PRO= Patient Reported Outcome, NS= Not Statistically Significant

Author	Year	Purpose of Message	Disease	Sample Size	Duration (months)	Intervention	Outcome Measures	Actual Results (Only P values ≤ 0.05 Reported)
Neville	2002	• General Education • Personalized Health Recommendations • PRO	Asthma	32	1	A mobile phone text message service consisting of daily reminders to use an inhaler, health education tips, and safety messages. The messages were mixed into a supply of lifestyle related text messages about sport, celebrity gossip, and horoscopes; they were all written in contemporary text jargon and sent by a "virtual friend with asthma" called Max.	1) Patient Perception of Service	1) Generally they reacted positively to the messages
Dunbar	2003	• Medication Reminder • General Education • PRO • Entertainment	HIV	25	7	3-8 messages daily including medication reminders, educational reminders, and entertainment news, specified. Other messages asked questions about medication adherence, sleeping habits, mood, stressful events, medication side effects, food intake, drug use, and messaging system use.	1) Message Responsiveness 2) Message Repsonse Time 3) Medication Adherence 4) Patient Perception of Service	1) 84% of the messages were replied to 2) Median response time was 6 minutes. 3) 58% indicated perfect adherence, 36% indicated one or more missed doses, while 79% felt they had improved adherence 4) 86% of those who completed an exit interview expressed a desire to continue using the service
Anhoj	2004	• Medication Reminder • PRO	Asthma	12	2	The participants received 4 SMS messages each day, including a medication reminder, a request to enter peak flow, data on sleep loss, and medication dosage. Participants were asked to reply to a minimum of 3 of the messages per day.	1) Response Rate	1)The median response rate per patient was 0.69 (range: 0.03 – 0.98), ie, half the participants reported more than about two thirds of the requested diary data.
Ferrer-Roca	2004	PRO	Diabetes	23	8	Patients used SMS to transmit data such as blood glucose levels and body weight to a server. The server automatically answered with an SMS message. A monthly calculated glycosylated haemoglobin was also automatically sent to the patient.	1) Patient Perception of Service	1.) 6 of the 23 participants completed the survey with the following results. Questions were rated 1-5, with 5 the highest: a. Are automatic messages of interest? 4.2 b. Are doctor messages useful? 3.8 c. Is your diabetes better controlled with SMS? 3.0 d. Do you like the SMS diabetes system? 4.2 e. Is your glycosylated haemoglobin level of interest for you? 4.2 f. Do you prefer to manage diabetes yourself? 4.2 g. Do you prefer your doctor to manage your diabetes? 3.7 h. What is your level of satisfaction with the SMS system? 4.3
Kwon	2004	• PRO • Personalized Health Recommendations	Diabetes	185	3	Participants sent their self-measured blood glucose levels, medication and its dosages, amount of meal, and degree of exercise to their health providers in this specialized web-based diabetes management system for 3 months. The health providers consisting The health providers consisting of endocrinology specialists, dietitians, and nurses sent recommendations for individualized diabetes management according to the data on the web	1.) Change in HbA1c 2.) Patients of HbA1c > 7% 3.) Fasting Plasma Glucose (mg/dl) 4.) Total Cholesterol (mg/dl) 5.) Triglyceride (mg/dl) 6.) HDL-cholesterol (mg/dl) 7.) Patient perception of program	1. HbA1c(%)–total before= 7.5±1.5 after= 7.0±1.1 pvalue= 0.003 2. Patients of HbA1c > 7% = NS 3. Fasting plasma glucose (mg/dl) = NS 4. Total cholesterol (mg/dl) = NS 5. Triglyceride (mg/dl) before=149.6±115.5 after= 125.2±89.5 pvalue= 0.007 6. HDL–cholesterol (mg/dl) before=47.8±12.1 after= 53.5±30.1 pvalue=0.032 7. Survey of participant satisfaction with the program, with 5 being the highest Content Average score Technical aspects 3.39±0.73 Convenience and ease of access 3.68±0.84 Individualized management 3.70±0.83 Quality of provided healthcare 3.89±0.75 Satisfaction with provided healthcare 3.72±0.79

Obermayer	2004	Smoking-Cessation	Smoking	46	1	Participants completed a 7-day reconstruction of their smoking habits. After that, they were given instructions to register on the study Web site to personalize and initialize their smoking intervention program text messaging. After 3 weeks of being on the program, another 7-day reconstruction would be taken, followed by a limited version of the program-use questionnaire administered at posttreatment. At the end of 1 month, a final 7-day reconstruction would be taken followed by saliva samples by mail from participants who reported they had stopped smoking along with a final questionnaire.	1.) Smoking-Cessation 2.) Patient Perception of Service	Midpoint (3 Weeks): 1.) Out of 24 people contacted, 8 reported to quit smoking, 16 reported to still be smoking, 4 admitted to trying to quit, 10 were planning to quit by the end of the program, and 2 had no intention of quitting Final (1 Month): 1.) Out of 31 people contacted, 20 reported an attempt to quit, with 12 of those 20 reporting a relapse. 8 people verified they quit by saliva samples. 2.) The 29 people who signed up for text messaging rated the following items on a scale of 1 through 5, with 5 being the highest: Read text messages: 4.8 Successful in quitting smoking: 4.8 Successful in reducing smoking: 4.9 Comparison to other quit attempts: 4.5 Program satisfaction: 4.3 Recommendation of program: 4.3 Motivated to quit or remain a nonsmoker: 4.6 Confident will quit and remain nonsmoker: 4.4
