Systematic reviews and knowledge translation

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Abstract Proven effective interventions exist that would enable all countries to meet the Millennium Development Goals. However, uptake and use of these interventions in the poorest populations is at least 50% less than in the richest populations within each country. Also, we have recently shown that community effectiveness of interventions is lower for the poorest populations due to a "staircase" effect of lower coverage/access, worse diagnostic accuracy, less provider compliance and less consumer adherence.

We propose an evidence-based framework for equity-oriented knowledge translation to enhance community effectiveness and health equity. This framework is represented as a cascade of steps to assess and prioritize barriers and thus choose effective knowledge translation interventions that are tailored for relevant audiences (public, patient, practitioner, policy-maker, press and private sector), as well as the evaluation, monitoring and sharing of these strategies.

We have used two examples of effective interventions (insecticide-treated bednets to prevent malaria and childhood immunization) to illustrate how this framework can provide a systematic method for decision-makers to ensure the application of evidence-based knowledge in disadvantaged populations. Future work to empirically validate and evaluate the usefulness of this framework is needed. We invite researchers and implementers to use the cascade for equity-oriented knowledge translation as a guide when planning implementation strategies for proven effective interventions. We also encourage policy-makers and health-care managers to use this framework when deciding how effective interventions can be implemented in their own settings.

Bulletin of the World Health Organization 2006;84:643-651.

Voir page 649 le résumé en français. En la página 649 figura un resumen en español.

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Introduction

Although proven effective interventions exist that would enable all countries to meet the Millennium Development Goals,[1] uptake and use of these interventions among the poorest populations is at least 50% less than among the richest populations within each country.[2] Furthermore, we have recently shown that the community effectiveness of interventions is lower in the poorest populations owing to a "staircase" effect of lower coverage and/or access, inferior diagnostic accuracy, less provider compliance and less consumer adherence.[3]

The WHO Knowledge Management and Sharing (KMS) group adapted the Canadian Institutes of Health Research definition of knowledge translation[4] (KT) for lower- and middle-income countries (LMIC) as: "the synthesis, exchange and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health."[5] In addition to this focus on health systems, we propose that KT strategies aiming to enhance equity need to target barriers to achieving optimal effectiveness across socioeconomic status (SES).

Although systematic reviews are increasingly recognized as the best available source of evidence for decisions about health-care management and policy, owing to greater confidence and less bias in the results than when relying on individual trials,[6–8] they have tended to focus on average results, ignoring distributional effects that are likely to occur in implementing these interventions.[9]

Expanding on our recently-published equity-effectiveness loop (Fig. 1) framework,[3] we propose an evidence-based framework — or "cascade" — for equity-oriented knowledge translation (Fig. 2), drawing on systematic reviews to assess barriers and facilitators, identifying interventions to overcome barriers, choosing appropriate KT strategies, evaluation, through to knowledge management and sharing. We use two tracer interventions to illustrate this framework.

Methods

Equity-effectiveness

KT initiatives should be saved for interventions of known efficacy that are documented by systematic reviews. We selected two such interventions of major importance in LMIC — insecticide-treated bednets (ITNs) and immunization — and used the community equity-effectiveness loop (Fig. 1) to assess community effectiveness across equity factors as a first step to identifying the key barriers that need to be addressed by KT strategies to enhance health equity.[3]

We used hypothetical estimates to estimate equity-effectiveness (Table 1). We have not assessed impact on diagnostic or screening accuracy, since all individuals are eligible for both ITNs and immunization.

ITNs

A Cochrane systematic review found that the efficacy of ITNs in reducing mortality from malaria is 20%.[10] This potential is attenuated by a "downward

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Ref. No. **05-026658**

(*Submitted: 9 March 2005 – Final revised version received: 5 June 2006 – Accepted: 6 June 2006*)

