Health 2025 v1.2

Health inquiry model resource

November 2024

Contents

Overview

This Health inquiry model resource supports Health teachers and their students by providing a single overview of, and guide for, the suite of theories used in the Health General Senior Syllabus 2025. It provides both the pedagogical and conceptual framework to guide students through a process of defining and understanding broad health-related topics, completing a context analysis and needs assessment, including distinguishing key determinants for a specific health issue within a context, planning for and evaluating implemented action within a context.

The key updates from the 2019 Health inquiry model are:

- The top rectangle has been changed from 'Overarching approaches, frameworks and resources' to 'Overarching approach, Charter and resources', reducing the extent of the theory.

- The Framework for health promotion action has been removed from the top rectangle, reducing the extent of the theory.

- The determinants of health have been moved from the overarching framework to the 'river of life', removing the need to categorise health determinants.

- 'Stressors' have been explicitly added to the 'river of life', aligning with the salutogenic approach, where resources increase movement towards the 'ease' pole and stressors increase movement towards the 'dis-ease' pole on the health continuum.

Graphic organisers for social cognitive theory, the social ecological model, the diffusion of innovations model and RE-AIM have been revised to align with subject matter changes, and provide additional prompts and cues for teachers and students.

The Health inquiry model

The Health inquiry model (Figure 1) used throughout the Health General Senior Syllabus 2025 (v1.2) is based on Antonovsky's (1979) salutogenic model of health (Lindström & Eriksson 2010). The salutogenic approach is the overarching approach in the Health inquiry model.

Figure 1: Health inquiry model
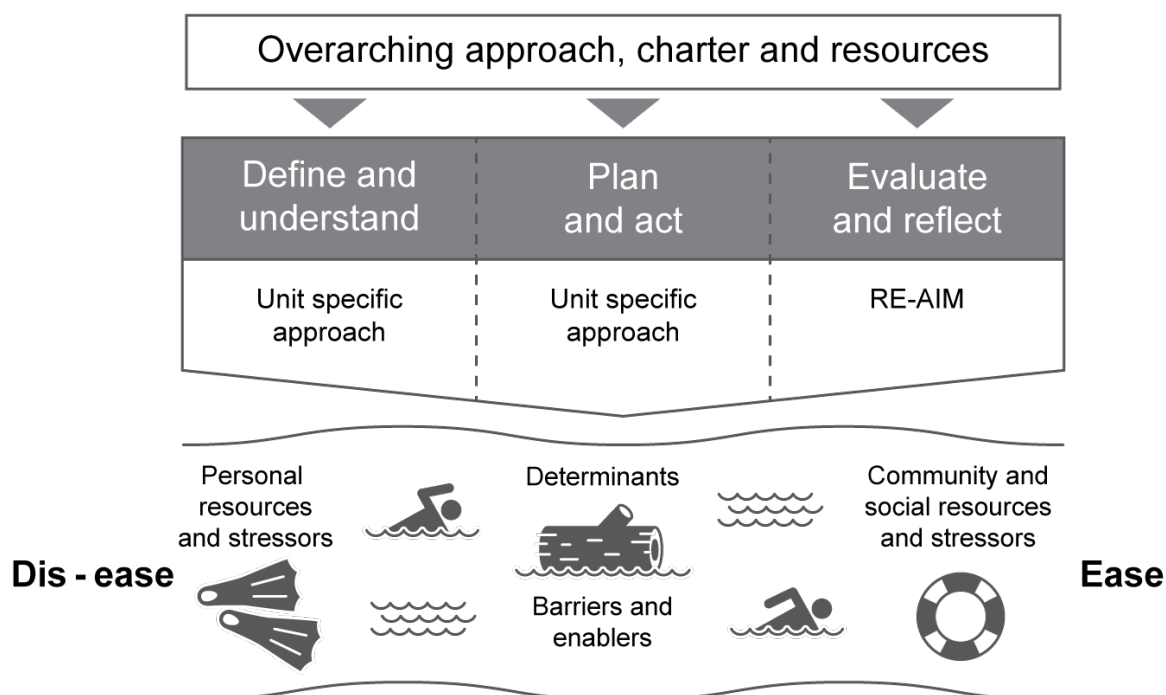
Salutogenic approach

Salutogenesis is a term coined by sociologist Aaron Antonovsky to describe an approach where health is viewed as a continuum between 'dis-ease' and 'ease', where an individual's health status is fluid depending on the issue, context and available resources. Moving towards a position of ease is enhanced when individuals can access and use social and community resources to strengthen, build or maintain personal resources. Salutogenic theory provides the foundational understanding and educative purpose needed for a strengths-based approach that focuses on the capacities, competencies, visions, values and hopes of all students, regardless of their current circumstances, to optimise their health and that of others. Salutogenesis extends preventive health to the creation of health through individual, community and societal assets (ACARA 2012). The salutogenic approach focuses on factors that support human health and wellbeing enabling movement towards ease, rather than on factors/stressors that cause ill-health and lead towards the dis-ease pole. In the practice of health promotion, the salutogenic approach means investing in conditions that contribute to health and involving individuals in change processes to give them more freedom of choice, input, and resistance resources (Health Promotion Switzerland 2013).

The salutogenic approach is central to the Health 2025 General syllabus and used in every unit to understand broad health topics in specific contexts. Procedural knowledge is developed through the use of the river of life in each unit.

River of life

Antonovsky used a river of life metaphor to clarify his vision of salutogenesis as a theory to guide health promotion. From this perspective, health should be attended to as a dynamic, ever-present relation between the swimmer and the river (McCuaig & Quennerstedt 2018 cited in Maivorsdotter & Andersson 2020) where 'we are all, always, in the dangerous river of life. The twin question is: How dangerous is our river? How well can we swim?' (Antonovsky 1996, p. 14). Rather than prevent us from swimming in the river or rescue us from the dangerous river, the salutogenic intention is to improve our skills to make swimming safer and to search the river for dangerous spots.

When completing a context analysis and needs assessment for 'swimmers' in their 'rivers', students should be exploring key concepts such as:

- **river** — the salutogenesis metaphor used by sociologist Anton Antonovsky represents life as a river in which everyone is a swimmer (Antonovsky 1996); health should always be attended to as a dynamic, ever-present relation between the swimmer and the water, for it is from the river that the individual develops 'resources for life'; overcoming the challenges, dangers and stressors of the river of life can therefore depend on the ability of the swimmer to recognise, gain, use and reuse these health resources in a health-promoting way (Lindström & Eriksson 2010 in McCuaig et al. 2013)

- **swimmer** — the salutogenesis metaphor used by sociologist Anton Antonovsky represents swimmers as individuals who are all swimming in a river of life; the swimmers' skills can be enhanced so they are better equipped to encounter the 'dangerous spots' within the river (Health Promotion Switzerland 2013)

- **ease** — the salutogenic approach represents ease as the 'total health' pole, as opposed to the 'total absence of health' dis-ease pole, on the dis-ease–ease health continuum

- **dis-ease** — the salutogenic approach represents dis-ease as the 'total absence of health' pole, as opposed to the 'total health' ease pole, on the ease–dis-ease health continuum

- **general resistance resources** — any characteristic in persons, groups or environments that can facilitate effective tension management; a general resistance resource is a physical, biochemical, artefactual material, cognitive, emotional, valuative–attitudinal, interpersonal–relational, macrosociocultural characteristic of an individual, primary group, subculture or society that is effective in avoiding or combating a wide variety of stressors (Buch 2006)

- **personal, social and community resources** — the key factors that make a movement towards the ease pole of the health continuum possible; these resources can be found within people, but also in their immediate and distant environment as both material and non-material qualities (Lindström & Eriksson 2005)

- **stressor** — a demand made by the internal or external environment of an organism that upsets its homeostasis (Antonovsky 1979); stressors can be categorised with respect to locus (internal or external), duration, temporality (acute, time limited, chronic or intermittent), forecasting (predictable or unpredictable), tone (positive or negative) and impact (normative or catastrophic) (Hill Rice 2012)

- **barriers** — individual and environmental factors that limit or decrease access to personal, social and community resources

- **enablers** — individual and environmental factors that increase access to personal, social and community resources.

