

Agenda number:	
Agenda item:	Multi-language Strategy 2020-2022
Submitted for Governing Board meeting:	October 2019, Santiago, Chile
Submitted by:	Jo Anthony, Head of Knowledge Translation Juliane Ried, Translations Co-ordinator
Sponsored by:	Mark Wilson, Chief Executive Officer
Access:	Open
Decision or information:	Decision
Resolution for the minutes:	Cochrane's Governing Board approves the Multi-language Strategy 2020-2022, including the additional investment for upscaled multi-language and Knowledge Translation (KT) implementation, and mandates the Central Executive Team (CET) to develop a wider implementation plan to integrate multilingualism and multiculturalism as part of a new organizational strategy post 2020.
Executive summary:	<p>Cochrane's 2014 translation strategy has led to enormous success in making our evidence more accessible with more than 28,000 published Review summary translations, multi-language cochrane.org and <i>Cochrane Library</i> platforms, an increase from about 1.5 million translation views in total in 2013 to about 27 million in the first half of 2019 alone, and an increase from 25% to 80% in access to translated content compared to English content on cochrane.org.</p> <p>Building on this success and aligned with continued implementation of Cochrane's Knowledge Translation (KT) Framework, we wish to improve and embed multi-language activities across all Groups, increasing the number of Review translations, their accessibility and usage, supported by increased investment for activities as described in Section 4; and to commit to our strategic objective of being global and diverse, becoming a truly international organization as set out in Section 5 and 6, which will provide the mandate for future development and associated resource planning across all our work that takes into account multi-language needs and perspectives. The proposed strategy will make a significant contribution to achieving our vision by enabling people across many languages and cultures to use our evidence to make better health decisions; and, it will support our principles of relevance, inclusivity, diversity and sustainability.</p>
Consultation with Cochrane Council:	The Geographic Group representatives received a draft version for input.
Financial request:	<p>Current annual investment: £280,000</p> <ul style="list-style-type: none"> • £100,000 to Cochrane Groups for Review summary translations across 10 languages. Funding varies across languages, and minimum deliverables are between 60-120 Review summary translations per year. Five additional languages translating Review summaries don't receive funding. • £180,000 for Cochrane Iberoamerica, previously agreed share of the Spanish Ministry of Health (MoH) Cochrane Library licence for delivery of the Biblioteca Cochrane, the Spanish <i>Cochrane Library</i> version, and Spanish KT, to be re-negotiated for 2021. The Spanish MoH licence was agreed on the condition that we deliver the Biblioteca Cochrane, so is directly linked to funding the associated activities.

	<p>Proposed new annual budget 2020-2022: £470,000</p> <ul style="list-style-type: none"> • £350,000 (in total) to Cochrane Groups in three countries for the translation of all Review summaries in three priority languages and implementation of a comprehensive KT plan for three linguistic regions: <ul style="list-style-type: none"> ○ Chinese: 3 staff members (Full-Time Equivalents, FTE) for the Cochrane China Network. ○ French: 3 FTE staff members for Cochrane France. ○ Spanish: Arrangements for Cochrane Iberoamerica to be re-negotiated for 2021, depending on activity changes and the levels of MoH licence funding. • £90,000 to Cochrane Groups for languages translating at least 200 Review summaries per language year (most translating many more than that), and implementing key KT activities to facilitate uptake of Cochrane evidence and engagement of users in additional languages (£7,500 x 12 languages – see Section 3.2 below and Appendix 1); <ul style="list-style-type: none"> ○ A flat fee of £7,500 per language will resolve current inconsistencies, and particularly aid groups in lower- and middle-income countries. £7,500 will not be enough to pay for activities as per criteria in higher income countries and concerned groups that are not funded as a priority language will need to complement this flat fee with their own resources. • £30,000 for training requirements, machine translation subscriptions and pilot projects. <p>This constitutes an annual increase of £190,000 in multi-language KT investment.</p>
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1. Background

Cochrane is committed to our evidence informing healthcare globally. This includes making our evidence accessible in different languages as per *Strategy to 2020* Goal 2, but also being globally relevant for anyone using, Cochrane evidence from diverse backgrounds.

