Cochrane
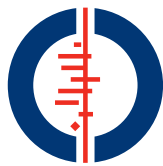## Canada Symposium 2017

11-12 May 2017
Hamilton, Ontario

Evidence and Impact: Engaging consumers, practitioners, researchers and policy-makers

Cochrane
Canada

McMaster
University
HEALTH SCIENCES

Evidence and Impact:
Engaging consumers, practitioners,
researchers and policy-makers

Thursday May 11th – Friday May 12th, 2017
David Braley Health Sciences Centre
100 Main Street West, Hamilton, ON

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WELCOME

Dear colleagues and friends,

This year marks the return of Cochrane Canada's annual symposium, and I am honoured to welcome you to the great city of Hamilton for what is sure to be an inspiring and informative two days.

The theme of this year's symposium – Evidence and Impact: Engaging consumers, practitioners, researchers and policy-makers – will be explored through a series of relevant and engaging plenary and education sessions, workshops, and oral and poster presentations, led by a distinguished roster of international speakers and presenters.

For more than 20 years Cochrane Canada's diverse range of products and services has been internationally recognized as the gold standard of trusted health information – a distinction unmatched by any other Canadian enterprise.

And as we continue to evolve – guided by the interests and expectations of the key stakeholders we serve – we will focus on maximizing the benefit of the work we do. Vital to achieving this mission is the development and implementation of a comprehensive knowledge translation strategy – one that will ensure Cochrane Canada's role as an essential link between primary research and health care decision making.

Since our last symposium in Calgary in 2015, the Cochrane Canada Centre has undergone a period of significant change. Last year, the Centre relocated from the Ottawa Hospital Research Institute (OHRI) to McMaster University's Department of Health Research Methods, Evidence, and Impact (HEI) – the home of evidence-based medicine. This move, undoubtedly, would not have been possible without the unwavering support from a cadre of loyal friends and colleagues, including outgoing Director, Dr. Jeremy Grimshaw, the dedicated staff at OHRI, Associate Director, Dr. John Lavis, incoming Deputy Director, Dr. Nancy Santesso, and Chair of Cochrane's Canadian Centre Advisory Board, Krista Connell.

Finally, on behalf of Cochrane Canada, I would like to take this opportunity to extend my deepest thanks to all those who have contributed to making this year's symposium a success: our speakers, presenters, session chairs and you, our participants. I am very excited to have all of you join us in Hamilton for the return of this very special event.

Thank you,

Dr. Holger Schünemann
Director, Cochrane Canada

THANK YOU

Cochrane Canada recognizes our Symposium Committees

Program Committee
David Allnutt
Krista Connell
Karin Dearness
Jill Hayden
Alfonso Iorio
John Lavis
Grigorios Leontiadis
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Jim Wright

About Cochrane Canada
Cochrane Canada is the Canadian arm of Cochrane – a global independent network of more than 37,000 health practitioners, researchers, consumers and consumer advocates. Established in 1993, Cochrane Canada is one of 14 centres worldwide committed to transforming evidence generated through research into useful information for making everyday decisions about health.
Comprised of six Review Groups, four Methods Groups, one Field and 18 Regional Sites, Cochrane Canada has become the second largest contributor to the Cochrane Library, producing more than 300 systematic reviews and updates in the past five years.
In 2016, The Cochrane Canada Centre relocated from the Ottawa Hospital Research Institute (OHRI) to McMaster University's Department of Health Research Methods, Evidence, and Impact (HEI) – the home of evidence-based medicine.

For more information on Cochrane Canada, please visit canada.cohrane.org.

AGENDA

McMaster University HEALTH SCIENCES

Cochrane Canada

THURSDAY, MAY 11, 2017

🟪 CONSUMERS   🟥 PRACTITIONERS   🟩 RESEARCHERS   🟨 POLICY-MAKERS

Time	Room		Activity
7:30 - 8:50 AM			**Registration & Poster Set-up**
8:50 - 9:10 AM	2032		**Welcome & Greetings** **Cochrane Canada Director: Holger Schünemann**
9:10 - 10:30 AM	2032	🟪🟥🟩🟨	**Plenary I: Evidence in the age of alternative facts** Panel Discussion **Chair:** Nancy Santesso **Speakers:** Paul Moayyedi, John Lavis & Maureen Dobbins
10:30 - 11:00 AM			**Refreshment Break; Exhibitors & Posters**
11:00 AM - 12:30 PM	2011	🟪🟥🟨	**Oral Sessions: Brokering and Use of Evidence** Knowledge Brokering: A Comprehensive Strategy to Support Evidence- Informed Public Health, **Emily Clark** Integrating Systematic Review Training Into the Canadian Medical School Curriculum, **Farah Kassam, Imran Sumar** Assessment of the Canadian Hypertension Education Program's Use of Evidence, **Martin Bohdal** Needs Assessment: Use of Research Evidence Policy Development and Decision Making at the Nova Scotia Department of Health and Wellness, **Andrea Smith**
	2017	🟪🟨	**Oral Sessions: Engagement and Change** Assessing the Optimal Presentation of how patients value health outcomes (Values and Preferences): A qualitative user testing, **Yuan Zhang** Integrating the Voice of Patients into Evidence Development and Standards at Health Quality Ontario, **David Wells** Development and evaluation of a citizen panel program for engaging citizens in setting direction for broad system change, **Michael Wilson** Organizational change readiness and resistance: A toolkit of models, frameworks, and theories, **Kristin Read**

*Activity subject to change

AGENDA

McMaster University HEALTH SCIENCES · Cochrane Canada

THURSDAY, MAY 11, 2017

🟪 CONSUMERS 🟥 PRACTITIONERS 🟩 RESEARCHERS 🟨 POLICY-MAKERS

Time	Room	Audience	Session
11:00 AM - 12:30 PM	2035	🟪🟥🟩🟨	**Workshop: Build a Social Media Toolkit! Strategies for organizations to engage and optimize their social media platforms** **Speakers:** Olivia Marquez
	2036	🟩	**Workshop: Considering health equity in guideline development using GRADE: Case study of migrant and homeless health guidelines** **Speakers:** Vivian Welch, Manosila Yoganathan, Jennifer Petkovic, Alain Mayhew
	2013	🟩	**Oral Sessions: Guidelines and Systematic Reviews** Analysis of guideline panel and content expert views toward management of conflict of interest during guideline development, **Samantha Craigie** Development and validity testing of the AGREE-HS, a health systems guidance quality appraisal tool, **Melissa Brouwers** A tool to evaluate the clinical credibility and implementability of clinical practice guideline recommendations: The AGREE-REX, **Melissa Brouwers** GRADE guidance for rating the certainty of a body of evidence describing the relative importance of outcomes or values and preferences, **Yuan Zhang**
12:30 - 1:30 PM			**Lunch**
1:00 - 1:30 PM			**Posters**
1:30 - 5:00 PM	2035	🟥🟩🟨	**Education Session One - Audit and Feedback** **Speakers:** Jeremy Grimshaw, Noah Ivers, Shawn Dowling and Heather Colquhoun
	2036	🟪🟩🟨	**Education Session Two - Understanding how policy makers draw on evidence to inform their work** **Speakers:** John Lavis
2:45 - 3:30 PM			**Refreshment Break; Exhibitors & Posters**

*Activity subject to change

AGENDA

THURSDAY, MAY 11, 2017

🟪 CONSUMERS 🟥 PRACTITIONERS 🟩 RESEARCHERS 🟨 POLICY-MAKERS

1:30 - 5:00 PM	2032	🟩	**Education Session Three - GRADE:** **How to go from Evidence to Decisions** **Speakers:** Holger Schünemann
	2018	🟪 🟥 🟩 🟨	**Workshop** **Part I (1:30 to 3:00): Practical methods to generate citizen research involvement for evidence-based practice** **Speakers:** Pasqualina Santaguida, Amy Price, Homa Keshavarz **Part II (3:30 to 5:00): Translating evidence into plain language:** **Learn to write an evidence summary with the McMaster Optimal Aging Portal Template** **Speakers:** Susannah Watson and Sarah Neil-Sztramko
5:00 - 6:00 PM	2032		**Annual Stakeholder Meeting**
6:15 PM			**Cocktail Party at Art Gallery of Hamilton**

*Activity subject to change

AGENDA

McMaster University HEALTH SCIENCES   Cochrane Canada

FRIDAY, MAY 12, 2017   *Activity subject to change

■ CONSUMERS   ■ PRACTITIONERS   ■ RESEARCHERS   ■ POLICY-MAKERS

Time	Room		Activity
8:30 - 9:00 AM			**Registration**
9:00 - 9:10 AM	2032		**Welcome back** **Speaker:** Patrick Deane, President, McMaster University
9:10 - 10:30 AM	2032	■■■■	**Plenary: Can evidence-informed decision-making work?** **Speakers:** Jim Wright, Sacha Bhatia
10:30 - 11:00 AM			**Refreshment Break; Exhibitors & Posters**
11:00 AM - 12:30 PM	2035	■	**Education Session Part 1: ROBINS-I: Risk of Bias for non-randomised studies of interventions and AMSTAR2 tool for systematic reviews** **Speakers:** George Wells, Beverly Shea
	2018	■■■■	**Workshop: Priority setting for policy** **Moderator:** Elie Akl
	2036	■	**Workshop: Network Meta-Analysis** **Speakers:** Joseph Beyene
	2011	■	**Oral Sessions: Improving use and production of evidence** When should systematic reviews be replicated, and when is it wasteful? An analysis of reasons for discordance among overlapping systematic reviews, **Sathya Karunananthan** Expediting Knowledge Synthesis and Translation in Pediatric Clinical Care: Piloting a Living Systematic Review on Interventions for Bronchiolitis, **Sarah Elliott** Transitioning to Living Systematic Reviews: Lessons learned from a large scale review on diabetes quality improvement interventions, **Katrina Sullivan** Comparing AMSTAR and ROBIS in Quality Assessments of Systematic Reviews for Drug Treatments for Alzheimer's Disease, **Sydney George** Making sense of complex interventions: Application of hierarchical meta-regression in a meta- analysis of diabetes quality improvement (QI) interventions, **Kristin Danko**

AGENDA

McMaster University HEALTH SCIENCES

Cochrane Canada

FRIDAY, MAY 12, 2017

🟪 CONSUMERS   🟥 PRACTITIONERS   🟩 RESEARCHERS   🟨 POLICY-MAKERS

Time	Room		Session
11:00 AM - 12:30 PM	2017	🟩	**Oral Sessions: Health for Key Populations** Sex/ gender in Cochrane systematic reviews, **Jennifer Petkovic** Developing guidance on screening for infectious diseases among newly arrived migrants to the European Union: A GRADE-ADOLOPMENT Approach, **Alain Mayhew** Documenting research with transgender and gender diverse people: Introducing the Trans Research Evidence Map, **Zack Marshall** The Weight of Evidence: A critical realist evidence synthesis method to address health inequities, **Anna Dion**
12:30 - 1:30 PM			**Lunch**
1:00 - 1:30 PM			**Posters**
1:30 - 3:00 PM	2035	🟩	**Education Session Part 2: ROBINS-I: Risk of Bias for non-randomised studies of interventions and AMSTAR2 tool for systematic reviews** **Speakers:** George Wells and Beverly Shea
	2036	🟩	**Workshop: Integrating GRADE Summary of Findings Tables (SoF) in Network Meta-analysis publications** **Speakers:** Juan Yepes-Nunez
	2011	🟩	**Oral Session: Systematic review methodology** Underestimation of depression screening tool sensitivity when using lay-administered fully structured diagnostic interviews as the reference standard: An individual patient data meta-analysis, **Brooke Levis** Diagnostic test accuracy of genomics-based non-invasive prenatal testing for detection of fetal chromosomal aneuploidy in pregnant women, **François Rousseau** A scoping review of enteral nutrition and necrotizing enterocolitis and systematic review of hydrolyzed formulas, **Jocelyn Shulhan** Physical and or Cognitive Rest After Concussion: A Systematic Review and Meta-analysis, **Avtar Lal** Comparison of the Lipid lowering effect of 4 statins, **Nima Alaeiilkhchi**
	2018	🟪🟥🟩🟨	**Workshop: Evidence on the table: an overview of engaging federal law makers with your health research** **Speakers:** Robert Rivers

