Co-creating education and training programs that build workforce capacity to support the implementation of integrated health care initiatives

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Over the past 20 years, value co-creation (often referred to as co-creation) has been increasingly used across diverse sectors and applied in many ways.[1] Typically used in the business sector, value co-creation supports multimillion dollar businesses to better understand end user expectations, spark meaningful dialogue and improve value for all.[2] It has taken several years for value co-creation to gain momentum in other sectors, but now the health[3-5] and research[6-8] sectors use it to co-create outcomes of value for end users, and the public sector applies it to boost innovation.[9] Value co-creation practices within education are developing and include generative dialogue, negotiation, and collaborative and reciprocal processes whereby all stakeholders contribute variously to curricular or pedagogical conceptualisation, decision making and implementation.[10-12]

Value co-creation focuses on creating value with and for multiple stakeholders and end users through facilitated processes and interactive platforms.[1,2,11,12] It redefines the way an organisation engages people internally and externally, and uses a process of proactive and purposeful engagement focused on enriched experiences to collectively co-design new products and services and garner strategic insight to add value.[13]

Co-design, informed by the principles of user-centred design,[14] is another effective approach that many sectors use to support multidisciplinary teams in co-designing or adapting products, services or resources from the perspective of how the end user will understand and use them.[15,16]

Evidence suggests that value co-creation and user-centred design approaches can be flexible, systematic, holistic and iterative means of developing tailored, fit-for-purpose education resources.[17-19] Engaging with end users and other stakeholders to directly tailor resource content and delivery mode to meet their needs and preferences makes it more likely that the resources will be adopted, be used long term, be sustainable, and help to co-create outcomes of value.[14,20-22]

For the past 6 years, the Education and Innovation Department of Australian General Practice Accreditation Limited (AGPAL) has used value co-creation and user-centred design to co-create education resources and training programs to enhance workforce capacity and strengthen the implementation of many national and state-based person-centred and integrated care programs.[6]

Here, we present two case studies to show other trainers and health care program developers how they can engage with end users and key stakeholders to co-create their own education resources or potentially any other solution in primary health care.

Summary

- Value co-creation focuses on creating value with and for multiple stakeholders — through purposeful engagement, facilitated processes and enriched experiences — to co-design new products and services. User-centred design enables multidisciplinary teams to design and develop or adapt resources from the end user's perspective.
- Combining value co-creation and user-centred design offers an effective, efficient, user-friendly and satisfying experience for all participants, and can result in co-created, tailored and fit-for-purpose resources. These resources are more likely to be adopted, be usable, be sustainable and produce outcomes that matter, and thereby create value for all parties.
- Over the past 6 years, the Education and Innovation Department at Australian General Practice Accreditation Limited has used these methods to co-create education and training programs to build workforce capacity and support implementation of many person-centred integrated care programs.
- In this article, we present examples of how Australian General Practice Accreditation Limited used value co-creation and user-centred design to develop and deliver education programs in primary health care, and offer insights into how program developers can use these methods to co-create any health care product, service or resource to better address end user needs and preferences.
- As we strive to strengthen the role of consumers as active partners in care and improve service delivery, patient outcomes and patient experiences in Australia, it is timely to explore how we can use value co-creation and user-centred design at all levels of the system to jointly create better value for all stakeholders.

Value co-creation for developing and delivering education resources and training programs follows six steps

