

Glossary of terms

<p>Action plan or written action plans (WAPs)</p>	<p>These are written plans that a person with asthma develops with their doctor to help them control their condition. A WAP typically shows their daily treatment, such as the type(s) of medicine to take and when to take them. It describes how to control asthma in the long term and how to handle worsening symptoms, or attacks. The plan explains when to call the doctor or go to the emergency department.</p>
<p>Activities of daily living (ADL) or primary ADL</p>	<p>Being able to complete fewer ADLs indicates an increased disability or dependence on the help of carers. 'Primary ADL' is typically limited to functional ability and personal care (for example, feeding, bathing and dressing measures) whereas 'extended ADL' includes more complex tasks necessary for community and domestic participation (for example, shopping, cooking and transportation use).</p> <p>See also extended activities of daily living (ADL) or extended ADL.</p>
<p>Asthma</p>	<p>Asthma is a chronic inflammatory condition of the airways characterised by recurrent episodes of wheezing, breathlessness, chest tightness and coughing. The strongest risk factors for developing asthma are inhaled substances and particles that may provoke allergic reactions or irritate the airways. Medication can control symptoms of asthma and avoidance of asthma triggers can also reduce its severity. Appropriate management of asthma can enable people to enjoy a good quality of life.</p>
<p>Berger DM programme (T1DM)</p>	<p>The Berger Programme is a comprehensive diabetes self care skills course, named after Professor Michael Berger. The programme is designed for people with Type 1 diabetes. People attending the course learn how to adjust their insulin dose depending on their food choice. The course also focuses on enhancing diabetes self management skills. It is delivered by healthcare professionals and is currently available in Ireland.</p>
<p>Bias</p>	<p>In general, any factor that distorts the true nature of an event or observation. In clinical investigations, a bias is any systematic factor other than the intervention of interest that affects the magnitude of (i.e. tends to increase or decrease) an observed difference in the outcomes of a treatment group and a control group.</p>

BRUCIE DM programme (Paediatric)	BRUCIE is an education programme aimed at providing adolescents over 12 years with diabetes the skills to understand the relationship between food, blood results and insulin dose adjustments.
Cardiac rehabilitation	Cardiac rehabilitation has been defined as 'a complex intervention offered to patients diagnosed with heart disease, which includes components of health education, advice on cardiovascular risk reduction, physical activity and stress management' while cardiac rehabilitation services are defined as 'comprehensive, long term programmes involving medical evaluation, prescribed exercise, cardiac risk factor modification, education and counselling.
Chronic care model (CCM)	This model was developed by Wagner in the MacColl Institute in the 1990s in response to the increasing burden of chronic disease and the varying approaches of management and care (social learning/cognitive theory). It is focused on changing a reactive system – responding mainly when a person is sick – to a more proactive system which focuses on supporting patients to self-manage. A principle part of the model is that the patient has a central role in managing their health and in particular self-efficacy. It identifies the essential elements of a health care system that encourage high-quality care including the community, the health system, self-management support, delivery system design, decision support and clinical information systems. As such, this is a higher level model than the Stanford model and UK Expert Patient Programme as self-management support is only one component of the chronic care model.
Chronic disease	The World Health Organisation (WHO) defines noncommunicable diseases (NCDs), also known as chronic diseases, as those which are not passed from person to person. They are of long duration and generally slow progression. The four main types of NCDs are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes.
Chronic disease self management programmes	Self-management education programmes are distinct from simple education or skills training, in that they are designed to allow the patients to take an active part in the management of their own condition. Whilst early programmes may lack theoretical basis, programmes such as the Stanford CDSMP are typically based on theoretical models of behaviour.