Two river of life graphic organisers have been developed to support the development of knowledge and understanding in relation to the salutogenic approach and exploring the river of life.

River of life graphic organiser 1

Factors that influence health are placed in the boxes. The rings help students to identify/categorise these factors as personal, social and community resources and identify specific resources as general resistance resources for their capacity to mitigate stressors in relation to the swimmer. Personal resources/stressors are in the ring with the swimmer, social resources/stressors are in the middle ring and community resources/stressors are in the outer ring. Influencing factors are dynamic and can change position within the river at any time.
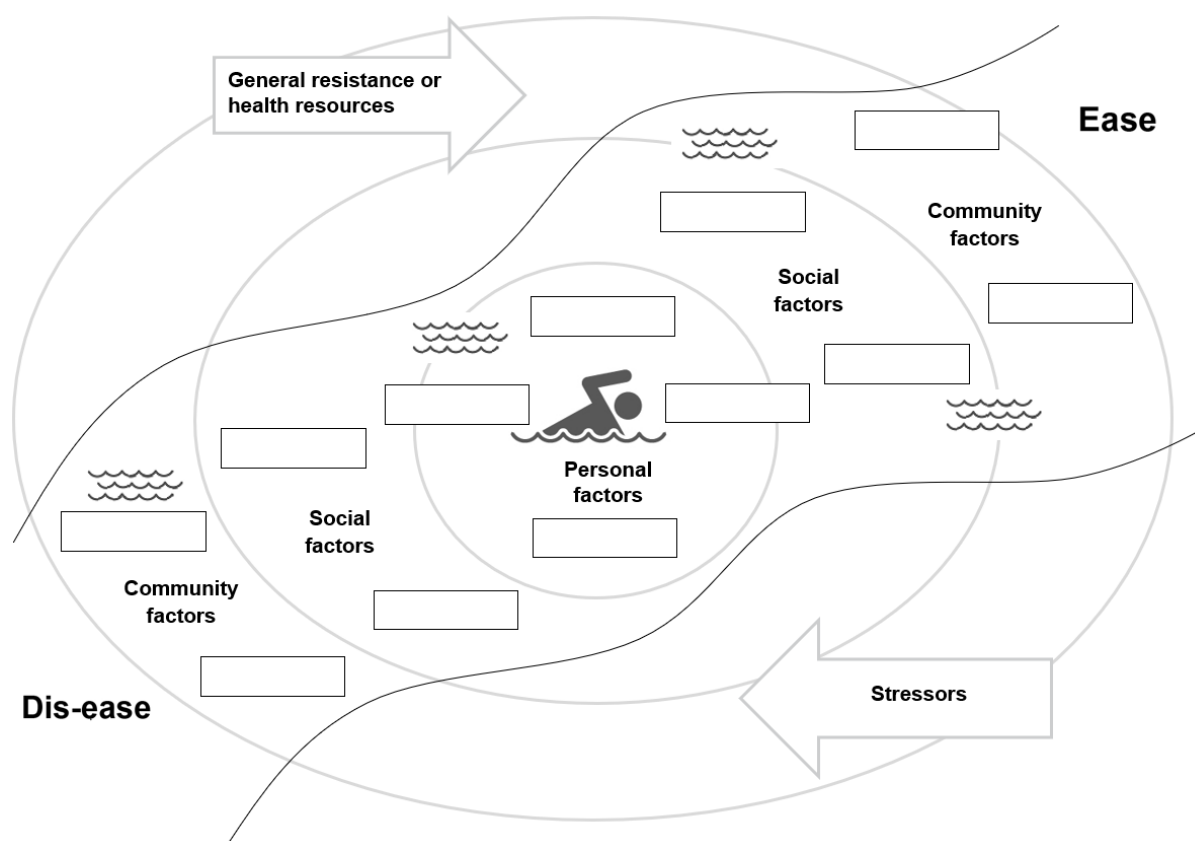
Health determinants within the river of life

In Health across all units, students are introduced to the range of personal, social, economic and environmental factors that influence the health status of individuals or populations through the salutogenic river of life. Key determinants are then distinguished through the lens of the Stage 1 Define and understand unit-specific approach (PERMA+, social cognitive theory, social ecological model and life course perspective). Determinants from the range of influencing factors are distinguished for their significance in relation to a topic/issue, group/s of people (swimmers) within a context (their river). Students develop a more sophisticated understanding of the categories of determinants and influencing factors and whether they are modifiable or non-modifiable across the course of study.

A range of determinants for consideration include:

- **biological factors** — anything that affects the function and behaviour of a living organism; internally this factor can be a physical, physiological, chemical, neurological or genetic condition (Nugent 2013)

- **biomedical factors** — blood pressure, blood cholesterol and bodyweight are among the important biomedical factors that affect health; the levels of these factors in an individual are the result of lifestyle, behaviour and genetic predisposition (AIHW 2000)

- **broad features of society** — cultural factors include customs, lifestyles and values that characterise a society or group; cultural aspects include concepts of beauty, education, language, law and politics, religion, social organisations, technology, media and material culture, values and attitudes; social cohesion, social inclusion and affluence are also key broad features of society

- **chemical factors** — exposure to toxic substances, such as lead, cadmium, cobalt, arsenic, carbon monoxide, passive smoking, organic solvents, carbon disulphide, nitroglycerine, nitroglycol, petrochemicals and agricultural chemicals, from air, soil and water sources, through inhalation, ingestion and skin contact pathways, which can impact individual and population health

- **environmental factors** — are classified as natural factors such as greenspaces, national parks, forests and waterways or built factors such as towns, cities, transport infrastructure

- **genetic factors** — genetic factors play an important role in human health and disease; an individual's genetic makeup (genome) sets the main features and boundaries within which life is to be experienced; it also provides the blueprint for how the human body interacts with the environment; in addition, the genome is programmed to protect its own molecular structure and to repair any damage caused to it by environmental agents (AIHW 2000)

- **geographic location** — includes urban, remote and position according to latitude and longitude

- **health behaviour** — any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of promoting, protecting or maintaining health, whether or not such behaviour is objectively effective towards that end (WHO 1998). Health behaviours can include tobacco and other drug use, alcohol consumption, physical activity, dietary behaviours, sexual practices and vaccinations

- **health literacy** — the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand and use information in ways that promote and maintain good health (WHO 1998); there are three levels of health literacy — functional, interactive and critical (Nutbeam 2000). Health literacy contributes to an individual's knowledge, understanding and beliefs and can be a personal, social and community resource

- **human-made factors** — a sub-category of environmental factors that influence health, specifically as a result of human impact on the environment; factors include human-induced chemical pollution, waste products and climate change (AIHW 2018)

- **landscape** — landscapes have the potential to promote mental wellbeing through attention restoration, stress reduction, and the evocation of positive emotions; physical wellbeing through the promotion of physical activity in daily life as well as leisure time and through walkable environments; and social wellbeing through social integration, social engagement and participation, and through social support and security (Abraham et al. 2010)

- **physical determinants** — physical determinants of health include individual physical and psychological makeup (genetics, prenatal environment, intergenerational, ageing and life-course influences) and biomedical factors such as body weight, blood pressure, blood cholesterol, glucose tolerance and immune status (AIHW 2014)

- **psychological factors** — include stress, trauma and torture

- **safety factors** — include risk taking, violence and workplace health and safety

- **socioeconomic factors** —social factors include reference groups, family, neighbourhood, roles such as partner, parent, carer, employee and friend, status in society, time and availability of resources such as services (including health services), housing, food security, education, employment, income and wealth, migration/refugee status

River of life graphic organiser 2

Factors that influence health (determinants) are placed in the top boxes and can then be distinguished for their significance in relation to a topic/issue and group/s of people (swimmers) within a context (their river).