Bos	2005	Appointment Reminder	None	343	1	All booked patients were divided over 4 groups. 3 groups received a reminder a day before the appointment, either by telephone, mail or text messaging. Patients in the 4th (control) group didn't receive anything. Attendance, nonattendance, rescheduling and cancellations were all noted. 30 random subjects in each group were interviewed by telephone about the reminders and what form they liked most.	1.) Message Responsiveness 2.) Patient Perception of Service	1.) Message Responsiveness: a. Out of 25% that received mail reminders, 91% showed up on time, 4% didn't show up and 4% cancelled or rescheduled b. Out of the 21% that received phone call reminders, 90% showed up, 3% didn't show up and 7% cancelled or rescheduled c. Out of the 15% that received text messages, 82% showed up, 2% didn't show up and 16% cancelled or rescheduled d. Out of the 27% that didn't receive a reminder, 84% showed up 7% didn't show up and 10% cancelled or rescheduled 5.12% of the participants were thrown out due to wrong phone number or address 2.) Results of Follow-Up Study: a. 80% of subjects were very positive or positive about receiving a reminder b. Of those that wanted a reminder, 56% preferred a mail response, 26% a telephone call and 18% a text message
Bramley	2005	Smoking-Cessation	Smoking	1,705	6	A single-blind randomized controlled trial was undertaken with recruitment targeted to maximize the participation of young Maori. The intervention included regular, personalized text messages providing smoking cessation advice, support, and distraction.	1.) Message Responsiveness	1.) Maori in the intervention group were more likely to report quitting (no smoking in the past week) at 6 weeks (26.1%) than those in the control group (11.2%) RR 2.34, 95% CI: 1.44-3.79.
Downer	2005	Appointment Reminder	None	4,427	1	Patients were scheduled to attend a clinic in September. The 2151 September patients getting text messages were split into five groups: Dermatology, gastroenterology, general medicine,Paediatric dentistry and plastic surgery.The 2276 patients not receiving text messages (control group) were scheduled for appointments in August. Attendance figures were then recorded.	1.) Message Responsiveness (FTA= Failure to Attend)	1.) Message Responsiveness: Of the 2151 patients with a scheduled No SMS reminder (Aug 2004) Dermatology Total= 219 FTA= 44 (20%) Gastroenterology Total= 245 FTA= 96 (39%) General medicine Total= 669 FTA= 141 (21%) Paediatric dentistry Total= 185 FTA= 35 (19%) Plastic surgery Total=164 FTA= 31 (19%) Total= 1482 FTA= 347 (23.4%) SMS reminder sent (Sep 2004) Dermatology Total= 213 FTA= 32 (15%) FTA Rate Reduction= 5% Gastroenterology Total= 257 FTA= 31 (12%) FTA Rate Reduction= 27% General Medicine Total= 579 FTA= 88 (15%) FTA Rate Reduction= 6% Paediatric dentistry Total= 197 FTA= 23 (12%) FTA Rate Reduction= 7% Plastic Surgery Total= 136 FTA= 22 (16%) FTA Rate Reduction= 3% Total= 1382 FTA= 196 (14.2%) FTA Rate Reduction= 9% *Only patients who had a mobile telephone contact number were included in the study. SMS= short message service. FTA=failure to attend.

Gammon	2005	PRO	Diabetes	45	4	During four months, a self-selected sample of 15 children (aged 9 to 15 years) with type 1 diabetes and their parents (n = 30) used the prototype approximately three times daily. Parent and child experiences were collected through questionnaires and through interviews with 9 of the parents.	1.) Patient Perception of Service	1.) System use was easily integrated into everyday life, and parents valued the sense of reassurance offered by the system. Parents' ongoing struggle to balance control of their children with allowing independence was evident. For children who measured regularly, use appeared to reduce parental intrusions. For those who measured irregularly, however, parental reminders (eg, "nagging") appeared to increase. Although increased reminders could be considered a positive outcome, they can potentially increase parent-child conflict and thus also undermine proper metabolic control. Parents felt that system appropriateness tapered off with the onset of adolescence, partly due to a potential sense of surveillance from the child's perspective that could fuel oppositional behavior. Parental suggestions for further developments included similar alerts of irregular insulin dosages and automatically generated dietary and insulin dosage advice.