	See Stanford CDSMP .
Chronic obstructive pulmonary disease (COPD)	COPD is defined as 'a common preventable and treatable disease, which is characterised by persistent airflow limitation that is usually progressive and associated with an enhanced chronic inflammatory response in the airways and the lung to noxious particles or gases. The clinical course of COPD is one of gradual impairment with episodes of acute exacerbations that contribute to the deterioration of the patient's health status. In the later stages of disease, use of health services increases, with frequent hospitalisations. Currently there is no cure.
Clinical outcome	An outcome of major clinical importance that is defined on the basis of the disease being studied (e.g. fracture in osteoporosis, peptic ulcer healing and relapse rates).
Clinical significance	A conclusion that an intervention has an effect that is of practical meaning to patients and healthcare providers.
Cochrane review	Cochrane Reviews are systematic reviews of primary research in human health care and health policy, and are internationally recognised as the highest standard in evidence-based health care. They investigate the effects of interventions for prevention, treatment and rehabilitation.
CODE DM programme	The Community Orientated Diabetes Education (CODE) programme has also been developed by Diabetes Ireland and is a structured education programme for people with diabetes. CODE is delivered to people with Type 2 diabetes attending primary care centres by the Federation's healthcare professional staff or practice nurses with a recognised diabetes qualification who have been trained as CODE Educators. It supports people with diabetes either newly diagnosed or living with diabetes through group learning. It encourages participants to become confident in their diabetes self care management and aims to improve quality of life through informed decision making. The sessions are based on an empowering philosophy, have a stated curriculum, are quality assured and evaluated at local and national level. CODE is a programme designed for and validated on an Irish population with a view to it being part of the proposed integrated diabetes care model. This course is currently available in Ireland.
Cognitive Behavioural Theory and Cognitive Behavioural Therapy	This is a highly-structured psychotherapeutic method used to alter distorted attitudes and problem behaviours by identifying and replacing negative inaccurate thoughts and changing the rewards for behaviours. CBT attempts to help an individual

(CBT)	make sense of overwhelming problems by breaking them down into smaller parts. CBT can take place on a one-to-one basis or with a group of people. It can be conducted from a self-help book or computer programme. The duration of the intervention can range from six weeks to six months depending on the problem and the individual; sessions usually last 30 to 60 minutes with a trained therapist.
Comparator	The technology to which an intervention is compared.
Confidence interval (CI)	Depicts the range of uncertainty about an estimate of a treatment effect.
Coronary artery disease (CAD)	CAD or ischaemic heart disease is a chronic condition characterised by narrowing and hardening of the arteries that supply blood to the heart muscle. This occurs as a result of the build up of cholesterol and other materials on the interior wall of the artery, through a process called atherosclerosis. Restriction of blood supply to the heart can result in angina or myocardial infarction.
Cost per QALY	A measure used in cost-utility analysis (CUA) to assist in comparisons among programmes; expressed as monetary cost per unit of outcome.
Cost-effectiveness analysis (CEA)	A comparison of alternative interventions in which costs are measured in monetary units and outcomes are measured in non-monetary units, e.g. reduced mortality or morbidity. (See also Cost per QALY).
Cost-utility analysis (CUA)	A form of cost-effectiveness analysis of alternative interventions in which costs are measured in monetary units and outcomes are measured in terms of their utility, usually to the patient, e.g. using QALYs.
DAFNE DM programme (T1DM)	The 'Dose Adjustment For Normal Eating programme' (DAFNE) programme is a structured education course delivered in a five day intensive skills based education programme to people with Type 1 Diabetes. It is delivered by healthcare professionals. In this course, people learn how to adjust their insulin dosage to suit their free choice of food, rather than having to work their life around their insulin doses. DAFNE aims to encourage and equip people who have Type 1 diabetes to manage their insulin regimens actively and independently. This course is currently available in Ireland.
DESMOND DM	The 'diabetes education and self-management for ongoing and newly diagnosed' (DESMOND) programme has a theoretical