Responding to the language challenge, we adopted a [Translation Strategy in 2014](#) to support translation activities and integrate them into the organization. Since then:

- we have published more than **28,000 translations of Review Abstracts and Plain Language Summaries (PLS) across 15 languages** on the *Cochrane Library* and *Cochrane.org*;
- we have fully integrated Biblioteca Cochrane, the Spanish language Cochrane Library, into the newly launched *Cochrane Library* platform, that now has the capacity to become a multi-language platform;
- as a result of the translations published on the now multi-language *Cochrane.org*, in 2019, **about 80% of our Cochrane.org users are non-native English speakers** and access translations in different languages, compared to about 25% in 2013; and we have already had almost 27 million translation views in the first half of 2019, compared to 1.5 million in total in 2013;
- more than **1,400 volunteer translators** have joined Cochrane;
- Cochrane Groups have conducted research on best practice and approaches to translation, and we have participated in international research consortia working on machine translation and volunteer engagement.

Cochrane's translation work has made the greatest single contribution in Cochrane evidence being accessed and used by millions more people than any other dissemination or Knowledge Translation (KT)

initiative during the implementation of *Strategy 2020*. These achievements have also been accomplished on relatively small financial investments by Cochrane. These current investments include:

- £100,000 for Review summary translations across 10 languages. Funding varies across languages, and minimum deliverables are between 60-120 Review summary translations per year. Five additional languages translating Review summaries don't receive funding.
- £180,000 for Cochrane Iberoamerica, taken from the Spanish Ministry of Health Cochrane Library licence for delivery of the Biblioteca Cochrane. The Spanish MoH licence was agreed on the condition that we deliver the Biblioteca Cochrane, so is directly linked to funding the associated activities.
- Memsources translation management system.
- Translations Co-ordinator position within the Knowledge Translation Department.
- Resources across Central Executive Team (CET) departments for technology infrastructure, cochrane.org and *Cochrane Library* development, membership support, contracts, etc.

These financial investments represent some of the most outstanding value for money initiatives made by Cochrane over the last six years. Here are a few specific examples of return on investment between 2017-2019:

Language	Investment*	Total completed translations	Cochrane.org visits Jan-Jun 2016	Cochrane.org visits Jan-Jun 2019
Malay	10,000 GBP	2,100 PLS	20,545	1,051,690 (5,000% increase)
Portuguese	22,000 GBP	890 Abstracts and PLS	71,066	4,599,499 (6,400% increase)

*Central financial investment for the local team, excluding central support and infrastructure and local volunteer resources.

In this new multi-language strategy, we are building on these experiences and achievements as well as organizational and technological developments to address unresolved challenges. We propose to expand our multi-language activities and embed them into wider KT implementation to enable targeted uptake of Cochrane evidence in different languages; and to agree a strategic direction for Cochrane as an international and multi-language organization.

2. Challenges

This document has been developed in consultation with more than 30 Cochrane Geographic Groups as well as other stakeholders through an online survey, a face-to-face workshop and extensive feedback on a draft version.

The consultation identified several priorities that fall outside Review translation and knowledge translation, such as training and capacity building, engagement of diverse people, editorial processes, project and product development, technology, and organizational and business development. This outcome reflects the importance and cross-cutting nature of multi-language activities; everything we do impacts on multi-language activities and vice versa. Hence, to be most effective, Review translation and multi-language KT implementation needs to be supported by considering and embedding these activities across other work areas in Cochrane.

Our experience and data show that there is clear need and strong engagement for multi-language activities to enable the use of our evidence to inform global health decision-making. Only about 6% of the world's population are native English speakers, while 75% of people don't speak English at all. With the vast majority of visitors to cochrane.org (80%) accessing our evidence in languages other than

English, we have proven that we can produce a high volume of Review summary translations and that this greatly expands the user base and the impact of our work. We have invested in central support and technology infrastructure to support review translation in different languages, but less in strategic financial support of specific languages or in enabling targeted uptake of evidence in different languages. We have an opportunity to build on our achievements to fully align our Review translation work with our KT implementation, to identify how we can make the most of multi-language activities and perspectives across the organization to increase our impact, relevance and sustainability, and to allow us to scale up future implementation following successful proof of concept to become a truly international and multi-language organization.