Ostojc	2005	• General Education • Personalized Health Recommendations • PRO	Asthma	16	6	Asthma patients were studied while using short-message service (SMS) as a novel means of telemedicine in PEF monitoring. All subjects received asthma ducation, self-management plan, and standard treatment. All measured PEF three times daily and kept a symptom diary. In the study group, therapy was adjusted weekly by an asthma specialist according to PEF values received daily from the patients. Control group received no text messages.	1.) Compliance with PEF measurement (%) 2.) Cough Levels 3.) Sleep quality 4.) FEV (% predicted) 5.) PEF measurements (L/min) 6.) Daily consumption of inhaled medication	1.) NS 2.) Study Group= 1.42 ± 0.28 Control Group= 1.85 ± 0.43 Pvalue = 0.028 3.) Study Group= 0.85 ± 0.32 Control Group= 1.22 ± 0.23 Pvalue = 0.021 4.) NS 5.) PEF variability (%): Study Group= 16.12 ± 6.93 PEF variability (%): Control Group= 27.24 ± 10.01 Pvalue = 0.049 6.) NS
Rodgers	2005	Smoking-Cessation	Smoking	1,705	6	1705 smokers from throughout New Zealand who wanted to quit, were aged over 15 years, and owned a mobile phone were randomised to an intervention group that received regular, personalised text messages providing smoking cessation advice, support, and distraction, or to a control group. All participants received a free month of text messaging; starting for the intervention group on their quit day to assist with quitting, and starting for the control group at six months to encourage follow up.	1.) Smoking-Cessation	a.) After one month, more participants reported quitting in the active group compared to the control group: 239 (28%) vs. 109 (13%), relative risk 2.20, 95% confidence interval 1.79 to 2.70; p < 0.0001 b.) After three months, the differences in smokers quitting between the groups shrank: 247 (29%) in the active group vs. 160 (19%) in the control group, relative risk 1.55, 95% confidence interval 1.30 to 1.84; p < 0.0001 c.) After six months, the group differences in smokers quitting were less clear: 216 (25%) in the active group vs. 202 (24%) in the control group, relative risk 1.07, 95% confidence interval 0.91 to 1.26; p=0.4
Dhar	2006	PRO	STDs	13,825	14	All patients, with the exception of those under 14 years old or those at high risk of HIV disease were asked if they would like to receive their results by text. Patients were informed that their results would be available in 7-10 days.	1.) Patient Perception of Service	1.) Of the 150 surveyed out of 13,825, 100% of them were pleased with text messaging, finding it quick, safe and a confidential way of sharing information
Franklin	2006	• Medication Reminder • General Education • PRO	Diabetes	92	12	Ninety-two patients were randomized to conventional insulin therapy (n = 28), conventional therapy and Sweet Talk (n = 33) or intensive insulin therapy and Sweet Talk (n = 31). Goal-setting at clinic visits was reinforced by daily text-messages from the Sweet Talk software system, containing personalized goal-specific prompts and messages tailored to patients' age, sex and insulin regimen	1.) HbA1c levels 2.) Diabetes self-efficacy 3.) Patient Perception of Service	1.) HbA1c did not change in patients on conventional therapy without or with Sweet Talk (10.3 ± 1.7 vs. 10.1±1.7%), but improved in patients randomized to intensive therapy and Sweet Talk (9.2± 2.2%, 95% CI − 1.9, − 0.5, P < 0.001). 2.) Sweet Talk was associated with improvement in diabetes self-efficacy (conventional therapy 56.0 ± 13.7, conventional therapy plus Sweet Talk 62.1 ± 6.6, 95% CI +2.6, +7.5, P = 0.003) and self-reported adherence (conventional therapy 70.4 ± 20.0, conventional therapy plus Sweet Talk 77.2 ± 16.1, 95% CI +0.4, +17.4, P = 0.042). 3.)When surveyed, 82% of patients felt that Sweet Talk had improved their diabetes self-management and 90% wanted to continue receiving messages.

Haller	2006	Clinical Research	None	110	1	One hundred and ten consecutive young patients aged 16–24 years were recruited in four general practices (one inner urban, one outer urban, one rural and one university practice) in Victoria and interviewed before the consultation. If the patients had a mobile phone, they were asked to provide their mobile phone number so that following the medical consultation they could receive a single question, via text message, about their satisfaction with the consultation.	1.) Useable Mobile Phone 2.) Agreed to provide phone number	1.) 91% had a useable mobile phone (91% of the University population, 92% of the Rural population, 85% of the inner urban population and 95% of the Outter urban population) 2.) 98% agreed to provide a phone number (100% of the University population, 95% of the Rural population, 100% of the inner urban population and 95% of the Outter urban population)
Huang	2006	PRO	None	322	1	Participants were sent between 2 and 5 messages while waiting in the OR during surgery of a family member.	1.) Patient Perception of Service	1.) 97% reported that it reduced their waiting anxiety.
Kwok	2006	Appointment Reminder	None	993	3	Subjects were split up into three groups. One group received text reminders before their appointment, one group received phone calls before their appointment, while control group did not receive any text messaging reminders. Reminders were sent 24-48 hours before the patient's appointment.	1.) Message Responsiveness	1.) Attendance rates of control, text messaging and mobile phone reminder groups were 48.1, 59.0% and 59.6%, respectively. The attendance rate of the text messaging reminder group was significantly higher compared with that of the control group (odds ratio 1.59, 95% confidence interval 1.17 to 2.17, P = 0.005).
