Social marketing and behavioural change in a systems setting
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Abstract
Most people recognise that everyday life is not the same as it was with climate change, a pandemic, inequalities and more. It is a world increasingly shaped by collective as well as individual choices, decisions and behaviours. Ultimately, in this complex world, the call to action is large-scale behaviour change. In response, social marketing with its behaviour change prime directive has been expanding in experience, evidence, theories and toolkits. Social marketing critically examines the interface of human and natural systems and their interconnected dynamic forces as a powerful means of influencing behaviours for the accorded transformation and betterment of individuals, communities, society and the planet. In pursuit of green deal innovations, critical trends in social marketing embrace systems science, stakeholder engagement and digital technologies.

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Introduction
Human behaviour accounts for approximately 1.0°C of global warming above preindustrial levels and calls for wide-scale behaviour change [9]. With human consumption of raw natural resources at the centre of the global-to-local green deals, systemic behaviour change and the rapid adoption of low-carbon lifestyles are critical enabling factors and therefore an ideal place for implementable interventions [32,29]. However, although it is understood by scientists and policy makers that education and messaging have a role to play in creating sustainable consumption and a carbon-neutral world, communication alone does not result in people changing their behaviour, individually or collectively [5,19]. Increasingly, to address complex, multilevel, and multifaceted issues, such as climate change, healthy oceans and green cities, co-ordinated multilevel behaviour change among multiple stakeholders is required, including policy makers, regulators, governing organisations, media, stage agencies, scientists, corporations, community associations, social enterprises, nongovernmental organisations (NGOs) and citizens. Unlocking the value and impact of green deal innovation depends on changing numerous individual daily choices and decision points in a system setting [44,46]. Therefore, empowering multiple stakeholders, from citizens to policy makers, to change their behaviours over time is vital to achieve green deal innovations.

In response, social marketing, defined by its behavioural change remit over the past 50 years, is expanding its experience, evidence, theories and toolkits. The 2013 consensus definition of social marketing from the International Social Marketing Association, the European Social Marketing Association and the Australian Association of Social Marketing says, "Social Marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good ….It seeks to integrate research, best practice, theory, audience and partnership insight, to inform the delivery of competition sensitive and segmented social change programmes that are effective, efficient, equitable and sustainable" [21].

Social marketing knows that working 'with' people, not 'for' or 'on' behalf of people, to make sustainable behaviour changes clearly requires a more nuanced understanding of the social, cultural, behavioural and structural dynamics at work to influence consumption and production decision-making. This is not a 'one-size-fits-all' or population-level behavioural change intervention or campaign. Whether adapting to climate change, protecting our oceans, living in greener cities and ensuring healthy soils for healthy food, current social marketing trends include (1) social marketing and behaviour change in a systems setting [6,18,45], (2)

wider societal stakeholder engagement [22,31], and (3) the use of digital technologies beyond communication and promotion [37].

Social marketing and behavioural change in a systems setting

Social marketing for systems-wide and transformative behaviour change adds three further guiding principles [26] to our understanding and implementation of behaviour change:

1. Uses a dynamic system thinking approach towards a problem (philosophical position)
2. It is a multimethod (methodological position)
3. It acknowledges multilevels of and places for disruption (action position).

To unlock the values and benefits from green innovations, these principles move the conceptualisation and management of behavioural change interventions from reductionist and linear paradigms to circular causation based on the evolutionary dynamics and feedbacks in a problem system where effects can become causes over time. Importantly, behaviour change can no longer be approached as an event or transaction confined to one single intervention at one single level at one point in time. Instead, change becomes a dynamic process over time across the individual, community and macro levels. The importance of the relational and interactive nature of behaviour change emerges, where individuals and a diverse array of top-down and bottom-up stakeholders are embedded in complex social systems with social mechanisms, such as co-operation, collaboration and self-organisation [13,24,25]. The processes cocreate and coengage multiple stakeholders in a problem system, all altering, modifying and adapting their behaviours for collective and collaborative impact. Together, the diverse array of divergent stakeholders converge on defining and articulating the problem using collective intelligence. Highly participatory behavioural design methodologies drive this type of behaviour change for social marketing [3,12,39,40,43,48] [41].