*Activity subject to change

AGENDA

McMaster University HEALTH SCIENCES

Cochrane Canada

FRIDAY, MAY 12, 2017

🟪 CONSUMERS   🟥 PRACTITIONERS   🟩 RESEARCHERS   🟨 POLICY-MAKERS

	2017	🟩	**Oral Session: Individual studies in systematic reviews** How pervasive are unit of analysis errors in cluster randomized trials: A review of diabetes quality improvement RCTs?, **Kristin Danko** Strategies to integrate randomized and non-randomized studies using the GRADE approach, **Carlos Cuello** Reliability and validity assessment of a risk bias instrument for non-randomized studies of exposures, **Rebecca Morgan** Should we include retracted studies in Cochrane reviews?, **Jordi Pardo Pardo** Does trial registration reduce research bias? A comparison of registered and unregistered trials in diabetes quality improvement Interventions, **Sathya Karunananthan**
3:00 - 3:30 PM			**Refreshment Break; Exhibitors & Posters**
3:30 - 4:45 PM	2032	🟪 🟥 🟩 🟨	**Plenary: The impact and future of Cochrane evidence for consumers, policy makers, practitioners and researchers.** **Speakers:** Anne Lyddiatt, Lorenzo Moja and Holger Schünemann
4:45 - 5:00 PM	2032		**Symposium Close** **Cochrane Canada Director:** Holger Schünemann

*Activity subject to change

DISCLOSURE

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DECLARATION OF CONFLICT OF INTEREST

The following Planning Committee Members and Speakers do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization

Elie Akl	Farah Kassam	Shawn Dowling	Jennifer Petkovic
David Allnutt	Imran Sumar	Heather Colquhoun	Alain Mayhew
Sacha Bhatia	Martin Bohdal	Pasqualina Santaguida	Zack Marshall
Krista Connell	Andrea Smith	Amy Price	Anna Dion
Karin Dearness	Yuan Zhang	Homa Keshavarz	Juan Yepes-Nunez
Maureen Dobbins	David Wells	Susannah Watson	Brooke Levis
Jill Hayden	Michael Wilson	Sarah Neil-Sztramko	Francois Rousseau
Anne Lyddiatt	Kristin Read	Jim Wright	Jocelyn Shulhan
Phillippe Ravaud	Samantha Craigie	George Wells	Avtar Lal
Denise Thomson	Melissa Brouwers	Beverly Shea	Nima Alaeiikhchi
David Tovey	Olivia Marquez	Elie Akl	Robert Rivers
Julie Wood	Vivian Welch	Joseph Beyene	Carlos Cuello
Holger Schunemann	Manoslia Yoganathan	Sathya Karunananthan	Rebecca Morgan
Nancy Santesso	Jennifer Petkovic	Sarah Elliott	Jordi Pardo Pardo
John Lavis	Alain Mayhew	Katrina Sullivan	Anne Lyddiatt
Maureen Dobbins	Jeremy Grimshaw	Sydney George	
Emily Clark	Noah Ivers	Kristin Danko	

The following Planning Committee Members and Speakers have or had an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization as stated below:

Alfonso Iorio: Is a member of an Advisory Board or equivalent with Bayer, Biogen Idec and Octapharma. Has received payment from Bayer, Biogen Idec, Pfizer, and Baxter (now Shire) as a speaker. He is currently participating in or has participated in a clinical trial with the past two years with Pfizer (PI), Baxter (Co-PI), Novo-Nordisk (PI), Octapharma (local investigator ongoing – Wilate).

Paul Moayyedi: Is a member of an Advisory Board or equivalent with Allergan, Shire and Salix. I am member of a Speaker Bureau with Allergan and Abbvie.

Lorenzo Moja: Is currently participating in or has participated in a clinical trial within the past two years with IRCCS Istituto Ortopedico Gale.

Peter Tugwell: Is a member of an Advisory Board or equivalent with Bristol-Myers Squibb, Chelsea, UCB, Abbott, Roche, Schering Plough/Merck and Canadian Reformulary Group Inc.   Has received payment from (including gifts or other consideration or in kind compensation) Pfizer Canada, Hoffman La-Roche, Eli Lilly , Elsevier, Little Brown, Wolters Kluer Ltd, John Wiley & Sons Ltd and Elsevier Publishing Ltd. I have receive a grant(s) or an honorarium from Amgen, AstraZeneca, Bristol Myers Squibb, Celgen, Eli Lilly, Genentech/Roche, Genzyme/Sanofi, Horizon Pharma Inc, Merck Novartis, Pfizer, PPD, Quintiles, Regeneron, Savient, Takeda Pharmaceutical, UCB Group, Vertex, Forest, Bioiberica.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTERESTS
In keeping with accreditation guidelines, McMaster University; Continuing Health Sciences Education Program requires all speakers and planning committee members participating in this activity to disclose any involvement with industry or other organizations that may potentially influence the presentation of the educational materials or program being offered. Disclosure must be done verbally and using a slide prior to the speaker's presentation.

Things To Do Around Hamilton

1 SERVE PING PONG
107 King Street East, Hamilton, ON

Serve Ping Pong Bar & Lounge is the best social experience in Hamilton. We combine the fun of ping pong in a space that merges the urban with the elegant. Enjoy delicious shared-platter fare, a full cocktail menu, tournaments, and social and private events in our expansive 10,000 square foot lounge & play space in the heart of downtown Hamilton

2 AUGUSTA STREET
A variety of Pubs with Craft Beers, Gourmet Menus and Live Bands all within walking distance.

3 YUK YUK'S COMEDY CLUB (Friday May 12th)
120 King Street West - Upper level Above Anchor Bar

Laurie Elliott is a stand-up comic, actor and television writer. She is a winner of the Tim Sims Encouragement Fund Award and is a four-time winner of Best Female Stand-Up at The Canadian Comedy Awards.

4 ART CRAWL (Friday May 12th)
Join us on the second friday night of the month for the always fun James North Art Crawl. Explore the many galleries, shops and studios that are now calling this historic neighbourhood home. A coordinated effort that is over 5 years old - the Art Crawl is quickly becoming a can't miss event.

AGH

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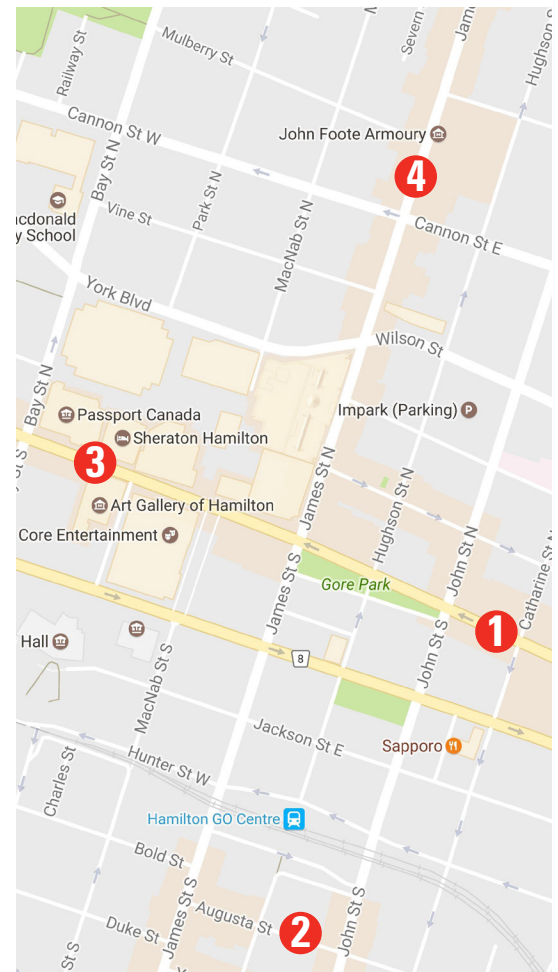
Join us for cocktails at the Art Gallery
of Hamilton on May 11 at 6:15 PM.

Workshop Abstracts

Please note the names of presenters appear in bold

Workshop 1

Build a Social Media Toolkit! Strategies for organizations to engage and optimize their social media platforms

Olivia Marquez

Collaborators: Maureen Dobbins, Heather Husson

Room 2035. 11am-12:30pm, Thursday, 11 May, 2017

Background: Health EvidenceTM supports the public health workforce search for, interpret, and apply research evidence to practice. Since 2009 Health EvidenceTM has used social media as a knowledge translation (KT) tool to disseminate evidence to thousands of global followers and engage in online conversations regarding 'what works' in public health.

Learning Objectives: 1) gain hands-on experience using various techniques, strategies, and resources to create interactive social media content, engage on platforms, and tailor strategies with analytics; and 2) [simultaneously] build a custom social media toolkit!

Exercises: 1) The session begins with an overview of social media platforms and their unique audiences. 2) Participants will explore various types of social media posts (organizational promotion, health promotion, evidence dissemination) along with strategies for content creation, followed by an opportunity to draft posts. 3) Participants will learn the 'how to' of writing engaging content and gain hands-on experience using social media features (e.g., hashtags, tags, pinned posts) and programs for creating interactive social media cards, while adding useful resources to their toolkit. 4) An overview of engagement strategies (e.g., tools for creating campaigns) and the various online programs used to collect analytics will be followed by an opportunity to apply techniques in practice, network with other attendees' social media platforms, and build their custom social media toolkit.

Workshop 2

Considering health equity in guideline development using GRADE: case study of migrant and homeless health guidelines

Vivian Welch, Manosila Yoganathan, Jennifer Petkovic, Alain Mayhew

Room 2036. 11am-12:30pm, Thursday, 11 May, 2017

Background: Health equity is defined as the absence of avoidable and unfair differences in health. Clinical and public health guidelines ideally consider equity considerations in the process of developing recommendations, including collecting the evidence and considering the effects of implementing the guidelines. This panel will present new guidance from the GRADE Equity Working group on considering health equity in the guideline development process. This guidance has been developed through interactive workshops, reviews and email discussions of GRADE working group members and colleagues, and has been accepted in the Journal of Clinical Epidemiology (February 2017).

Learning Objectives: To develop an understanding of the new guidance for considering health equity in guideline development and systematic reviews To learn how to apply the guidance to guidelines and reviews of specific populations.

Exercises: Workshop participants will work through exercises of considering health equity in guideline development using examples from developing guidance for preventive care for migrants and for people who are homeless or vulnerably housed.

Workshop 3: Part 1

Practical Methods to Generate Citizen Research Involvement for Evidence-based Practice

Pasqualina Santaguida, Amy Price, Homa Keshavarz

Room 2018. 1:30-3pm, Thursday, 11 May 2017

Background: Citizens are key stakeholders who possess untapped potential for improving informed shared decision-making, education and methods in research. The time is ripe, the technology is ready, and the passion to engage citizens is now! Funding agencies increasingly require research teams to involve the public in multiple aspects of research.
This workshop shares solutions for starting from where we are to build research with what we have. The evidence shows research teams struggle to include citizen researchers in preparatory forms of research like systematic reviews, priority setting, research design and evaluation. We propose practical solutions for combining research involvement with evidence based practice starting from ground zero.

Learning Objectives: To identify and share manageable ways investigators can invite citizen researchers to help prioritize, initiate, design, synthesize, organize and evaluate health research.

Proposed Interaction:
Following several short didactic presentations, participants will work through solutions for
citizen involvement in research in the following areas:
? Practical methods to identify, communicate with, and train, citizen research volunteers ? Understanding and managing expectations for a good working relationship ? Approaches to involve citizens during protocols/grant applications ? Issues of consent and confidentiality ? Potential biases that can affect review with community engagement ? Acknowledgement of citizen research within publications and presentations

Exercises: The workshop is interactive with practical exercises and undertaken in small groups. Using brainstorming, role play, and the circle technique for conflict negotiation to facilitate problem solving, participants will work in small teams to populate the citizen research involvement segment of a protocol, a research paper and a funding application. Post conference materials will be available.

Workshop 3: Part 2

Translating evidence into plain language: Learn to write an Evidence Summary with the McMaster Optimal Aging Portal template

Susannah Watson, Sarah Neil-Sztramko

Collaborators: Maureen Dobbins, Alfonso Iorio, John Lavis, Anthony Levinson, Parminder Raina

Room 2018. 3:30-5pm, Thursday, 11 May, 2017

Background: The McMaster Optimal Aging Portal (the Portal) is a website dedicated to sharing evidence-based information on healthy aging. Funded by the Labarge Optimal Aging Initiative, the Portal was launched in English in October 2014 and French in February 2017. Portal content is drawn from three databases of quality appraised evidence: McMasterPlus (clinical); Health Evidence (public health); and Health Systems Evidence (health systems & policy). Evidence Summaries (ESs) published on the Portal translate high-quality systematic review evidence into easy-to-read messages intended for members of the public. An ongoing challenge is ensuring that ESs accurately reflect the published evidence. Through a two year development phase, an ES template was created and tested by the three Portal database teams. In this 75-min workshop, participants will receive a template and develop skills to translate systematic review evidence into a plain language ESs.