Menon-Johansson	2006	PRO	STDs	952	6	Demographic data, diagnoses, and time to diagnosis and treatment were collected over a 6 month period for patients receiving text messages and a matched standard recall group. Data on messages sent, staff time, and cost in relation to result provision were collected.	1.) Message Effectiveness	1.) 33.9% of all clinic results were provided by text, resulting in a saving of 46 hours of staff time per month. 49 messages requested that the patient return for treatment, 28 of these patients had untreated genital Chlamydia trachomatis (CT) infection. The mean number of days (SD) to diagnosis was significantly shorter in the text message group (TG) v the standard recall group (SG) (7.9 (3.6) v 11.2 (4.7), p ,0.001). The median time to treatment was 8.5 days (range 4–27 days) for the TG group v 15.0 (range 7–35) for SG, p = 0.005.
Milne	2006	Appointment Reminder	None	16,400	1	Patients were grouped by appointment (to differentiate the results for new and follow-up appointments), by booking procedure (because we believe this had an important impact of its own), by SMS (the hypothesis to be tested), by specialty (to allow the impact to vary by specialty), and by attendance status (the outcome measure).	1.) Message Responsiveness	1.) With new appointments, the observed reduction in DNA (did not attend) rates is 3.1 percent points, with SMS reminders reducing DNA rates somewhere between 0.2 and 6.0 percent. With follow-up appointments, the observed reduction in DNA rates is 3.8 percent points, with SMS reminders reducing DNA rates somewhere between 0.1 and 7.6 percent.
Rami	2006	• PRO • General Education	Diabetes	36	6	Subjects did a 6 month trial (3 months with TM (text messaging), 3 months with conventional support and paper diary (PD)) of tracking their data and sending it to the Doctor for advice.	1.) Message Effectiveness	1.) Glycemic control improved during the TM phase, while it deteriorated during the PD phase: TM-PD group HbA1c (%, median (range)): 9.05 (8–11.3) (at 0 months), 8.9 (6.9–11.3) (at 3 months),and 9.2 (7.4–12.6) (at 6 months), and PD-TM group: 8.9 (8.3–11.6), 9.9 (8.1–11), and 8.85 (7.3–11.7) (p<0.05).
Robinson	2006	Aftercare Intervention	Bulimia	21	6	A total of 21 patients with BN participated in the 6-month SMS-based intervention as a step-down treatment AFTER outpatient therapy. The program included questions and evaluation of the text messaging program.	1.) Patient perception of service	1.) Patients rated the quality of the program as "good" (2 out of 4). However, 50% said they would "probably not" participate again while 36% would definitely not.
Wnagberg	2006	General Education	Diabetes	11	3	Eleven parents of children with type 1 diabetes received messages for 11 weeks.	1.) Patient Perception of Service	1.) The parents were positive about the system and said that they would like to continue to use it. The pop-up reminding effect of SMS messages in busy everyday life was noted as positive. Some parents experienced the messages as somewhat intrusive, arriving too often and at inconvenient times. The parents also noted the potential of the messages to facilitate communication with their adolescent children. The inability to store all of the messages or to print them out were seen as major disadvantages.

Benhamou	2007	• Personalized Health Recommendations • PRO • General Education	Diabetes	30	12	Thirty poorly controlled patients (HbA1c 7.5–10%) were enrolled in a bicenter, open-label, randomized, 12-month, two-period, crossover study. After a 1-month run-in period, 15 patients were randomly assigned to receive weekly medical support through SMS based upon weekly review of glucose values, while 15 patients continued to download self-monitored blood glucose (SMBG) values on a weekly basis without receiving SMS. After 6 months, patients crossed over to the alternate sequence for 6 additional months. Visits at the clinic were maintained every 3 months.	1.) Changes in HbA1c and Glucose levels	1.) A non-significant trend to reduction in HbA1c (−0.25 ± 0.94%, P < 0.10) and mean glucose values (−9.2 ± 25 mg/dl, P = 0.06) during the 6-month SMS sequence was observed as compared with the no-SMS period. No safety issue (hypoglycemia, glucose variability) was reported. Adherence to SMBG was not affected by the trial. Quality of life analysis suggests a significant improvement in DQOL global score, as well as the DQOL satisfaction with life subscale, during the SMS sequence.
Brendryen	2007	Smoking-Cessation	Smoking	396	13	The treatment group received the internet- and cell-phone-based Happy Ending intervention. The intervention programme lasted 54 weeks and consisted of more than 400 contacts by e-mail, web-pages, interactive voice response (IVR) and short message service (SMS) technology. The control group received a self-help booklet. Additionally, both groups were offered free nicotine replacement therapy (NRT).	1.) Rate of quitting	1.) Participants in the treatment group reported clinically and statistically significantly higher repeated point abstinence rates than control participants [22.3% versus 13.1%; odds ratio (OR) = 1.91, 95% confidence interval (CI): 1.12–3.26, P = 0.02; intent-to-treat). Improved adherence to NRT and a higher level of post-cessation self-efficacy were observed in the treatment group compared with the control group.
