the group session, participants identified self-management challenges and discussed why each activity was challenging and how to solve it.</p> <p>Each participant also had a one-on-one session with the health educator to review his or her baseline and follow-up laboratory and biometric data during one of the group sessions.</p> <p>There was also a \$10 gift card for each assessment.</p> <p>Predominant EPOC intervention type: Patient</p> <p>Comparison: Usual care.</p>
39	Tang 2013 USA	Online disease management of diabetes	<p>Online disease management of diabetes: Engaging and Motivating Patients online with Enhanced Resources- Diabetes (EMPOWER-D):</p> <p>A personalized healthcare program (PHCP) comprising nurse care managers authorized to change medications, multi-disciplinary team based care, patient self-management tools and an online communication channel between patients and their healthcare team. This intervention comprised:</p> <ol style="list-style-type: none"> 1/ Wireless glucometer uploading of information to the electronic health record 2/ A diabetes summary sheet with a personalized action plan and treatment goals, including displaying the risk of a variety of diabetes related complications, medication information and monitoring information. 3/ A nutrition log 4/ Insulin record 5/ Exercise log 6/ Online communication/ messaging system 7/ Nurse care managers who provide advice and can make medication changes. 8/ Patient specific text and video educational material. <p>On top of this, participants in the intervention group had 3 in-persons visits, firstly a 90 minute group visit introducing the online tools, a 90 minute 1:1 meeting with a nurse care manager to develop a shared care plan and 3/ a 60 minute visit with a registered dietician. Also a pharmacist reviewed all intervention group medications and made recommendations- they were also consulted throughout the trial.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>

40	Taylor 2003 USA	Nurse care management (NCM)	<p>Nurse care management (NCM): Initial 90 minute meeting with a registered nurse to review patient medications, lifestyle and psychosocial status. Self-management plan was developed.</p> <p>Then a weekly group class (1-2 hours with 4-10 per class) was scheduled for 4 weeks; including group discussion and problem solving.</p> <p>This was followed with telephone follow-up calls at week 4,5,8,12,16,20,28,36 and 44 (9 in total) from the nurse, averaging 15 minutes each. The nurse care managers gave advice as per agreed protocols. The PCP was called if a change in medication was recommended. The NCMs underwent specific training.</p> <p>Episodes of care: 5 visits and 9 telephone calls</p> <p>Predominant EPOC intervention type: Organisational.</p> <p>Comparison: Some educational materials, otherwise usual care.</p>
41	Thom 2013 USA	Peer health coaching	<p>Potential peer coaches attended 36 hours of training over 8 weeks using a curriculum developed by the study team- learning active listening, non-judgmental communication, helping with diabetes self-management skills, provision of support, assisting with lifestyle change, facilitating medication adherence and understanding and navigation of the health system. There was a written and oral assessment for these persons- those who passed became peer coaches.</p> <p>The peer coach- patient interaction was at the discretion of the patient and peer coach, either in person or by telephone contact, either outside or inside the clinic.</p> <p>The goal was for two telephone contacts every month and two or more in-person contacts over 6 months. They helped devise action plans for the patients.</p> <p>Peer coaches received €125 for training and €25 per client coached each month.</p> <p>Predominant EPOC intervention type: Patient-centred.</p> <p>Comparison: Usual care.</p>
42	Wild 2016 UK	Supported telemonitoring involving twice-weekly self-measurement of glucose and transmission to a general practitioner	<p>The Telescot Diabetes Trial:</p> <p>Supervised, self-monitoring of glycaemic control, BP, and weight and telemetric transmission of measurements to the general practice team. A research nurse took all the baseline measures. Participants were given advice on lifestyle modification and how to contact the General Practice team.</p> <p>Length. The intervention lasted 9 months with the practice nurses checking patients' results weekly and organising changes in accordance with national guidelines.</p> <p>Predominant EPOC intervention type: Patient-centred</p> <p>Comparison: Usual general practice care</p>