3. Goals and Aims

Cochrane's multi-language strategy proposes a set of over-arching goals aligned with and responding to the four organizational Goals of *Strategy 2020*:

- **Goal 1:** We meet our vision of a world of improved health where relevant, trustworthy evidence is produced in an efficient and timely manner that supports the translation and dissemination in multiple languages.
- **Goal 2:** Cochrane reviews are accessible, understandable and used to inform healthcare decisions in different contexts by translating our evidence into the right formats and languages for different audiences and enabling our community and users to increase the uptake in practice.
- **Goal 3:** We advocate for evidence in different contexts and languages around the world and for the added value that different linguistic and cultural backgrounds bring to scientific thinking, understanding and application. We lead by example and become a champion advocating for linguistic and cultural representation in health science.
- **Goal 4:** We embrace multilingualism and multiculturalism in our organizational development as an opportunity and enabler for accessibility, inclusion, global relevance, diversification of our income sources and sustainability of our organization.

Aims of the new strategy

- We expand and optimize multi-language activities, build capacity and improve sustainability to increase the availability of Cochrane evidence in different languages;
- We integrate multi-language activities with KT implementation to enable the uptake of Cochrane evidence in different languages;
- We review and expand our commitment to become a truly international, multi-language organization and identify opportunities to implement multilingualism and multiculturalism across the organization more broadly (while acknowledging the need to balance these initiatives with other priorities and to consider capacity, resource and support needs and the return on investment).

4. Proposals for 2020-2022 implementation of multi-language Review translation and knowledge translation activities

Responding to *Strategy 2020* Goal 2, we propose to build on the 2014 Translation Strategy achievements and expand and optimize our multi-language translation activities as part of embedding Knowledge Translation implementation within Cochrane.

Expand and optimize multi-language translation of our evidence and increase its uptake through knowledge translation (KT) implementation

Why is this important?

Cochrane Geographic Groups play a key role in achieving our vision, particularly in regions where Cochrane is not well established, and our evidence is not well known. They are usually embedded in academic and research settings and tend to have easier access to funding for research than for KT and Review translation activities. In that context, investment of central funds into KT and Review translation, capacity building and engagement led by our Geographic Groups is critical.

Geographic Groups usually work with volunteer translators; but most of our translation work, including the management of volunteers, is done by about 30 people across the organization – mostly people employed where Cochrane work is part of their duties, or committed volunteers designated as translation project managers. Therefore, funding people to work on and manage translations, training and supporting them is effective and essential for high quality, high volume and continuous translation activities.

Externally facing activities such as KT, communications, advocacy, partnerships, fundraising, capacity building, training and engagement of users and contributors are usually most effectively done in their local language. The proposed priority language approach is laying the basis to develop linguistic networks where such activities can be coordinated, and resources shared in a common native language including lower-middle-income countries. The Iberoamerican Network is already such a linguistic network for Spanish, and others would benefit from its experience.

1. Invest in three priority languages

Selection of priority languages:

- Determine three priority languages: **Chinese, French and Spanish**, based on agreed criteria and rationale, see Appendix 1. We would consider additional languages post 2022.

Investment in priority languages:

- Fund three Full Time Equivalent (FTE) posts at Geographic Groups of each priority language from central funds to focus on Review summary translation and the delivery of a KT plan for their linguistic region supporting the dissemination and uptake of Cochrane evidence.

Outcomes for all priority languages:

- Translate all new and updated Abstracts and Plain Language Summaries (PLS) and aim to have all Review summaries translated and updated by the end of 2022.
- Optimize existing translation workflows, increase quality and efficiency and reduce costs by integrating appropriate machine translation services into the workflow, testing and implementing approaches to improve quality and training translators and editors.
- Develop and implement a KT plan for each linguistic region, assess the needs and capacity across the region, and determine priority audiences and related activities for the strategic dissemination and uptake of Cochrane evidence.
- Engage in key organizational projects and programmes to advise on multi-language needs.
- Translate key organizational materials of political and strategic value such as the new organizational strategy post 2020.