Learning Objectives: - Assess a Cochrane systematic review to identify key messages most relevant to a lay audience - Interpret key messages in plain language using the Portal ES template - Compare and revise an ES with guidance from peers and workshop facilitators

Exercises: - Practice creating an evidence summary of a systematic review - Provide and receive peer feedback on translating evidence into plain language

Workshop 4

Integrating GRADE Summary of Finding Tables (SoF) in Network Metanalysis publications

Juan Yepes-Nuñez, Susan Jack, Nancy Santesso, Holger Schunemann

Collaborators: Susan Jack, Holger J Schünemann

Room 2036. 1-3:30pm, Friday, 12 May, 2017.

Background: When multiple interventions are available for the management of the same disease or condition, network meta-analysis (NMA) using direct and indirect comparisons may provide optimal estimates of their relative effectiveness. The best approaches to presentation and interpretation of NMA results for users remains, however, uncertain.

Learning Objectives: For researchers conducting network meta-analysis (NMA), to explore the appropriate presentation format for NMA results

Exercises: In small groups, we will present a new tabulated format of a GRADE NMA SoF table that participants will have the opportunity to evaluate and criticize.

Workshop 5

Evidence on the table: an overview of engaging federal law makers with your health research

Robert Rivers

Room 2018. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: If health researchers wish to effectively provide evidence for policy decision making, they must have an understanding of government legislative processes and the weight of discourse as evidence for political decision making. Through its various committees, Canadian parliament provides researchers with distinct opportunities to engage with policy makers and assist with building stronger evidence-informed legislation. This talk will present an overview of the essential role of text and discourse in communicating evidence in the political sphere, in contrast with the communication and treatment of evidence by health researchers.

Methods: These goals will be accomplished by a focused overview of the Federal Standing Committee on Health (HESA) which is, "empowered to study and report on all matters relating to the mandate, management and operation of Health Canada. […] The Committee is also responsible for the oversight of four agencies that report to Parliament through the Minister of Health: Canadian Institutes of Health Research (CHIR); Patented Medicine Prices Review Board (PMPRB); Canadian Food Inspection Agency (CFIA); and Public Health Agency of Canada (PHAC)." (HESA Mandate Overview)

Results: Participants will gain an understanding of how researchers may position themselves upstream of the legislative process, participate in committees as expert witnesses, and introduce their research evidence to be included in the examination of legislation or research studies conducted by committees.

Conclusions: Audience will understand the role and procedures of the parliamentary committees in general, and HESA in particular, to assist health researchers in their endeavours to engage with the policy-making process.

Oral Session 1 – Brokering and Use of Evidence

Knowledge brokering: A comprehensive strategy to support evidence-informed public health

Emily Clark, Donna Ciliska, Maureen Dobbins

Room 2011. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: The National Collaborating Centre for Methods and Tools (NCCMT) supports capacity development for evidence informed decision making among (EIDM) public health professionals in Canada. The knowledge broker mentoring program develops capacity amongst the workforce while also supporting organizational change for EIDM. The NCCMT has developed and successfully piloted a 16-month mentorship program to provide public health professionals with knowledge, skills and tools needed to act as knowledge brokers and advance the uptake and use of research evidence.

Methods: First, an organizational assessment was completed with each of the five participating health units. Senior management at each unit participated in a focus group that assessed the organizational culture in their health unit and identified targets for change to support EIDM. Second, 5-6 front-line staff from each health unit participated in a 16-month curriculum. The program included three in-person EIDM-intensive workshops, monthly webinars and monthly phone and email support with a senior knowledge translation expert. Finally, a practice based issue was identified by each health unit and a rapid review conducted by the participants. Changes in performance on an EIDM Assessment were analyzed using a paired t-test.

Results: Strategies to improve the support and use of EIDM at the organizational level were identified and implemented. A statistically significant increase in EIDM knowledge and skill was observed following the program (p

Conclusions: Mentoring of knowledge brokers provides a statistically significant increase in skills for evidence-informed decision making in public health.

Farah Kassam, Imran Sumar

Collaborators: Ciprian Jauca, Aaron Tejani, Jim Wright, Doug Salzwedel

Room 2011. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: Evidence-based medicine forms the foundation of the clinical decision making process. With the wealth of primary literature available, systematic reviews play a critical role in making evidence-based medicine more feasible for healthcare professionals. Despite the importance of systematic reviews in clinical practice, there is little time dedicated towards exposing medical students to the rigorous process of conducting systematic reviews. The objective of this project is to understand and appreciate the process of conducting systematic reviews, thereby increasing the likelihood that they will be utilized in clinical practice.

Methods: In the new Flexible Enhanced Learning (FLEX) course at the University of British Columbia, medical students have the opportunity to undertake projects that incorporate scholarly inquiry. Students are taught how to critically appraise primary literature, and are exposed to the concept of systematic reviews. To gain a deeper understanding of the process of conducting a systematic review, we chose to join the Cochrane Hypertension Review Group at UBC. With the mentorship of this group and the initial training provided by the FLEX course, we completed modules, participated in research meetings, screened primary literature, and published a protocol.

Results: In this project, we enhanced the basic skills provided by the FLEX program and deepened our understanding of the process involved in conducting a systematic review.

Conclusions: Incorporating systematic review training into the medical school curriculum is a new and innovative method to produce systematic reviews. Furthermore, if future physicians obtain an appreciation and understanding of systematic reviews, this will likely increase their utilization in clinical practice.

Assessment of the Canadian Hypertension Education Program's Use of Evidence

Martin Bohdal, Jim Wright

Room 2011. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: The Canadian Hypertension Education Program's (CHEP) Guidelines provide evidence-based guidance for blood pressure targets, treatment thresholds, and therapeutic choices for consumers with elevated blood pressure. The Cochrane Hypertension Group (CHG) edits and publishes systematic reviews to answer clinically relevant questions regarding hypertension. Our objective is to determine whether CHEP guidelines are in agreement with the best available evidence from CHG systematic reviews.

Methods: From the perspective of a consumer, we reviewed and extracted recommendations from CHEP recent public educational material for the management of hypertension. We first made a judgment as to what the average consumer would do based on the CHEP material. We subsequently made a judgment as to what a consumer would do with evidence from CHG systematic reviews.

Results: In all cases the information gleaned from the CHG systematic reviews was different from the CHEP guidelines. In some instances the action taken by a consumer would be similar based on the 2 sources. In other instances the action taken by a consumer would be distinctly different based on the 2 sources of information. In the discordant cases we will present a detailed analysis of how the 2 processes led to different actions. The possible reasons for the differences will be discussed.

Conclusions: Consumers need to be alerted to the fact that because a guideline is called evidence-based does not guarantee that it follows rigorous evidence-based methodology.

Needs Assessment: Use of Research Evidence in Policy Development and Decision Making at the Nova Scotia Department of Health and Wellness

Andrea Smith, Jill Hayden

Room 2011. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: Prior evidence suggests that individual and organizational baseline characteristics may influence which types of knowledge translation (KT) interventions are most effective at building capacity for the use of research evidence in health policy making. Therefore, before designing and implementing KT interventions, we must first describe current capacity for the use of research evidence. This project reports on the development of a survey to identify opportunities to support and improve the use of research evidence by staff who work in policy and program development with the Nova Scotia Department of Health and Wellness.

Methods: We searched for studies that explored the use of research evidence by civil servants involved in health policy and program development. We used these published studies to identify content domains and survey questions to measure individual and organization capacity for research use in policy making. Our survey will be administered to staff involve in policy and program development at Department of Health and Wellness to capture their use of research evidence.

Results: We report the results of our literature review of research on public sector policy analysts' use of research evidence. We present our survey designed for our local context to explore barriers and facilitators to research use: our survey will measure how individuals are accessing, appraising and using research evidence.

Conclusions: The results of the baseline evaluation will inform the design and implementation of a tailored KT strategy to increase the confidence, skills, and use of appropriate research evidence in health policy and program development in Nova Scotia.

Oral Session 2 – Engagement and Change

Assessing the Optimal Presentation of how patients value health outcomes (Values and Preferences): A qualitative user testing

Yuan Zhang, Juan Yepes-Nuñez, Pablo Alonso-Coello, Hector Pardo-Hernandez, Rebecca Morgan, Gordon Guyatt, Holger Schunemann

Collaborators: Juan Jose Yepes-Nunez, Pablo Alonso Coello, Hector Pardo-Hernández, Rebecca Morgan, Gordon Guyatt, Holger Schunemann

Room 2017. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: We conceptualize patient values and preferences as how patients value the relative importance of health outcomes. A transparent and structured approach to communicate this type of evidence remains unavailable. This project aims to develop the current summary of findings table formats for the presentation of outcome importance (values and preferences) evidence.

Methods: We developed a tabulated presentation of findings and certainty of evidence, based on the existing GRADE Summary of findings table. Following development, the new-SoF table for presenting the outcome importance evidence, was piloted through brainstorming sessions, and presented to a purposeful sample of systematic review authors and guideline developers using a semi-structured interview format. We analyzed the data using an inductive content analysis strategy.

Results: The findings from the user testing interviews were largely related to usability and usefulness of the table. Although the table is in general easy to use, some users misunderstood evidence regarding utilities and variability within studies (as opposed to inconsistency about typical values). To address the former we added a visual analogue scale to clarify the evidence presentation. The settings on which users focused were most often the guideline development process, although the participants felt that the table could be used to summarize and/or present evidence, or for clinicians to initiate a conversation with patients about what is most important to them.

Conclusions: Using rigorous methods we developed a user-friendly summary of findings table to present the evidence regarding outcome importance. Subsequent work will explore the additional value of the summary of finding table and possible alternative formats.

Integrating the Voice of Patients into Evidence Development and Standards at Health Quality Ontario

David Wells

Collaborators: Mark Weir

Room 2017. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: Patient engagement involves patients, families, and health providers actively collaborating in improving the health care system. Health Quality Ontario (HQO) takes an active approach in patient engagement; reaching out directly to those living with various health conditions and use specific interventions to manage their health. In 2015, HQO applied this approach to their Evidence Development and Standards branch. The objective was to integrate the voice of patients into two key areas of focus; health technology assessments and the Quality Standards program.

Methods: Three approaches are used to include the patient voice in evidence development and standards work: by having lived-experience members join decision-making committees, by having patients as reviewers of engagement and project plans, and by synthesizing patient lived-experiences to aid in decision-making.

Results: In two years, the patient voice has become a key part of the evidence development and standards work at HQO. Within the Standards committees and health technology assessments, over a hundred patients have shared their diverse experiences and provided key insights to inform the development of the final result.

Conclusions: HQO has successfully developed the processes and capacity to integrate the patient voice into its evidence development and standards work through multiple innovative approaches.

Development and evaluation of a citizen panel program for engaging citizens in setting direction for broad system change

Michael Wilson

Collaborators: Francois-Pierre Gauvin, Julia Abelson, Kaelan Moat, John Lavis

Room 2017. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: Our objectives were to: 1) describe the development of a citizen panels program that supports citizens to make informed judgements about pressing health-system issues; 2) evaluate the panels; and 3) identify values that citizens prioritize to address health-system issues.

Methods: Our approach consisted of three components: 1) documentation of the evolutionary phases of our approach; 2) survey of panel participants about their views of the citizen brief received prior to the panel, and about their experience with the panel; and 3) analysis of the values articulated across each of the 33 citizen panels we have convened to identify those that were consistently prioritized by to address health-system issues.

Results: Some features of our citizen panels have remained in place over the evolution of the program (e.g., engaging diverse groups of citizens and supporting informed judgements by presenting results from systematic reviews), but we have made changes to enhance the program (e.g., streamlining the citizen briefs and sequencing panels to precede a stakeholder dialogue). Our survey findings indicate that our approach resonates well, with participants providing a 6.1 (n=399; SD=1.1) and 6.7 (n=402; SD=0.6) mean overall assessment of the citizen brief and citizen panels, respectively. Across 33 panels, participants have consistently identified a core set of values (most notably supporting excellent patient experience, ensuring fairness and fostering collaboration across the system) despite panels addressing a broad range of issues.

Conclusions: Citizen panels provide a mechanism for evidence-informed deliberation among citizens about pressing health-system issues that emphasizes their values and preferences for addressing them.