Value co-creation follows six steps. The processes that AGPAL implemented in each step to co-create education resources and training programs are shown in Box 1. AGPAL applied the six steps of value co-creation with targeted populations of stakeholders and end users, using an advisory committee, action-focused working groups and a forum. Subject matter experts were encouraged to collaborate and work with key stakeholders: care providers in integrated care (doctors, nurses, specialists, allied health professionals, Aboriginal and Torres Strait Islander health workers and practitioners, and social workers); patients, their families and their carers; and other stakeholders in the private, public and social sectors.
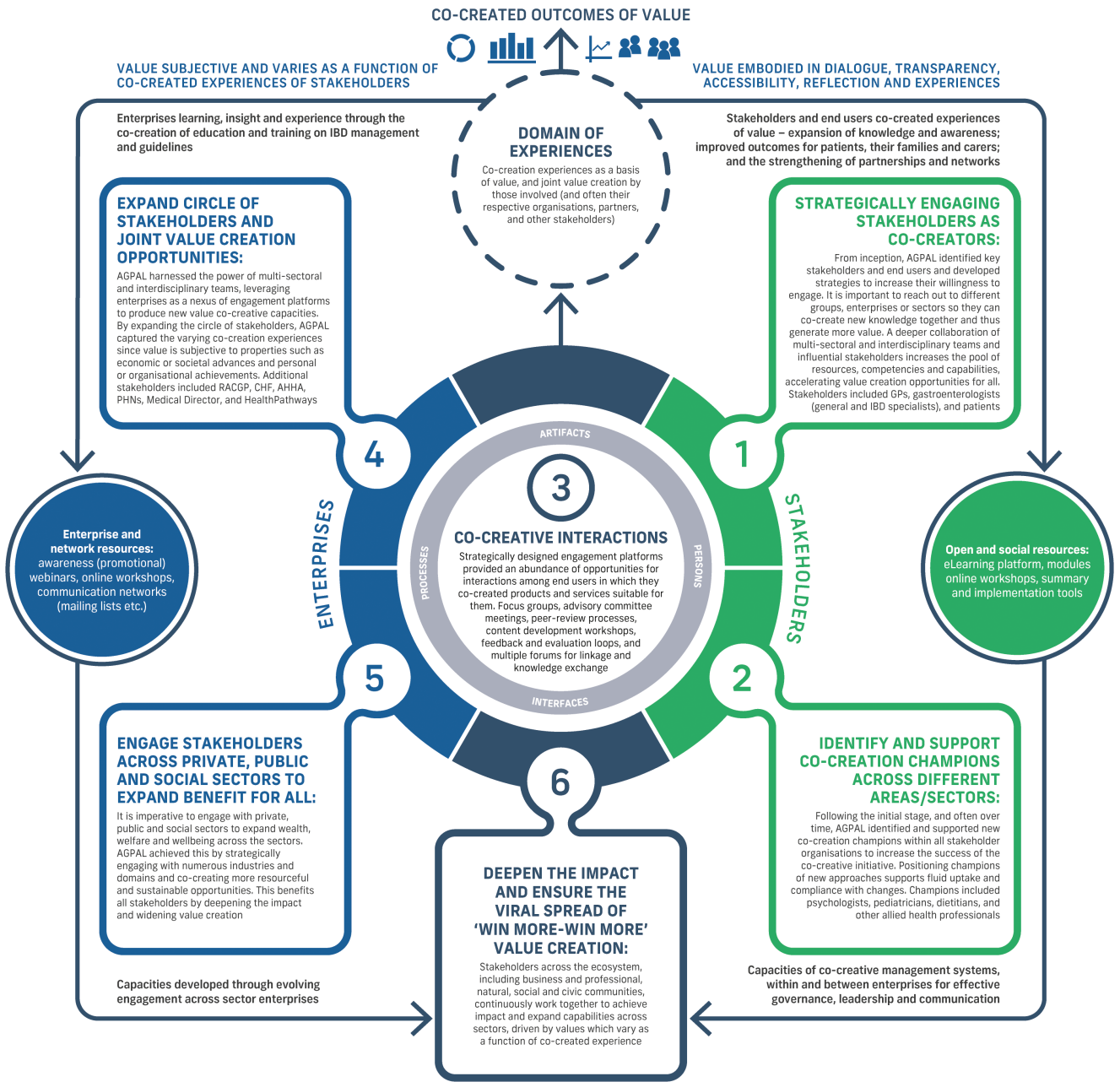
Case study 1: Inflammatory Bowel Disease GP Aware Project

The Inflammatory Bowel Disease National Action Plan 2019 emphasised the need to improve awareness, management and referral of people living with inflammatory bowel disease (IBD).[23]

1 How Australian General Practice Accreditation Limited co-created education resources and training programs within the six steps of value co-creation*

