BMJ Open
Characteristics of knowledge translation platforms and methods for evaluating them: a scoping review protocol

Bey-Marrie Schmidt 1, Sara Cooper 2, Taryn Young, Nasreen S Jessani

ABSTRACT
Introduction Knowledge translation platforms (KTPs) are intermediary organisations, initiatives or networks whose intent is to bridge the evidence into action divide. Strategies and tools include collaborative knowledge production, capacity building, information exchange and dialogue to facilitate relevant and timely engagement between researchers and decision-makers and other relevant stakeholders. With the wide range of definitions and descriptions of KTPs, there is a need to (1) provide a nuanced understanding of characteristics of KTPs and (2) assess and consolidate research methods used in mapping and evaluating KTPs to inform standardised process and impact evaluation.

Methods and analysis This scoping review will follow the recommended and accepted methods for scoping reviews and reporting guidelines. Eligibility for inclusion is any conceptual or empirical health-related qualitative, quantitative and/or mixed method studies including (1) definitions, descriptions and models or frameworks of KTPs (including those that do not self-identify as KTPs, eg, university research centres) and (2) research methods for mapping and/or evaluating KTPs. Searches will be carried out in PubMed, Scopus, CINAHL, Embase, Global Health and Web of Science using a predetermined search strategy, without any date, language or geographical restrictions. Two reviewers will independently screen titles and abstracts. One reviewer will complete data extraction for all included studies, and another will check a sample of 50% of the included studies. The analysis and synthesis will provide (1) an understanding of the various characteristics of KTPs; (2) insight into characteristics or factors that make them resilient and/or adaptive to facilitate impact (ie, influence policy and practice); and (3) an overview of the various methods for mapping and evaluating KTPs. We will explore enhancing an existing framework for classifying KTPs, or perhaps even developing a new framework for identifying and monitoring KTPs if necessary and relevant.

Ethics and dissemination This scoping review does not require ethics approval, as we will only include information from previously conducted studies and we will not involve human participants. The results will be submitted to a peer-reviewed scientific journal for publication and as conference presentations.

BACKGROUND
The global focus on achieving the sustainable development goals (SDGs) and implementing universal health coverage (UHC) has resulted in an increased demand for research evidence to inform policy and practice.2 SDG 3 is about ensuring healthy lives and promoting well-being at all ages, which is closely linked with the aims of UHC.3 UHC aims to ensure that all people have access to needed and effective health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality, without exposing users to financial hardship.4 However, despite the widely agreed SDGs and the UHC model, there is limited use of high-quality research on the effectiveness, acceptability and cost implications of health system, healthcare or public health interventions to inform policy, practice and implementation.5 Although research evidence on health-related interventions and systems is increasingly available, there are challenges around translating research evidence into policy and practice.

Translating research evidence into policy and practice, or knowledge translation (KT), entails a ‘dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve health, provide more effective health services and products and strengthen the healthcare system’.9 Limited institutional
support or buy-in from leadership and relevant stakeholders for KT has been linked to several challenges, for example, poor infrastructure and inadequate financial and technical resources specifically for KT; inadequate soft skills, relationships and networks among evidence producers; evidence users’ negative attitudes and poor knowledge about what KT is and how to do it; and scarce local research evidence relevant to microlevel policy and practice, among others.

Knowledge translation platforms (KTPs) are intermediary organisations, initiatives or networks whose purpose is to overcome a range of inter-relationship and contextual challenges (see previous examples) using a multitude of strategies and tools. These include collaborative knowledge production, capacity building, information exchange and dialogue to facilitate relevant and timely engagement between researchers and different health decision-makers (eg, patients, health practitioners, healthcare managers, policy-makers and funders). There are currently a wide range of definitions and descriptions as well as models and frameworks of KTPs in the literature. However, there is only one published systematic review on KTPs by Partridge et al, which primarily synthesised the lessons learnt about activities, outputs, outcomes and impacts from KTPs specifically in low-income and middle-income countries.