Organizational change readiness and resistance: A toolkit of models, frameworks, and theories

Kristin Read, Danielle Kasperavicius, Maureen Dobbins

Collaborators: Danielle Kasperavicius, Dr. Maureen Dobbins

Room 2017. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: The goal of this toolkit is to identify major models, frameworks, and theories (M/F/T) on organizational change readiness and resistance and reflect on the potential value of these M/F/T to public health practice.

Methods: A systematic search was conducted to identify review level articles published from January 2000 to July 2014 on organizational change. Relevance screening was performed by two independent reviewers using predefined inclusion criteria. M/F/T on organizational readiness and resistance were identified from included articles. The original search strategy was supplemented by a review of included article reference lists, a targeted search of the larger results set, a google Scholar search, and outreach to key informants. Data extraction was performed on each identified M/F/T and organized along dimensions of potential importance to the public health context including nature of change, level of change, change perspective (positive vs. negative), organizational structure, change agent, and concreteness.

Results: Approximately 50 M/F/T are included in the toolkit. The majority of included M/F/T look at planned change, focus on preparing for change, and emphasize the individual level of change. Most M/F/T are more conceptual than concrete, focus on hierarchical organizational structures, and include a mix of top-down vs. bottom up approaches to change.

Conclusions: The toolkit allows users to easily identify and select appropriate organizational readiness and resistance M/F/T to support organizational change initiatives. This knowledge synthesis can be used by public health practitioners to inform change initiatives that build capacity for evidence-informed decision making.

Oral Session 3 – Guidelines and Systematic Reviews

Analysis of guideline panel and content expert views toward management of conflict of interest during guideline development

Samantha Craigie, Elie Akl, Gladys Honein, Jason Busse, Justin Ho, Gordon Guyatt

Room 2013. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: Managing financial and intellectual conflict of interest (COIs) in the process of developing clinical practice guidelines requires balancing the benefit from content experts' experience and insight with the potential influence of their COIs on the recommendations. As part of the Canadian guideline for use of opioids for chronic non-cancer pain, we used a novel approach to managing COIs. We created a voting panel free of major financial or intellectual COIs. In parallel, we assembled a group of content experts who shared their experience and insight with the voting panel at various stages of the guideline development process but were not present when final recommendations were made. We sought to document the financial and intellectual COIs of guideline panelists and content experts and understand the views of the panelists and content experts regarding the positive and negative aspects of the approach.

Methods: We asked all participants to complete a COI declaration form outlining financial and non-financial COIs. We analyzed the declared COIs and summarized results by individual. We also will conduct semi-structured interviews with panelists and content experts to elicit their views on the novel COI management approach. We will record and transcribe the interviews, and analyze them using the thematic inductive analytical approach.

Results: Fifteen panel members and thirteen content experts completed a COI declaration form. Four panelists (27%) and seven content experts (58%) declared material COIs, while non-material COIs were declared by twelve panel members (80%) and eleven content experts (92%). Panelists' non-material COIs were mostly associated with professional specialty. Both patient representatives on the panel declared non-material COIs. Interviews are ongoing.

Conclusions: Analysis of COI declaration forms suggests that the selection process was successful in reducing major financial conflicts of interest amongst the voting panel. The two groups were similar in terms of non-financial conflicts of interest.

Development and validity testing of the AGREE-HS, a health systems guidance quality appraisal tool

Melissa C. Brouwers, John N. Lavis, Marija Vukmirovic, Karen Spithoff, Ivan D. Florez

Collaborators: The AGREE-HS Research Team

Room 2013. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: Health systems guidance (HSG) provides recommendations addressing health system challenges, including financial arrangements, governance structures and health services delivery. HSG has the potential to strengthen and improve health systems; however, no tools are available to assist HSG developers and users to formulate HSG or assess its quality. The purpose of this study is to create a validated tool for the development, reporting and appraisal of HSG.

Methods: A 5-item tool, AGREE Health Systems (AGREE-HS), was drafted based on a critical interpretive synthesis of the literature and consultation with health systems experts. Health systems researchers, administrators and policy-makers were invited to review the tool and provide feedback about its content and structure via an online survey consisting of 7-point Likert scale (1=strongly disagree; 7=strongly agree) and open-ended questions.

Results: Thirty individuals completed the survey. Overall, participants agreed that the tool's structure was logical and comprehensive and that they felt confident when applying it. They indicated that the AGREE-HS would be useful for guiding HSG appraisal (90%), development (73.3%), and reporting (70%). Feedback suggested that clarification about how to interpret AGREE-HS scores was needed.

Conclusions: The survey results support the use of the AGREE-HS to assist in the development and reporting of HSG and to assist policy- and decision-makers to identify high quality HSG for adaptation and implementation. The research team is applying the tool to recently published HSG to assess the usability of the AGREE-HS and determine the baseline quality of HSG upon which to measure future improvement.

A tool to evaluate the clinical credibility and implementability of clinical practice guideline recommendations: The AGREE-REX

Melissa C. Brouwers, Kate Kerkvliet, Karen Spithoff, Ivan D. Florez

Collaborators: The AGREE-REX Research Team

Room 2013. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: The potential impact of clinical practice guidelines (CPGs) is affected by the clinical credibility and implementability of the guideline recommendations. Tools are available to evaluate the overall methodological quality of CPGs (e.g., AGREE II); however, there is a need for resources to evaluate the clinical credibility and implementability of CPG recommendations. Our objective was to develop and validate a tool called the AGREE Recommendation EXcellence (AGREE-REX) to meet this need.

Methods: The 11-item AGREE-REX is based on a realist review of the literature and input from the international guideline community. International guideline developers, users and researchers were invited to participate in a study to assess the usability and reliability of the AGREE-REX. Participants applied the AGREE-REX to a CPG and completed an online survey to provide feedback about the tool.

Results: 324 participants applied the AGREE-REX to a CPG and completed the usability survey. Overall, participants agreed that the AGREE-REX was easy to use, that they felt confident in applying the tool, and that the AGREE-REX added value to the CPG enterprise. Inter-rater reliability was moderate. Feedback indicated that usability could be improved with additional guidance and examples for each of the 11 AGREE-REX items.

Conclusions: Survey results and written feedback are informing final refinements to the AGREE-REX prior to its dissemination. The tool will be of use to CPG developers and to CPG users to assist them in identifying CPGs with trustworthy recommendations that are clinically appropriate and implementable in their context.

GRADE guidance for rating the certainty of a body of evidence describing the relative importance of outcomes or values and preferences

Yuan Zhang, Pablo Alonso-Coello, Juan Yepes-Nuñez, Elie Akl, Hector Pardo-Hernandez, Itziar Etxeandia-Ikobaltzeta, Yaping Chang, Madison Zhang, Gordon Guyatt, Holger Schunemann

Collaborators: Pablo Alonso-Coello, Juan Jose Yepes-Nunez, Elie Akl, Hector Pardo Hernandez, Itziar Etxeandia-Ikobaltzeta, Yaping Chang, Yuqing Zhang, Gordon Guyatt, Holger J. Schünemann

Room 2013. 11am-12:30pm, Thursday, 11 May, 2017

Background and Objectives: The GRADE working group defines patient values and preferences as for how patients value the relative importance of the main health outcomes. Although the GRADE working group has developed approaches to rating certainty of evidence treatment, diagnosis, resource and prognosis questions, guidance for assessing evidence regarding values and preferences thus far been lacking. This project aims to provide guidance on how users can assess the certainty of evidence regarding importance of outcomes.

Methods: We applied the GRADE domains to rate several systematic reviews addressing importance of outcomes, conducted consensus meetings, and consulted stakeholders in the GRADE working group for feedback.

Results: A body of evidence addressing the importance of outcomes starts at "high certainty"; risk of bias, indirectness, inconsistency, imprecision and publication bias can lead to rating down this evidence. For risk of bias assessment, we propose subdomains of the selection of the study population, missing data, type of measurement tool, and confounding. We also developed corresponding items for each subdomain. The population, intervention, comparison and outcome (PICO) elements of the rated evidence and methodological aspects determine the degree of indirectness. Inconsistency about typical values is generally due to PICO and methodological elements that should be explored and, if possible, like for other types of evidence, explained. The width of the confidence interval and sample size should inform judgments about imprecision. We also provide suggestions on how to detect publication bias based on empirical information. We suggest within-study

variability as a separate issue to the certainty of the evidence about typical values.

Conclusions: We have developed GRADE guidance for rating the certainty of evidence on how patients value health outcomes. This guidance will be helpful to systematic reviewers and decision makers, including guideline developers.

Oral Session 4 – Improving Use and Production of Evidence

When should systematic reviews be replicated, and when is it wasteful? An analysis of reasons for discordance among overlapping systematic reviews

Sathya Karunananthan, Vivian Welch, Jeremy Grimshaw, Lara Maxwell, Marc Avey, Ricardo Batista, Janet Curran, Elizabeth Ghogomu, Ian D. Graham, John Ioannidis, Zoe Jordan, Janet Jull, Anne Lyddiatt, David Moher, John Baptist Ngobi, Jordi Pardo Pardo, Jennifer Petkovic, Mark Petticrew, Kevin Pottie, Gabriel Rada, Tamara Rader, Shamseer Larissa, Beverly Shea, Konstantinos Siontis, Christine Smith, Naomi Tschirhart, Brigitte Vachon, George Wells, Howard White, Peter Tugwell

Room 2011. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Replication is a cornerstone of the scientific method. However, unnecessary duplication rather than replication is unethical and a cause of research waste. Moreover, what appear to be duplicate systematic reviews (SRs) often come to different conclusions. A better understanding of the reasons for discord among overlapping SRs may contribute to the development of guidance on when to replicate a SR, and when not to. The objective of this study was to develop a checklist to identify reasons for discordance among overlapping SRs.

Methods: Based on a review of the literature and consultation with experts, we developed a checklist of items to understand reasons for discord among overlapping SRs. We tested its feasibility and usefulness on several discordant SRs.

Results: The checklist itemizes components of the objectives, methods, data synthesis, and interpretation of findings. It also includes information on reviewer conflict of interest and SR quality. The checklist was tested on a diverse selection of discordant reviews in controversial areas, including deworming, glucosamine, vitamin D supplementation, and preschool programs. Reasons for discord most often related to differences in study eligibility criteria and definition of outcomes, leading to differences in the primary studies being reviewed. In several of the examples, review conclusions supported possible bias related to reviewer conflict of interest.

Conclusions: The checklist for discordant SRs is a useful tool for explaining discordance among

overlapping SRs. This work is part of a larger project to establish guidance on when replication of SRs may be useful, and when it would be wasteful.

Expediting Knowledge Synthesis and Translation in Pediatric Clinical Care: Piloting a Living Systematic Review on Interventions for Bronchiolitis

Elliott, SA., Fernandes, RM., Klassen TP., Vandermeer, B., Hartling L.

Collaborators: Ricardo M Fernandes Terry P Klassen Ben Vandermeer Lisa Hartling

Room 2011. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Living systematic reviews (LSRs) provide an opportunity to expedite systematic review (SR) processes. The aim of this project was to evaluate new online tools and citizen engagement in terms of feasibility and impact on the conduct and validity of a LSR on interventions for bronchiolitis, compared to conventional SR methods.

Methods: Social media was used to recruit participants from the University of Alberta's student body. Participants completed online training modules relevant to the individual SR tasks (screening, risk of bias, data extraction) before completing each task on the online SR platforms (Abstrackr and Covidence). Participant SR data will be compared against our reference SR, completed by researchers at the Alberta Research Centre for Health Evidence. Primary outcomes will include: inter-reviewer reliability between participant and reference reviewer data (from all review tasks) and validity of the meta-analyses resulting from the participants' data. Secondary outcomes will include: feasibility of social media to crowd source, number of participants and attrition rate at each step, and average number of references screened and assessed for risk of bias.

Results: Thirty-seven participants (35 female), aged 27.8 (8.9 SD) years enrolled, representing 17 undergraduates, 19 graduate students and one postdoctoral trainee. Thus far, 210 abstracts have been screened by 10 active participants (range: 2-84 each).

Conclusions: LSRs have the potential to keep evidence up-to-date, allowing for efficient translation into clinical practice. We will describe the processes we have established for an LSR and some highlights and challenges we have encountered when crowdsourcing different LSR tasks.