CO-CREATED OUTCOMES OF VALUE

VALUE SUBJECTIVE AND VARIES AS A FUNCTION OF CO-CREATED EXPERIENCES OF STAKEHOLDERS

VALUE EMBODIED IN DIALOGUE, TRANSPARENCY, ACCESSIBILITY, REFLECTION AND EXPERIENCES

Enterprises learning, insight and experience through the co-creation of education and training on IBD management and guidelines

Stakeholders and end users co-created experiences of value – expansion of knowledge and awareness; improved outcomes for patients, their families and carers; and the strengthening of partnerships and networks

DOMAIN OF EXPERIENCES
Co-creation experiences as a basis of value, and joint value creation by those involved (and often their respective organisations, partners, and other stakeholders)

EXPAND CIRCLE OF STAKEHOLDERS AND JOINT VALUE CREATION OPPORTUNITIES:
AGPAL harnessed the power of multi-sectoral and interdisciplinary teams, leveraging enterprises as a nexus of engagement platforms to produce new value co-creative capacities. By expanding the circle of stakeholders, AGPAL captured the varying co-creation experiences since value is subjective to properties such as economic or societal advances and personal or organisational achievements. Additional stakeholders included RACGP, CHF, AHHA, PHNs, Medical Director, and HealthPathways

STRATEGICALLY ENGAGING STAKEHOLDERS AS CO-CREATORS:
From inception, AGPAL identified key stakeholders and end users and developed strategies to increase their willingness to engage. It is important to reach out to different groups, enterprises or sectors so they can co-create new knowledge together and thus generate more value. A deeper collaboration of multi-sectoral and interdisciplinary teams and influential stakeholders increases the pool of resources, competencies and capabilities, accelerating value creation opportunities for all. Stakeholders included GPs, gastroenterologists (general and IBD specialists), and patients

4 ARTIFACTS **1**

3 CO-CREATIVE INTERACTIONS
Strategically designed engagement platforms provided an abundance of opportunities for interactions among end users in which they co-created products and services suitable for them. Focus groups, advisory committee meetings, peer-review processes, content development workshops, feedback and evaluation loops, and multiple forums for linkage and knowledge exchange

ENTERPRISES PROCESSES PERSONS STAKEHOLDERS

Enterprise and network resources:
awareness (promotional) webinars, online workshops, communication networks (mailing lists etc.)

Open and social resources:
eLearning platform, modules online workshops, summary and implementation tools

INTERFACES

5 **2**

6

ENGAGE STAKEHOLDERS ACROSS PRIVATE, PUBLIC AND SOCIAL SECTORS TO EXPAND BENEFIT FOR ALL:
It is imperative to engage with private, public and social sectors to expand wealth, welfare and wellbeing across the sectors. AGPAL achieved this by strategically engaging with numerous industries and domains and co-creating more resourceful and sustainable opportunities. This benefits all stakeholders by deepening the impact and widening value creation

DEEPEN THE IMPACT AND ENSURE THE VIRAL SPREAD OF 'WIN MORE-WIN MORE' VALUE CREATION:
Stakeholders across the ecosystem, including business and professional, natural, social and civic communities, continuously work together to achieve impact and expand capabilities across sectors, driven by values which vary as a function of co-created experience

IDENTIFY AND SUPPORT CO-CREATION CHAMPIONS ACROSS DIFFERENT AREAS/SECTORS:
Following the initial stage, and often over time, AGPAL identified and supported new co-creation champions within all stakeholder organisations to increase the success of the co-creative initiative. Positioning champions of new approaches supports fluid uptake and compliance with changes. Champions included psychologists, pediatricians, dietitians, and other allied health professionals