First, there is a need to synthesise the different definitions and descriptions of KTPs in the literature so as to provide a common and nuanced understanding of what KTPs are. This is necessary for planning and carrying out comparisons and evaluations of KTPs as one mechanism for strengthening their overall usefulness. Second, there is a need to synthesise a wider range of characteristics of KTPs beyond those characteristics explored in the Partridge review; for example, strengths and limitations of different KTP models, funding and sustainability of KTPs, current operational status (determined using evidence from the scoping review and institutional websites), and the relationship between design and implementation factors or characteristics and successful functioning of KTPs and their influence to policy and practice. Having a better understanding of the different characteristics and types of KTPs can inform funders and governments about their implementation, sustainability and overall support for evidence-informed policy and practice. Additionally, identifying the different types of KTPs that can support evidence-informed policy and practice in local settings is critical, especially in the context of many public health and health system interventions for achieving UHC and the SDGs. For example, in the case that a KTP exists at the local level, decision-makers need to understand what KTPs are (including what KT is in general) and their role in supporting UHC decision-making processes. Third, there is a need to synthesise the research methods used in the literature for mapping and evaluating KTPs. Identifying the different qualitative, quantitative and mixed methods used for mapping and evaluating KTPs is an important step in exploring how different methods can be used or combined to address the gap for more robust evaluations of KTPs. At a practical level, mapping KTPs can help like-minded organisations to identify opportunities that avoid duplication and amplify collaboration, particularly in settings where there are limited resources and expertise.

This scoping review therefore aims (1) to provide a more nuanced understanding of the characteristics of KTPs and (2) to assess and consolidate research methods used in mapping and evaluating KTPs to inform standardised process and impact evaluation. The review authors intend to use the review findings to inform a future research study on mapping, evaluating and strengthening KTPs that can support UHC policy, practice and implementation in South Africa.

IDENTIFYING THE RESEARCH QUESTIONS

This scoping review is on the characteristics and methods for mapping and evaluating KTPs. The specific objectives of the scoping review are:

- To identify and synthesise definitions as well as characteristics of KTPs (eg, activities, processes, outputs, purpose, functions, models, stakeholders, positioning, funding, strengths, limitations, monitoring, impact and status).
- To identify and synthesise the design and implementation factors or characteristics that facilitate and/or hinder the successful functioning of KTPs and their influence to policy and practice.
- To identify and summarise the various research methods for mapping and evaluating KTPs (ie, qualitative, quantitative and mixed) and where evaluations were conducted, to synthesise their outcomes (eg, impact, success or failure).
- To explore the potential for developing a new or enhancing an existing framework for classifying KTPs.

IDENTIFYING RELEVANT STUDIES

We will use the scoping review methods outlined by Arksey and O’Malley. The proposed steps are identifying the research question; identifying relevant studies; study selection; charting the data; collating, summarising and reporting the results; and consultation (ie, seeking insights beyond those in the literature from content experts). To report our review findings, we will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews: Checklist and Explanation (see online supplemental file 1). We aim to conduct the proposed steps by February 2023.

Any published, empirical and conceptual, health research studies from anywhere on KTPs will be eligible. Qualitative, quantitative and/or mixed method studies are eligible for inclusion as long as they include a definition or description of what a KTP is and/or include one or more methods for mapping and/or evaluating KTPs. Eligible participants are KTP staff and users, for example, researchers, knowledge brokers, policy-makers, health
practitioners and managers, patients and community representatives, and journalists. KTPs can exist within and between different settings, for example, universities, research councils, professional bodies, civil society organisations, community organisations and government.15 16

The search will identify all relevant studies without data, language or geographical restrictions. We will search the following electronic databases: PubMed, Scopus, CINAHL, Embase, Global Health and Web of Science. Search strings will include keywords and Medical Subject Headings (MeSH) terms related to KTP (concept A) (eg, policy brief, deliberate dialogue and knowledge exchange) and evidence-informed decision-making (concept B) (eg, health policy and policymaking). We have developed a preliminary search strategy in the PubMed database (see online supplemental file 2). To finalise our search strategy, we will apply an iterative approach to check whether known articles that meet our eligibility criteria were found by the search. We will also identify missing keywords and MeSH terms to add to our search strategy from the iterative process. In addition to the electronic searches, review authors will search the reference lists of all included studies and key references (eg, relevant systematic reviews) and contact authors of included studies and/or experts in the field for additional references.