Transitioning to Living Systematic Reviews: Lessons learned from a large scale review on diabetes quality improvement interventions

Katrina Sullivan, Kristin Danko, Noah Ivers, Sathya Karunananthan, Issa Dahabreh, Jovita Sundaramoorthy, Carolyn Gall Casey, Jeremy Grimshaw

Collaborators: Jeremy M Grimshaw, Kristin Danko, Issa Dahabreh, Sathya Karunananthan, Carolyn Gall Casey, Jovita Sundaramoorthy, Noah Ivers

Room 2011. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Evidence evaluating quality improvement (QI) strategies to optimise diabetes management are rapidly growing, and as a result traditional systematic review (SR) methodology is no longer sustainable. Living systematic reviews (LSR), which are continually updated as new information becomes available, have been proposed as a solution to ensure rigorous, timely evaluation of diabetes QI evidence. Our objective is to review our experience in transitioning a large-scale SR into a LSR, and to provide researchers with the information they require to conduct their own LSR.

Methods: A SR of 278 trials evaluating diabetes QI interventions was transitioned into a Cochrane LSR in 2017. Operationalising the transition required numerous methodological considerations, including when and how to update our search strategy, what databases to search, what screening platforms to use, and when to update analyses. The publication model also required deliberation to balance the need for maximum visibility and new citations/DOI with each publication, while minimizing author/editor workload.

Results: We will review decisions that were made to ensure the successful transition of our SR into a LSR. Methods to facilitate and streamline the process will be discussed, with particular focus on capabilities of automation/machine learning. We will provide our final recommendations, including suggestions on how other research teams might conceptualize the transition of their own SR into a LSR.

Conclusions: By detailing our decisions and experiences with transitioning a large-scale systematic review into an LSR, we hope to provide researchers with the tools they require to make informed decisions for their own LSR.

Comparing AMSTAR and ROBIS in Quality Assessments of Systematic Reviews for Drug Treatments for Alzheimer's Disease.

Sydney George, School of Public Health and Health Systems, University of Waterloo, Waterloo, ON, CA

Collaborators: Mark Oremus, School of Public Health and Health Systems, University of Waterloo, Waterloo, ON, CA

Room 2011. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Systematic reviews have been routinely used to evaluate drug treatments for Alzheimer's disease (AD). Policymakers use systematic reviews to help decide whether new drug treatments should be listed on provincial drug formularies. The methodological quality of systematic reviews is important, as policy decisions and current evidence for medical interventions should be based on high-quality reviews. The study aim was to identify all systematic reviews that evaluate the following AD medications: Donepezil, Rivastigmine, Galantamine and Memantine. Afterward, each systematic review was rated using AMSTAR and ROBIS for methodological quality.

Methods: The electronic databases EMBASE, PubMed, Medline, and Cochrane Library were searched using multiple search terms. Articles included were systematic reviews of randomized controlled trials for Donepezil, Rivastigmine, Memantine or Galantamine medications in AD patients.

Results: 35 studies were identified that matched inclusion criteria. For the AMSTAR Scores (median = 0.81, 25th percentile = 0.63, 75th percentile = 0.83, IQR = 0.20). and ROBIS Scores, (median = 0.74, 25th percentile = 0.66, 75th percentile = 0.81, IQR= 0.15), the variance in index scores were similar, indicating a similarity in methodological quality for both assessment tools. The correlation coefficient was 0.90 ,indicating a strong positive linear relationship and consistency between AMSTAR and ROBIS high and low scores.

Conclusions: The greater subjectivity and length of the ROBIS checklist required an assessor to spend more time answering questions. The variance index scores between AMSTAR and ROBIS didn't differ substantially. AMSTAR and ROBIS yielded similar quality assessments of systematic reviews.

Making sense of complex interventions: application of hierarchical meta-regression in a meta-analysis of diabetes quality improvement (QI) interventions

Kristin Danko

Room 2011. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Systematic reviews often address complex interventions that have multiple components.
Standard meta-analysis methods often do not adequately reflect the complexity of these
interventions because compromises must be made to facilitate synthesis. As a result, the
meta-analysis fails to include all available data and cannot isolate the effects of components
that may be of interest to decision makers. The objective of this study was to explore the
utility of hierarchical meta-regression models in a meta-analysis of complex QI
interventions for diabetes.

Methods: Systematic review of QI programs for diabetes that included at least one of 12 QI strategies. We implemented a series of hierarchical models to assess the effects of QI strategies. We explored extensions of the models to evaluate interactions among QI components and with contextual and program-level covariates. Finally, we used the models to predict the combined effects of QI strategies previously not evaluated in the same QI program while accounting for other features of the available data.

Results: We included 278 RCTs. Hierarchical meta-regression models estimated effects of individual QI components, producing different rankings compared to standard methods. Promotion of Self Management (PSM), Team Changes (TC), and Case Management remained the most effective strategies for reducing glycated hemoglobin, however, the effects of each strategy were smaller and TC emerged above PSM as most effective. Model selection is ongoing and additional results will be presented at the meeting.
Conclusions: Background knowledge combined with flexible synthesis models can allow fuller use of available data in reviews of complex interventions such as QI programs.

Oral Session 5 – Health for Key Populations

Sex/gender in Cochrane systematic reviews

Vivian Welch, Jennifer Petkovic, Meridith Sones, Peter Tugwell

Room 2017. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Integration of sex /gender in systematic reviews is important for understanding the applicability of evidence. Publishers, journals, and funding agencies are increasingly requiring consideration of sex and gender in research. In partnership with the CIHR Institute of Gender and Health (IGH), the Equity Methods Group developed a Cochrane Corner to highlight reviews which have considered or assessed sex/gender.

Methods: We screened all new and updated Cochrane reviews between July 2014 and May 2015. We
looked for reporting of sex/gender in each section of the review (title/abstract, introduction, methods, results, and discussion) and highlighted those which discussed sex/gender in more than one section (e.g. explain why sex/gender differences were expected as well as report the results of subgroup analyses, even if none were possible). We did not consider reviews that simply reported on sex within the population description
(e.g. number of male and female participants). We classified these as: descriptive assessment of reporting and analysis, analytic approaches, and judging applicability.

Results: 781 reviews were published in the Cochrane Library. Of these, 20 were highlighted in the IGH Cochrane Corner as examples of reviews which considered sex/gender. Most of these were descriptive assessments of reporting and analyses (12 of 20 reviews) but 6 included analytic approaches (e.g. subgroup analyses) and 2 described the applicability of the
results.

Conclusions: Few Cochrane reviews in our sample (3%) reported on sex/gender. Since considerations of sex/gender are increasing in primary research this represents a missed opportunity to
explore potential differences in the effectiveness of interventions.

Developing guidance on screening for infectious diseases among newly arrived migrants to the European Union: A GRADE-ADOLOPMENT Approach

Alain Mayhew (1), Kevin Pottie (2), Vivian Welch (2), Peter Tugwell (2), Holger Schünemann (3), Teymur Noori (4). 1. Bruyère Research Institute 2. University of Ottawa 3. McMaster University 4. European Centre for Disease Prevention and Control

Room 2017. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: The recent influx of migrants to Europe has led the European Centre for Disease Prevention and Control (ECDC) to call for guidance. The objective is to develop evidence-based public health guidance for infectious diseases (ID) for newly arriving migrants to the European Union and European Economic Area.

Methods: An ECDC scientific panel selected six priority ID topics. The technical group formed ID review working groups for each topic, including GRADE methods and disease expertise. The groups drafted logic models including cost-effectiveness and resource use and conducted systematic searches, selection, appraisal and syntheses of assessment and prevention interventions using an Adolopment approach: reviews of reviews and guidelines, updating and de novo syntheses when appropriate. The team also sought the best available evidence on migrant values and preferences, acceptability, health equity and feasibility, and used the GRADE approach to synthesize summary of finding tables and evidence to decision criteria. Based on the systematic reviews, recommendations were drafted for the approval of the ECDC Scientific Panel.

Results: The review of reviews identified useful evidence of effectiveness and cost-effectiveness studies. Tuberculosis, Hepatitis C and HIV had a strong research base, while diseases such as strongyloidiasis and schistosomiasis had less developed evidence bases. The cross-cutting cost-effectiveness reviews and studies on values, acceptability and equity provided timely evidence for the evidence-to-decision tables. Recommendations are slated to be released in summer 2017.

Conclusions: The GRADE-Adolopment approach provided a solid basis to summarize evidence and develop guidance for a variety of infectious diseases for European migrants.

Documenting research with transgender and gender diverse people: introducing the Trans Research Evidence Map

Zack Marshall, Vivian Welch, Alexa Minichiello, Michelle Swab, Fern Brunger, James Thomas, Ian Shemilt, Chris Kaposy

Room 2017. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: There is limited information about how transgender and gender diverse (trans) people have been studied and represented by researchers. The objectives of this study were to: 1) map and describe trans research in the social sciences, sciences, humanities, health, education, and business, 2) identify evidence gaps and opportunities for more responsible research, and 3) increase access to trans research for key stakeholders through the creation of a web-based evidence map.

Methods: Eligibility criteria were established to include all original research of any design, including trans people or their health information, and published in English in peer-reviewed journals. A complex search strategy based on relevant concepts in 15 databases was developed to obtain a broad range of results. Searches conducted in early 2015 resulted in 25,242 references after removal of duplicates.

Results: This data analysis includes all articles published between 2010-2014 that met the screening criteria. 3,273 references were reviewed on full text, 1,672 met the inclusion criteria, and 720 articles were trans-focused. The most common study topics were: 1) therapeutics and surgery, 2) gender identity or expression, 3) mental health, 4) biology and physiology, 5) discrimination and marginalization, 6) sexual health, HIV and STIs, 7) physical health, and 8) health and mental health services. Results will including information about study topic, study design, data sources, and sample demographics.

Conclusions: Results of the review will increase awareness of existing trans research, identify evidence gaps, and have the potential to inform strategic research prioritization.

The Weight of Evidence: A critical realist evidence synthesis method to address health inequities

Anna Dion, Alessandro Carini Gutierrez, Emilie Robert, Lawrence Joseph, Neil Andersson

Collaborators: Dr. Alessandro Carini Gutierrez Dr. Emilie Robert Dr. Lawrence Joseph Dr. Neil Andersson

Room 2017. 11am-12:30pm, Friday, 12 May, 2017

Background and Objectives: Although those affected by health inequities often have a good understanding of factors affecting their health, this is often poorly reflected in available evidence. Grounded in critical realism, Weight of Evidence is a synthesis method that leverages the knowledge and experience of marginalized groups and other stakeholders together with published literature to better address health inequities.

Methods: Findings from a literature review on a specific health inequity are organized as a fuzzy cognitive map. Stakeholders identify factors they understand as contributing to the health inequity, and adapt the literature-informed cognitive map to incorporate their ideas. Stakeholders then weight the perceived influence between factors. These weights are re-calculated using an algorithm to account for the relational aspects between factors. Stakeholder-generated weights act as Bayesian priors to update published evidence, resulting in a knowledge network made up of evidence from both stakeholder understanding and published literature. Stakeholders will then evaluate candidate theories and generative mechanisms, identified throughout the previous steps. This will feed into the collaborative development of care recommendations to improve the targeted health inequity.

Results: Pilot results indicate that stakeholder-informed evidence incorporates factors often considered unmeasured by other synthesis methods, while Bayesian updating provides a transparent way to represent this comprehensive understanding. We will explore implications for critical realist analysis and the development of recommendations.

Conclusions: Including the perspectives of marginalized groups is critical to making services more responsive to their needs. Weight of Evidence offers a credible way of bringing together a diversity of perspectives and translating them into clinically meaningful results.

Oral Session 6 – Systematic Review Methodology

Underestimation of depression screening tool sensitivity when using lay-administered fully structured diagnostic interviews as the reference standard: an individual patient data meta-analysis

Brooke Levis, Andrea Benedetti, Kira E. Riehm, Nazanin Saadat, Alexander W. Levis, Marleine Azar, Danielle B. Rice, Matthew Chiovitti, Brett D. Thombs

Room 2011. 1:30-3pm, Friday, 12 May, 2017

Background and objectives: Existing depression screening tool diagnostic test accuracy meta-analyses have considered semi-structured and fully structured interviews equivalent reference standards for assessing major depressive disorder (MDD). Fully structured interviews do not involve clinical judgement and are considered potentially more reliable but less valid than semi-structured interviews. Our objectives were to 1) compare diagnoses made using semi- and fully structured interviews, and 2) compare estimated sensitivity and specificity of the Patient Health Questionnaire-9 (PHQ-9) depression screening tool using semi- and fully structured diagnostic interviews as reference standards.