Capacities developed through evolving engagement across sector enterprises

Capacities of co-creative management systems, within and between enterprises for effective governance, leadership and communication
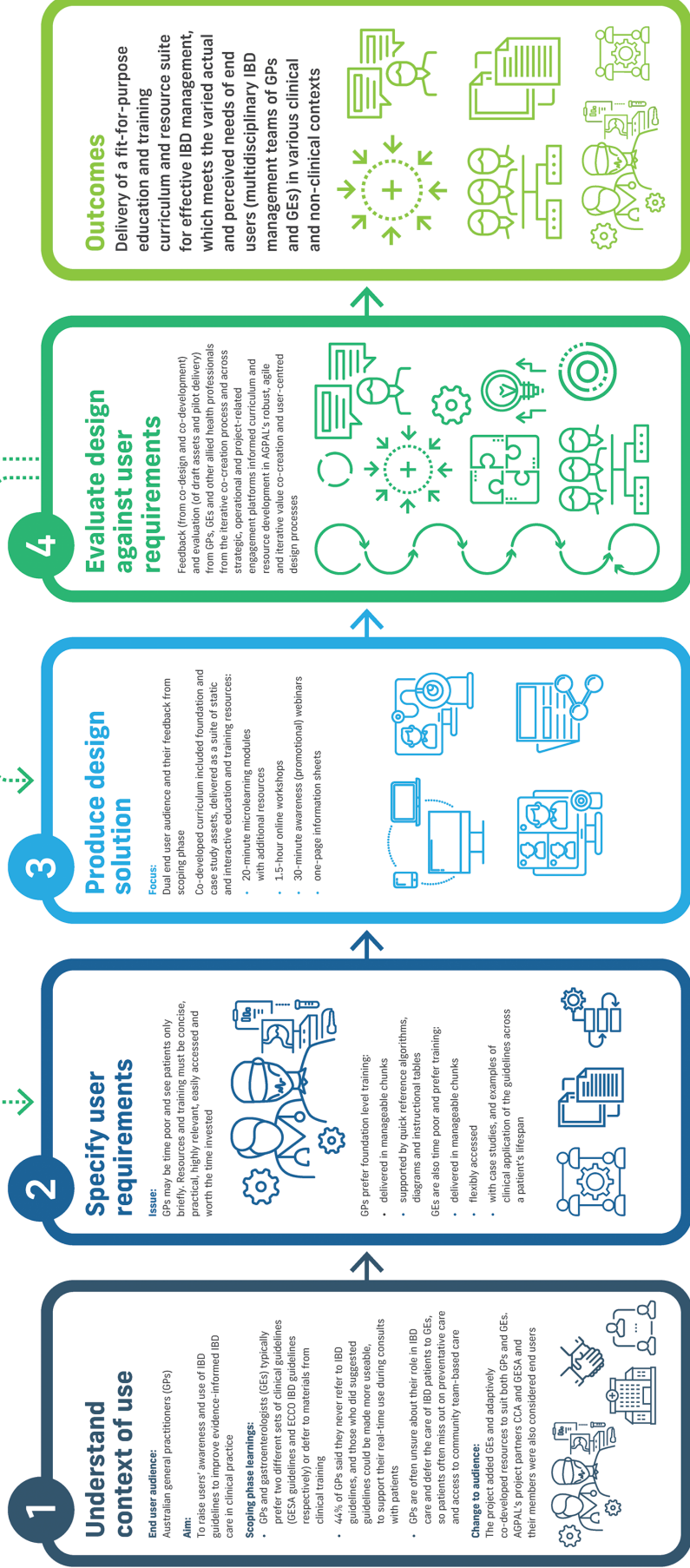
IBD = inflammatory bowel disease. AGPAL = Australian General Practice Accreditation Limited. RACGP = Royal Australian College of General Practitioners. CHF = Consumer Health Forum of Australia. AHHA = Australian Healthcare and Hospitals Association. PHN = Primary Health Network. GP = general practitioner. * Adapted from Ramaswamy and Ozcan (2014)[2] and Janamian and colleagues (2016).[6] ◆

In response, Crohn's and Colitis Australia, working with the Gastroenterological Society of Australia and AGPAL, secured funding from the Australian Government Department of Health for education and awareness-raising activities that align with recommended actions in the plan — specifically, Priority Area 3, which is to support general practitioners to more effectively participate in IBD management.[23,24]

We purposefully partnered with stakeholders and end users to map knowledge gaps, identify learner needs, ideate, problem solve, transform and mature knowledge, provide context to inform the development of content, and review and revise content.