Targeted health promotion strategies are placed in the bottom boxes.
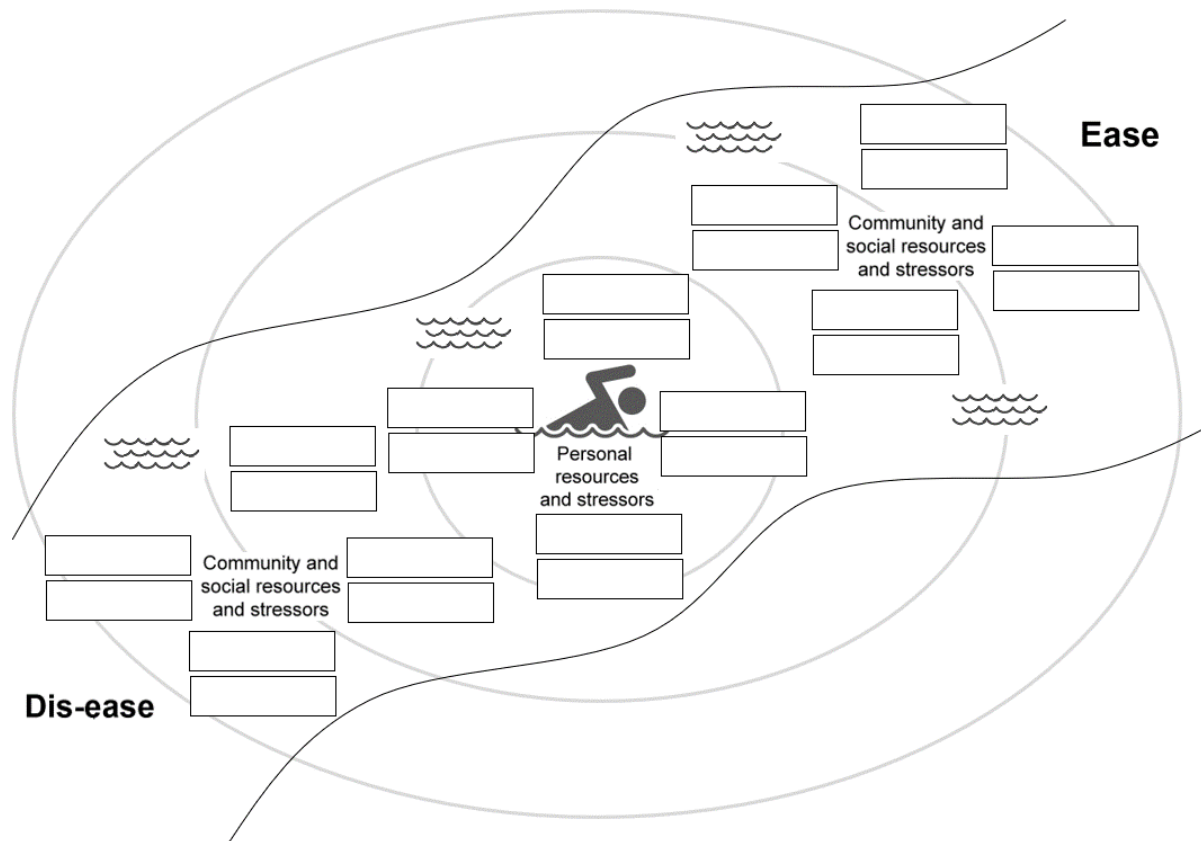
Health inquiry model overarching resources

Health literacy and social justice are the two overarching resources used in the Health inquiry model across all four units.

Health literacy

Health literacy comprises the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand and use information in ways that promote and maintain good health (WHO 1998). There are three levels of health literacy — functional, interactive and critical (Nutbeam 2000):

- **functional health literacy** — based on the communication of factual information on health risks and how to use the health system; typically, this approach does not invite interactive communication or foster skill development (Nutbeam 2000)

- **interactive health literacy** — builds on functional health literacy and focuses on the development of skills in a supportive environment; much of this activity will result in individual benefit rather than population benefit (Nutbeam 2000)

- **critical health literacy** — builds on functional and interactive health literacy and reflects cognitive and skills development outcomes, which are oriented towards supportive effective social and political action, as well as individual action (Nutbeam 2000).

Social justice

Social justice is a concept that is not unique to Health and has been used from the inception of the Health Education syllabuses in Queensland to assist with the investigation and inquiry of health issues. The ideology of social justice in the Health 2025 General syllabus provides a critical eye for the examination of the consistency, fairness and appropriateness of health outcomes for individuals, groups and communities. Three interrelated principles form the social justice framework in the Health 2025 General syllabus and are used as overarching resources within the Health inquiry model. When selecting health issues from broader health topics, these principles establish the authenticity of the issue and direct attention towards barriers and enablers that increase or decrease access to health resources and help students to plan for action in a specific context. The principles are **diversity**, **equity** and **supportive environments**:

- **diversity** — in the context of the Health 2025 General syllabus, diversity encompasses the variety of characteristics, circumstances and experiences of the full range of stakeholders who are affected by, or who affect, the outcomes of the issue under investigation (Queensland Studies Authority 2010). Diversity can be developed by examining the differences that exist within a group, including age, sex, gender, gender expression, sexuality, ethnicity, ability, body shape and composition, culture, religion, learning styles, socioeconomic background, values and experience; appreciating, understanding and respecting diversity impacts on an individual's sense of self and their relations to others; diversity can be acknowledged through shared activities that may involve building knowledge and awareness, peer teaching, games, dance, food and festivals (ACARA 2016)

- **equity** — in the context of the Health 2025 General syllabus, equity means fairness. Equity in health implies that ideally, everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential if it can be avoided (Whitehead 1992, p. 433, cited in Lewis et al. 2023). Equity is used to examine the access that stakeholders have to resources and to determine if health

outcomes are indeed fair and just. Equity can be developed by examining the welfare, rights and dignity of people, understanding how individual, relationship, community and societal level structures and practices affect equity; understanding how decisions are made and priorities established and how these affect individual, group and community wellbeing (Queensland Studies Authority 2010)

- **supportive environments** — in the context of the Health 2025 General syllabus, supportive environments refers to the sociocultural, physical, political, emotional, cultural, educational, economic and social capital surroundings in which positive health outcomes are supported, maintained or promoted. Supportive environments can be developed by recognising the home, school and community as settings for promoting healthy practices; displaying sensitivity to personal and cultural beliefs in dealing with health issues; acknowledging the crucial role supportive environments play in enhancing personal growth and development, effective relationships and safety (Queensland Studies Authority 2010).

Health inquiry model — Stage 1: Define and understand

Unit 1 — PERMA/PERMA+

Positive psychology is the scientific study of the strengths that enable individuals and communities to thrive, pioneered by Martin Seligman; the field is founded on the belief that people want to lead meaningful and fulfilling lives, to cultivate what is best within themselves and to enhance their experiences of love, work and play (University of Pennsylvania n.d.)