STUDY SELECTION
The search across databases will identify titles and abstracts of relevant studies. The search results will be merged in the EndNote reference management programme where duplicates will be removed. The titles and abstracts will then be uploaded to an electronic programme, such as Covidence or Rayyan, for screening and data extraction. An eligibility form will be developed before screening starts. The following inclusion criteria will be used.

Focus of studies

Definitions and characteristics of KTPs (eg, activities, processes, outputs, purpose, functions, models, stakeholders, positioning, funding, strengths, limitations, monitoring, impact and status).

Factors or characteristics that facilitate and/or hinder the successful functioning of KTPs and their influence to policy and practice.

Research methods for mapping and evaluating KTPs (ie, qualitative, quantitative and mixed).

Evaluation outcomes of KTPs (eg, impact, success or failure).

Existing frameworks for classifying KTPs.

The outcomes of KTPs (success or failure) will be based on what the KTPs themselves aim to achieve through their activities and processes. Where a KTP has been evaluated, the review team will use the evaluation results to determine which factors or characteristics contributed to its success or challenges. Where a KTP has not been evaluated, the review team will explore what the primary authors deem as important factors or characteristics that facilitate and/or hinder its successful functioning and influence on policy and practice

Participants

KTP staff and users (eg, researchers, knowledge brokers, policy-makers, health practitioners and managers, patients and community representatives and journalists).

Setting

KTPs can exist within and between different settings (eg, research centres or departments, universities, research councils, professional bodies, civil society organisations, community organisations and government).

Two review authors will independently screen the titles and abstracts to determine their eligibility for full-text screening. We will retrieve full texts for titles and abstracts deemed relevant. One review author (B-MS) will screen all full texts and make a final decision about inclusion. Another review author will check the eligibility of a random sample of 50% of the full texts. Conflicts will be resolved with a third reviewer. The study selection process will be summarised using a Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow diagram.

CHARTING THE DATA

Data extraction or ‘charting of data’ will be carried out once we have a final list of all the studies to be included in the review. Data extraction will be conducted by one review author (B-MS) who will collect, sift and sort data according to the objectives. The review author will extract information on the study and author details; research type and study design; research setting and participants; definitions, descriptions and characteristics of KTPs; and methods used for mapping and/or evaluating KTPs. A second review author will check data extraction of all included studies. Data extraction will be done in Excel to allow for comparison of key items across studies and to allow for synthesis within and across data items. Once all the data have been extracted and checked, studies will be categorised or ‘charted’ according to the following criteria: (1) what is a KTP? and/or (2) what methods are used to map and/or evaluate a KTP? Additional categories may be identified during the data extraction process, in consultation with the review team. We will not assess the methodological quality of the included studies, as that is the convention for such scoping reviews.29 30

COLLATING, SUMMARISING AND REPORTING THE RESULTS

One review author (B-MS) will conduct data analysis using manual coding and data synthesis methods on the extracted and charted data. A second review author will check the data analysis work on an ongoing basis to ensure quality of the process. We will synthesise the data according to variation (breadth) and key components (depth) across definitions, characteristics and methods of

Schmidt B-M, et al. BMJ Open 2022;12:e061185. doi:10.1136/bmjopen-2022-061185
KTPs. The analysis will combine quantitative and qualitative syntheses to provide an overview of our findings. First, we will conduct a numerical analysis of all the included studies according to different categories, for example, study design (qualitative, quantitative and mixed), participants (KTP staff vs users), KTP characteristics (model, function and institution), and income level of country (low, middle and high). Second, we will conduct a qualitative narrative synthesis of the definitions, characteristics and methods of KTPs by looking for the key components across the data. The numerical and narrative syntheses will provide (1) an overview of the key aspects of KTP studies, (2) definitions and conceptualisations of KTPs, and (3) research methods for mapping and/or evaluating KTPs.