In practice, social marketing in a systems setting has emerged as systems 'social marketing' and 'macro-social marketing', for example, see Journal of Macromarketing special editions Marketing Systems (2019) and Macro-Social Marketing (2018). For green innovations, a significant benefit of systems-led behaviour change is that it adds 'social systems' and 'social mechanisms' to environmental and health problems. A second significant strength lies in understanding the behavioural dynamics at work, or not, for different groups or segments in a focal system. This systemic broadening, conceptual and empirical, spans multiple stakeholders at multiple levels of behaviour and analysis: micro (individual-level), meso (dyadic and communities and networks), and macro (governments, policy and societies) [27,28]. The dynamics of behaviour change demanded by green innovations is not the product of individual aggregation but dependent on the continuous interactions of small, engaged groups of individuals and wider stakeholders.

Reflecting this multilevel and systemic behaviour change relating to Oceans and Human Health, Britton et al., [7] present this new way of understanding dynamics and interrelationships with the ocean and humanising environmental crises. The presence of heterogeneous subpopulations and stakeholders with different values within a problem system shows optimal implementation of evidence-based strategies is through targeted value-based exchanges for sustainable change. The study also demonstrates the value of a highly participatory collective intelligence process through a meta-analysis of priorities and actions for sustainable ocean policy. The findings highlight the priority themes and actions from expert stakeholder *and* citizen discussions that provide key insights for policy and decision-making processes. The soft systems dynamics-behavioural change presented provides one methodology to uncover the circular causality and interdependent processes visible. For green innovations, understanding the behavioural and structural dynamic interactions can help accelerate the progress of policy and management that is integrated and adaptive. The value is in building capacity to understand the current and future synergies and interlinkages between climate change, ocean health and human health and well-being.

In a similar vein, [2] demonstrate the action benefits for green innovation of a social marketing systems behaviour change perspective when the focus of change is expanded beyond an individual to include factors in social, economic, and policy environments to explain eating behaviours in the Australian Military Personnel. On the *supply* side, the encouragement of patronage through menu innovation, investment in facilities, cooking skills training, and auditing provision emerged as opportunities for behaviour change. On the *demand* side, education and training coupled with communications that challenge cultural and regulatory norms and link to military values were the dominant behaviour change areas.

In the health domain, a final exemplar comes from the Florida and Community Based Prevention Marketing for Systems Change—a partnership to identify, tailor, implement and evaluate a multilevel intervention to increase colorectal cancer (CRC) screening in the Tampa Bay region. Their innovative academic-community strategy to manage the complex problem of CRC screening disparities made use of group model building, a concept core to social marketing systems

thinking, to understand the importance of linkages, feedback loops, and interactions among the system's stakeholders over time. Group model building is a highly participatory and successful way of involving community participants and other stakeholders in problem definition to intervention design and implementation [3]. It delivers behavioural design methodologies for behavioural change highly relevant to green innovations.

Wider societal stakeholder engagement

Studies have shown that citizens, consumers and communities are no longer isolated or independent entities in either individual or collective change processes but collaborative, co-ordinated and interrelated stakeholders with a shared change focus [15,18]. Another important factor in behaviour change is giving voice and space to a diversity of stakeholders, including those involved in local governance, regulation media, community organisations, NGOs, social enterprises, commercial activities and environmental advocacy. This is 'whole-systems-in-the-room' change, emphasising top-down, bottom-up connections and the cocreation of shared and interlocking values among all stakeholders in a localised context. It assembles top-down/bottom-up, micro-, meso- and macro-levels stakeholders (e.g. representatives of industry, professional associations, consumer and civil associations, leadership positions, decision-makers, etc.) and cross-sectoral approaches (e.g. industrial sectors, local authorities and agencies and NGOs, including citizen associations and environmental organisations) that bring together different groups of people to enact change. Two examples of societal stakeholder identification and engagement demonstrate the benefits for of green deal innovations.

A new and timely book, Stakeholder Involvement in Social Marketing Challenges and Approaches to Engagement edited by Knox et al. [22], is unique in the discussion on stakeholder involvement in social marketing. It addresses the calls made by scholars to take up inherent challenges involved in identifying, involving, and prioritising different stakeholders in behaviour change interventions. Sharing real-world experiences, the text synthesises and extends current knowledge and contributes to establishing stronger and long-lasting alliances with stakeholders with the aim of further supporting and facilitating sustainable change. Different issues affecting stakeholder involvement in social marketing range from partnerships with nature rather than multi-national corporations (MNCs), ethical tension and conflict between various groups to case studies on active travel and reducing health and well-being inequalities, all highly pertinent to green deal innovations.