Methods: We conducted an individual patient data meta-analysis of PHQ-9 diagnostic accuracy. Electronic databases were searched for datasets that compared PHQ-9 scores to MDD diagnosis based on validated interviews. To compare diagnoses across interview methods, binomial Generalized Linear Mixed Models with a logit link were fit. Then, for PHQ-9 cutoffs 5-15, we estimated pooled sensitivity and specificity among studies using semi- and fully structured interviews separately.

Results: 17,158 patients (2,287 MDD cases) from 57 studies were analyzed. Compared to other fully structured interviews, the odds of MDD were significantly higher for the Mini International Neuropsychiatric Interview (MINI) [OR (95% CI) = 2.10 (1.15-3.87)]. Compared to semi-structured interviews, fully structured interviews (excluding MINI) were more likely to diagnose MDD among patients with low depressive symptom levels (PHQ-9$\leq$6) [OR (95% CI) = 3.13 (0.98-10.00)], and less likely to diagnose MDD among patients with high depressive symptom levels (PHQ-9$\geq$16) [OR (95% CI) = 0.50 (0.26-0.97)]. Specificity estimates for the PHQ-9 were similar across reference standards (within 2%); however sensitivity estimates were underestimated by 5-22%

(median=18%, at standard cutoff of 10) when fully structured interviews were used compared to semi-structured interviews.

Conclusions: PHQ-9 sensitivity estimates are consistently underestimated when using fully structured interviews as reference standards. Compared to semi-structured interviews, fully structured interviews appear to over-identify MDD cases among patients with low PHQ-9 scores. When combining various reference standards in meta-analyses, the poor validity of fully structured interviews should be considered.

Diagnostic test accuracy of genomics-based non-invasive prenatal testing for detection of fetal chromosomal aneuploidy in pregnant women

François Rousseau

Room 2011. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: Prenatal screening for fetal aneuploidies is the standard of care in many countries. Current biochemical and ultrasound tests have high false negative and false positive rates. The discovery of fetal circulating cell-free DNA in maternal blood offers the potential for genomics-based non-invasive prenatal testing (gNIPT). We aimed to evaluate and compare the diagnostic accuracy of two gNIPT approaches (massively parallel shotgun sequencing (MPSS) and targeted massively parallel sequencing (TMPS)), as a second-tier test in pregnant women considered to be at high-risk after first-tier test or as a first-tier test in unselected populations of pregnant women undergoing aneuploidy screening. The reference standard was either fetal karyotype or neonatal clinical examination.

Methods: We searched 13 databases from 1 January 2007 to 12 July 2016. Women must have had a gNIPT test and a reference standard. Where possible, hierarchical models or simpler alternatives were used for meta-analysis.

Results: Sixty five studies of 86,139 pregnant women (3141 aneuploids and 82,998 euploids) were included. gNIPT appears to be sensitive and highly specific for detection of fetal trisomies 21, 18 and 13 in high-risk populations. We found risks of bias especially relative to patient selection. There is paucity of data on the accuracy of gNIPT as a first-tier aneuploidy screening test in unselected pregnant women. **Conclusions:** We conclude that gNIPT as second-tier screening test are accurate, but invasive fetal karyotyping remains required for diagnostic confirmation of a chromosomal abnormality. gNIPT studies were affected with biases.

A scoping review of enteral nutrition and necrotizing enterocolitis and systematic review of hydrolyzed formulas

Jocelyn Shulhan, Bodil Larsen, Manoj Kumar, Allyson Jones, Kassi Shave, Lisa Hartling

Room 2011. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: Premature and critically ill neonates are at risk of necrotizing enterocolitis (NEC), an inflammatory disease of the gut with a 20-30% mortality rate. Use of bovine milk-based products versus an exclusive human milk diet may be a risk factor for NEC. An area largely
unexplored is a diet containing hydrolyzed proteins. Objectives of this systematic review
were to: (1) map studies evaluating different types of enteral feeds and NEC events; and
(2) determine the effect of hydrolyzed formulas on NEC.

Methods: Five databases, 2 conference proceedings, 3 regulatory agencies and 1 trial registry were
searched. Quantitative studies that compared different diets and reported NEC events in
neonates fed before day of life 30 were included.

Results: Seventy-six studies were included: 44 cohort, 18 case control, 13 trial and 1
before-and-after studies. Twenty-five of 27 trials and cohort studies found a predominantly
or exclusively human milk diet favored lower NEC rates compared to formula or mixed
feeds; 1/5 trials and 8/22 cohort studies found a significant difference. Eight studies
investigated hydrolyzed products, including 2 trials on fortifiers. No significant difference
between the fortifiers with hydrolyzed versus intact proteins was found (RR 1.44, 95% CI
0.18-11.31, I2 39%).

Conclusions: An abundance of research evaluating formula and human milk exists. The majority of these studies show that a predominantly or exclusively human milk diet reduces NEC. Additional
research comparing hydrolyzed protein products with intact bovine milk protein products
and an exclusive human milk diet is needed.

Physical and or Cognitive Rest After Concussion: A Systematic Review and Meta-analysis

Avtar Lal, Maya Balamane, Stephanie Kolakowsky-Hayner, Jamshid Ghajar

Room 2011. 1:30-3pm, Friday, 12 May, 2017

Background: Data evaluating the role of physical and or cognitive rest in subjects with concussion is contradictory. Studies have shown to increase, decrease or not affecting Post Concussion Symptoms Scale (PCSS) with physical and or cognitive rest compared to control. **Objective:** To conduct a systematic review and meta-analysis on the role of physical and or cognitive rest in subjects with concussion.

Methods: We followed the guidelines of Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA). Five databases were searched from the earliest available date to November 01, 2016. The effect of physical and or cognitive rest on PCSS, Immediate Post Concussion Assessment and Cognitive Testing (ImPACT), balance, Post Traumatic Complaints (PTC) and Short Form (SF)-36 scale was evaluated. Meta-analysis was performed using RevMan COCHRANE software and a value of $p < 0.05$ was considered for statistical significance.

Results: Search generated 1233 studies. Ten studies, four RCTs and six cohort studies, were included in this systematic review. Methodological quality of most of the studies was poor. Physical rest significantly increased the PCSS (MD: 10.85, 95% CI 2.14 to 19.56, $p=0.01$), duration of bed rest ($p < 0.0001$), but did not affect, PTC and SF-36 compared to control. Cognitive rest alone significantly prolonged the duration of symptoms of concussion ($p < 0.01$), but did not affect the PCSS and ImPACT score compared to control. Cognitive rest and physical rest significantly increased the PCSS (MD: 6.19, 95% CI 0.68 to 11.70; $p=0.03$) and the duration of symptoms of concussion ($p<0.05$), but did not affect balance, and ImPACT score compared to control.

Conclusions:
The data shows no beneficial effect of physical and or cognitive rest in subjects with concussion, which needs to be validated by high quality RCTs.

Comparison of the Lipid lowering effect of 4 statins.

Nima Alaeiilkhchi, Ciprian D Jauca, Stephen P Adams, James M Wright

Room 2011. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: Statins as a class are the most widely prescribed medicines in the world. Despite this, dose response curves for different statins have not been characterized so far. Objective: To compare the dose-response curves for atorvastatin, rosuvastatin, cerivastatin, and fluvastatin on blood total cholesterol.

Methods: We used the 2 published systematic reviews on atorvastatin and rosuvastatin, plus 2 un-published systematic reviews in preparation on fluvastatin and cerivastatin. Dose related percent reduction of total cholesterol in order to characterize the dose response curves.

Results: The slope of dose response curves did not differ between the 4 drugs. Cerivastatin was 6 times more potent than rosuvastatin which was 3 times more potent than atorvastatin which was 13 times more potent than fluvastatin. Thus the cholesterol lowering effect caused by 80 mg of fluvastatin can be achieved with about 6 mg of atorvastatin, 2 mg of rosuvastatin and 0.3 mg of cerivastatin.

Conclusions: Comparison of Cochrane systematic reviews provides valuable clinical information. The extremely wide differences in potency and cholesterol lowering effect with the statin class of drugs is unique and suggestive that the cardiovascular benefit of statins may not be related to the cholesterol lowering effect.

Oral Session 7 – Individual Studies in Systematic Reviews

How pervasive are unit of analysis errors in cluster randomized trials: A review of diabetes quality improvement RCTs?

Kristin Danko

Room 2017. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives:
Cluster randomized trials (cRCTs) can lead to spurious conclusions if clustering is not taken into account during analysis. The inclusion of cRCTs with uncorrected unit of analysis errors in systematic reviews (SR) may lead to incorrect review conclusions. The objective of this study was to determine the proportion of cRCTs that have unit of analysis errors in a SR of diabetes quality improvement (QI) strategies.

Methods: Two researchers independently reviewed the 55 cRCTs to determine whether appropriate methods were used to adjust for clustering for the primary outcome: continuous HbA1c. If appropriate, we extracted the method of adjustment and the adjusted standard error (SE) (or reported data to calculate the adjusted SE), and the intraclass correlation coefficient (ICC). The total number of studies with persistent unit analysis errors requiring reviewer adjustment was determined.

Results: Of the 55 cRCTs, 37 (68%) accounted for clustering. Studies varied in the methods used to adjust for clustering and over half adjusted for additional covariates. Of the appropriately adjusted cRCTs, 2 studies reported SEs that could be extracted and 26 reported information from which an adjusted SE could be calculated. Combined with the 19 studies that did not account for clustering, 29 (52%) of studies required adjustment of their SEs with an internal (n=1) or externally-imputed (n=28) ICC.

Conclusions: Reviewers need to be aware of potential unit of analysis errors in cRCTs and adjust estimates accordingly. The presentation will outline our approach to identifying, and adjusting for, unit of analysis errors in our diabetes QI SR.

Strategies to integrate randomized and non-randomized studies using the GRADE approach

Carlos Cuello, Rebecca Morgan, Holger Schunemann

Collaborators: Rebecca Morgan, Jos Verbeek, Kris Thayer, Jan Brozek, Holger Schunemann, Gordon Guyatt

Room 2017. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: Randomized studies (RS) are considered the best source of evidence for health syntheses and clinical guidelines. Non-randomized studies (NRS) can be used as replacement, sequential, or complementary evidence for using with a body of evidence of RS. We aim to present methods for integrating RS and NRS in health syntheses by using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach in evidence profiles (EP) and summary of findings (SoF) tables.

Methods: We formed a group of clinical epidemiologists with experience in systematic reviews, clinical guidelines, and in using a new domain based tool for the assessment of risk of bias in NRS (ROBINS-i). We developed a draft guide for handling a body of evidence from RS and NRS using case studies and based on a previous survey and GRADE / Cochrane expert meetings, and refined it through an iterative process of discussion and revisions. We based our guidance on previous methodological work from the Cochrane Handbook, the ROBINS-i tool, and the GRADE handbook.

Results: Evidence from NRS can be integrated with RS in GRADE EPs and SoF tables using strategies based on the overall certainty of evidence (CoE). Sensitivity analyses and other strategies are proposed based on the affected GRADE criteria. Illustrative examples are presented as case studies based on different CoE from RS and NRS.

Conclusions: Considering the CoE using the GRADE approach, NRS and RS can be integrated to improve our certainty in a body of evidence to be used for health syntheses and eventual health care recommendations in clinical practice guidelines. This novel guidance still needs to be tested in health syntheses groups for feasibility and applicability.

Reliability and validity assessment of a risk of bias instrument for non-randomized studies of exposures

Rebecca Morgan, Kristina Thayer, Alison Holloway, Nancy Santesso, Gordon Guyatt, Holger Schunemann

Collaborators: Kristina Thayer; Alison C. Holloway; Nancy Santesso; Gordon Guyatt; Holger J. Schünemann

Room 2017. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: Background: We modified the risk of bias (RoB) tool for non-randomized studies of interventions (ROBINS-I) for use in studies of environmental and occupational exposures (ROBINS for exposures). Objectives: To assess reliability and validity of ROBINS for exposures through comparison with other tools, external evaluation, and integration of results from application of the instrument into the GRADE framework for evidence assessment.

Methods: Methods: Two raters independently applied ROBINS for exposures to 7 systematic reviews assessing the impact of environmental exposures on health outcomes. Topic-specific experts reviewed study-level RoB judgments and rationale for accuracy. We determined RoB across the body of evidence for each outcome, integrating that judgment into a GRADE evidence assessment. To determine reliability, 3 raters applied ROBINS for exposures and 3 commonly used RoB instruments for environmental exposure studies (Newcastle-Ottawa Scale, and tools used by the National Toxicology Programs' Office of Health Assessment and Translation, and Office of the Report of Carcinogens) to a subset of 5 or 6 primary studies within 5 of the systematic reviews. To measure external validity, PhD-level exposure topic-specific experts provided 160 unstructured RoB assessments of the same subset of studies.