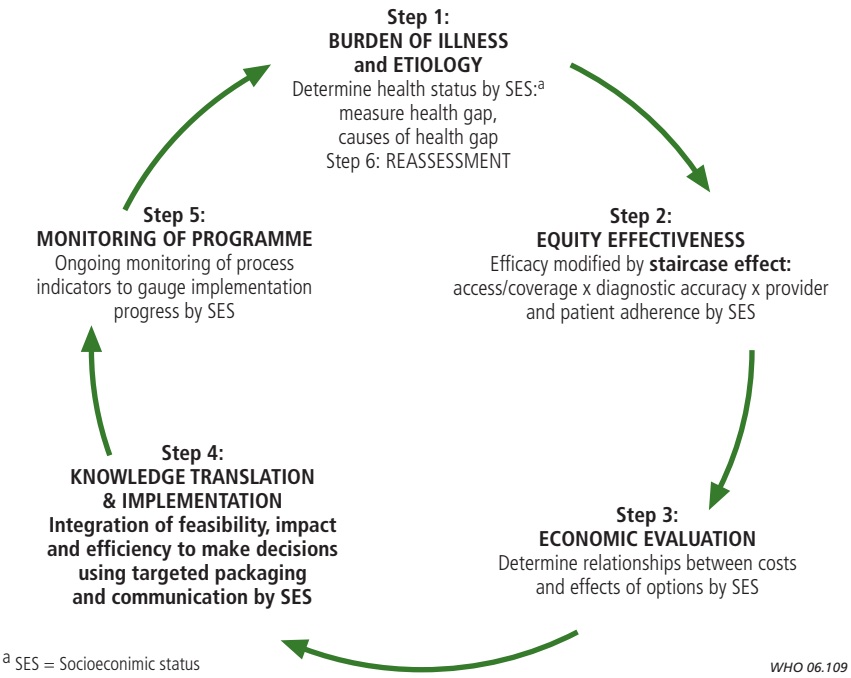
staircase" effect of barriers, i.e. incomplete access (availability, affordability), partial provider compliance in recommending ITNs, and incomplete consumer adherence in using the bednet once purchased; leading to a loss of more than half the potential benefit, with greater loss in the poorest (see Table 1).

Immunization

The efficacy of immunization against childhood diseases has been estimated at greater than 80%.[11] Again, owing to critically important barriers, the downward staircase effect dramatically reduces the true impact: full immunization is achieved for only 40% of the poorest economic quintile compared with about 60% of the richest in 56 countries. Access to immunization depends on setting. In most of Africa, immunization is offered free-of-charge by the Expanded Programme on Immunization (EPI), but access is imperfect owing to system constraints such as supply and production issues, human resources and organizational constraints. Provider compliance (defined as attention to the cold-chain and providers' willingness and ability to comply with the recommended immunization schedule) and consumer adherence (defined in this context as the willingness of the general public to immunize) were estimated to be 80% for the richest and 70% for the poorest populations, respectively. On the basis of these hypothetical estimates, vaccines lose 60% of their efficacy in the richest and 39% in the poorest populations, resulting in a richest to poorest equity-effectiveness ratio of 1.5 (Table 1).

We then used our cascade of five KT steps (Fig. 2), adapted from Grol & Wensing,[12] to identify strategies that aim to ensure equitable access and use of these interventions.

Fig. 1. **The community equity-effectiveness loop**



Results

Cascade Step 1: identify barriers and facilitators

The first step is to assess barriers and facilitators (or incentives) across socioeconomic factors, e.g. cultural values, preferences, awareness and resources for the relevant audiences, defined by the six "Ps" (public, patient, provider, press, policy-maker, private sector).[13] Barriers and facilitators may operate at different levels, e.g. non-health-care sector, health system, organizational, professional/provider, public/family and individual (Table 2). Multiple barriers operate at different levels and these may require a focus on different stakeholders in KT strategies. In LMIC, national and structural policies about infrastructure and resources may be particularly relevant. For example, delays in the availability of magnesium sulfate for the treatment of eclampsia in Zimbabwe were caused by poor communication between central medical stores and obstetricians, and by delays in adding magnesium sulfate to the WHO list of essential drugs.[14]

Assessment of barriers may be guided by a theoretical framework or developed from grounded theory, qualitative analysis. Theoretical frameworks such as the Ottawa Model of Research Use[15] and the Ottawa Decision Support Framework[16] identify specific categories of barriers and facilitators for practitioners and patients, respectively. Use of a theoretical framework prioritizes questions and assists comparability with

Table 1. **Ratios of poorest to richest subpopulations for community effectiveness: the differential "staircase" effect[a]**