Advancing the practical application of stakeholder knowledge in social marketing, McHugh et al., [31] contribute seven stakeholder protocols, a set of practices, tools and activities. The aim is to ensure that stakeholder deliberations are not restricted to only those who are aware or have a vested stake in the problem but include a broader set of market shapers [16]. Furthermore, the protocols can assist in the identification of nonidentified stakeholders, leading to better outcomes and building collaborative places and spaces for greater impact, reach, and ultimately sustainable wide-scale behaviour change.

Using digital technologies beyond communication and promotion

Research is also progressing as social marketing witnesses the acceleration and normalisation of digital technologies for behaviour change [20,11,23]. A systematic literature review by Shawky et al. [37] examining the use of interactive social media and engagement in various social marketing programmes using interactive social media platforms, points to the scale of integration of digital technologies in social marketing, is clearly expanding beyond communication and promotion.

Studies such as by Andrade et al., Ullmann et al. and Shah et al. [1,33,36] highlight the expansion of digital technologies into research, segmentation and targeting purposes in social marketing. Other studies such as [4,35,47] developed behavioural change apps, products and services and use digital technologies for delivery purposes [8,17,34].

Specific technologies used include Facebook, Instagram, Pinterest, Twitter, Internet and mobile phones/smartphones, text messaging, mobile, websites, online programmes, blogs, discussion boards, apps, virtual reality and emails for segmentation, formative research, barrier and asset analysis, augmented/online products and service facilitation, delivery and access and monitoring intervention engagement. Such digital technologies pave the way for multilevel, multistakeholder interactions and collaborations to take place that can fuel systems change. These digital technologies unlock positive behavioural change outcomes for green deal innovations in numerous ways. Digital technologies facilitate diversity of self-organisation, connect top-down decision-makers with bottom-up citizen and community lived experiences, reframe old self-interest values into new shared values based on mutuality and morality and facilitate and nurture co-operation and collaboration for collaborative impact in local-to-global contexts. In effect, digital technologies in social marketing drive the macro-meso-micro-micro-meso-macro social mechanisms in social systems.

There is a small but accelerating body of literature that shows digital technologies are central to supporting funders, stakeholders and partnerships in designing and

implementing behavioural change programmes [1,10,14,30]. Under the hood of behavioural change, augmenting the digital technologies mentioned earlier, are digital tools such as google docs, zoom, Microsoft teams are being used as indispensable tools for stakeholder collaboration, co-ordination, communication, engagement and self-organisation, that in turn, can give rise to long-term strategic and operational change partnerships. These digital platforms help stakeholders move away from their siloed mental models of a problem to more complex, collective mental models of problem systems. System dynamic and simulation software such as Stella, Venism and Kumu can assist in mapping and model the casual loops, feedbacks and leverage points in a focal system. Stakeholders can engage with the complexity of the problem, the different perspectives, and competing demands; uncover hitherto unseen solutions; and initiate cross-sector partnership opportunities. From this perspective, systems-wide behaviour change becomes a process, a co-created macro-micro process. Behaviour change is codiscovered, codiagnosed and codesigned, embracing the citizen 'and' stakeholders, the citizen 'and' society, the citizen 'and' the planet.

Finally, in relation to communication and promotion, an important technological trend is the use of multiagent systems to model opinion leaders and interactions, showing that targeted advertising through digital social networks performs better than a traditional population-level broadcasting approach [42]. Furthermore, such narrow and broadcasting highlights how the environmental and/or health objectives of some stakeholders in a system compete with the economic, social, political and cultural goals of other stakeholders. This is a reminder to social marketers that stakeholders have multiple choices or decision points and can be direct or indirect competition actively pushing in the opposite direction of other stakeholders in the system. For example, organisations focused solely on terrestrial issues, ensuring the status quo and continued existence of existing fossil fuel sectors or the tobacco industry resisting smoking cessation [5,19].