PERMA is the acronym for a framework or model of wellbeing put forth by a pioneer in the field of positive psychology, Martin Seligman; according to Seligman, PERMA makes up five important building blocks of wellbeing and happiness: Positive emotions — feeling good, Engagement — being completely absorbed in activities, Relationships — being authentically connected to others, Meaning — purposeful existence, and Accomplishment — a sense of achievement and success (South Australian Health & Medical Research Institute n.d.)

PERMA+ an acronym for Positive Emotion, Engagement, Relationships, Meaning and Accomplishment plus Optimism, Physical Activity, Nutrition and Sleep (South Australian Health & Medical Research Institute n.d.)

Source: Salutegenics Psychology n.d., 'Positive psychology', www.salutegenics.com.au/positive-psychology.html.

Unit 2 — social cognitive theory

Previously known as social learning theory (Bandura 1977), and renamed social cognitive theory (SCT) by Bandura (1986) when concepts from cognitive psychology were integrated, social cognitive theory (SCT) is one of the most widely applied theories in behaviour. SCT is based on the idea that behaviour change is the result of the dynamic interplay between personal, behavioural and environmental factors/influences (reciprocal determinism).

In Unit 2, SCT is used to define and understand a topic in a peer or family context. Students complete a context analysis and needs assessment and distinguish key determinants. SCT is then used to inform the development of an action strategy for a target group in the chosen setting.

The key components of SCT are:

- **personal factors** — characteristics of individuals that impact the likelihood of behaviours, e.g. confidence, knowledge, attitudes, beliefs, cognitive skills, coping responses and outcome expectations

- **behavioural factors** — characteristics of behaviour that impact the likelihood of behaviours, e.g. complexity, novelty and skill requirements

- **environmental factors** — characteristics of settings (physical, social/cultural, resources) that impact the likelihood of behaviours, e.g. barriers, enablers, influencing factors such as opportunities, social support and reinforcement.

The key concepts of SCT are:

- **reciprocal determinism** — a key concept of social cognitive theory, which states that environmental factors influence individuals and groups, but individuals and groups can also influence their environments and regulate their own behaviour (Glanz et al. 2008)

- **outcome expectations** — a psychological determinant of behaviour in social cognitive theory defined as beliefs about the likelihood of various outcomes that might result from the behaviours a person might choose to perform and the perceived value of those outcomes (Glanz et al. 2008)

- **self-efficacy** — refers to beliefs that individuals hold about their capacity to carry out action in a way that will influence the events that will affect their lives; self-efficacy beliefs determine how people feel, think, motivate themselves and behave (Smith et al. 2006)

- **collective efficacy** — in social cognitive theory, Bandura extended the concept of perceived efficacy to collective efficacy, which is defined as beliefs about the ability of a group to perform concerted actions that bring about desired outcomes; many of the things that people seek are achievable only by working together with others (Glanz et al. 2008)

- **observational learning** — used in social cognitive theory, involves learning to perform new behaviours by exposure to interpersonal or media displays of them, particularly through peer modelling; four processes govern observational learning: attention, retention, production and motivation (Glanz et al. 2008)

- **incentive motivation** — the use of rewards and punishments to modify behaviours (Glanz et al. 2008)

- **facilitation** — an environmental determinant of behaviour in social cognitive theory defined as providing tools, resources or environmental changes that make new behaviours easier to perform (Glanz et al. 2008)

- **self-regulation** — controlling oneself through self-monitoring, goal setting, feedback, self-reward, self-instruction, and enlistment of social support (Glanz et al. 2008)

- **moral disengagement** — used in social cognitive theory, people learn moral standards for self-regulation and can violate those standards through **moral disengagement:** ways of thinking about harmful behaviours and the people who are harmed that make infliction of suffering acceptable by disengaging self-regulatory moral standards (Glanz et al. 2008).
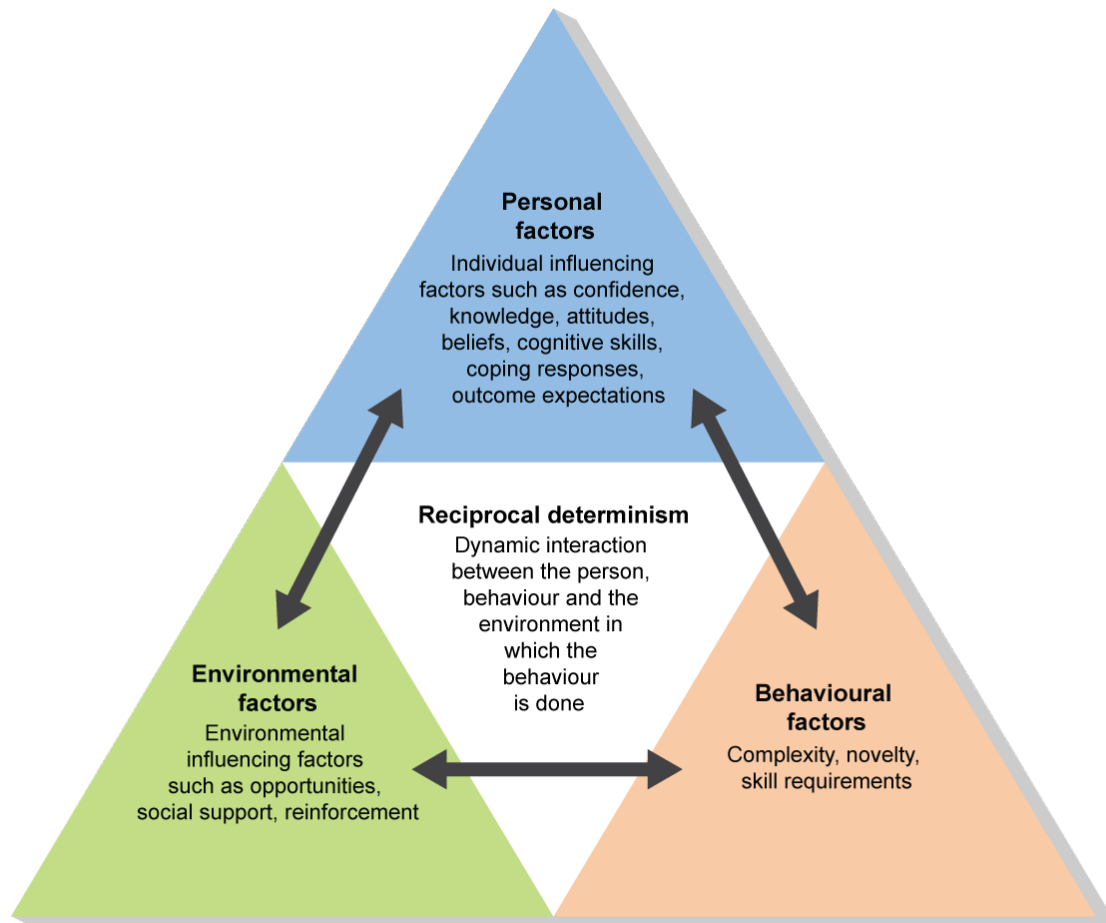
Unit 3 — social ecological model

Ecological models of health behaviour emphasise the environmental and policy contexts of behaviour, while incorporating the social and psychological influences (Glanz et al. 2008).

The core concept of the social ecological model is that behaviour has multiple layers of influencing factors that interact to influence health. The Centers for Disease Control and Prevention version of the social ecological model diagram has been chosen, which condenses the levels of influence to four — individual, relationship, community and societal.

In Unit 3, the social ecological model is used to define and understand a topic in a school or local community context. Students complete a context analysis and needs assessment and distinguish key determinants. The social ecological model is then used to inform the development of a diffusion action strategy for a target group in the chosen setting.