Results: Results: Assessment of the 7 systematic reviews did not identify any individual study or body of evidence judged as "Low" RoB (equivalent to a well conducted randomized trial). Assessments across the body of evidence for different outcomes demonstrated examples of "Moderate", "Serious", and "Critical" RoB. Within GRADE, these translated to at least "Very Serious" RoB and "Low" certainty in the evidence. We did not identify any examples for which the body of evidence would not be rated down. We will present reliability and validity analyses. Completion of

individual study assessments varied from 10 to 60 minutes depending on instrument and study.

Conclusions: Conclusions: Examples from the application of ROBINS for exposures to environmental studies can inform and guide systematic review and guideline developers, increasing the transparency and rigor of the evidence assessment.

Should we include retracted studies in Cochrane reviews?

Jordi Pardo Pardo

Collaborators: Kayla Richardson

Room 2017. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: It has been estimated that there are between 500 to 700 papers retracted only in Medline. There is currently no guidance on what to do when an included study in a review has been retracted.

Methods: We performed a search in the Cochrane Database of Systematic Reviews using the term "retracted" and variation as the search term, in full text, restricting the results to only reviews.

Results: There were 37 reviews had articles or trials that had been retracted, either before or after their reviews were published. Most of the reviews (35) excluded the retracted studies, listing "retracted" or something similar for the exclusion reason. Two reviews decided to include the studies; one mark it as high risk of bias, the other decided the study was still methodologically sound. The inclusion of the studies was carefully discussed in the reviews. In one case, the study is the only available in the topic area.

Conclusions: Retracted studies are mostly excluded from Cochrane reviews. Excluding the studies needs to be balanced with the risk of increasing publication bias.

Does trial registration reduce research bias? A comparison of registered and unregistered trials in diabetes quality improvement Interventions

Sathya Karunananthan, Kristin Danko, Katrina Sullivan, Noah Ivers, Jeremy Grimshaw

Room 2017. 1:30-3pm, Friday, 12 May, 2017

Background and Objectives: The purpose of trial registration is to increase transparency and quality in the conduct of
trials. Despite the implementation of the ICMJE policy on trial registration in 2005, many
trials are still conducted without registration. It is unclear whether unregistered trials are at
greater risk of bias than registered trials. The objective of this study is to compare study
characteristics of unregistered and registered trials of diabetes quality improvement (QI)
interventions.

Methods: In a systematic review of diabetes QI interventions, we identified 140 trials published
between 2010 and 2014. We identified the proportion of trials that were unregistered and
compared characteristics of unregistered and registered trials including source of funding,
ethics approval, sample size, number of study arms, cluster- versus patient-level
randomization, blinding, study duration, number and statistical significance of outcomes
reported.

Results: We identified 50 (36%) trials that were not registered in a clinical trials registry. Compared
to registered trials, unregistered trials were more likely to have a smaller sample size
(median 105 vs 288, p

Conclusions: Despite the ICMJE policy, a large proportion of diabetes QI trials published after 2010
remain unregistered. Methodological differences between unregistered and registered trials
suggest that registration does improve the quality of trials.

Poster Abstracts

Methods filters and 'and not' limits filters for systematic reviews have high sensitivity and markedly reduce the number of articles need to read: an analytic survey.

Dalton Budhram, Tamara Navarro-Ruan, Brian Haynes

Background and Objectives: Literature searches for systematic reviews (SRs) yield many 'false positive' (off target or methodologically poor) studies, that is, have low precision (the proportion of retrieved articles that are on target). Clinical Queries (CQs), developed to assist clinicians with searches, have high sensitivity (proportion of eligible studies that are retrieved) but also relatively high precision, and may help those doing SRs. This study compares CQs 'methods' and 'and not' limits search filters with Cochrane 'methods' filters (CSs), including their limits terms, if any.

Methods: Analytic survey, with 'included studies' in Cochrane reviews as the 'gold standard' for retrieving included studies. The sensitivity and precision of Cochrane content terms + Cochrane methods and limits filter terms were compared in MEDLINE and EMBASE with Cochrane content terms + Clinical Queries maximally sensitive filter with and without additional limits (CQ-S; CQ-S + limits) and balanced filter with and without additional limits (CQ-B; CQ-B + limits).

Results: The use of Cochrane or CQ methods terms reduced, by 64% to 96%, the overall retrieval of articles with minimal loss of included studies. Sensitivity was almost identical for the 4 filters. However, CQ-B + limits had the highest precision (2.68%, number needed to read to find one eligible study (NNR) 37) followed by CQ-B (1.06%, NNR 94), CS (0.51%, NNR 196), CQ-S + limits (0.35%, NNR 286), and CQ-S filters (0.31%, NNR 322).

Conclusions: For systematic reviews of interventions, searches were better served by including the Clinical Queries balanced methods filter with limits.

Returning peer reviewer comments for Cochrane Protocols and Review via webinars: A pilot project

Marilyn Walsh

Collaborators: Dr. K.S. Gurusamy, Department of Surgery, Royal Free Campus, UCL Medical School, London, UK K. Dearness, Manading Editor, Upper Gastrointestial and Pancreatic Diseases Group A. Vanderheyden, Consumer, Upper Gastrointestinal and Pancreatic Diseases Group

Background and Objectives: The publishing of Cochrane Reviews is sometimes slowed due to lengthy wait times for peer review comments. A review author received a grant from the National Institute for Health Research to complete a suite of 30 Cochrane Reviews and chose to receive peer comments for 18 placed with the Upper Gastrointestinal and Pancreatic Diseases Group through a series of interactive webinars. Objective: To accelerate the review process by facilitating communication between the author and all peer reviewers at one time.

Methods: Our Managing Editor arranged mutually agreeable times for herself, the author and peer reviewers via Doodle Polls. Drafts for a prearranged number of protocols/reviews on similar topics were distributed prior to the agreed date to allow for peer preparation. The author presented these via PowerPoint presentations during live interactive webinars to facilitate discussion. Additional comments were submitted directly to the author within several days of the webinar.

Results: This presentation will illustrate review timelines, author impressions of the project and discuss the results of a survey distributed to all peer reviewers involved to obtain their views regarding the potential advantages and disadvantages of this pilot project as well as suggestions to improve the process.

Conclusions: Although the primary objective in utilizing webinars was to reduce the time taken to receive peer comments and shorten the time taken to publish a review, benefits also included the involvement of all peer reviewers in the full conversation. All survey respondents said they would participate in similar webinars in future.

Patient preferences in recurrent ovarian cancer

Nadia Coakley**, Julie-Ann Francis**, Laurie Elit, Erin Kennedy

Background and Objectives: It is our belief that patient preference should play a significant role in disease management of recurrent ovarian cancer. Since cure is seldom an endpoint in this circumstance, patients' attitudes towards the risks and benefits of chemotherapy versus palliation are relevant.

Methods: Medline, Embase, CINAHL and PsycINFO from were searched from January 1, 2000 to December 13, 2016 for studies of values, preferences or expectations of women with platinum-sensitive recurrent or refractory ovarian cancer.

Results: Ten studies representing five countries met inclusion criteria. Although there was regional variation in preference for palliation over treatment, certain themes emerged. 1) Patients, even in the context of counseling and high levels of education, overestimated the curative capability of chemotherapy. 2) Patients who had previously tolerated chemotherapy well were more likely to be accepting of the side-effects of chemotherapy. 3) Patients were more willing to accept chemotherapy and the related side effects when treatment was of curative intent or when overall survival was increased. 4) Patients valued both overall and progression free survival. 5) A significant minority (24%) consistently chose treatment over palliation. 6) Patients were more willing to accept the side effects of chemotherapy than were their health care providers.

Conclusions: These findings, in aggregate, highlight the importance of communication with patients regarding prognosis, adverse effects and symptom management to help negotiate the decision making process. Chemotherapy in the recurrent setting should be managed on a case by case basis, combining both medical constraints and consideration to patient preferences.

Using Social Media to Promote Cochrane Evidence in Pediatric Emergency Medicine: Assessment of a Knowledge Dissemination Strategy

Kassi Shave, Robin M Featherstone, **Allison Gates**, Shannon D Scott, Lisa Hartling

Collaborators: Robin M Featherstone, Allison Gates, Shannon D Scott, Lisa Hartling

Background and Objectives: Cochrane Child Health collaborates with TRanslating Emergency Knowledge for Kids (TREKK) to mobilize pediatric emergency medicine knowledge. TREKK's information products (e.g., one-page Bottom Line Recommendations) highlight Cochrane evidence. We undertook a 16-week social media campaign to promote Cochrane evidence and TREKK products. We aimed to increase: Twitter followers; engagement with tweets; views of information products; alternative metrics for Cochrane reviews; and visits to the Cochrane Child Health blog and TREKK website.

Methods: From September to December 2016, we used Twitter accounts (@Cochrane_Child and @TREKKca) and the Cochrane Child Health blog to promote Cochrane summaries and TREKK information products. We published one blog post and 42 image-based tweets per week. We collected social media analytics (i.e., followers, retweets, impressions, page views, alternative metrics scores) and compared data against our baseline indicators to evaluate the success of the campaign against our pre-specified objectives.

Results: Our Twitter accounts gained 437 followers (17% increase). Our messages were retweeted 1463 times (312% increase) and received 465,247 impressions (170% increase). The 16 blog posts received 909 views (133% increase) and the TREKK website received 6589 views (18% increase). TREKK information products (7 Evidence Repositories, 6 Bottom Line Recommendations, 2 videos and 1 eBook) were viewed 2855 (29% increase), 1020 (78%), 2625 (71%) and 43 times (430%) respectively. On average, alternative metric scores increased by 31 points (231% increase).

Conclusions: The social media campaign successfully increased traffic to Cochrane evidence and TREKK resources. Quantitative evidence supports blogging and tweeting as effective knowledge dissemination strategies.

WORKSHOPS, ORAL PRESENTATIONS & POSTER ABSTRACTS

Exploring concepts and characteristics of organizational culture and change: A scoping review

Leanne Bekeris, **Kristin Read,** Maureen Dobbins

Collaborators: Leanne Bekeris, Dr. Maureen Dobbins

Background and Objectives: This review aims to assess the evidence available on the concept of organizational culture in the context of change and investigate the potential role of organizational culture throughout the change process.

Methods: A systematic search was conducted to identify articles published on organizational change from January 2000 to July 2014; the results were then refined to identify articles with a specific focus on organizational culture. Two reviewers independently screened the articles for relevance using predefined inclusion criteria. Critical appraisal of empirical studies was conducted independently by two reviewers. Data was extracted from each article and a thematic analysis conducted. Findings from the analysis have been summarized in a narrative.

Results: Critical appraisal of included empirical articles was challenging due the variety of different study designs. Several major trends specific to organizational culture were identified including: 1) ways of defining culture; 2) ways of measuring culture and 3) ways of incorporating culture into models, frameworks, and theories. Additionally, several factors related to organizational culture emerged in relation to organizational change, such as leadership, communication, values, collaboration, teamwork, organizational commitment, environment, experience, organizational learning, organizational support, resistance, time, flexibility/stability, sub-cultures, and assumptions.

Conclusions: This research highlights the complex relationship between organizational culture and organizational change and identifies several major trends in the literature that warrant additional research. Organizations considering implementing an evidence-informed approach to program planning and decision making, may find the identification of concepts related to culture helpful in planning change initiatives.

Developing social prescribing theory and collaboratively informing practice in the UK through realist review methodology

Kerryn Husk

Collaborators: Kelly Blockley, Rebecca Lovell, Alison Bethel, Dan Bloomfield, Sara Warber, Mark Pearson, Iain Lang, Richard Byng, Ruth Garside

Background and Objectives: The use of non-medical referral, community referral or social prescribing (SP) interventions has been proposed as a cost-effective alternative to help those with long-term conditions manage their illness and improve health and well-being. We sought to develop specific programme theory for the process of patients moving between primary care and non-standard healthcare interventions, we did this iteratively in collaboration with a large primary care site in the UK and sought to assess implementation.

Methods: Realist review methods including database searching and extensive grey searching to locate, assess and develop theory using a broad range of evidence. Assessed in context with focus groups and, pending, assessment of quantitative outcomes.