Additional outcomes for Chinese (led by the Cochrane China Network):

- Support user testing and development of improved functionality and translation processes for the Cochrane Library to improve access for Chinese speakers and investigate and facilitate the potential addition of a Chinese portal;
- Identify an appropriate machine translation service to speed up the Review summary translation process;
- Harness the expertise and channels of Cochrane China Network Affiliates and Centre to increase the capacity to produce and disseminate Review summary translations and related products;
- Build on existing expertise within the China Network to identify key audiences and develop and coordinate appropriate KT activities to reach and train those audiences for the uptake of Cochrane evidence. Existing activities include:
 - Production and dissemination of Review translations and related products, including through social media;
 - Training about EBM for health professionals and students in different specialties;
 - Development of video formats to apply evidence in clinical nursing;
 - Guideline development in Traditional Chinese Medicine;
 - Training on producing systematic reviews, scientific manuscript writing, Cochrane methods, GRADE and implementation science for health researchers and professionals.

Additional outcomes for French (led by Cochrane France)

- Support user testing and development of improved functionality and translation processes for the Cochrane Library to improve access for French speakers and investigate and facilitate the potential addition of a French portal;
- Re-establish the Cochrane Francophone network with existing groups in Switzerland and Francophone Canada, identify and build relationships with key stakeholders and institutions as potential future Cochrane Groups in lower-middle- and upper-income countries across Francophone Africa;
- Develop KT activities by mobilizing collective intelligence and developing citizen science projects within the Francophone Network;
- Scale up and expand ongoing KT activities to the Network where applicable, including:
 - Topic-based personalized email alerts for new Review translations and newsletters about new Review translations for specific audiences;
 - Translation of special collections for specific partners/audiences;
 - French Wikipedia project;
 - EbM training for health professionals, journalists and policy-makers, and integration of training into university curricula;
 - Collaboration with translation university courses;
 - Social media.

Additional outcomes for Spanish (led by Cochrane Iberoamerica):

- Maintain the Biblioteca Cochrane, the Spanish Cochrane Library version;
- Support user testing and development of improved functionality and translation processes for the Biblioteca Cochrane to evaluate usability and success of proof of concept, and to inform and facilitate the potential addition of Chinese and French portals;
- Update the outdated Spanish Review summary translations accumulated over the past years;
- Test and implement the use of machine translation as part of the Review translation workflow to increase efficiency and reduce the cost for professional translators;
- Build on existing expertise and activities within the Iberoamerican Network to identify key audiences and develop and coordinate appropriate KT activities across its lower-middle- and upper-income countries to reach and train those audiences for the uptake of Cochrane evidence across;
- Build and support the Cochrane's Spanish *Students 4 Best Evidence* initiative across Latin America.

2. Invest in additional languages that regularly translate Abstracts or PLS and implement KT activities

- Invest initially in Cochrane Groups across 12 additional languages: Croatian, German, Japanese, Korean, Malay, Persian, Polish, Portuguese, Russian, Tamil, Thai and Traditional Chinese, based on agreed criteria and rationale (see Appendix 1).
- Languages need to show evidence of commitment either via ongoing activities already exceeding the requirements; or, by providing an implementation plan for increased engagement responding to the agreed criteria.
- Languages not able meet the agreed criteria will be supported to develop other KT activities facilitating the uptake of Cochrane evidence adequate for their capacity and context.
- Work with Cochrane Groups to identify prospective new translation teams and cover additional high priority languages, including Arabic, from 2021.

Outcomes for all 12 languages:

- Translate at least 200 Abstracts or PLS per year prioritized to local needs, and cochrane.org on a regular basis; Abstracts or PLS are selected for translation based on local priorities, including prevalence and burden of diseases, other topics relevant to priority audiences, partner and funder priorities, and timeliness of the evidence.
- Develop a KT plan and implement at least one KT activity to facilitate dissemination of translations and engagement of users and contributors in different languages. Based on an assessment of local needs, capacity and priority audiences, this may include one or more of the following:
 - Translation of [Evidence Essentials](#) or MECIR;
 - A local language Wikipedia project;
 - A social media strategy;
 - Production of KT dissemination products in accordance with Cochrane's new Dissemination Checklist and Guidance;
 - Training and capacity building for specific audiences;
 - Other projects proposed by the group.

3. Support multi-language KT activities in diverse linguistic and cultural contexts

- Provide hands-on support to Geographic Groups to develop and implement a KT plan and activities adapted to their context and resources, with clear target audiences, appropriate approaches, and evaluation.