The following table on page 12 provides:

- the four levels of influence

- a range of example influencing factors

- the interaction of influencing factors across the four levels

- a range of example approaches for change — action that spans across levels is likely to have the greatest impact.

| Social ecological model levels of influence and example influencing factors		Example approaches for change within the levels of influence	
Individual level of influence			
• knowledge/understanding • attitudes/beliefs • wellbeing • emotions • ability • memory/attention • goals/intentions	• physical functioning • age • gender • education • income • health • understanding • expectations	• self-talk • goal setting • instruction • skill training • monitoring and feedback • demonstrations • punishments	• rewards • incentives • pharmacological support • counselling • persuasion approaches • advertising
Relationship level of influence			
• stigma • comparisons • conflict • alienation • power • modelling • conformity	• social pressure • social norms • support • social roles • professional roles	• social support • buddy systems • mentoring • modelling • support groups • champions/credible sources	• social restructuring • social prescription • social comparisons • professional role training
Community level of influence			
• availability and accessibility of services/resources • barriers and enablers • aesthetics • safety • characteristics of settings (natural/built)	• organisational processes (schools, workplaces, faith-based, recreational) • neighbourhood features and design • media (print/visual) • access to technology	• changes to physical environment (natural/built) • adding objects to the environment • environmental restructuring • organisation restructuring • providing information	• education and instruction • prompts and cues • access to available and accessible services, products and providers/resources • restriction • advocacy • enablement • incentives
Societal level of influence			

• employment
• education
• language
• literacy
• affluence
• availability, accessibility and affordability of services/resources
• security — food, housing and employment
	• sociocultural norms
	• health, economic, educational and social policies
	• laws
	• life conditions
	• amenities (power, water, hygiene)
	• crime
	• conflict
		• government laws, policies and regulations
		  – coercion (punishment)
		  – restriction (laws)
		• access to available and accessible services, products and providers/resources
		• mass media
			• education and instruction
			• awareness raising
			• investment (finances/resources)
			• environmental restructuring
			• restriction
			• advocacy
			• enablement
			• incentives

Unit 4 — life course perspective

The life course is a culturally defined sequence of age categories that people are normally expected to pass through as they progress from birth to death. Life course perspective 'looks at how chronological age, relationships, common life transitions and social change shape people's lives from birth to death … [It] calls attention to how historical time, social location and culture affect the individual experience of each life stage' (Hutchison 2014). The key concepts related to the life course perspective are:

- **life cycle and key transition points** — life cycle from birth to death, transition points, infancy, childhood, adolescence, emerging adulthood, adulthood, retirement, and death

- **life events** — significant occurrence involving a relatively abrupt change that may produce serious and long-lasting effects

- **trajectories** — a long-term pattern of stability and change that usually involves multiple transitions across the life course often categorised as educative, work, family and health trajectories

- **transitions** — change in roles and statuses that represents a distinct departure from prior roles and statuses

- **reverse transitions** — a return to a prior role or status, e.g. leaving home and returning home

- **on time transitions** — based on social norms and shared expectations, such as graduation from school/university, marriage, childbearing and retirement

- **off time transitions** — do not occur at a typical stage in life and culturally determined, such as teen pregnancy, leaving school prior to completing Year 12 and early death

- **turning points** — a life event or transition that produces a lasting shift in the life course trajectory and pathways across the life course

- **cohorts** — a group of persons who were born during the same time period and who experience particular social changes within a given culture in the same sequence at the same age

- **generations** — usually refer to a period of about 20 years and have a shared sense of social history and a shared identity.

The life course perspective graphic below uses the terms prompts and facilitators (in Health these are enablers) and constraints (in Health these are barriers).
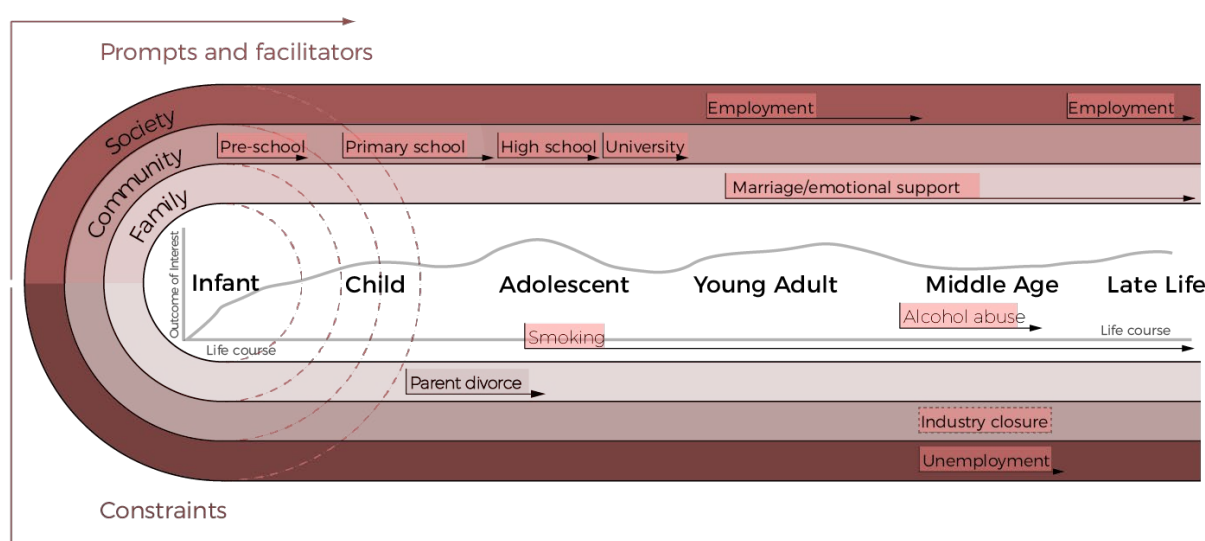

Source: Zubrick, SR, Taylor, CL, Lawrence, D, Mitrou, F, Christensen, D & Dalby, R 2009, 'The development of human capability across the lifecourse: Perspectives from childhood', *Australasian Epidemiologist*, vol. 16, no. 3, pp. 6–10.

Health inquiry model — Stage 2: Plan and act

Units 1 and 2 — Ottawa Charter for Health Promotion

The Ottawa Charter for Health Promotion was developed by the World Health Organization (WHO) in 1986 and the strategies were affirmed in the WHO's Jakarta Declaration on Health Promotion into the 21st Century (1997). It is used for two purposes in the Health 2025 General syllabus.

Use 1: as part of the overarching approach, charter and resources in all four units.
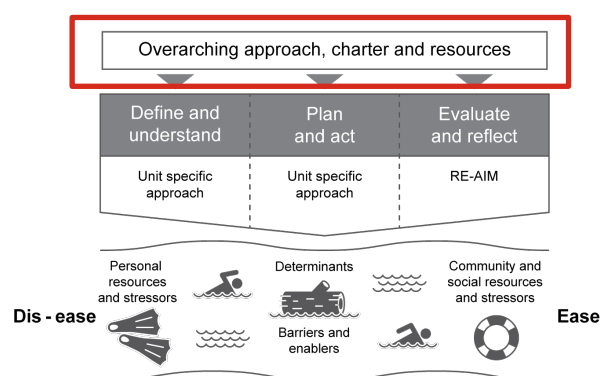
The three Ottawa Charter overarching strategies for health promotion are:

- **advocating** for health to create the essential conditions for health

- **enabling** all people to achieve their full health potential, e.g. taking action in partnership with individuals or groups to empower them, through the mobilisation of human and material resources, to promote and protect their health (WHO 1998)

- **mediating** between the different interests in society in the pursuit of health, e.g. a process through which the different interests (personal, social, economic) of individuals and communities, and different sectors (public and private), are reconciled in ways that promote and protect health (WHO 1998).