programme (T2DM)	<p>basis and clearly stated philosophy based on patient empowerment.</p> <p>The curriculum includes time for patients to “tell their story”, information about diabetes and how it is optimally managed, the potential risks of diabetes, self-monitoring, diet, exercise, stress and emotional issues. At the end of the course people are encouraged to develop a personal action plan. DESMOND supports people in identifying their own health risks and responding to them by setting their own specific behavioural goals. DESMOND supports behaviour changes through changes in people’s health beliefs. DESMOND is delivered as 6 hours of education by 2 trained Educators. People who attend the course are encouraged to bring a member of their family with them. It is targeted at people with newly diagnosed T2DM and is currently available in Ireland.</p>
Diabetes T1 and T2	<p>Diabetes is a progressive disease with disabling long-term complications if not properly managed. Persistently high blood sugar levels and high blood pressure can result in damage to both large and small blood vessels with ensuing eye, kidney, nerve, heart and circulatory complications; tight control of these parameters and other risk factors such as cholesterol and triglyceride levels can reduce or delay their progression. Symptoms include excessive excretion of urine (polyuria), thirst (polydipsia), constant hunger, weight loss, vision changes and fatigue.</p> <p>T1DM (previously known as insulin-dependent, juvenile or childhood-onset) is characterised by deficient insulin production and requires daily administration of insulin. The cause of T1DM is not known. T2DM (formerly called non-insulin-dependent or adult-onset diabetes) results from the body’s ineffective use of insulin.</p> <p>T2DM comprises 90% of people with diabetes around the world, and is largely the result of excess body weight and physical inactivity.</p>
Diastolic blood pressure (DBP)	<p>Blood pressure is typically recorded as two numbers, written as a ratio. The bottom number measures the pressure in the arteries between heartbeats (when the heart muscle is resting between beats and refilling with blood).</p>
Economic evaluation	<p>The comparative analysis of alternative courses of action, in terms of their costs and consequences.</p>

Economic model	In healthcare, a mathematical model of the patient pathway that describes the essential choices and consequences for the interventions under study and can be used to extrapolate from intermediate outcomes to long-term outcomes of importance to patients.
Effect size	RCTs assess the effect of a treatment by comparing the outcomes in the treatment and control groups. Many measures of QoL are continuous, providing a score that varies from 0 up to a maximum based on the number and response range of the items. Comparing the mean scores of patients in the treatment and control groups gives a good indication of the impact of the treatment. A difficulty is that it takes an expert to know whether a difference of 5 points is important or not. A second problem is that studies often use different scales to measure these differences. Effect sizes overcome these difficulties by standardising and dividing the mean difference from each trial by a measure of the underlying variability of the scores on that outcome (the SD).
Effectiveness	The benefit (e.g. to health outcomes) of using a technology for a particular problem under general or routine conditions.
Evidence-based medicine	The use of current best evidence from scientific and medical research to make decisions about the care of individual patients. It involves formulating questions relevant to the care of particular patients, systematically searching the scientific and medical literature, identifying and critically appraising relevant research results, and applying the findings to patients.
Expert patient programme (EPP)	This is a modification of the Stanford model above and was introduced into the UK in 2002 and branded the EPP.
Extended activities of daily living (ADL) or extended ADL	Being able to complete fewer ADLs indicates an increased disability or dependence on the help of carers. 'Extended ADL' includes complex tasks necessary for community and domestic participation (for example, shopping, cooking and transportation use). See also activities of daily living (ADL) or primary ADL.
Flinders programme™	The Flinders programme™ is a clinician-driven, behavioural change programme (based on multiple health behaviour change theories) that emphasises the role physicians have in building patient self-efficacy and the need to actively engage patients using the principles of cognitive behavioural therapy (CBT)