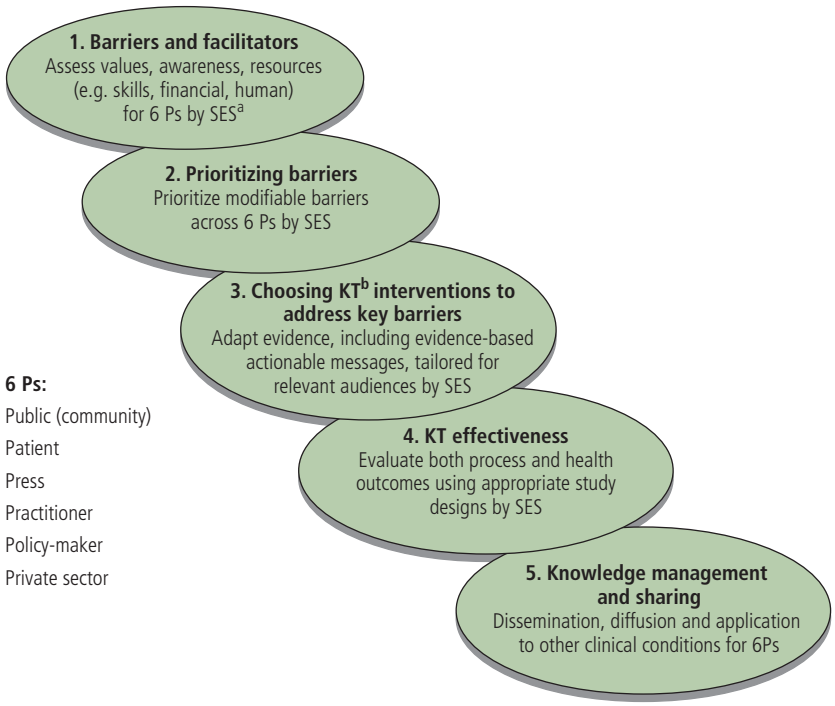
Subpopulation	Efficacy	Modifiers of efficacy			Community effectiveness[b]	Richest:poorest equity-effectiveness ratio
		Access	Provider compliance	Consumer adherence		
Insecticide-treated bednets to prevent mortality from malaria in children aged < 5 years						
Richest	20	75	90	60	8.1	1.4
Poorest	20	43	80	85	5.8	
Immunization for childhood vaccine-preventable diseases						
Richest	85	94	80	80	51	1.5
Poorest	85	80	70	70	33	

[a] Figures are percentages unless otherwise indicated.
[b] Community effectiveness is the product of the efficacy modifiers of access, diagnostic accuracy, compliance of providers, and adherence of consumers.

other studies, but may constrain the investigation, and miss factors that lie outside of the framework. Grounded theory, qualitative studies allow in-depth study about underlying reasons, but are time-consuming. For example, the CIET (see footnote *a*) methods combine quantitative and qualitative methods to support evidence-based decision-making at local and national levels, using reiterative cycles to share evidence with community planners.[17]

Methods to assess barriers and incentives include questionnaires, interviews, direct observation and analysis of administrative data.[12] Questionnaires can confirm barriers and incentives in larger populations. Structured questionnaires are available to assess provider barriers[13] and patient barriers (e.g. decision-making skills, social support and knowledge).[18] For policy-makers, barriers relate to scarce resources and existing structures.[19] Focus group or individual interviews can identify underlying reasons for barriers. Direct observation can put barriers in context of actual practice conditions, using techniques such as self-report, trained observers and simulated patients. Analysis of care processes using total quality management tools can prioritize and organize problems according to the process of care (e.g. paretogram, fish-bone and flow diagrams).[12]

Fig. 2. **Cascade for equity-oriented knowledge translation**



[a] SES = Socioeconimic status [b] KT = Knowledge translation

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ITNs

Barriers to scaling up the use of ITNs can be assessed across these same six levels (Table 2).

At the non-health-care sector level, barriers include availability and proximity of vendors to villages, which is determined by profit motives. At the system level, lack of local information on ITN use and availability limit appropriate targeting efforts. At the organizational level, time pressures related to chaotic surroundings and poor information systems affect the ability of providers to discuss ITNs with their clients. Provider knowledge about availability of services (such as net reimpregnation) may affect ability to promote ITNs. For the public, barriers include lack of awareness and knowledge, the discomfort of being confined by a bednet, sleeping arrangements, and affordability and availability of ITNs.[20] For pregnant women, perceptions about the safety of insecticide for the fetus are a major barrier.[21]

Facilitators also exist, e.g. proximity to vendors and desire to prevent nuisance biting facilitate the use of ITNs. Also, people find ITNs visually attractive, and this facilitates use and maintenance. Appropriate local health information systems help target ITNs to communities in need.