Use 2: for planning and acting in Stage 2 of the Health inquiry model in Unit 1 (only the developing personal skills priority action area) and Unit 2 (all priority action areas).
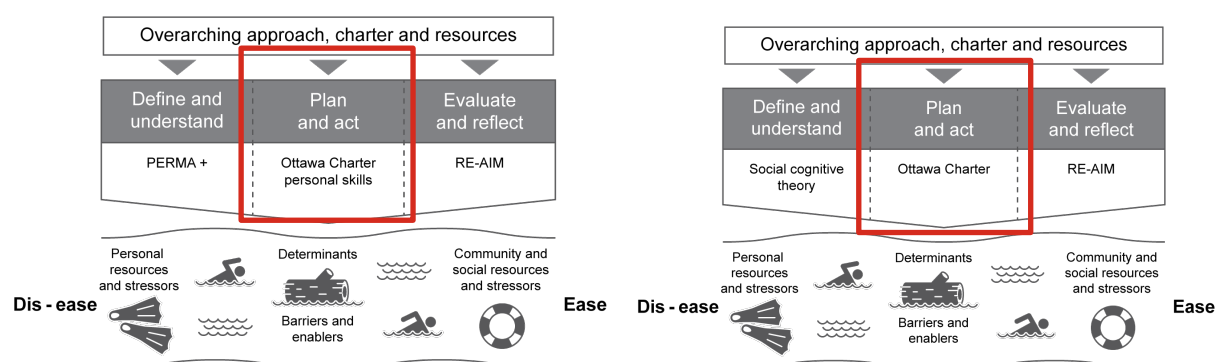
Under the Charter, there are five priority action areas that support the basic strategies and are considered the basic tools for health promotion action:

- **building healthy public policy** provides students with an understanding of how coordinated action can lead to health, income and social policies that foster greater equity, ensure safer and healthier goods and services, healthier public services, and cleaner, more enjoyable environments (QSA Health Education 2010 senior syllabus)

- **creating supportive environments** provides students with knowledge about the impact of sociocultural, physical, political and economic environments on their health and about the active role they can play in fostering change in their living and working environments and in maintaining the physical environment (QSA Health Education 2010 senior syllabus)

- **strengthening community action** assists students to realise the importance of existing human and material resources in the community in enhancing self-help and social support and of developing flexible systems for strengthening public participation and direction of health matters to increase a community's ownership and control of their own endeavours and desires in achieving better health (QSA Health Education 2010 senior syllabus)

- **developing personal skills** allows students to study how providing information, education for health, and enhancing life skills can increase the options available to individuals, groups and communities so they can exercise more control over their own health and their environments, and make choices conducive to health (used for Stage 2 planning and acting in Unit 1)

- **reorienting health services** emphasises for students the role that health services play in meeting an expanded mandate that is sensitive and respects cultural needs, that supports the needs of individuals and communities beyond clinical and curative services and opens channels between the health sector and broader social, political, economic and physical environment components (Nutbeam 1998).
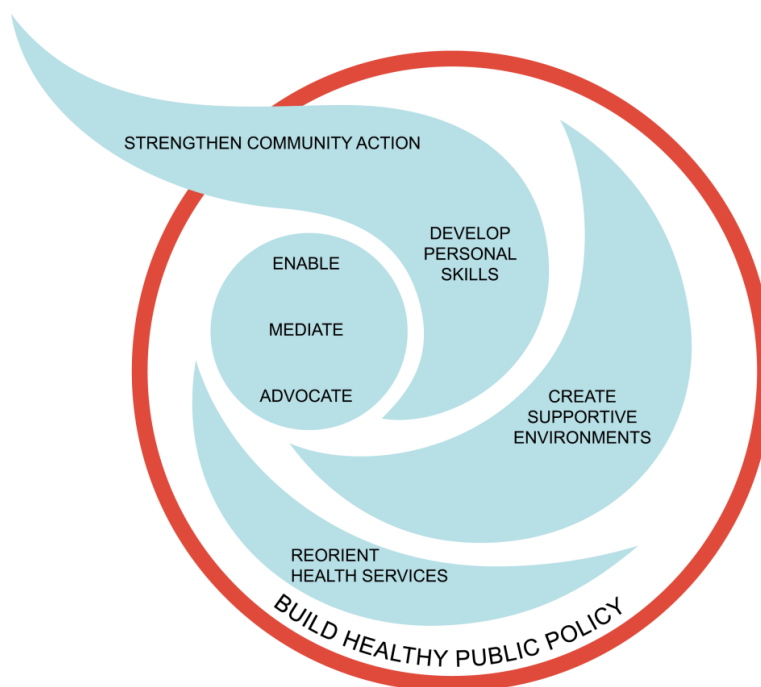
Adapted from World Health Organization (WHO) n.d.a, 'The Ottawa Charter for Health Promotion: Health promotion emblem', www.who.int/healthpromotion/conferences/previous/ottawa/en/index4.html.

Units 3 and 4 — diffusion of innovations model

Developed by Everett Rogers, the diffusion of innovations model is used to understand the steps and processes required to achieve widespread dissemination and diffusion of public health innovations. The diffusion of innovations model comprises stages of diffusion, diffusion process variables and diffusion concepts.

Three stages of diffusion are used in the Health 2025 General syllabus for clarity and reduced complexity:

- **innovation development** — involves all the decisions and activities (and their impacts) that occur from the early stage of an idea to its development and production (Glanz et al. 2008)

- **dissemination** — involves planned, systematic efforts designed to make a program or innovation more widely available to a target audience or members of a social system (Glanz et al. 2008). Dissemination is impacted by awareness, decisions and use of the innovation and influenced by

  - communication related to knowledge

  - persuasion that prompts action

  - resources including infrastructure and opportunity that also impact the innovation's ability to be institutionalised

  - regulations including policies, legislation/law that speed up the dissemination and institutionalisation of the innovation — use of the innovation is mandatory e.g. vaccination policies and seat belt legislation

- **institutionalisation** — involves the incorporation of the program into the routines of an organisation or broader policy and legislation (Glanz et al. 2008)

Diffusion process variables are the general factors that influence the rate and extent of innovation uptake. Four diffusion process variables are used in the Health 2025 General syllabus for clarity and reduced complexity:

- **characteristics of innovations** — the influencing factors that most likely affect the speed and extent of uptake (organisational adoption and individual reach) include

  - relative advantage — is the innovation better than what was there before?

  - compatibility — does the innovation fit with the intended audience?

  - complexity — is the innovation easy to use?

  - trialability — can the innovation be tried before making a decision to adopt (organisations) or use (individuals)?

  - observability — are the results of the innovation visible and easily measurable? (Glanz et al. 2008)

- **features of the setting** — include geographical, political and economic conditions and societal-cultural influences related to the setting/context that impact the rate of adoption (organisational)

- **characteristics of people** — include people and their characteristic features that impact the rate of adoption (organisational)

  - people — change agents, decision-maker, advocates and users (innovators, early adopters, early majority adopters, late majority adopters and laggards)

  - characteristics — attitudes, skills, knowledge, tolerance and style

- **rate of adoption** — the speed and extent of the adoption (organisational) of innovations, which is influenced by the characteristics of the innovation, features of the setting, characteristics of people and dissemination of the innovation

Four diffusion concepts are used in the Health 2025 General syllabus for clarity and reduced complexity:

- **innovation** — an idea, practice, process, service or product that is perceived as new by an individual, group or organisation

- **diffusion** — the extent, pattern and rate at which innovations spread through a population, encompassing innovation development to widespread adoption (organisational) and sustained implementation and use

- **opinion leaders** — influential individuals who impact the behaviour of peers through either their authority, status or credibility

- **champions/advocates** — individuals who facilitate change; they must have good relationships within their networks and support the innovation.