Joo	2007	• Personalized Health Recommendations • General Education	Anti-obesity	927	3	A total of 927 participants were recruited and visited a public health centre for initial assessment. Mobile phones were used to deliver short messages about diet, exercise and behaviour modification once a week. After a 12-week anti-obesity programme they visited the public health centre again.	1.) Reduction in weight	1.) There were mean reductions of weight, waist circumference and body mass index of 1.6 kg (Po0.001), 4.3 cm (Po0.001) and 0.6 kg/m2 (Po0.001), respectively. Over two-thirds of the subjects had a reduction in waist circumference of 5–7.5 cm. A post-intervention survey showed that the majority of participants were satisfied with the weekly SMS messages and information brochures delivered by post.
Kim	2007	• Personalized Health Recommendations • General Education	Diabetes	51	6	Twenty-five patients were randomly assigned to an intervention group and 26 to a control group. The intervention was applied for six months. The goal of the intervention was to keep blood glucose concentrations close to the normal range. Participants were requested to input their blood glucose level, diet and exercise diary everyday in the website by cellular phone or wire Internet. The researcher sends optimal recommendations to each patient using SMS by cellular phone and wire Internet weekly.	1.) Change in HbA1c and glucose levels	1.) Glycosylated hemoglobin (HbA1c) decreased 1Æ15% points at three months and 1Æ05% points at six months compared with baseline in the intervention group. Patients in the intervention group had a decrease of two hours post meal glucose (2HPMG) of 85Æ1 mg/dl at three months and 63Æ1 mg/dl at six months compared with baseline.
Tasker	2007	• General Education • Personalized Health Recommendations • PRO	Diabetes	37	1	Open comparison of three systems to collect the data on frequency of hypos (all severity): diary, mobile phone and computer-based interview (CBI), with qualitative analysis of patient feedback.	1.) Level/frequency of hypos 2.) Blood glucose levels 3.) Response rate of occurrence of hypoglycemic episode 4.) Patient perception of service	1.) 122 hypos were found over 705 recorded days. All were graded mild or moderate and none severe. Calculated frequency was 5.2 hypos per month: 13.6% subjects had no recorded episode, 36.4% had 1–4, 31.8% 5–9 and 18.2% .10. 2.) Mean blood glucose level at the onset of hypoglycemia was 3.0 mmol/L (1.0–5.2). 3.) Response rate of occurrence of hypoglycemic episode recorded by three systems is as follows – diary: 24 (65%) of the 37 subjects reported episodes, mobile: 18 (95%) of 19 subjects and CBI: 16 (89%) of 18 subjects. 4.) 65% of subjects preferred the mobile and 54% of subjects preferred CBI compared with the diary. 55% and 30.8% of subjects found the mobile and the CBI, respectively, easiest to fit into their everyday life.
Wanberg	2007	Personalized Health Recommendations	None	1,040	1	A 36 question survey was given to psychologists about the use of e-therapy in both email and text messaging	1.) Experience with email 2.) Experience with text messaging 3.) Attitudes of e-therapy	1.) 52% had a good experience, 8% had a negative experience, with 40% had both 2.) 39% had a good experience, 16% had a negative experience, with 45% having both 3.) 31% believed it could work, 64% believe it would only work as a supplement to face-to-face consultations, 40% said they would use it themselves, 48% said they would not use it themselves, and 11% found it unacceptable

Chen	2008	Appointment Reminder	None	1,859	1	A total of 1859 participants who had scheduled appointments in the health promotion center of our hospital from April 2007 to May 2007 were enrolled in the study and randomly assigned into 3 groups : control(no reminder)group, SMS text messaging reminder group and telephone reminder group. Attendance rates and costs of interventions were collected.	1.) Message Responsiveness 2.) Costs of interventions	1.) Attendance rates of control, SMS and telephone groups were 80.5%, 87.5%and 88.3%, respectively. The aRendance rates were significantly higher in SMS and telephone groups than that in the control group、with odds ratio 1.698, 95%confidence intervall 1.224 to 2.316, P=0.001 in the SMS group, and odds ratio 1.829, 95%confidence interval 1.333 to 2.509, P<0.001 in the telephone group. However, there was no difference between the SMS group and the telephone group (P=0.670). 2.) The cost effectiveness analysis showed that the cost per aRendance for the SMS group (0.31 Yuan)was significantly lower than that for the telephone group (0.48 Yuan).
Cohen	2008	Appointment Reminder	None	350	1	Questionnaires were distributed to 350 consecutive GU medicine attendees at the John Hunter Clinic, Chelsea & Westminster Hospital. Approval was obtained from our directorate research committee. The questionnaires assessed the acceptability of appointment reminders and sought preferences for different formats: email, phone, text or letter and timing: time of day, weekday or weekend. It also proposed an automated phone reminder service, confirming patient identity by name and date of birth to improve confidentiality. We asked patients whether it would be acceptable to send this voicemail to their home, mobile or work phone.	1.) Acceptability of appointment reminders and types of mediums preferred	1.) 88% liked the reminders, with 67% preferring the text messaging format
Geraghty	2008	Appointment Reminder	None	8,966	1	Non-attendance at our institution's ENT out-patient clinics was audited, following introduction of a text message reminder system in August 2003. Rates of non-attendance were compared for the text message reminder group and a historical control group.	1.) Message Responsiveness	1.) Before the introduction of the text message reminder system, the mean rate of non-attendance was 33.6 per cent. Following the introduction of the system, the mean rate of non-attendance reduced to 22 per cent.