Immunization

Barriers to immunization exist across these same levels (Table 2). At the non-health-care sector level, private-sector profit motives and media scare stories may be barriers to immunization. At the health-system level, barriers include price and availability of vaccines, the cost of the infrastructure and human resources to deliver vaccines, quality of vaccines, stability of vaccines and availability of a "cold-chain" for transportation. At the organizational level, time pressures in clinics as well as lack of health record information on previous immunizations affect ability to deliver immunizations. For both providers and patients, increasing fears about the use of needles in the context of HIV/AIDS are an important barrier. Lack of adequate surveillance of adverse effects and cases of vaccine-preventable disease are barriers at the system level and also influence public perceptions of vaccine safety.[11] Consumer barriers include: drop-outs (i.e. children miss boosters); missed opportunities; geographical access (e.g. long travel distance); never reached (i.e. never use health services, e.g. due to user fees); programmatic issues (i.e. long waits, inconvenient hours);[11] and caregiver factors (e.g. caregiver being busy or ill, fear of rude health workers, or side-effects and perceived contraindications).[22] Consumers of higher SES often bypass public facilities, choosing private facilities instead for their perceived better quality.[23]

Cascade Step 2: prioritize barriers by SES across one or more of six "Ps"

After identifying relevant barriers for specific levels, it is important to prioritize

[a] The acronym CIET comes originally from *Centro de Investigación de Enfermedades Tropicales* (Tropical Disease Research Centre), Mexico. In 1994, CIET registered as a non-profit, nongovernmental organization based in New York, taking the name "Community Information and Epidemiological Technologies." More recently, in South Africa and Europe, CIET has come to stand for "Community Information, Empowerment and Transparency."

Table 2. **Different levels of barriers and facilitators for insecticide-treated bednets (ITNs) and immunization**

Barrier	Insecticide-treated bednet	Immunization
Non-health-care sector	Local credit systems affect affordability, private-sector profit motives, press/media, proximity of bednet vendors to villages/homes	Transportation issues (e.g. roads), private-sector profit motive affects supply and development of vaccines, press/media scare/shock stories
Health system	Limited availability (private/public sector), distribution problems, health information systems, community awareness, health human resources, availability of net reimpregnation services	Availability of vaccines (private/public sector), distribution infrastructure, cold-chain concerns, problems identifying eligible individuals, health human resources
Organizational	Time pressures in clinic setting, roles of professionals in ITN strategy	Time pressures and roles in clinic for delivering immunization, logistical barriers to outreach (e.g. to slums, remote areas that face cold chain issues), information to monitor follow-up and boosters
Professional/ provider	Knowledge, attitudes and skills about ITN availability may affect distribution of vouchers by health clinics	Knowledge, attitudes, skills (e.g. fear of needles and HIV/AIDS), peer group
Public/family	Resources (e.g. affordability), knowledge, attitudes, competing priorities, power (who should use bednets?)	Acceptability to communities
Individual	Knowledge, compliance, proximity of vendors to home, prevention of nuisance biting, peers/family perceptions	Parents' knowledge, attitude (e.g. perceived benefits), skills, time costs (e.g. travel), peers' perceptions

[a] Immunization against childhood vaccine-preventable diseases.

barriers according to whether they are modifiable, which are "mission critical", and evidence about how best to address them. Intervention mapping, a formal approach to prioritizing barriers, involves six steps; identifying the problems; identifying determinants of those problems and barriers; developing a matrix of objectives and determinants; searching for strategies to address barriers; developing a programme from these feasible strategies; then evaluate and reiterate.[24]

Barriers need to be assessed across one or more of the six "Ps" (public sector, patient, press, practitioner, policy-maker, private sector) to identify appropriate KT interventions. For example, several systematic reviews of interventions to address practitioner barriers are available from the Cochrane Effective Practice and Organization of Care (EPOC) group (http://www.cochrane.org).[25] For patient and public barriers, the Cochrane Consumers and Communication (CC) review group provides a classification system for KT interventions (Table 3). For policy-maker and private sector barriers, the Alliance for Health Policy and Systems Research has developed a series of working papers (http://www.alliance-hpsr.org/jahia/Jahia/pid/199).

For ITNs and immunization, we have identified key barriers based on three criteria: modifiability; available interventions; and "bottleneck" issues. However, barriers should be prioritized in the local setting by relevant stakeholders, and based on appropriate data, as proposed in Step 1. For example, the CIET methods of building the community voice into evidence-based planning uses in-depth focus groups and surveys followed by meetings with local planners to identify and prioritize barriers.[17] Furthermore, it is important to consider how the intervention is likely to work, e.g. educational outreach is largely a social persuasion technique that is not likely to change provider behaviour if the major barrier is at the health-care systems level.

ITNs

The major barrier to achieving effectiveness of ITNs for both poorest and richest is coverage. For example, less than 5% of children aged less than 5 years sleep under ITNs in endemic countries in Africa.[26] Moderate to high ITN coverage has been shown to provide protection from anaemia even for children who are not sleeping under nets.[27] The key modifiable barriers in increasing ITN coverage are health-system availability and affordability, health information systems, and public knowledge of benefits and importance (which could address issues identified above, including power, resources, knowledge and attitudes).