The diffusion of innovations model is used in Units 3 and 4 to plan for action in relation to a topic in a school or local community context. Students develop a diffusion action strategy for a target group in a chosen setting. Students also use the diffusion of innovations model to reflect on innovation impact/uptake.
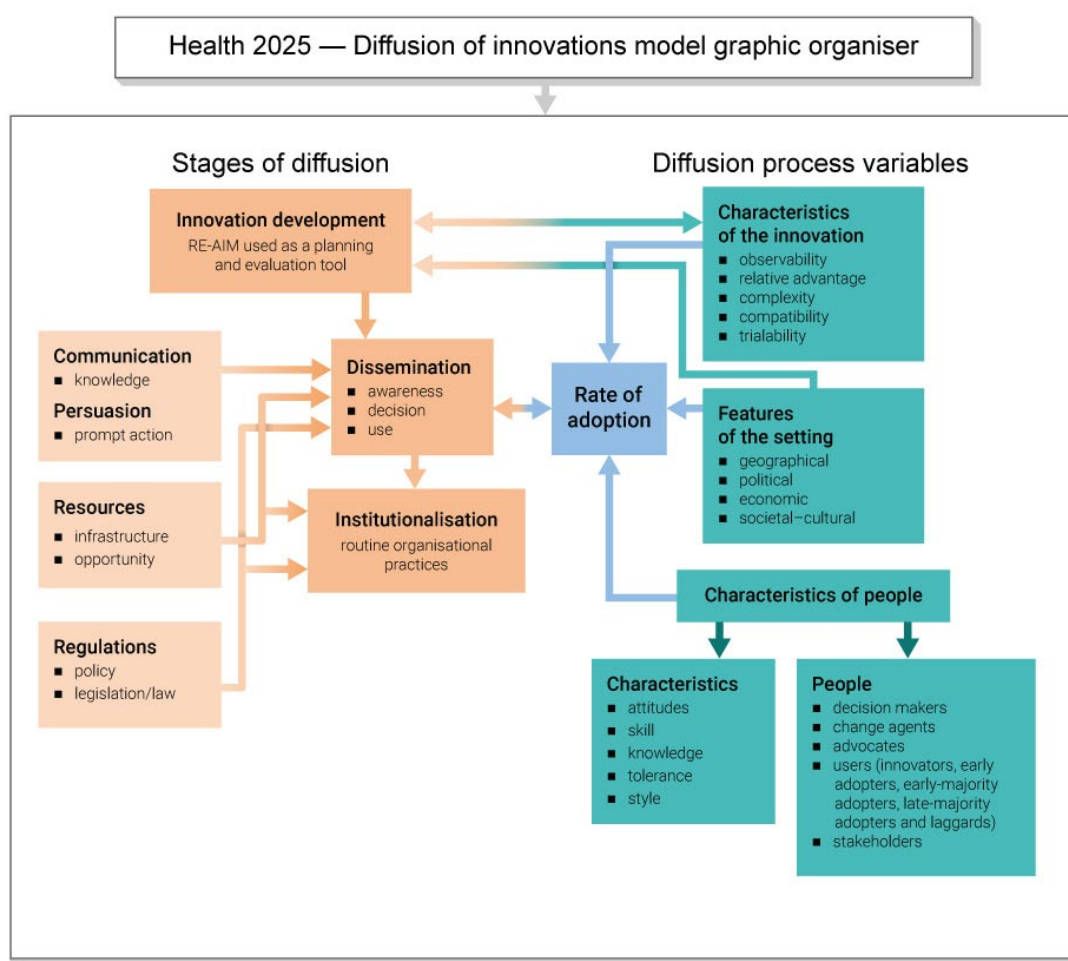
Health inquiry model — Stage 3: Evaluate and reflect

All units — RE-AIM

RE-AIM is a scientific method of systematically considering the strengths and weaknesses of health promotion action at multiple levels of influence through the steps of:

- **reach** — the absolute number, proportion and representativeness of individuals willing to participate in, or exposed to, an innovation

- **effectiveness** — the impact of an innovation on important outcomes (positive, negative, expected and unexpected)

- **adoption** — the absolute number, proportion and representativeness of organisations, settings and agencies who are willing to use an innovation

- **implementation** — at an organisational level, the intervention agents' fidelity to the various elements of an intervention's protocol, including the time, cost and resources of the intervention; at the individual level, implementation refers to participant experiences and use of the innovation

- **maintenance** — at an organisational level, the extent to which an innovation becomes institutionalised or part of the routine organisational practices and policies; at the individual level, maintenance is the long-term impact of the innovation on participant outcomes at least six months after the most recent innovation contact.

RE-AIM is used in all four units to evaluate implemented innovations. RE-AIM is also used to inform the development of a diffusion action strategy in Unit 3. The interpretation, definitions and graphic organiser used for RE-AIM in the Health 2025 General syllabus has been informed by Associate Professor Nicola Burton to provide clarity and reduce complexity for students and teachers.

R	**Reach** (individual)	**Who takes part?** (target, access, equity, exposure, representativeness)
E	**Effectiveness** (individual)	**What are the outcomes?** (positive, negative, expected, unexpected)
A	**Adoption** (organisational)	**What agency uses it?** (characteristics, representativeness)
I	**Implementation** (organisational/individual)	**What is done?** (strategies, resources, fidelity, cost, adherence)
M	**Maintenance** (organisational/individual)	**What happens in the long term?** (institutionalisation, long-term participant outcomes)

Health inquiry model — Procedural knowledge

Starting point: Understanding the river of life

With any unit, the starting place is the bottom rectangle (A) or the 'river of life', which is Antonovsky's metaphor for understanding salutogenic theory.
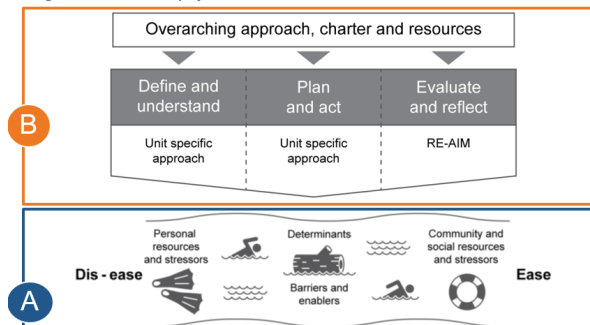
We need to understand:

- what is going on for the 'swimmer'?
  - in Unit 1, the 'swimmer' is the individual
  - in Units 2–4, the 'swimmer' is a target group within the context
- what is going on in their 'river'?
  - the 'river' or context is unique
  - the 'river' or context is also unique for each individual
  - we are all, always, swimming in the 'river' of life'.

The process of working through each area in the top rectangle (B) enhances understanding of the relationships between resources within the 'river of life' rectangle (A).

Case study — Unit 1 Health inquiry model

Figure 1: Unit 1 Health inquiry model

Next step: A complex understanding of the river of life

To gain a complex understanding of the 'river of life', we need to know:

- what stressors exist within the 'river'?
- what general resistance resources (GRR) exist to mitigate the stressors within the 'river'?
- what are the barriers within the 'river' that limit access to personal, social and community resources?
- what are the enablers within the 'river' that increase access to personal, social and community resources?
- what are the two key determinants that are impacting 'swimmer/s' (target for an action strategy) in their 'river' (context)?
- what primary and secondary source information can be used to highlight the need for an action strategy in the context?