This resulted in an education and training curriculum, resources, and delivery modes that were co-created with stakeholders and end users, and tailored to end users. The objective was to use awareness raising, education and continuing professional development to improve general practitioner capacity to support IBD patients. AGPAL's application of the six steps of value co-creation to co-design and develop the education and training resources for the Inflammatory Bowel Disease GP Aware Project is described online, along with details on the user-centred design approach that was used to develop the training (adapted from the International Organization for Standardization's standard ISO 9241-210:2019; Box 2),[25] and a description of the

2 The user-centred design approach*

1 Understand context of use

End user audience:
Australian general practitioners (GPs)

Aim:
To raise users' awareness and use of IBD guidelines to improve evidence-informed IBD care in clinical practice

Scoping phase learnings:

- GPs and gastroenterologists (GEs) typically prefer two different sets of clinical guidelines (GESA guidelines and ECCO IBD guidelines respectively) or defer to materials from clinical training

- 44% of GPs said they never refer to IBD guidelines, and those who did suggested guidelines could be made more useable, to support their real-time use during consults with patients

- GPs are often unsure about their role in IBD care and defer the care of IBD patients to GEs, so patients often miss out on preventative care and access to community team-based care

Change to audience:
The project added GEs and adaptively co-developed resources to suit both GPs and GEs. AGPAL's project partners CCA and GESA and their members were also considered end users

2 Specify user requirements

Issue:
GPs may be time poor and see patients only briefly. Resources and training must be concise, practical, highly relevant, easily accessed and worth the time invested

GPs prefer foundation level training:
- delivered in manageable chunks
- supported by quick reference algorithms, diagrams and instructional tables

GEs are also time poor and prefer training:
- delivered in manageable chunks
- flexibly accessed
- with case studies, and examples of clinical application of the guidelines across a patient's lifespan

3 Produce design solution

Focus:
Dual end user audience and their feedback from scoping phase

Co-developed curriculum included foundation and case study assets, delivered as a suite of static and interactive education and training resources:

- 20-minute microlearning modules with additional resources
- 1.5-hour online workshops
- 30-minute awareness (promotional) webinars
- one-page information sheets

4 Evaluate design against user requirements

Feedback (from co-design and co-development) and evaluation (of draft assets and pilot delivery) from GPs, GEs and other allied health professionals from the iterative co-creation process and across strategic, operational and project-related engagement platforms informed curriculum and resource development in AGPAL's robust, agile and iterative value co-creation and user–centred design processes

Outcomes

Delivery of a fit-for-purpose education and training curriculum and resource suite for effective IBD management, which meets the varied actual and perceived needs of end users (multidisciplinary IBD management teams of GPs and GEs) in various clinical and non-clinical contexts

* Adapted from ISO 9241-210:2019.[25] ◆

various engagement platforms that were developed to co-create this project (Supporting Information, table 1 and table 2).

Today, the value of the Inflammatory Bowel Disease GP Aware Project extends beyond delivering new knowledge and strategic assets. It is helping to develop capability ecosystems at the frontline of IBD care in Australia, and its educational resources and ongoing engagement platforms are focusing on six evidence-based topics:

- the GP's role in early detection of Crohn's disease and ulcerative colitis;
- early intervention, therapies, referral and triage;
- management of IBD and preventive health;
- multidisciplinary team-based care;
- managing patients with complex conditions — ages and stages; and
- managing complex IBD issues – relapse and comorbidity.

This curriculum is delivered through flexible and fit-for-purpose channels. The first of these is a set of six interactive e-learning modules hosted on a digital platform that was co-designed to optimise the learning experience. The interactive modules, which have continuing professional development endorsement, explore the lifelong journeys of patients "Emma" and "Fred" through a sequential series of animations, infographics, knowledge checks and other supportive assets. The second is a collection of digital workshops and webinars aimed at supporting meaningful engagement with the curriculum. It includes six interactive online workshops (each delivered four times) that are facilitated by subject matter experts and delivered in a manner designed to encourage transformational learning in a supportive peer environment. User analytics, ongoing engagement metrics and stakeholder feedback will inform the next iteration of each asset, ensuring it is fit for purpose and cost effective, and that it meets the actual and perceived audience needs.