Immunization

Immunization coverage in many LMIC, particularly in Africa, has been falling since the 1990s.[28] The Millennium Development Goals, as they only specify average improvement, can be achieved by improvements among the richest with no improvement in the poorest people.[29] Key barriers are provider and patient fear of needles (owing to HIV/AIDS), system distribution issues, organizational outreach issues and patient time costs.

Cascade Step 3: choosing KT interventions to address key barriers

This step assesses evidence to design feasible, targeted interventions, including evidence-based actionable messages, tailored for relevant audiences by SES to address the prioritized barriers to achieving optimal efficacy. KT strategies need to use evidence-based actionable messages that are based on the whole body of knowledge assembled by a systematic review.[6] Different interventions may be needed to target different stakeholders. For example, what works for professionals and patients may not work for policy-makers. The Cochrane EPOC and CC review groups have summarized evidence on effectiveness of KT strategies for professionals and patients (e.g. by means of educational outreach and decision aids), but relatively little robust evidence exists on what works for policy-makers.

Whether KT strategies reach the poor has only rarely been assessed in clinical trials, but methods with this aim using the benefit–incidence ratio

have been developed and tested by the World Bank.[2] The International Clinical Epidemiology Network (INCLEN) Knowledge Plus Program has developed filters to assess generalizability of systematic review evidence to local settings and relevance to equity (personal communication, Tony Dans). Evidence from LMIC on getting evidence into practice has been summarized using the EPOC taxonomy.[30]

In choosing KT approaches on the basis of assessment of evidence from systematic reviews and clinical trials, planners need to consider not only whether an intervention "worked", but also how it worked and why. For example, many EPOC systematic reviews have concluded "mixed effects",[12] hence the user may need to assess which studies worked well, why, how and consider whether they will work in their own setting. Planners need to make a decision about the benefits, harms and ethics of using "upstream" legislative or regulatory strategies versus educational and facilitating strategies.[24] Traditional cost–effectiveness analysis of health-care interventions usually fails to assess the cost–benefit trade-offs of different implementation strategies; Mason et al. have described methods to assess the cost–effectiveness of policy decisions concerning implementation options.[31]

Because there is a paucity of evidence from LMIC, it is important to maximize the generalizability and applicability of systematic reviews. Gruen et al. propose five points to assess, either extrinsically or intrinsically, the applicability of findings of a systematic review to LMIC settings: (1) relative importance of the health problem; (2) relevance of outcome measures; (3) practicality; (4) appropriateness; and (5) cost–effectiveness.[32]

ITNs

For the barriers described above, we identified evidence on KT strategies from systematic reviews or randomized controlled trials (RCT).

To address the affordability barrier, free distribution of ITN vouchers during a measles campaign resulted in greater than 90% coverage of ITNs for both the poorest and richest that was sustained 5 months after the campaign.[33] Studies are needed to assess long-term sustainability, as are strategies to maintain net coverage between campaigns. The Roll Back Malaria campaign recommends a "Catch up, then keep up" strategy that eventually moves from subsidized distribution systems to a culture of purchasing ITNs from local suppliers.[34]

Table 3. **Taxonomy of addressing provider and patient barriers**

Cochrane group	Taxonomy
Effective Practice and Organization of Care	Interventions aimed at health professionals (e.g. opinion leaders, audit and feedback)
	Financial interventions (e.g. fee for service, capitation)
	Organizational interventions (e.g. integration of services)
	Regulatory interventions (e.g. medical liability and licensure)
Consumers and Communication	Directed to the consumer (such as health promotion, information, consumer decision aids)
	From the consumer (such as feedback, participation in reviews)
	For communication exchange between providers and consumers (such as discussion, negotiation, patient-held medical records)
	For communication between consumers (such as peer support, skills training, individual self-help)
	For communication to the health-care provider from another source (such as education programmes)
	Service delivery interventions (such as coordination of care, supportive environments)

Social marketing in the United Republic of Tanzania has been shown to increase community coverage in both the poorest households and the richest (from less than 50% to 70% and 90%, respectively).[2] Social marketing is: "applies commercial marketing concepts and techniques to promote voluntary, [socially beneficial], behavior change."[35] Social marketing of ITNs has been operationalized to include consumer-oriented promotion of key messages using an appealing brand name and logo, and targeting of specific segments of society via parties, drama and leaflets.[36]

With the Cochrane Collaboration we have registered a systematic review on KT interventions to increase the uptake of malaria-prevention strategies, including social marketing and free distribution of ITNs. This systematic review will assess equity coverage, costs and health outcomes.