Case study — Unit 1 Health inquiry model

Figure 1: Unit 1 Health inquiry model
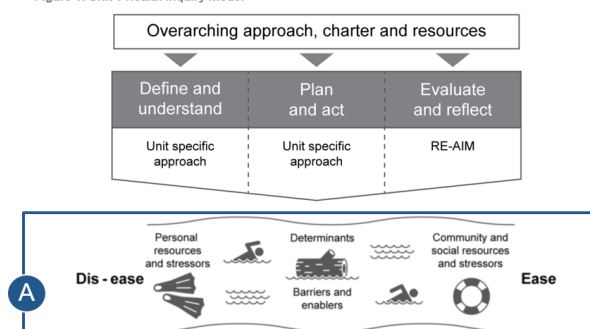
Next step: Use the top rectangle

Always ask the salutogenic question/s first.

- What are the existing personal, social and community resources that are keeping us healthy?
- What are the GRR that are enabling movement towards ease?
- How can existing GRR or other resources be strengthened, maintained or adapted to mitigate stressors in the 'river of life'?
- Avoid pathogenically oriented questions, e.g. What causes death and how do we fix it?

How can the Ottawa Charter overarching strategies be used in the promotion of health in the context?

- Is there any mediation required to connect people/stakeholders with different interests in society to increase access to resources or decrease stressors in the 'river of life'?
- Should there be any advocacy to increase awareness and access to resources or decrease stressors in the 'river of life' enabling movement towards 'ease'? If so, where should the advocacy be directed to?
- How can people be enabled to increase equity and control in relation to their full health potential by increasing access resources?

Consider the relevance and purpose of health literacy and/or social justice in the context.

- How can health literacy and/or social justice act as a personal, social and/or community resource?
- How can health literacy and/or social justice reduce barriers or increase enablers that impact access to resources?
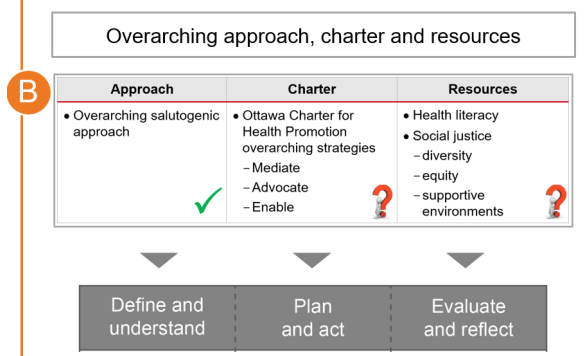

Health inquiry model — Procedural knowledge

Next step: Use the Stage 1 unit-specific approach

To gain a more sophisticated understanding of specific issues within a broad topic, we use a unit-specific approach to complete a context analysis and needs assessment for a target within the context. These are completed by:
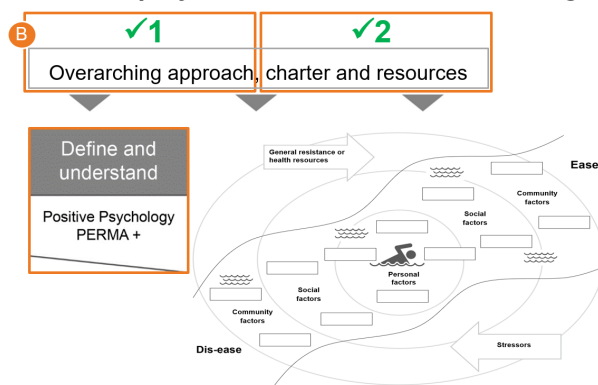
- analysing the complex relationships between resources, barriers and enablers in the 'river' and for the 'swimmer'
- interpreting information about data trends to draw conclusions about what is going on in the 'river' and for the 'swimmer'
- critique information to distinguish determinants.

In Unit 1, the unit-specific approach is Positive Psychology and PERMA+. The unit-specific approach changes for each unit and builds on knowledge learnt from the previous unit-specific approach.

Health inquiry model — Procedural knowledge

Next step: Use the Stage 2 unit-specific approach

To plan for action relating to specific issues within a broad topic, we use a second unit-specific approach to synthesise investigated information to develop action strategies for a specific target within a specific context.

- In Unit 1, the personal skills priority action area of the Ottawa Charter is used to narrow the scale of theoretical information required to be understood by students.
- In Unit 2, the relevance of the five priority action areas of the Ottawa Charter can be considered in planning for action.
- In Units 3 and 4, the relevance of the five diffusion process variables and stages of diffusion are considered in selecting an innovation for diffusion, the methodology, resources and data collection strategies. Diffusion process variables can also be used to evaluate innovation impact.
- In all units, the overarching approach, charter and resources can inform the development of action strategies.

Once the action is developed at the end of Stage 2, it is implemented as part of teaching and learning, and evidence collected for evaluation in Stage 3.

Health inquiry model — Procedural knowledge

Health inquiry model

Final step: Use RE-AIM

To evaluate implemented action in relation to specific issues within a broad topic, we use RE-AIM to:

- make judgments about the methodology and resources used to implement the action strategy and innovation impact
- propose and justify a recommendation for future action.

Reach: Who takes part/participates? How are the individuals accessed? What is the target number of people? Are they representative?
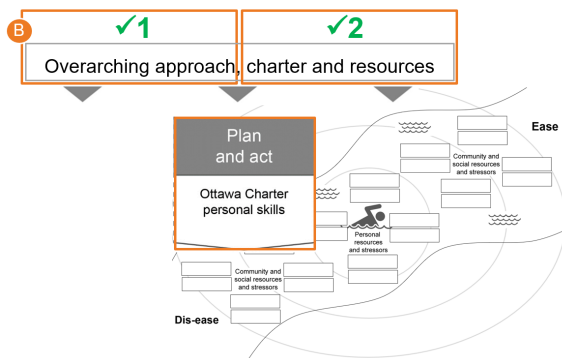
Effectiveness: What were the positive outcomes, negative outcomes or unexpected outcomes? What was the level of satisfaction?

Adoption: Who are the organisational 'gatekeepers' or adoption agents who are responsible for diffusing the innovation/increasing uptake?
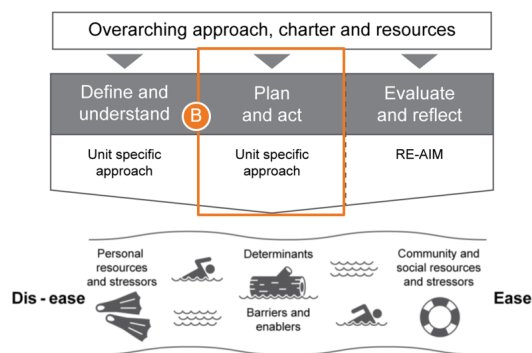
Implementation: What was done? How does the innovation get to the target? Were there 'champions' who helped the adoption agency? What was the adherence? Was it implemented as intended? Were there costs?

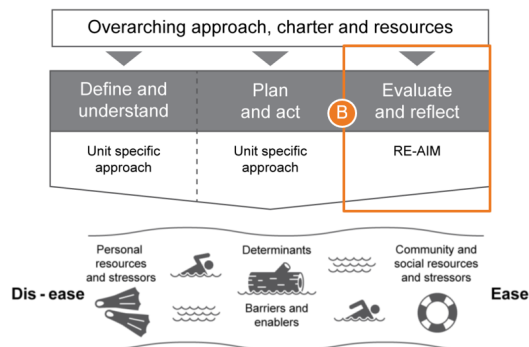**Maintenance:** Was there an impact long term? Is it sustainable for greater than six months?

Health inquiry model

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