- Ensure different linguistic and cultural perspectives and needs are considered in all KT training resources and initiatives, including online resources and training module, webinars, face-to-face training, and a mentorship programme.
- Determine the target audience of centrally created KT products and apply Cochrane's Dissemination Checklist and Guidance to adapt and develop them where appropriate, taking into account diverse backgrounds and translatability.
- Train the Cochrane Groups across different linguistic and cultural backgrounds to apply Cochrane's new Dissemination Checklist and Guidance to create adequate high-quality KT products in their language and adapted to their context.
- Foster collaboration and exchange between Cochrane Groups within regions sharing the same language (including English) via joint KT planning and exchange.

4. Improve training, support and experience for Review translation teams

- Improve training and support for Review translation project managers as the critical drivers of Review translation activities and facilitate exchange between them.
- Improve and adapt criteria, training and support for volunteer Review translators to enable a positive volunteer experience, keep them motivated and ensure their contribution is effective, and build the community of volunteer translators.

5. Improve systems and processes for Review translation

- Develop functionality for translation teams to easily identify and prioritise Reviews for translations based on different criteria, so they can be more strategic, systematic and efficient about what they work on.
- Test Cochrane adapted machine translation engines, and support translation teams to identify the best performing machine translation engines available for their language to speed up their workflows, reduce human resource needs and maintain quality.
- Work with Memsources translation management software to ensure functionality to manage work and translators is helping our teams to be more efficient.

5. Future strategic direction: Cochrane as an international, multi-language organization

The desire to embed multi-language activities, serve global audiences, and include diverse perspectives and people appropriately across all aspects of Cochrane's outputs and organizational work both supports and competes with other priorities across the organization. In investigating the best approaches for Cochrane to become a truly international and multi-language organization, we need to acknowledge that we have to strike a balance between the desired outcome, the capacity and resources of our community, desired timelines and cost.

The following section describes the proposed key result areas mapped across each of *Strategy 2020's* four Goals; and aims to capture dependencies and highlight challenges in the design and implementation of a multi-language and multi-cultural approach. The approval of the strategic direction outlined in this section will provide the mandate for the Cochrane Community and Central Executive to plan work and associated resources such that they take into account multi-language and multi-cultural needs and perspectives, but **these activities are not funded by the budget request in this document**. The financial and capacity building investment in Geographic Groups outlined in Section 3, will help ensure we have local knowledge, skills and resources to support the wider organizational endeavour.

Goal 1: Producing Evidence

We need to ensure that Cochrane evidence is produced in a way that facilitates the translation, uptake and usability in different languages and for different audiences. The systems and infrastructure to produce our evidence need to support our multi-language and KT activities through standardization and automation to ensure we are efficient, sustainable and avoid duplication.

Key result areas:

- Ensure our Reviews are relevant for people from diverse backgrounds and take into account translation and KT dependencies, while being mindful of the limited capacity and competing priorities of Review Groups, and the need to plan accordingly for additional resources, capacity building, training and support.
- Implement consistent high-quality plain language summaries and improved readability to facilitate translation and KT without creating additional burden for Review Groups.
- Support Review Groups to enable them to involve people from diverse linguistic and cultural backgrounds into Review production without increasing the pressure on them.
- Accommodate translations and KT products appropriately in our core systems and technology infrastructure to produce, store and publish evidence to facilitate automated publication, updating, and re-use for dissemination and translation, while avoiding duplication of effort. Take into account the increased effort this requires, the risk that it will slow things down, and the need to manage expectations across the organization.

Dependencies and considerations:

- Implementation of Cochrane's Content Strategy
- The development of a new Cochrane Review format
- Plain language summary and KT implementation projects in 2020
- Identification and establishment of a new editorial management system
- New Methods & Author support structures provided in different languages by Geographic Groups (e.g., the Spanish-language pilot and potential Cochrane China Network Methods support group)
- New Consumer Strategy

Goal 2: Making our evidence accessible

In addition to ensuring increased availability and uptake of our evidence across different languages as detailed in Section 3, our platforms will need to be intuitive for users and facilitate access to the formats and KT products in different languages that users of our evidence are looking for.