Haug	2008	Smoking-Cessation	Smoking	93	3	People who reported smoking daily and using text messaging at least weekly were invited to participate in a 12-week, SMS-based intervention. Individualized SMS-feedbacks were sent to the participants weekly, based on data from the baseline assessment and the weekly SMS assessment of the intention to quit smoking. Additionally, the participants could request SMS support whenever they suffered from withdrawal symptoms or craving.	1.) Rate of quitting	1.) The average participant answered 8 of the 12 weekly SMS questions. The SMS-based questions and -feedbacks were evaluated as self-explanatory by the participants. At post-assessment, five participants (15%) reported occasional instead of daily smoking. None of the participants reported abstinence after the intervention. Pre-post comparisons revealed a reduction in the number of cigarettes smoked per day as well as in the heaviness of smoking and an increase in risk perception. No significant differences were found for situational urge to smoke and intention to change.
Kim	2008	• Personalized Health Recommendations • PRO • General Education	Diabetes	34	12	18 patients were randomly assigned to an intervention group and 16 to a control group. The goal of the intervention was to decrease body weight and keep blood glucose concentrations close to the normal range. Patients were requested to record their blood glucose level in a weekly diary on the website by personal cellular phones or computer internet. The researcher sent optimal recommendations to each patient, by both the cellular phone and the Internet weekly. The intervention was applied for 1 year.	1.) Change in HbA1c 2.) Change in 2HPPT	1.) Glycosylated hemoglobin (HbA1 c) decreased 1.22 percentage points at 3 months, 1.09 percentage points at 6 months, 1.47 percentage points at 9 months, and 1.49 percentage points at 12 months compared with baseline in the intervention group (all time points, $p < 0.05$). The percentage change in the control group was, however, not significant. 2.) Patients in the intervention group had a decrease of 2-h post-prandial test (2HPPT) of 120.1 mg/dl at 3 months, 58.9 mg/dl at 6 months, 62.0 mg/dl at 9 months, and 102.9 mg/dl at 12 months compared with baseline (all time points, $p < 0.05$). The mean change in the control group was, however, not significant.

Kim	2008	• Personalized Health Recommendations • PRO • General Education	Diabetes	34	6	Eighteen patients were randomly assigned to an intervention group and 16 were assigned to a control group (N = 34). Patients in the intervention group were asked to access a web site by using personal cellular phones or computer Internet services to input their blood glucose levels daily. Participants were then sent optimal recommendations via cellular phone and the Internet weekly.	1.) Change in HbA1c 2.) Change in fasting plasma glucose (FPG) 3.) Change in 2-hour postmeal glucose	1.) HbA1c did not differ significantly between the two groups (intervention group vs. control group; P = .377), but it did differ over time (baseline vs. 6 months; P = .047), and there was an interaction between group and time (P = .043). There was a significant percentage change in HbA1c for the intervention group (P < .05), with a mean percentage change of -1.22 (from 8.16% at baseline to 6.94% at 3 months) and -1.09 (from 8.16% at baseline to 7.07% at 6 months). 2.) FPG did not differ significantly between the two groups (intervention group vs. control group; P = .508) and over time (baseline vs. 6 months; P = .621), but there was an interaction between group and time (P = .032). There was a significant mean change in FPG for the intervention group (P < .05), with a mean change of 10.8 (from 156.2 mg/dl at baseline to 145.4 mg/dl at 3 months) and 4.6 (from 156.2 mg/dl at baseline to 151.6 mg/dl at 6 months). 3.) 2HPMG did not differ significantly between the two groups (intervention group vs. control group; P = .228), but it did differ over time (baseline vs. 6 months; P = .014), and there was an interaction between group and time (P = .001). There was a significant mean change in 2HPMG for the intervention group (P < .05), with a mean change of -120.1 (from 272.6 mg/dl at baseline to 152.5 mg/dl at 3 months).
Koshy	2008	Appointment Reminder	None	9,959	5	An SMS text message was sent to patients with scheduled appointments between April and September 2006 in a hospital ophthalmology department in London, reminding them of their appointments. This group acted as the intervention group. Controls were patients with scheduled ophthalmology appointments who did not receive an SMS or any alternative reminder.	1.) Message Responsiveness	1.) 11.2% (50/447) of patients who received an SMS appointment reminder were non-attenders, compared to 18.1% (1720/9512) who did not receive an SMS reminder. Non-attendance rates were 38% lower in patients who received an SMS reminder than in patients who did not receive a reminder (RR of non-attendance = 0.62; 95% CI = 0.48 – 0.80).
Neville	2008	• Appointment Reminders • Prescription Ordering • Clinical Enquiries	None	180	1	The purpose of the study was to conduct a technical appraisal and qualitative interviews with short message service (SMS – mobile phone text message) users in mainstream health care.	1.) Patient Perception of Service	1.) It was technically feasible to open up access to mainstream NHS general practice services using SMS for appointment booking, repeat prescription ordering, clinical enquiries and remote access to the core clinical summary. Patients were able to use SMS services responsibly and found automation of prescription ordering particularly useful. Service utilisation was modest and did not adversely impact on the work- load of general practitioners (GPs) or their staff.