Conclusion
The value and impact of Social Marketing for Green Deal Innovations lies in its strong ability to design and deliver behaviour change interventions and strategies at multiple levels across multiple and diverse stakeholders. This review points to social marketing broadening its focus beyond the individual change in both the health and environmental domains to ways that drive wide-scale behaviour changes from a systems perspective. The unit of analysis for transformative behaviour change becomes the interactions, processes, mechanisms and interdependencies, as opposed to facts, variables and levels. Social marketing, using highly participatory

systemic cocreation methods, societal stakeholder engagement and digital technologies can contribute a transformative and far-reaching framework in the interests of sustainable societies and planet.

Declaration of competing interest
The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References
Papers of particular interest, published within the period of review, have been highlighted as:

* of special interest
** of outstanding interest

1. Andrade EL, Evans WD, Barrett N, Edberg MC, Cleary SD: **Strategies to increase latino immigrant youth engagement in health promotion using social media: mixed-methods study**. *JMIR Public Health Surveillance* 2018, **4**:e71.

2. Anibaldi R, Carins J, Rundle-Thiele: **Eating behaviors in Australian military personnel: constructing a system of interest for a social marketing intervention**. *Soc Market Q* 2020, **26**:229–243.

3. Biroscak B, Schneider T, Panzera AD, Bryant CA, McDermott RJ, Mayer AB, Khaliq M, Lindenberger J, Courtney AH, Swanson MA, Wright AP, Hovmand PS: **Applying systems science to evaluate a community-based social marketing innovation: a case study**. *Soc Market Q* 2014, **20**:247–267.

4. Bopp M, Sims D, Matthews SA, Rovniak LS, Poole E, Colgan J: **Development, implementation, and evaluation of active lions: a campaign to promote active travel to a university campus**. *Am J Health Promot* 2018, **32**:536–545.

5. Borden DS, Cohn SI, Gooderham C: **Transitioning "upward" when "downstream" efforts are insufficient**. *Soc Market Q* 2018, **24**:151–163.

6. Brennan L, Previte J, Fry M: **Social marketing's consumer myopia: applying a behavioral ecological model to address wicked problems**. *J Soc Market* 2016, **6**:219–239.

7. Britton E, Domegan C, McHugh P: **Accelerating sustainable ocean policy: the dynamics of multiple stakeholder priorities and actions for oceans and human health**. *Mar Pol* 2021, **124**.

8. Cates JR, Crandell JL, Diehl SJ, Coyne-Beasley T: **Immunization effects of a communication intervention to promote preteen HPV vaccination in primary care practices**. *Vaccine* 2018, **36**: 122–127.

9. de Coninck H, Revi A, Babiker M, Bertoldi P, Buckeridge M, Cartwright A, Dong W, Ford J, Fuss S, Hourcade J-C, Ley D, Mechler R, Newman P, Revokatova A, Schultz S, Steg L, Sugiyama T: **Strengthening and implementing the global response**. In *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Edited by MassonDelmotte V, Zhai P, Pörtner H-O, Roberts D, Skea J, Shukla PR, Pirani A, Moufouma-Okia W, Péan C, Pidcock R, Connors S, Matthews JBR, Chen Y, Zhou X, Gomis MI, Lonnoy E, Maycock T, Tignor M, Waterfield T; 2018. In Press.

10. Dehlin JM, Stillwagon R, Pickett J, Keene L, Schneider JA: **# PrEP4Love: an evaluation of a sex-positive hiv prevention campaign**. *JMIR Public Health Surveillance* 2019, **5**, e12822.

11. Dooley JA, Jones SC, Iverson D: **Using web 2.0 for health promotion and social marketing efforts: lessons learned from web 2.0 experts**. *Health Market Q* 2014, **31**:178–196.

12. Domegan C, McHugh P, Devaney M, Duane S, Hogan M, Broome BJ, Layton R, Joyce J, Mazzonetto M, Piwowarczyk P: **Systems-thinking social marketing: conceptual extensions and empirical investigations**. *J Market Manag* 2016, **32**: 1123–1144.

13. Duffy SM, van Esch P, Yousef M: **Increasing parental leave uptake: a systems social marketing approach**. *Australas Market J* 2020, https://doi.org/10.1016/j.ausmj.2020.01.007. Advance online Publication.