Key result areas:

- Expand and optimize our translation and multi-language activities; and increase their uptake by embedding them into KT implementation, as detailed in Section 3.
- Comprehensively assess and evaluate the usability of the Biblioteca Cochrane for its intended audiences, its impact and resource needs, to identify improvements and investigate feasibility to add additional language portals, or other solutions to improve accessibility for multi-language audiences.
- Accommodate translations, KT products and needs and user journeys from people with diverse backgrounds appropriately in the Cochrane Library and Cochrane.org, so that they become intuitive multi-language platforms featuring KT products along with Reviews and facilitating access in different languages taking into account the variety of available translations and KT products. Assess the required resources against expected benefit and be mindful that the desire to have a product that is relevant for everyone mustn't result in a product that doesn't really work for anyone.

Dependencies and considerations:

- Cochrane Library roadmap
- The development of a new Cochrane Review format
- Plain language summary and KT implementation projects in 2020
- Implementation of Cochrane's new Dissemination Checklist and Guidance
- New Consumer Strategy

Goal 3: Advocating for evidence

Our multi-language strategy aims to align with Cochrane's new Advocacy Strategy and future activities and enhances the impact of our KT work.

Key result areas:

- Support local Cochrane Groups to help advocate for evidence in different contexts and languages.
- Ensure our brand and communications are relevant across our diverse community and engage the community to maximize reach and impact, while being sensitive to local contexts, limited capacity, and competing priorities, and the need for training, resources and support.

Dependencies and considerations:

- Cochrane's new Advocacy Strategy and implementation activities 2020 and beyond.

Goal 4: Building an effective and sustainable organization

As Cochrane develops a new organizational strategy in 2020, we will consider multi-language needs and cultural perspectives across the organization, supporting our community and organizational processes. We will embrace the potential of multi-language activities and diverse perspectives as an opportunity for global relevance, learning and added value.

An essential way to become a more international, multi-language organization is to increase the involvement of non-native English speakers and their perspectives in the production and dissemination of Cochrane evidence, and the organization in general. The role of non-native English-speaking people and Geographic Groups in Cochrane should not only be translation – they have the same range of interests and skills as everyone else and we should harness that potential and facilitate this involvement to develop and sustain our organization.

As we move towards open access, there may be opportunities to obtain funding and identify new income streams in different countries and languages to support future sustainability.

Key result areas:

- Consider multi-language needs and different cultural perspectives and experiences systematically in our organizational projects and programmes.
- Ensure core learning resources and user journeys are applicable to diverse cultural and linguistic contexts and translate them depending on local priorities, while considering required additional resources, the risk that projects may be slowed down, and the need to manage expectations across the organization.
- Identify new ways for diverse people to be involved in Cochrane, better support them and facilitate their involvement, including in Review production and KT activities, to increase the engagement of

people with diverse linguistic and cultural backgrounds in the organization, while ensuring the community is supported and adequately resourced.

- Develop internal and external communication plans and offer intercultural training to raise awareness about linguistic and cultural diversity and opportunities in Cochrane.
- Identify and assess opportunities for business development to support new income streams, such as sales of Cochrane Interactive Learning or sales of Cochrane trained machine translation engines in different languages.
- Support the development of strategic and research partnerships and fundraising for multi-language and KT activities in different contexts, assessing the required effort against expected benefit and return on investment.

Dependencies and considerations:

- Cochrane’s new publishing partner
- Open Access
- Organizational strategy post 2020
- New Consumer Strategy

6. Role of Cochrane Groups

Group type	Activities and responsibilities
Geographic Groups	<ul style="list-style-type: none"> • Optimize translation workflows including through technology, approaches to improve quality, training and improved volunteer engagement, and translate Abstracts, PLS, Cochrane.org, and the Cochrane Library where applicable. • Develop and implement KT plans and activities for their region to facilitate dissemination and uptake of Cochrane evidence by diverse audiences and engage contributors from diverse linguistic and cultural backgrounds. • Translate or develop training applicable to local context and priorities and share materials. • Engage in key organizational projects and programmes to advise on needs of people with diverse linguistic and cultural backgrounds. • Help raise awareness about linguistic and cultural diversity and opportunities in Cochrane. • Foster collaboration and exchange between Cochrane Groups within regions sharing the same language (including English) via joint KT planning and activities.
Review Groups	<ul style="list-style-type: none"> • Advise on support needed and effective strategies to help ensure Cochrane Reviews take into account KT and translation and facilitate the inclusion of diverse perspectives and contexts where appropriate. • Advise on and engage in programmes providing methods and linguistic support to non-native English-speaking Review authors, provided by units based in Geographic Groups and designed to support authors and Review Groups working with them to produce consistent high-quality Reviews. • Foster collaboration and exchange between Cochrane Groups within regions sharing the same language (including English) via joint KT planning and activities.