CONSULTATIONS
As mentioned earlier, to identify additional relevant studies, we will contact authors of included studies and/or experts in the field. We will engage with other KT researchers (ie, those undertaking scientific research in the KT field) and KT practitioners (ie, those designing, implementing, monitoring and evaluating KT interventions) as we carry out different stages of this scoping review to ensure its relevance and applicability. It is an advantage that our review team is made up of both KT researchers and practitioners who have the appropriate content and method expertise to ensure scientific rigour of the review. We will shape the review process and findings according to what we know is most useful from experience and also draw on colleagues working in the field to validate the findings and extract key messages or implications for research and practice.

PATIENT AND PUBLIC INVOLVEMENT
There was no patient or public involvement in the design of this protocol.

DISCUSSION
To our knowledge, this is the first scoping review of the evidence on KTPs globally. Our synthesis will be on the wide range of definitions, descriptions and characteristics of KTPs and aims to provide a better understanding of the relationship between some of the characteristics of KTPs (eg, we will explore the relationship between KTP design, success factors and effectiveness or impact). A key methodological strength of the scoping review is that we will scope for both conceptual and empirical studies, key methodological strength of the scoping review is that we will explore the relationship between KTP design, success factors and effectiveness or impact). A
numerical and narrative synthesis of the definitions, characteristics and methods of KTPs by looking for the key components across the data. The numerical and narrative syntheses will provide (1) an overview of the key aspects of KTP studies, (2) definitions and conceptualisations of KTPs, and (3) research methods for mapping and/or evaluating KTPs.

ETHICS AND DISSEMINATION
This is a scoping review of completed studies. As such, our research does not require ethics approval, as we do not involve human participants. The results will be submitted to a peer-reviewed scientific journal for publication and as conference presentations.

Twitter Taryn Young @TarynYoung3

Acknowledgements We thank Mrs Joy Oliver, Cochrane South Africa, South African Medical Research Council, who assisted with developing the search strategy.

Contributors B-MS conceptualised the protocol together with TY and NSJ. B-MS drafted the protocol with SC and TY providing methodological expertise and NSJ providing content expertise. All authors reviewed and approved the final manuscript before final submission for peer review.

Funding Research reported in this publication was supported by the South African Medical Research Council through its Division of Research Capacity Development under the Research Capacity Development Initiative from funding received from the South African National Treasury.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, conduct, reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

ORCID iDs
Bey-Marrie Schmidt http://orcid.org/0000-0003-1563-171X
Sara Cooper http://orcid.org/0000-0001-9894-236X
REFERENCES

1. Special Programme for Research and Training in Tropical Diseases (TDR). Promoting implementation research for accelerating universal health coverage, 2019. Available: https://www.who.int/tdr/news/2019/promoting-ir-for-accelerating-uhc/en/

2. Eichler R, Gigli S, LeRoy L. Implementation research to strengthen health care financing reforms toward universal health coverage in Indonesia: A mixed-methods approach to real-world monitoring. Glob Health Sci Pract 2018;6:747–53.

3. United Nations (UN). Take action for the sustainable development goals, 2019. Available: https://www.un.org/sustainabledevelopment/sustainable-development-goals/

4. World Health Organisation. What is health financing for universal coverage? 2020. Available: https://www.who.int/health_financing/

5. Uneke CJ, Ndukwu CD, Ezeoha AA, et al. Implementation of a health policy Advisory Committee as a knowledge translation platform: the Nigeria experience. Int J Health Policy Manag 2015;4:161–8.

6. Langlois EV, Becerril Monteko V, Young T, et al. Enhancing evidence informed policymaking in complex health systems: lessons from multi-site collaborative approaches. Health Res Policy Syst 2016;14:20.

7. Mathews C, Goga A, Loveday M, et al. Moving towards universal health coverage: strengthening the evidence ecosystem for the South African health system. S Afr Med J 2019;109:8–14.

8. Young T, Garner P, Clarke M, et al. Series: clinical epidemiology in South Africa, paper 1: evidence-based health care and policy in Africa: past, present, and future. J Clin Epidemiol 2017;83:24–30.

9. Straus SE, Tetroe J, Graham I. Defining knowledge translation. CMAJ 2009;181:165–8.

10. Kalbarczyk A, Rodriguez DC, Mahendradhata Y, et al. Barriers and facilitators to knowledge translation activities within academic institutions in low- and middle-income countries. Health Policy Plan 2021;36:728–39.