14. Evans C, Turner K, Suggs LS, Occa A, Juma A, Blake H: **Developing a mHealth intervention to promote uptake of HIV testing among African communities in the UK: a qualitative study**. *BMC Publ Health* 2016, **16**:656.

15. Fehrer JA, Woratschek H, Germelmann CC, Brodie RJ: **Dynamics and drivers of customer engagement: within the dyad and beyond**. *J Ser Manag* 2018, **29**:443–467.

16. Giesler M, Fischer E: **Market system dynamics**. *Market Theor* 2017, **17**:3–8.

17. Gilbert M, Salway T, Haag D, Kwag M, Edward J, Bondyra M, Cox J, Hart TA, Grace D, Grennan T, Ogilvie G: **Assessing the impact of a social marketing campaign on program outcomes for users of an internet-based testing service for sexually transmitted and blood-borne infections: observational study**. *J Med Internet Res* 2019, **21**, e11291.

18. Carvalho H, Mazzon J, Santos J: **A tale of complexity**. *J Soc*
* Market 2019, **9**:40–52, https://doi.org/10.1108/JSOCM-04-2018-0045.
This paper captures the complexity in social ecosystems where social change is desired. By examining the ecosystem dynamics to simulate and explain the evolution of cigarettes, the paper highlights the role of frictions in the tobacco ecosystem and the emergence of a catalyser in a complex social problem framework.

19. Hastings G, Domegan C: *Social marketing: rebels with a cause*. 3ʳᵈ ed. London; New York: Routledge; 2018.

20. Hawky S, Kubacki K, Dietrich T, Weaven S: **Using social media to create engagement: a social marketing review**. *J Soc Market* 2019, https://doi.org/10.1108/JSOCM05-2018-0046. Advance online publication.

21. International Social Marketing Association, Australian Association of Social Marketing, & The European Social Marketing Association: *Consensus definition of social marketing*. 2013. www.i-socialmarketing.org/assets/social_marketing_definition.pdf.

22. Knox K, Kubacki K, Rundle-Thiele S. *Stakeholder involvement in*
** *social marketing challenges and approaches to engagement*. Australia: Routledge; 2021.
The purpose of this edited collection is to discuss the role and importance of stakeholder engagement in social marketing from multiple theoretical and methodological perspectives for social marketing.

23. Kubacki K, Rundle-Thiele S, Schuster L, Wessels C, Gruneklee N: **Digital innovation in social marketing: a systematic literature of interventions using digital channels for engagement**. In *Innovations in social marketing and public health communication*. Cham: Springer; 2015:49–66.

24. Kemper JA, Ballantine P: **Targeting the structural environment at multiple social levels for systemic change: the case of climate change and meat consumption**. *J Soc Market* 2020, **10**:38–53.

25. Kennedy AM: **Macro-social marketing**. *J Macromarketing* 2016, **36**:354–365.

26. Kennedy AM: **Macro-social marketing research: philosophy, methodology and methods**. *J Macromarketing* 2017, **37**: 347–355.

27. Khayame HA, Abdeljawad MM: **Systems thinking in upstream**
** **social marketing: using soft systems methodology to improve midwifery policy in Jordan**. *Soc Market Q* 2020, **26**: 167–183.
This case study highlights the importance of integrating systems tools, reflexive thinking, stakeholder iterative learning and conflict management with social marketing frameworks for systematic behavioural outcomes. It finds soft systems tools and reflective thinking aid the complexity of policymaking environments and collective action but longer timeframes, allowing for iterative learnings and normally outside the social marketers control, are required for tension and conflict resolution.

28. Letunovska N, Letunovska O, Pimonenko T, Aleksandrov V: **Environmental management and social marketing: a bibliometric analysis**. In *E3S web conf.*, vol. 234; 2021, https://doi.org/10.1051/e3sconf/202123400008. 00008.

29. Little VJ, Lee CKC, Nair S: **Macro-demarketing: the key to unlocking unsustainable production and consumption systems?** *J Macromarketing* 2019, **39**:166–187.

30. Mehmet M, Roberts R, Nayeem T: **Using digital and social media for health promotion: a social marketing approach for addressing co-morbid physical and mental health**. *Aust J Rural Health* 2020, **28**:149–158.