Fields and Cochrane Consumer Network	<ul style="list-style-type: none"> • Develop and implement KT plans and activities for their speciality to facilitate dissemination and uptake of Cochrane evidence by diverse audiences in different languages. • Translate or develop training applicable to local context and priorities and share materials. • Engage in key organizational projects and programmes to advise on needs of people with diverse linguistic and cultural backgrounds, including the development and improvement of KT products and Plain Language Summaries, and capacity building for different audiences. • Help raise awareness about linguistic and cultural diversity and opportunities in Cochrane. • Foster collaboration and exchange between Cochrane Groups within regions sharing the same language (including English) via joint KT planning and activities.
Methods groups	<ul style="list-style-type: none"> • Advise on support needed and effective strategies to help ensure Cochrane Reviews take into account KT and translation and facilitate the inclusion of diverse perspectives and contexts where appropriate.

7. Risks

Risk	Preventive measure
Geographic Group KT activities depend on central funding.	Fundraising is expanded to KT and multi-language activities and business development identifies income sources in different languages and countries.
Integration of diverse needs and perspectives slows down implementation, and the community and Central Executive don't have enough time and resources to implement the multi-language strategy.	Clear needs assessments, agreed deliverables, project and resource planning and monitoring and evaluation take into account multi-language needs systematically, and desired outcomes are balanced with desired timelines, benefits and cost.
Community or Central Executive staff remain unaware or don't engage with the principles of the multi-language strategy.	An internal communications plan creates awareness about and accompanies the multi-language strategy implementation.
Community and Central Executive don't have the skills or knowledge to deliver against the multi-language strategy.	Assess training needs and ensure people receive the necessary training.

8. What does success look like?

Multi-language Review translation and knowledge translation activities by 2022

- All Cochrane Abstracts and PLS are available in at least Chinese, French and Spanish. At least 200 Abstracts or PLS are translated per year in 12 additional languages responding to local priorities;
- Translation workflows are more effective through improved technology, applied quality assurance approaches, and translation project managers and volunteers are better trained and supported;
- KT and multi-language activities are implemented and supported in Geographic Groups via a dispersed leadership approach. Every Geographic Group has a KT plan for its country or region

integrated with their strategic plan to enable the dissemination and uptake of Cochrane evidence by key audiences, and the French and Spanish KT plans extent to the lower-middle-and upper-income countries of their linguistic regions. In addition, more, higher quality KT integrated work is completed in different languages adapted to local contexts and measured against KT monitoring and evaluation frameworks to assess proof of concept.

Future strategic direction: Cochrane as an international, multi-language organization

- Cochrane Reviews increasingly take into account KT and language translation and facilitate the inclusion of diverse perspectives and contexts where appropriate;
- Cochrane Plain Language Summaries have consistent quality and facilitate readability and translatability of Cochrane evidence;
- Our production processes include KT products, facilitate automatic publication, updating, dissemination and translation;
- The Cochrane Library and Cochrane.org are developed to accommodate multi-language user journeys of different KT audiences most effectively; and, they are intuitive for users in different languages, and facilitate access to the formats, translations and KT products that different audiences are looking for;
- KT products are produced in different languages, target specific audiences, follow Cochrane's new Dissemination Checklist and Guidance to ensure adequacy and quality, and facilitate translation into different languages;
- Core learning resources and user journeys are applicable for people from diverse backgrounds, easily accessible and translated depending on local and organizational priorities;
- The Cochrane community and Review author teams become more diverse, and people with diverse backgrounds are better integrated and supported;
- Cochrane staff are trained to understand why and how to evaluate multi-language and cultural dependencies as part of developing wider KT strategies.

9. Conclusions

Our multi-language activities to date have achieved outstanding results, particularly in making Cochrane evidence available in different languages on our platforms. The proposed activities and investment for 2020-22 build on the achievements and lessons learned to date and engages the entire community to pave the way for Cochrane to become a multi-language organization leading the way in linguistic and cultural representation in health science.

If this Strategy is approved, the next steps will be to agree a fully-developed implementation plan including monitoring and evaluation with the community stakeholders; to develop contextualized KT plans with Geographic Groups; and to identify and prioritize opportunities for integrating multilingualism and multiculturalism as part of a new organizational strategy post 2020.