	during patient-physician interactions (one-on-one).
Glycated haemoglobin (HbA1c)	HbA1c refers to glycated haemoglobin, it develops when haemoglobin, a protein within red blood cells that carries oxygen throughout your body, joins with glucose in the blood, becoming 'glycated'. By measuring glycated haemoglobin (HbA1c), clinicians are able to get an overall picture of what our average blood sugar levels have been over a period of weeks/months. For people with diabetes this is important as the higher the HbA1c, the greater the risk of developing diabetes-related complications. HbA1c is also referred to as haemoglobin A1c or simply A1c.
HbA1c	See glycated haemoglobin .
Health coaching	This is based on the trans-theoretical model of behavioural change and 'readiness to change'. It is a standalone, comprehensive intervention with a minimum of six sessions.
Health outcomes	The results or impact on health of any type of intervention (or lack of), e.g. a clinical procedure, health policy or programme, etc..
Health-related quality of life (HRQoL)	A multi-dimensional measure comprising the physical and mental health perceptions of a patient in terms of health status, health risks, functional status, social support, and socioeconomic status.
Health technology	Any intervention that may be used to promote health, to prevent, diagnose or treat disease or for rehabilitation or long-term care. This includes the pharmaceuticals, devices, procedures and organisational systems used in healthcare.
Health technology assessment (HTA)	Health technology assessment (HTA): the systematic evaluation of properties, effects, and/or impacts of healthcare technology. It may address the direct, intended consequences of technologies as well as their indirect, unintended consequences. Its main purpose is to inform technology-related policymaking in healthcare. HTA is conducted by interdisciplinary groups using explicit analytical frameworks drawing from a variety of methods.
Heart failure	Heart failure is a chronic condition characterised by an inability of the heart to pump blood effectively, due to systolic and, or diastolic dysfunction. It can present as new onset heart failure in people without known cardiac dysfunction, or as acute decompensation of chronic heart failure. The condition can be

	caused by a range of diseases that result in damage to the heart muscle, including coronary artery disease, myocardial infarction and hypertension. Symptoms of the disease include lung congestion, fluid retention, weakness and an irregular heart rhythm.
Heterogeneity	In meta-analysis, heterogeneity refers to variability or differences in the estimates of effects among studies. Statistical tests of heterogeneity are used to assess whether the observed variability in study results (effect sizes) is greater than that expected to occur by chance.
Hypertension	The WHO Health 2020 policy identifies high blood pressure or hypertension as the world's most prevalent, but preventable disease. Having hypertension is a serious medical condition that often has no symptoms, but significantly increases the risks of heart and kidney disease. Normal blood pressure is defined as <120/80 mmHg. Blood pressure is normally distributed in the population and there is no natural cut-off point above which hypertension definitively exists and below which it does not. The risk associated with increasing blood pressure is continuous, with each 2 mmHg rise in systolic blood pressure associated with a 7% increased risk of mortality from ischaemic heart disease and a 10% increased risk of mortality from stroke.
Incremental cost	The additional costs that one intervention imposes over another.
Incremental cost-effectiveness ratio (ICER)	The ratio of incremental costs to incremental benefits (difference in effect of patient outcome) obtained when comparing two technologies, e.g. additional cost per QALY.
Ischaemic heart disease (IHD)	See coronary artery disease .
Literature review	A summary and interpretation of research findings reported in the literature. May include unstructured qualitative reviews by single authors as well as various systematic and quantitative procedures such as meta-analysis. (Also known as overview.)
Mean (arithmetic mean)	The average value, calculated by summing all the observations and dividing by the number of observations.
Median	The middle value in a ranked group of observations. This can be a better estimate of the average value if there are extreme outlying values that may skew the arithmetic mean.

MEDLINE	An electronic database produced by the United States National Library of Medicine.
Meta-analysis	Systematic methods that use statistical techniques for combining results from different studies to obtain a quantitative estimate of the overall effect of a particular intervention or variable on a defined outcome.
Methodological quality	The extent to which the design and conduct of a study are likely to have prevented systematic errors (bias).
Motivational interviewing	This is based on the trans-theoretical model of behavioural change and 'readiness to change'. It uses a brief approach such as 60 minutes of counselling and education to increase motivation and commitment to change; once that is achieved, other approaches are pursued.
Outcomes	Components of a patients' clinical and functional status after an intervention has been applied.
Patient activation interventions	These are a subset of behavioural interventions which actively engage patients by promoting increased knowledge, confidence and, or skills for disease self-management.
p value	In hypothesis testing, the probability that an observed difference between the intervention and control groups is due to chance alone if the null hypothesis is true.
Personalised care planning or 'building the house of care'	<p>Personalised care planning is described as a collaborative process in which patients and clinicians identify and discuss problems caused by, or related to the patient's condition, and develop a plan for tackling these.</p> <p>In the UK, the King's Fund describe the 'house of care' in 2013, a metaphor which was devised to help those working in primary care adapt the chronic care model to their own situation. It encompasses all people with long-term conditions; and assumes an active role for patients, with collaborative personalised care planning at its heart.</p>
PICOS	Population, Intervention, Comparator, Outcomes, Study design.
PubMed	A service of the National Library of Medicine that includes over 14 million citations for biomedical articles back to the 1950s.
Pulmonary rehabilitation (PR)	PR is a more comprehensive form of SMS and is defined by the joint American Thoracic Society and European Respiratory Society as a '...comprehensive intervention based on a thorough