Immunization

To address provider and patient fear of needles related to fear of HIV/AIDS, auto-disable syringes have been shown by RCT to improve immunization rates when compared with sterilizable syringes.[37] However, issues related to safe disposal are aggravated by disposable syringes.

Immunization campaigns have been shown to be extremely effective at achieving coverage of 90% or more in both the poorest and richest.[33] However, campaigns are difficult to coordinate, expensive, can be seen as "top-down", divert staff from main health services duties and are unsustainable.

To address patient barriers related to the time cost of attending clinics, CIET is developing methods to assess household "cost–benefit" equations for immunization to shift the balance towards decision to immunize.[38]

To address organizational barriers to immunization, such as chaotic surroundings, integrated management of childhood illnesses has been shown in a controlled before–after study to reduce equity differentials for both measles immunization and access to ITNs.[39]

Cascade Step 4. KT effectiveness

Evaluation of the impact of KT strategies depends on the purpose of the evaluation as well as access to resources (e.g. technical skills to carry out complicated evaluation of both process and outcomes, time, finances).[40]

For internal quality improvement, a non-randomized observational study design may be used, e.g. before–after or time-series to assess outcomes related to the process of implementation. For external accountability, the same study design can be used, but outcomes will include intermediate outcomes, such as behaviour change. For research, experimental study designs are preferable, e.g. RCT or cluster RCT to assess both process (how, why and what setting) and health outcomes. Where the ability to

conduct a rigorous RCT is constrained by practical, ethical or political barriers, non-randomized, quasi-experimental studies such as interrupted time-series or controlled before–after designs are good alternatives.

The outcomes of any study design need to be chosen on the basis of validity, reliability and sensitivity to change. To assess equity coverage and effectiveness across the equity gradient, approaches such as the concentration index and Gini coefficient are more likely to capture the effect, but may be less easy to understand than a simple ratio between poorest and richest. However, ratios do not measure effects on the middle class.

KT approaches may need to be tested and modified on the basis of preliminary results, hence a blend of study designs may be employed in solving a particular implementation problem. For example, Zwarenstein et al. conducted a series of studies before identifying a successful KT strategy to improve case detection of tuberculosis in South Africa.[41,42]

KT addresses a broader range of questions than just efficacy or "what works", such as why, when or under what conditions it works, and what is the relationship with other related programmes.[43] Process evaluations can assess factors that influence the success or failure of these interventions.

ITNs

The Kilombero Net (KINET) programme of social marketing in the United Republic of Tanzania (1996–2000) used a combination of study designs to evaluate the KT effectiveness of their strategies to improve the coverage of ITNs.[44] For example, process evaluation in the first year found that some vendors had ceased to operate, and needed to be replaced. In 1999, behaviour change was assessed by cross-sectional analysis of coverage. In 2003, health outcomes related to ITN were assessed using a case–control study.

Immunization

There are few controlled studies of effectiveness of KT strategies to increase immunization rates, which is likely to be related to ethics and practical issues. However, there are impressive examples of non-randomized studies assessing both process and health outcomes. For example, the Millions Saved case study on eliminating measles in southern Africa found that the number of measles cases fell from 60 000 to 117 between 1996 and 2000. This measles elimination programme involved establishing an organized surveillance system, improving laboratory facilities, routine immunization at 9 months, nationwide "catch-up" campaign to provide a second opportunity for immunization to all children aged 9 months to 14 years and follow-up campaigns.

Three Cochrane EPOC reviews have demonstrated efficacy at improving immunization uptake: mass media,[45] lay health workers[46] and provider recall.[47] None of the studies for these reviews was conducted in LMIC.

Cascade Step 5: knowledge management and sharing

Dissemination, diffusion and application have been classified as "user-pull" (creating desire for research by users), "producer-push" (pushing actionable messages and user-friendly summaries to users) and linkage/exchange efforts (bringing together researchers and users to develop mutual trust and skills). Lavis & Lomas provide a framework for assessing country-level efforts to link research with action in this issue of the *Bulletin.*

Methods to develop a friendly front-end for equity measures are needed to assist knowledge management and sharing. For example, the concentration index and Gini coefficient are neither intuitive nor user-friendly.

Knowledge management and sharing initiatives can be disease-specific (e.g. RBM), audience-specific (e.g. the Cochrane CC group focuses on consumer-oriented interventions) or generic, aiming to share lessons across clinical conditions (e.g. WHO KMS strategy).

This step implies reiteration of the loop to share lessons learned with relevant stakeholders identified by the six Ps.