Shapiro	2008	• Personalized Health Recommendations • General Education	Obesity	58	2	All randomized children received a brief psychoeducational intervention. They then either monitored target behaviors via SMS with feedback or via paper diaries (PD) or participated in a no-monitoring control (C) for 8 weeks. Children and parents participated in a total of 3 group education sessions (1 session weekly for 3 weeks) to encourage increasing physical activity and decreasing screen time and sugar-sweetened beverage consumption.	1.) Attrition and Adherence	1.) Children in SMS had somewhat lower attrition (28%) than both PD (61%) and C (50%), and significantly greater adherence to self-monitoring than PD (43% vs 19%, P < .02).
Yoon	2008	• Personalized Health Recommendations • PRO • General Education	Diabetes	51	12	Twenty-five patients were randomly assigned to an intervention group and twenty- six to a control group. The intervention was applied for 12 months. The goal of the intervention was to keep blood glucose concentrations close to the normal range (HbA1c < 7%). Patients in the intervention group were asked to access a website by using a cellular phone or to wiring the Internet and input their blood glucose levels weekly. Participants were sent the optimal recommendations by both cellular phone and the Internet weekly.	1.) Change in HbA1c 2.) Change in 2-hour postmeal glucose	1.) Type 2 diabetes participants in the intervention group had lower HbA1c over 12 months when compared with the control group. At 12 months the change from baseline in HbA1c was 1.32 in the intervention group versus +0.81 in the control group. 2.) Two hours post-meal glucose (2HPMG) had a significantly greater decline in the intervention group after 12 months when compared with the control group (100.0 versus +18.1 mg/dl)
Cocosila	2009	• Personalized Health Recommendations • General Education	None	51	1	Fifty-one participants received daily cell phone text messaging reminders on taking one vitamin C pill daily for preventive reasons. At the end of the trial they answered a survey regarding their willingness to pay for and to stay with such a service, if offered.	1.) Patient Perception of Service	1.) If usage were free, only 45% of the participants would continue to use it for a long indefinite period of time. If the usage were for a fee, 29% of the participants would use the service just a few weeks; 28% would use it an indefinite period of time if they could see its usefulness and if the cost were reasonable. The median amount indicated by the participants as a reasonable monthly fee for such a service was $5.

Culley	2009	• Personalized Health Recommendations • General Education	Brain trauma	11	1	Eleven participants were recruited from two community-based rehabilitation centers and were sent text messages relating to three randomly selected goals from a selection of six current goals three times per day.	1.) Free Recall 2.) Qued Recall 3.) Patient Perception of Service	1.) Results showed that text prompts led to significant improvements in recall between baseline and 7 days ($z = -2.31$, $p = .02$) but not between 7 days and end of study ($z = -7.19$, $p = .47$). This would suggest that the majority of improvement brought about by the intervention was achieved during the initial 7 days. This was confirmed by effect sizes which were large between baseline and 7 days ($r = .69$) but relatively small ($r = .21$) between 7 days and end of study. 2.) Text prompts significantly improved participants' cued recall between baseline and 7 days ($z = -2.05$, $p = .04$) but not between 7 days and end of study ($z = -1.58$, $p = .11$) again indicating that the majority of benefit had occurred by the seventh day of the intervention. This was confirmed by effect sizes which were large between baseline and 7 days ($r = .61$) and medium to large between 7 days and end of study ($r = .47$). 3.) All 11 would use the service again.
Hanauer	2009	PRO	Diabetes	40	3	Forty insulin-treated adolescents and young adults with diabetes were randomized to receive electronic reminders to check their BG levels via cell phone text messaging or e-mail reminders for a 3-month pilot study. Electronic messages were automatically generated, and participant replies with BG results were processed by the locally developed Computerized Automated Reminder Diabetes System (CARDS). Participants set their schedule for reminders on the secure CARDS website where they could also enter and review BG data.	1.) Patient Perception of Service	1.) Of the 40 participants, 22 were randomized to receive cell phone text message reminders and 18 to receive e-mail reminders; 18 in the cell phone group and 11 in the e-mail group used the system. Compared to the e-mail group, users in the cell phone group received more reminders (180.4 vs. 106.6 per user) and responded with BG results significantly more often (30.0 vs. 6.9 per user, P 0.04). During the first month cell phone users submitted twice as many BGs as e-mail users (27.2 vs. 13.8 per user); by month 3, usage waned.
Haug	2009	Smoking-Cessation	Smoking	575	3	The participants were randomly allocated to one of three study groups: (a) control condition without intervention, (b) intervention with one weekly SMS feedback (1SMS), or (c) intervention with three weekly SMS feedbacks (3SMS). In study groups (b) and (c), individualized SMS feedbacks were sent to the participants weekly, based on data from the baseline assessment and a weekly SMS assessment of the stages of change according to the transtheoretical model. Program use and acceptance were compared between the two intervention groups differing in support intensity. An exploration of the short-term efficacy of the program was conducted by comparing the three study groups at the end of the 3-month intervention program on smoking variables.	1.) Patient Perception of Service	1.) The median number of replies to the weekly SMS assessments was 12.5 in the 1SMS group and 13.0 in the 3SMS group (not significant). The acceptance of the program did not differ between the intervention groups. At postassessment, no significant differences between the three study groups emerged on the examined smoking variables.