	patient assessment followed by patient tailored therapies that include, but are not limited to, exercise training, education, and behaviour change, designed to improve the physical and psychological condition of people with chronic respiratory disease and to promote the long-term adherence to health-enhancing behaviours.' The educational component of PR focuses on collaborative self-management and behaviour change. It encompasses providing information and knowledge regarding COPD; building skills such as goal setting, problem solving and decision making; and developing action plans that allow individuals to better recognise and manage the disease.
Quality of evidence	Degree to which bias has been prevented through the design and conduct of research from which evidence is derived.
Quality of life (QOL)	See Health-related quality of life .
Quality-adjusted life year (QALY)	A unit of healthcare outcomes that adjusts gains (or losses) in years of life subsequent to a healthcare intervention by the quality of life during those years.
Randomised controlled trial (RCT)	An experiment of two or more interventions in which eligible people are allocated to an intervention by randomisation. The use of randomisation then permits the valid use of a variety of statistical methods to compare outcomes of the interventions.
Relative risk (RR) (risk ratio)	The ratio of (statistical) risk in the intervention group to the risk in the control group. A relative risk of one indicates no difference between comparison groups. For undesirable outcomes an RR that is less than one indicates that the intervention was effective in reducing the risk of that outcome.
SD	See Standard deviation .
Selection bias	Error due to systematic differences in characteristics between those who are selected for study and those who are not.
Self-efficacy	Self-efficacy, one of the core concepts of social cognitive theory, focuses on increasing an individual's confidence in their ability to carry out a certain task or behaviour, thereby empowering the individual to self-manage.
Self-management	Self-management is defined as 'the tasks that individuals must undertake to live with one or more chronic diseases. These tasks include having the confidence to deal with the medical management, role management and emotional management of their conditions'. Self-management support (SMS) is thus defined as 'the systematic provision of education and supportive

	interventions by health care staff to increase patients' skills and confidence in managing their health problems, including regular assessment of progress and problems, goal setting, and problem-solving support.
Self-management support (SMS) interventions	Self-management support (SMS) interventions are any interventions that help patients to manage portions of their chronic disease(s) through education, training and support.
Self-measured or self-monitoring of blood glucose (SMBG)	SMBG refers to the measurement of blood glucose by a patient at home or outside of a clinic setting. It can be manually measured and recorded by the patient or electronically transmitted to a healthcare provider, using telemonitoring.
Self-measured or self-monitoring of blood pressure (SMBP)	SMBP refers to the measurement of blood pressure by a patient at home or outside of a clinic setting. It can be manually measured and recorded by the patient or electronically transmitted to a healthcare provider, using telemonitoring.
Social Learning/ Social Cognitive Theory	This theory proposes that behaviour change is affected by environmental influences, personal factors, and attributes of the behaviour itself. A central component of this theory is also self-efficacy. As well as belief in the behavioural change, the individual must value the outcomes they believe will occur as a result.
Standard deviation (SD)	A measure of the dispersion of a set of data from its mean.
Statistical significance	Statistical significance: a conclusion that an intervention has a true effect, based upon observed differences in outcomes between the treatment and control groups that are sufficiently large so that these differences are unlikely to have occurred due to chance, as determined by a statistical test.
Stanford chronic disease self-management programme (CDSMP)	The Stanford chronic disease self-management programme (CDSMP) is a generic programme developed by Professor Lorig in Stanford University. The term generic means that it can be used for patients with a range of chronic diseases. It is based on the fact that people with chronic disease have similar concerns and, with specific skills and training, can effectively manage aspects of their own conditions. The programme consists of two and a half hour workshops once a week for six weeks and while generally administered in community settings, is also available online.
Stroke	A stroke is caused by poor blood flow to the brain resulting in