11. Jessani NS, Siddiqui SM, Babcock C, et al. Factors affecting engagement between academic faculty and decision-makers: learnings and priorities for a school of public health. Health Res Policy Syst 2018;16:65.

12. Jessani NS, Babcock C, Siddiqui S, et al. Relationships between public health faculty and decision makers at four governmental levels: a social network analysis. Evid Policy 2018;14:499–522.

13. Malla C, Aylward P, Ward P. Knowledge translation for public health in low- and middle-income countries: a critical interpretive synthesis. Glob Health Res Policy 2018;3:29.

14. Mahendradhata Y, Kalbarczyk A. Prioritizing knowledge translation in low- and middle-income countries to support pandemic response and preparedness. Health Res Policy Syst 2021;19:5.

15. Partridge ACR, Mansilla C, Randhawa H, et al. Lessons learned from descriptions and evaluations of knowledge translation platforms supporting evidence-informed policy-making in low- and middle-income countries: a systematic review. Health Res Policy Syst 2020;18:127.

16. Johnson NA, Lavis JN. Procedures manual for evaluating KnowledgeTranslation platforms in low- and middle income countries. McMaster University program in policy decision-making, 2010. Available: http://hdl.handle.net/10625/49084

17. Orton L, Lloyd-Williams F, Taylor-Robinson D, et al. The use of research evidence in public health decision making processes: a systematic review. PLoS One 2011;6:e21704.

18. Young T, Shearer JC, Naude C, et al. Researcher and policymaker dialogue: the policy BUDDIES project in Western Cape Province, South Africa. BMJ Glob Health 2018;3:e001130.

19. Kolhari A, MacLean L, Edwards N. Increasing capacity for knowledge translation: understandings, priorities for a school of public health faculty and decision makers. Evidence & Policy: A Journal of Research, Debate and Practice 2009;5:33–51.

20. Berman J, Mtimbo C, Matanje-Mwagomba B, et al. Building a knowledge translation platform in Malawi to support evidence-based health policy. Health Res Policy Syst 2015;13:73.

21. Cheung A, Lavis JN, Hamandi A, et al. Climate for evidence-informed health systems: A print media analysis in 44 low- and middle-income countries that host knowledge-translation platforms. Health Res Policy Syst 2011;9:7.

22. El-Jardali F, Ataya N, Jamal D, et al. A multi-faceted approach to promote knowledge translation platforms in eastern Mediterranean countries: climate for evidence-informed policy. Health Res Policy Syst 2012;10:15.

23. Kasonde JM, Campbell S. Creating a knowledge translation platform: nine lessons from the Zambia forum for health research. Health Res Policy Syst 2012;10:31.

24. Ongolo-Zogo P, Lavis JN, Tomson G, et al. Assessing the influence of knowledge translation platforms on health system policy processes to achieve the health millennium development goals in Cameroon and Uganda: a comparative case study. Health Policy Plan 2018;33:539–54.

25. Poldrugovac M, Kuchenmüller T, Dobrin PT. The evidence-informed policy-making context in Slovenia: groundwork for a knowledge translation platform. Public Health Panorama 2016;2:315–8 https://apps.who.int/iris/handle/10665/325029

26. Scarlett J, Köhler K, Reipn M. Evidence-Informed policy network (EViPNet) Europe: success stories in knowledge translation. Public Health Panorama 2018;4:161–9 https://apps.who.int/iris/handle/10665/325376

27. Pettman TL, Armstrong R, ewaters E, et al. Evaluation of a knowledge translation and exchange platform to advance non-communicable disease prevention. Evid Policy 2016;12:109–26.

28. Bennett G, Jessani N. eds. The Knowledge Translation Toolkit: Bridging the Know-Do Gap: A Resource for Researchers. Sage Publications, International Development Research Centre, 2011. https://www.idrc.ca/en/book/knowledge-translation-toolkit-bridging-know-do-gap-resource-researchers

29. Pettman TL, Armstrong R, Johnson S, et al. Evaluation outcomes of a knowledge translation platform: a structure for support and exchange in prevention. Evid Policy 2020;16:99–121.

30. Arkesy H, O’Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol 2005;8:19–32.

31. Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med 2018;169:467–73.