Khokar	2009	• Personalized Health Recommendations • General Education	Breast Cancer	106	6	A total of 106 women who volunteered to participate in the study were trained in the technique of breast self-examination (BSE) with the help of a lecture, video, demonstration of the technique on breast model by the investigator followed by feedback demonstration by the technique participants. Susequently, short text meassges (SMS) were sent according to the last menstrual period (LMP) information collected. Women who did not menstruate were sent reminders on the first of every month. Statistical analysis was done using epinfo software.	1.) Message Effectiveness	1.) After the first two months of sending reminder the practice of BSE increased significantly ($p<0.05$).
Lester	2009	• Personalized Health Recommendations • PRO • General Education	None	494	12	Patients initiating ART at three comprehensive care clinics in Kenya wi ll be randomized to receive either a structured weekly SMS ('short message system' or text message) slogan (the intervention) or current standard of care support mechanisms alone (the control).	1.) HAART Measurement	1.) Primary binary outcomes (12 months post initiation of HAART) a. Self-reported adherence (>95%) in previous 30 days) b. Suppressed HIV viral load (≤400 copies/ml)

Lim	2009	• Personalized Health Recommendations • PRO • General Education	Sexual Behavior	72	3	Participants were recruited by telephone and randomised into one of three groups. They completed weekly sexual behaviour diaries for three months by SMS, online, or paper (by post). An online survey was conducted at the end of three months to compare retrospective reports to the diaries, and assess opinions on the diary collection method.	1.) Message Responsiveness 2.) Patient Perception of Service	1.) Online diaries were more likely to be submitted late than SMS diaries (p<0.001). 3.9% of SMS diaries, 3.1% of paper diaries and 0.5% of online diaries were incomplete (p=0.001). 2.) Online data collection was the preferred mode for 51%. 65 participants completed the end point retrospective questionnaire. The correlation between the diary and questionnaire on sexual risk classification was substantial (kappa=0.74) regardless of diary mode.
Miloh	2009	• Personalized Health Recommendations • PRO • General Education	Liver Transplant	41	12	A prospective study of sending text messaging reminders to the primary medication administrator (patient or caregiver) for pediatric transplant recipients was performed. Patient records were reviewed, comparing the year before and the year of the study. The SD of serum tacrolimus levels was used as an indicator of adherence.	1.) Mean tacrolimus level SD 2.) Number of immunosuppressants taken 3.) Number of Acute cellular rejection episodes	1.) The mean tacrolimus level SD de-creased from 3.46 g/L before the study to 1.37 g/L (P < .005). 2.) The number of immunosuppressants taken and patient self/caregiver medication administration did not significantly affect the results. 3.) The number of acute cellular rejection episodes decreased from 12 to 2 during the study.
Patrick	2009	• Personalized Health Recommendations • PRO • General Education	Weight Loss	75	4	The study was a randomized controlled trial, with participants being exposed to one of the following two conditions, lasting 16 weeks: (1) receipt of monthly printed materials about weight control; (2) an intervention that included personalized SMS and MMS messages sent two to five times daily, printed materials, and brief monthly phone calls from a health counselor. The primary outcome was weight at the end of the intervention.	1.) Weight Loss 2.) Patient Perception of Service	1.) At the end of 4 months, the intervention group (n = 33) lost more weight than the comparison group (−1.97 kg difference, 95% CI −0.34 to −3.60 kg, P = .02) after adjusting for sex and age. Intervention participants' adjusted average weight loss was 2.88 kg (3.16%). 2.) At the end of the study, 22 of 24 (92%) intervention participants stated that they would recommend the intervention for weight control to friends and family.
Pijenborg	2009	• Personalized Health Recommendations • PRO • General Education	Schizophrenia	62	4	Sixty-two people with schizophrenia or related psychotic disorders were included in the study. All patients showed impaired goal-directed behaviour in daily life-situations. Patients were prompted with SMS text messages to improve their everyday functioning.The primary outcome measure was the percentage of goals achieved.	1.) Goals Achieved	1.) The overall mean success percentage overall goal categories was 47%(across patients SD 27.9) during baseline, increased to 62%(SD20.1) during the intervention, and dropped to 40%(SD31.7) at follow-up.
Strandbygaard	2009	• General Education • Personalized Health Recommendations • PRO	Asthma	26	3	A total of 26 subjects aged 18-45 years, with a clinical history of asthma and a positive methacholine challenge test were randomised to receive, or to not receive, a daily short message service (SMS) reminder on their cell phone to take their anti-asthmatic medication. Inhaled corticosteroids to last for eight weeks and a prescription for four additional weeks were given to the subjects.	1.) Message Effectiveness	1.) The absolute difference in mean adherence rate between the two groups after 12 weeks was 17.8%, 95% CI (3.2-32.3%), p = 0.019.