	<p>cell death. Poor blood flow is usually the result of a clot causing a blockage (this is termed ischaemic stroke, accounting for over 80% of all cases) or as a result of a weakened blood vessel which bursts (haemorrhagic stroke). Stroke can cause a range of permanent impairments associated with movement and coordination, memory and attention, and can cause depressive symptoms, all affecting an individual's rehabilitation.</p>
Systematic review (systematic overview)	<p>A form of structured literature review that addresses a question that is formulated to be answered by analysis of evidence, and involves objective means of searching the literature, applying predetermined inclusion and exclusion criteria to this literature, critically appraising the relevant literature, and extraction and synthesis of data from the evidence base to formulate findings.</p>
Systolic blood pressure (SBP)	<p>Blood pressure is typically recorded as two numbers, written as a ratio. The top number measures the pressure in the arteries when the heart beats (when the heart muscle contracts).</p>
Telemedicine	<p>Telemedicine literally means 'healing at a distance' and signifies the use of information and communication technology (ICT) to improve patient outcomes by increasing access to care and medical information. However, there is no one universally accepted definition of telemedicine, so that the literature in this area describes a myriad of interventions delivered through different mechanisms for different purposes. Telemedicine typically comprise four major elements: supply of medical care, use of technology, mitigation of issues of distance, and provision of benefits. The World Health Organisation has adopted the following broad description:</p> <p>'The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.'</p> <p>Telemedicine is constantly evolving to incorporate new advancements in technology and to respond and adapt to changing health needs. Telemedicine applications typically have two formats, synchronous which involves real-time interaction (that is, via the telephone or videoconferencing) or asynchronous communication (not real-time, for example via text messages, email or devices that permit store-and-forward transmission of data [for example, a home glucose metre]).</p>

	Asynchronous methods that use store-and-forward transmission typically forward the data to a health professional who reviews the data and uses their clinical judgement to make recommendations to the individual. Telemedicine also includes internet- or web-based support (sometimes referred to as e-health). This can include internet versions of, for example, the online version of the Stanford CDSMP. Internet-based support offers an alternative to face-to-face interventions which could be beneficial if resources are limited.
Theory of Reasoned Action and Theory of Planned Behaviour	This social cognitive theory of reasoned action states that individual performance of a target behaviour is determined by the person's intention to perform that behaviour based on their attitude toward the behaviour and the influence of their social environment or subjective norm. The shared components are behavioural beliefs and attitudes, normative beliefs, subjective norms and behavioural intentions. The Theory of Planned Behaviour adds to the Theory of Reasoned Action, the concept of perceived control over the opportunities, resources, and skills necessary to perform a behaviour. These are considered to be critical in behavioural change. This is congruent with the concept of self-efficacy.
Trans-Theoretical Theory	This model is based on the theory that behaviours can be modified. It is related to a person's readiness to change, the stages that they progress through to change and doing the right thing (processes) at the right time (stages). As such, tailoring interventions to match a person's readiness or stage of change is said to be essential. The model comprises emotions, cognitions and behaviours, and includes measures of self-efficacy and temptation. It has been used to modify target behaviour such as smoking cessation and stress management.
Transient ischaemic attack (TIA)	TIA is a stroke related condition where the supply of blood to the brain is temporarily interrupted. TIAs are often a warning sign of an impending stroke.
X-PERT DM programme	The X-PERT Ireland (Patient Education versus Routine Treatment) programme, is a specially designed dietetic structured patient education programme. It provides people with the confidence, knowledge and skills necessary to self manage their diabetes. It is a Health Service Executive (HSE) programme for all adults with Type 2 Diabetes either newly diagnosed or with established diabetes. It involves attending 6 x 2.5 hour group education sessions with approximately 16 hours of dietetic support over the course of the programme.