ITNs

The KINET team has published their results widely both on web sites such as those of the Ifakara Health Research Institute, the Swiss Tropical Institute, the London School of Hygiene and Tropical Medicine, as well as in peer-reviewed journals and at conferences.[2] The RBM initiative to scale-up ITNs includes collecting and sharing lessons learned with relevant stakeholders at different levels.[34] For example, the RBM workshop on mapping models for delivering ITNs through targeted subsidies was a knowledge management forum to share lessons learned amongst key stakeholders from different countries.[48]

Immunization

The Global Alliance for Vaccines and Immunization is a public–private partnership that aims to increase access to vaccines among children in the poorest countries. The Canadian International Immunization Initiative is an initiative that aims to establish and maintain national childhood immunization in LMIC by increasing capacity of health-care staff, strengthening laboratory capacity and surveillance.

Conclusion

Developing, evaluating and sharing KT strategies that work to reach the poor and disadvantaged is essential to work towards enhancing health equity. This paper expands on the KT step of the equity-effectiveness loop framework and proposes an evidence-based framework for equity-oriented KT. This framework is represented as a cascade of steps to assess and prioritize barriers to choose effective KT interventions cognizant of the gaps in equity, as well as the evaluation, monitoring and sharing of those strategies.

We have used two examples of effective interventions to reduce malaria and increase immunization to illustrate how this framework can provide a systematic method for decision makers to ensure the application of evidence-based knowledge in disadvantaged populations. Future work to empirically validate and evaluate the usefulness of this framework is needed. We invite researchers and implementers to use the cascade for equity-oriented knowledge translation as a guide when planning implementation strategies of proven effective interventions. We also encourage policy-makers and health-care managers to use this framework when deciding how effective interventions can be implemented in their own settings. ■

Acknowledgement

Peter Tugwell is supported by the Government of Canada Research Chair in Health Equity; Vivian Robinson is supported by a Canadian Institutes of Health Research doctoral award, and Jeremy Grimshaw is supported by the Government of Canada Research Chair in Knowledge Transfer and Uptake.

Competing interests: none declared.

Résumé

Revues systématiques et mise en pratique des connaissances

Il existe des interventions ayant une efficacité prouvée qui permettraient à l'ensemble des pays d'atteindre les Objectifs du Millénaire pour le développement. Néanmoins, dans chaque pays, le recours à ces interventions et leur application bénéficient au moins moitié moins aux populations les plus démunies qu'aux populations les plus riches. Nous avons aussi récemment démontré que l'efficacité au niveau communautaire de ces interventions était inférieure chez les populations les plus pauvres en raison des effets en cascade d'une couverture ou d'un accès limités, d'une moindre précision du diagnostic, ainsi que d'une conformité et d'une observance moins satisfaisantes de la part respectivement des prestateurs et des consommateurs.

Nous proposons un cadre reposant sur une base factuelle pour l'application axée sur l'équité des connaissances en vue d'améliorer, à l'échelle communautaire, l'efficacité et l'équité sur le plan sanitaire des interventions. Ce cadre se présente comme une série d'étapes visant à évaluer et à hiérarchiser les obstacles, puis à sélectionner des interventions pour appliquer les connaissances efficaces et adaptées aux différents groupes visés (population générale, malades, praticiens, décideurs, presse et secteur privé), ainsi qu'à évaluer, à suivre et à diffuser ces stratégies.

Nous avons fait appel à deux exemples d'interventions efficaces (moustiquaires imprégnées d'insecticide pour prévenir le paludisme et vaccination des enfants) pour illustrer comment ce cadre peut fournir aux décideurs une méthode systématique permettant de garantir l'application des connaissances tirées de l'expérience parmi les populations défavorisées. D'autres travaux sont nécessaires pour valider empiriquement ce cadre et évaluer son utilité. Nous avons invité les chercheurs et les responsables de la mise en œuvre à utiliser la série d'étapes visant une application des connaissances axée sur l'équité sanitaire comme guide dans la planification des stratégies de mise en œuvre des interventions ayant une efficacité prouvée. Nous encourageons également les décideurs et les gestionnaires dans le domaine de la santé à employer ce cadre pour décider des modalités de mise en œuvre dans leurs pays de ces interventions efficaces.

Resumen

Revisiones sistemáticas y traslación de conocimientos

Existen intervenciones de probada eficacia que permitirían a todos los países alcanzar los Objetivos de Desarrollo del Milenio. Sin embargo, la adopción y aplicación de esas intervenciones en las poblaciones más pobres es al menos un 50% inferior a la de las poblaciones más ricas en cada país. Por otra parte, hemos demostrado recientemente que la eficacia comunitaria de las intervenciones es menor en las poblaciones más pobres debido a un efecto escalonado de menor cobertura/acceso, menor precisión diagnóstica, menor cumplimiento por los proveedores, y menor observancia por los consumidores.