Case study 2: Brisbane South Primary Health Network Person-Centred Care Practice Initiative

The Brisbane South Primary Health Network (PHN) Person-Centred Care Practice Initiative supports general practices to: build their practice team; embed change concepts from the Patient-Centred Medical Homes framework, for a more sustainable practice; and improve patient outcomes. AGPAL was engaged to develop and deliver a multiphase training program of e-learning modules and innovative, practical tools that inform practice transformation[26] in the journey towards higher performing primary health care.[27] This required an education suite that could flexibly meet the needs of the diverse end user audience. PHNs and the primary care teams that they support are excellent examples of the end users of these resources (ie, clinical, non-clinical, operational and administrative staff), who have a range of skill sets and must work together to co-create genuine, informed and measured health care transformation.

The 18-month education program involved co-design, development and delivery of education and training across two tiers of leadership in the Brisbane South PHN region: (i) PHN practice support and optimal care program teams, for whom a train-the-trainer approach to building practice capacity and increasing practice sustainability was used; and (ii) practice leaders, usually practice managers or general practitioners, who would act as agents of change at the general practice level.

Developing education resources that are more fit for purpose and relevant to each end user helps to increase adoption, long-term usability and sustainability of the resources and expand the value for all individuals, organisations and, ultimately, consumers. Details regarding how AGPAL used value co-creation and user-centred design to develop this program, and the various engagement platforms that AGPAL developed to strengthen its co-creation, are provided online (Supporting Information, table 3 and table 4).

Valuable lessons were learned along the way

Five key lessons were learned across our value co-creation experiences:

- A clear shared purpose and ongoing meaningful dialogue throughout the value co-creation journey, and a demonstrated ability to directly respond to stakeholder and end user needs, lead to a more relational rather than transactional approach. This translates into an optimised user experience, more meaningful engagement for all stakeholders, and a transformation that exceeds stakeholder expectations. The more that stakeholders and end users realise that organisations or health services are committed to listening to, embracing and addressing their requirements, the more they want to be involved with that organisation and their programs.

- The readiness of parties to embrace the commitment, transparency and responsibility of value co-creation can be variable. It is essential to select the right stakeholders and end users to work with, and deepen their capabilities over time, ensuring that they understand their impact on the developmental process, end user perception and sustainability. When engaging new stakeholders and end users, it is best to start on a small project, and support them to learn and grow. In each case study presented, subject matter experts were engaged proportionally to their co-creation experience, with each project acting as an incubator where significant value was both created and experienced by the nascent co-creator on the current project, with value amplified on and for future co-creation projects in which they would be engaged. Developing a coalition of partners over the long term is important for making value co-creation a normal mode of operation.

- Value co-creation is a flexible approach and can be used in combination with other conceptual frameworks to develop and deliver education and other resources, products and services. For instance, we combined user-centred design, experience-based co-design, action learning, adult learning theory, transactional learning, instructional learning theory and e-learning theory to complement value co-creation.

- Be transparent with all parties about the shared purpose and process of value co-creation, the role of each individual and the importance of working together to jointly create value propositions from inception, so that all parties may benefit from the process and co-created outcomes. In our experience, value was realised by each party at different points of the co-creation journey, and individuals and organisations went on to experience value beyond project-specific co-creative interactions and activities.

- Substantial investment in time, resources and planning is required to build co-creation processes with realistic timeframes, suitable management systems (governance, leadership, communication), and appropriate budgets and resources. Be flexible and invest in stakeholder engagement,

networking and collaboration. All this will gradually build a culture of meaningful relationships with those involved and committed to user-centred design principles.

In Australia, there has been continued work towards enabling system drivers that support and grow mature person-centred models of care that deliver value-based care. This requires a collaborative effort from all care providers and a strong role for consumers as active partners in their own care. The use of value co-creation and user-centred design approaches at all levels of the health care system — by policy makers, health care organisations, trainers, care providers, other stakeholders and, of course, patients, their families and their carers — offers us the opportunity to jointly create better value for all.

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Supporting Information

Additional Supporting Information is included with the online version of this article.