10. Recommendation

We recommend that Cochrane's Governing Board approves the Multi-language Strategy to expand Cochrane's multi-language capacities and outputs, and thereby significantly increasing the accessibility, use and impact of Cochrane evidence in the future.

Appendix 1 – Criteria and rationale for selection of priority languages and languages regularly translating Review summaries

Criteria for priority languages

1. Substantial coverage (most widely spoken languages in the world)
2. Clear need for and feasibility of translations
3. Existing Cochrane geographic group willing to lead activities; or alternatively, new geographic group to be set up with mandate to translate in important region to “open the door” (example: Arabic)
4. Supportive local climate (example: existing local partners, political support)
5. Aligns with wider Cochrane strategic directions (example: effort to build other activities/presence in a specific region)
6. Optional: Under-served language for independent health content and prospect for regional impact
7. Optional: Revenue prospect*
8. Commit to translating all new and updated Review abstracts and PLS and to implementing a KT plan for their linguistic region

*Revenue prospect should be a consideration for priority languages, as it could help fund the investment into priority languages, but would disadvantage LMIC countries, so shouldn't be a required criterion.

Rational for selection of Chinese, French and Spanish

- Chinese, French and Spanish are among the top 6 most widely spoken languages in the world aside from English, Arabic, and Hindi-Urdu (Hindi and Urdu are almost the same but use a different script).¹
- We have seen the huge demand for French and Spanish content drive access to cochrane.org over the past 5 years; and Chinese speakers are the biggest group of people in the world, which we are not serving and reaching well currently.
- We have very well-established Cochrane Groups leading the French and Spanish activities and local and regional partnerships and funders supporting these. We have an established Chinese translation team and a clear pathway to a new Chinese Cochrane Network. All three teams are committed to deliver the expected translation volume and quality and a KT plan for their language. The same is not the case for Arabic or Hindi-Urdu.
- Among the three languages, especially Chinese is under-served for independent health content and has big prospect for new regional impact.
- The local investment for Spanish is entirely funded through the Spanish Ministry of Health Cochrane Library license. We expect additional income from sales of the Spanish Cochrane Interactive Learning modules. We can explore similar income streams for Chinese and French, and additional business opportunities, for example sales of Cochrane trained machine translation engines.

¹ See <https://blog.esl-languages.com/blog/learn-languages/most-spoken-languages-world/>

Criteria for languages regularly translating Reviews and core materials

1. Existing Cochrane geographic group willing to lead activities
2. Clear need for and feasibility of translations
3. Cochrane geographic group commit 0.5 FTE of their resources to work on translations and KT
4. Minimum number of speakers (at least around 20 million speakers)
5. Commit to translating 200 Review abstracts or PLS (including updating existing translations) per year and cochrane.org on a regular basis
6. Commit to develop and implement KT plan or project to facilitate dissemination of translations or engagement of contributors and users in their language

Rationale for languages regularly translating Reviews and core materials

- We have active translation projects in Croatian, German, Japanese, Korean, Malay, Persian, Polish, Portuguese, Russian, Tamil, Thai and Traditional Chinese. These are all led by existing Cochrane groups, except for Tamil which is run by the former Cochrane South Asia team. We already have the technical infrastructure in place to support these languages, and all of them have already produced translations for more than 2 years at the minimum.
- We have seen significant increase in access to translations in all these languages on cochrane.org in the past years.
- Japanese, Malay, Portuguese and Russian are among the top 10 most widely spoken languages in the world. Croatian, German, Korean, Persian, Polish, Tamil, Thai and Traditional Chinese feature in the top 40 languages and have at least around 40 million speakers (reliable, up-to-date figures on number of speakers are scarce and vary depending on how languages are distinguished and whether or how second language speakers are counted).
- Croatian, German, Japanese, Korean, Malay, Persian, Polish and Russian already exceed the minimum criteria set out for annual translation deliverables; some already conduct extensive KT activities and are ready to develop and implement a KT plan for their country or region. We will work with the Tamil, Portuguese, Thai and Traditional Chinese teams to confirm their capacity, ability and support needs to continue their Review translation programmes; and with all teams to support the development, implementation and evaluation of a contextualized KT plan.