31. McHugh P, Domegan C, Duane S: **Protocols for stakeholder participation in social marketing systems**. *Soc Market Q* 2018, https://doi.org/10.1177/15245004187616. Advance online publication.

32. Mundaca L, Sonnenschein J, Steg L, Höhne N, Ürge-Vorsatz D: **The global expansion of climate mitigation policy interventions, the Talanoa Dialogue and the role of behavioural insights**. *Environ Res Comm* 2019, **1**.

33. Ullmann G, Kedia SK, Homayouni R, Akkus C, Schmidt M, Klesges LM, Ward KD: **"Memphis FitKids: implementing a mobile-friendly web-based application to enhance parents' participation in improving child health,"**. *BMC Publ Health* 2018, **18**:1068.

34. Rogers EA, Fine SC, Handley MA, Davis HB, Kass J, Schillinger D: **Engaging minority youth in diabetes prevention efforts through a participatory, spoken-word social marketing campaign**. *Am J Health Promot* 2017, **31**:336–339.

35. Rundle-Thiele S, Schuster L, Dietrich T, Russell-Bennett R, Drennan J, Leo C, Connor JP: **Maintaining or changing a drinking behavior? GOKA's short-term outcomes**. *J Bus Res* 2015, **68**:2155–2163.

36. Shah HS, Dolwick Grieb SM, Flores-Miller A, Greenbaum A, Castellanos-Aguirre J, Page KR: **Sólo Se vive una vez: the implementation and reach of an HIV screening campaign for latinx immigrants**. *AIDS Educ Prev* 2020, **32**:229–242.

37. Shawky S, Kubacki K, Dietrich T, Weaven S: **Using social media**
* **to create engagement: a social marketing review**. *J Soc Market* 2019, **9**:204–224, https://doi.org/10.1108/JSOCM-05-2018-0046.
This systematic review investigates a variety of social media platforms (Facebook being the most popular) that individuals and organisations use to communicate and collaborate with each other. On the basis of evidence from 29 social marketing programmes, the findings show social media creates personalised content and is an extended channel to traditional media efforts.

39. Thompson HM, Previte J, Kelly S, Kelly AB: **Examining alcohol management practices in community sports clubs: a systems approach**. *J Soc Market* 2017, **7**:250–267.

40. Truong VD: **Government-led macro-social marketing programs in Vietnam: outcomes, challenges, and implications**. *J Macromarketing* 2017, **37**:409–425.

41. Truong VD, Saunders SG, Dong XD: **Systems social marketing:**
** **a critical appraisal**. *J Soc Market* 2019, https://doi.org/10.1108/JSOCM-06-2018-0062. Advance online publication.
The review (critical, not systematic) presents an overview of multilevel, multimethod behaviour change emerging in the field. Key systems social marketing findings pertain to the context and boundaries of a system, the inclusion and engagement of societal stakeholders and participation, together with the use and reporting of theories and models and measurement of collective outcomes beyond the sum of the individual parts.

42. Varma VS, Morărescu I-C, Ayouni M: **Analysis of opinion dynamics under binary exogenous and endogenous signals**. *Nonlinear Analysis: Hybrid Systems* 2020, **38**:1–18.

43. Venturini R: **Social marketing and big social change: personal social marketing insights from a complex system obesity prevention intervention**. *J Market Manag* 2016, **32**:1190–1199.

44. Veríssimo D: **The past, present, and future of using social marketing to conserve biodiversity**. *Soc Market Q* 2019, **25**:3–8.

45. Veríssimo D: **Taking the pulse of social marketing: the 2019 World Social Marketing conference**. *Soc Market Q* 2020, **26**:271−275.

46. Williamson K, Satre-Meloy A, Velasco K, Green K: *Climate change needs behavior change: making the case for behavioral solutions to reduce global warming*. Arlington, VA: Rare; 2018.

47. Yam A, Russell-Bennett R, Foth M, Mulcahy R: **How does serious M-game technology encourage low-income households to perform socially responsible behaviors?** *Psychol Market* 2017, **34**:394−409.

48. Zurcher KA, Jensen J, Mansfield A: **Using a systems approach to achieve impact and sustain results**. *Health Promot Pract* 2018, **19**:15S−23S.