Proponemos aquí un marco basado en la evidencia de traslación de conocimientos orientado a la equidad para fomentar la eficacia de la comunidad y la equidad sanitaria. Este marco se representa como una cascada de pasos para evaluar y priorizar los obstáculos y elegir así intervenciones eficaces de traslación de conocimientos concebidas para los destinatarios pertinentes (público, pacientes, médicos, planificadores, prensa y sector privado), así como la evaluación, vigilancia e intercambio de esas estrategias.

Hemos usado dos ejemplos de intervenciones eficaces (mosquiteros tratados con insecticida para prevenir la malaria e inmunización infantil) para ilustrar de qué manera este marco puede dotar a las instancias decisorias de un método sistemático para garantizar la aplicación de conocimientos basados en la evidencia en las poblaciones desfavorecidas. Se requerirán nuevos trabajos para validar y evaluar empíricamente la utilidad de ese marco. Invitamos a los investigadores y ejecutores a usar la cascada propuesta de traslación de conocimientos orientada a la equidad como guía para planificar las estrategias de aplicación de intervenciones de probada eficacia. Asimismo, alentamos a las instancias normativas y a los administradores de servicios de salud a emplear este marco a la hora de determinar la manera de implementar las intervenciones eficaces en sus contextos particulares.

ملخص

المراجعات المنهجية وترجمة المعارف إلى عمل

ستمكّن التدخلات ذات الفعّالية المثبتة والموجودة في البلدان من بلوغ المرامي الإنمائية للألفية، إلا أن ما يأخذ به السكان الأكثر فقراً من هذه التدخلات وما ينتفعون منه يقلّ عن نصف ما يأخذ به وينتفع منه السكان الأكثر غنى في كل بلد، هذا إلى جانب ما أوضحناه مؤخراً من أن الفعّالية المجتمعية للتدخل أقل بين السكان الأكثر فقراً بسبب التأثير السُّلَّمي (الذي يؤدي إلى الانتقال من خطوة إلى أخرى) للإتاحة والتغطية المنخفضة، وبسبب أن الدقة التشخيصية أسوأ، وأن امتثال القائمين على إيتاء الرعاية أقل وأن التزام المستهلك للرعاية أقل.

وقد اقترحنا إطار عمل مسند بالبيِّنات لترجمة المعارف إلى عمل موجَّه لتحقيق العدالة، ولتعزيز فعّالية المجتمع والعدالة الصحية. ويمثل إطار العمل هذا سلسلة شلّالية (متسلسلة ويفضي بعضها إلى استدعاء ما يليه) من الخطوات الهادفة لتقييم المصاعب ووضع الأولويات، مـمّا يمكّن من اختيار التدخلات الفعّالة لترجمة المعارف إلى عمل، وتفصيلها بقياسات ملائمة، لتناسب المتلقّين الملائمين (عامة الناس، المرضى، الأطباء الممارسين، أصحاب القرار السياسي، العاملين في الإعلام وفي القطاع الخاص)، وذلك إلى جانب تقييم هذه الاستراتيجيات ورصدها وتقاسمها.

ولتوضيح كيف يمكن لإطار العمل هذا أن يقدم لأصحاب القرار السياسي طريقة منهجية تضمن لهم تطبيق المعارف المسندة بالبيِّنات بين أوساط السكان المستضعفين، قدَّمنا مثالين حول التدخلات الفعَّالة، وهما الناموسيات المعالَجة بمبيدات الحشرات للوقاية من الملاريا، وتمنيع الأطفال. وتمسُّ الحاجة في المستقبل للعمل الذي يثبت من خلال تـراكم الخبرات مدى صحة إطار العمل هذا ومدى نفعه مع تقييم ذلك. وندعو الباحثين والقائمين على التنفيذ لاستخدام هذه السلسلة الشلّالية لنقل المعارف بشكل موجّه نحو تحقيق العدالة، واعتبارها دليلاً هادياً عند التخطيط للاستراتيجيات التنفيذية للتدخلات المثبتة الفعَّالة. وقد شجعنا أيضاً أصحاب القرار السياسي والقائمين على إدارة الرعاية الصحية على استخدام إطار العمل هذا عندما يتخذون قرارهم حول التدخلات الفعالة التي يمكن تنفيذها ضمن المواقع التي يعملون بها.

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