Results: Analysis is underway. We developed an overarching programme theory with >40 components at the initial stage which was refined through iterative collaboration with our case site and expert group, leading to targeted searches being conducted for six key elements and practice being refined and assessed using focus groups in the site. We will further assess impact using quantitative outcomes and complete a final revision of theory before publication.

Conclusions: We were able to develop theory relating to the social prescribing process through realist review and evidence synthesis which was iteratively refined and implemented in a case site currently at the early stages of SP delivery. Working alongside current practice whilst undertaking theory development informed review findings and methods. Future work should use more sites purposively sampled to extend the use of this approach.

Toward an interprofessional shared decision making support tool for primary care patients with complex care needs: a participatory systematic mixed studies review protocol

Mathieu Bujold, Pierre Pluye, France Légaré, Reem Sherif, Genevieve C. Gore, Marie-Eve Poitras, Jeannie Haggerty

Collaborators: Participatory review team: Beaulieu, Marie-Claude; Université de Sherbrooke, Department of Family Medicine / Beaulieu, Marie-Dominique; Université de Montréal, Family and Emergency Medicine / Bush, Paula; McGill University, Department of Family Medicine / Couturier, Yves; Universite de Sherbrooke, École de travail social / Debarges, Beatrice; Beatitude Patient engagement in research / Gagnon, Justin; McGill University, Department of Family Medicine / Giguère, Anik; Université Laval, Department of Family Medicine and Emergency Medicine / Grad, Roland; McGill University, Department of Family Medicine / Granikov, Vera; McGill University, Department of Family Medicine / Goulet, Serge; Université de Sherbrooke, Department of Family Medicine / Haggerty, Jeannie; McGill University, Department of Family Medicine / Hudon, Catherine; Université de Sherbrooke, Department of Family Medicine / Kremer, Bernardo; Jewish General Hospital / Kroger, Edeltraut; Université Laval, Faculty of Pharmacy / Kudrina, Irina; McGill University, Department of Family Medicine / Lebouche, Bertrand; McGill University, Department of Family Medicine / Loignon , Christine; Université de Sherbrooke, Department of Family Medicine / Lussier, Marie-Therese; Université de Montréal, Family and Emergency Medicine / Martello, Cristiano; McGill University, Department of Family Medicine / Nguyen, Quynh; McGill University, Department of Family Medicine / Poitras, Marie-Eve; Université Laval, Department of Family Medicine and Emergency Medicine / Pratt, R; University of Minnesota / Rihoux, Benoit; Université catholique de Louvain, Centre de Science Politique et de Politique Comparée / Rosenberg, Ellen; McGill University, Department of Family Medicine / Samson, Isabelle; Université Laval, Department of Family Medicine and Emergency Medicine / Senn, Nicolas; Lausanne University Hospital, Department of Ambulatory Care and Community Medicine / Li Tang, David; McGill University, Department of Family Medicine / Tsujimoto, Masashi; Japan National Center for Geriatrics & Gerontology / Vedel, Isabelle; McGill University, Department of Family Medicine / Ventelou, Bruno; Aix Marseille Université , School of Economics - SESSTIM UMR 912, Inserm IRD / Wensing, Michel; Heidelberg University, Department of General Practice and Health Services Research

Background and Objectives: Patients with complex care needs suffer from combinations of multiple chronic conditions, mental health problems, drug interactions and social vulnerability, which can lead to health care services overuse, underuse or misuse. Typically, these patients, their families, their caregivers, and their practitioners (hereafter stakeholders), face interprofessional and patient-practitioner interactional issues related to stakeholders' personal uncertainty regarding possible options (decisional conflict). Gaps in knowledge, values clarification and social support in situations where options need to be deliberated (decisional needs) hamper effective decision support interventions. This review aims to: (a) identify decisional needs of patients with complex care needs, from the perspective of stakeholders; (b) build a taxonomy of these decisional needs; (c) prioritize decisional needs; and (d) design a decision support tool to help address stakeholders' decisional conflicts.

Methods: This theory-driven review will be based on the Interprofessional Shared Decision Making (IP-SDM) model and the Ottawa Decision Support Framework. Applying a participatory research approach, we will identify potentially relevant studies through a comprehensive literature search; select relevant ones using eligibility criteria inspired from our previous scoping review on patients with complex care needs; appraise quality using the Mixed Methods Appraisal Tool; conduct a 3-step synthesis (sequential exploratory mixed methods design) to build taxonomy of key decisional needs; and design an IP-SDM decision support tool based on these results.

Results: Our review will produce a working taxonomy of key decisional needs for primary care patients with complex care needs (ontological contribution), allowing our team to design an innovative IP-SDM support tool for addressing decisional conflict of multiple stakeholders (practical contribution).

Conclusions: We will be the first team to adapt the IP-SDM model for patients with complex care needs (theoretical contribution). Knowledge users will facilitate the implementation of the tool, and disseminate the results in the Canadian primary care network.

Knowledge brokering for healthy aging: a scoping review of potential approaches

Kristine Newman, Dwayne Van Eerd, Ryan DeForge, Robin Urquhart, Evelyn Cornelissen, Katie Dainty

Collaborators: Dwayne Van Eerd, Ryan DeForge, Robin Urquhart, Evelyn Cornelissen and Katie N. Dainty

Background and Objectives: A healthcare delivery system that is more responsive to the challenges of an aging population is a Canadian priority. Knowledge brokering (KB) is a specific KT approach that includes making connections between people to facilitate the use of evidence. Knowledge gaps exist about KB roles, approaches, and guiding frameworks. The objective is to identify and describe KB approaches and the underlying conceptual frameworks used to guide the approaches that could support healthy aging.

Methods: Literature searches were done in PubMed, EMBASE, PsycINFO, EBM reviews (Cochrane Database of systematic reviews), CINAHL, SCOPUS, Google, and Google Scholar using terms related to KB. Titles, abstracts, and full reports were reviewed independently by two reviewers who came to consensus on screening criteria. Documents were included if they described a KB approach and details about the underlying conceptual basis. Data about KB approach, target stakeholders, KB outcomes, and context were extracted independently by two reviewers.

Results: Searches identified 248 unique references. Screening for inclusion revealed 19 documents that described 15 accounts of KB and details about conceptual guidance and could be applied in healthy aging contexts. Specific KB frameworks were referenced/developed for nine KB approaches while six cited more general KT frameworks.

Conclusions: The KB approaches that we found varied greatly depending on the context and stakeholders involved. Common elements of KB approaches that could be conducted in healthy aging contexts focussed on acquiring, adapting, and disseminating knowledge and networking. The descriptions of the guiding conceptual frameworks focussed on linkage/exchange but varied across approaches.

Development and Evaluation of an Intervention Intensity Scale for Use in Systematic Reviews

Genevieve Newton, Gilly Hendrie, Megan Racey

Collaborators: Gilly Hendrie PhD, Megan Racey MSc

Background and Objectives: The process of novel intervention development should always be preceded by a systematic evaluation of the existing literature. Systematic reviews will include a qualitative analysis of extracted data using a variety of different analytical approaches. We propose that evaluation of intervention intensity should be used as a systematic analytical method to inform intervention design and development.

Methods: By extracting data related to categories including; frequency of contact with participants, intervention duration, intervention reach, and the level of intervention personalization, it is possible to identify characteristics of interventions that are associated with positive outcomes. Categories consist of a scale that can be adapted and modified, from which interventions receive a score. All four categories are summed to calculate a total intensity score for the respective intervention. Total scores can be used to rank the interventions as low, medium, or high intensity.

Results: An intensity scale can be used to score interventions within each category, as well as overall, and the results can then be synthesized to determine optimal intervention characteristics, such as how often researchers should interact with participants and in what settings. The intensity scale can be adapted depending on the topic of interest and type of interventions being reviewed.

Conclusions: By highlighting characteristics of interventions that are linked to effectiveness, the systematic review of intensity can be used in the process new intervention development.

How are systematic mixed studies reviews conducted? A descriptive review

Quan Nha Hong, Pierre Pluye, Mathieu Bujold, Maggy Wassef

Background and Objectives: Systematic mixed studies reviews (SMSRs) are growing in popularity owing to their potential to provide a rich and highly practical understanding of complex health interventions and phenomena. This review aimed to describe existing SMSRs.

Methods: A review of SMSRs was performed. Six databases were searched from inception to 2014 (Medline, PsycInfo, Embase, CINAHL, AMED, and Web of Science). Academic journal reviews were included if they were systematic reviews including qualitative, quantitative and/or mixed methods studies. The following data were extracted: year, country, number of included studies, justification for combining qualitative and quantitative evidence, number of critical appraisal tools, synthesis methods, sequence of data synthesis, and integration of evidence.

Results: A total of 459 SMSRs were included. In the past decade, the number of SMSRs published has passed from nearly 10 per year to more than 100. The number of included studies ranged from 2 to 295 (mean = 29; SD = 33). Eight main categories of reasons for combining quantitative and qualitative evidence were identified: nature of the literature on a topic, complexity of the phenomenon, broad coverage, comprehensiveness, thorough understanding, complementarity, corroboration, and practical implication. The number of critical appraisal tools used ranged from 1 to 7. The analysis of the synthesis process led to identify two main types of synthesis designs: convergent and sequential synthesis designs.

Conclusions: Performing SMSRs is challenging because of the multiple study designs included. The results of this review can provide guidance for conducting and reporting SMSRs.

A scoping review to explore how universal design for learning is described and implemented by health professionals in school settings

Jennifer Kennedy, Wenonah Campbell, Shangmou Wu, Cheryl Missiuna

Collaborators: Wenonah Campbell, Shangmou Wu, Cheryl Misiuna

Background and Objectives: Universal design for learning (UDL) is a framework that provides guidelines to support children with diverse needs in the classroom, and promote inclusion of all children. Historically used by educators, UDL is being recognized as a promising approach for school-based health professionals (HPs). However, at present, UDL services administered by HPs within the school setting are the exception. Although emerging research supports a role for HPs in collaboratively delivering UDL services, there is no evidence synthesizing the use of UDL by HPs in the school setting. Therefore, the research question for this study is: How is UDL described and implemented in school settings by HPs? This study will specifically examine the occupational therapy, physiotherapy and speech-language pathology literature.

Methods: A scoping review using Arksey and O'Malley's methodological framework is currently underway to: (1) summarize how UDL is described in the literature; (2) summarize the recommended, reported, or potential role of HPs in the delivery of UDL; and (3) identify gaps in the evidence base. CINAHL, Embase, MEDLINE, PsychINFO, Sociological Abstracts, Web of Science and ERIC electronic databases were searched.

Results: 3380 title and abstracts were screened and 187 articles and grey literature texts were moved to full text review. Full text screening is presently ongoing. Quantitative and qualitative analysis of included articles will follow.

Conclusions: Establishing the current state of the research on the role of HPs in delivering UDL is a necessary step in planning future studies of the effectiveness of this approach in school-based practice.

Outcomes associated with Internet-based consumer health information in primary health care: A mixed studies review with a framework synthesis and the Configurational Comparative Method

Reem Sherif, Pierre Pluye, Vera Granikov, Benoit Rihoux, Quan Nha Hong, France Legare, Roland Grad, Sophie Desroches, Maria Cristaine Galvao, Francesca Frati, Bernard Bernund, Carol Repchinsky, Jo-Anne Hutsul, Mathieu Bujold, Isabelle Vedel

Background and Objectives: More than six million people go online to look for health information in North America every day. Systematic reviews in public health and oncology suggest the use of Internet-based Consumer Health Information (IBCHI) improves knowledge, participation in health care, and health outcomes. Our main objective was to identify and explore the conditions and outcomes of the use of Internet-based consumer health information in primary care.

Methods: Four stages typically used in systematic reviews: identification; selection; quality appraisal; and synthesis of retained studies. A sequential design with a phase-1 qualitative synthesis informing a phase-2 quantitative synthesis. First, we used a framework synthesis, which consisted of coding evidence against an a priori framework to produce a revised framework of factors and outcomes of IBCHI. Data extraction and synthesis consisted of a deductive-inductive qualitative thematic analysis, followed by a harmonization of themes. Second, we adopted a Configurational Comparative Method (CCM) to identify commonalities in the relationships between conditions and outcomes across cases (configurations).

Results: Out of 4322 unique records identified in our search, 65 studies were included. Included studies demonstrated that using IBCHI is associated with both positive and negative outcomes. The harmonization process resulted in a terminology of key terms and concepts. We established factors (conditions) influencing IBCHI acquisition and outcomes. We will present our preliminary CCM results on three conditions: health literacy, health status and confidence in IBCHI, and how they are linked to positive outcomes.

Conclusions: We propose a revised conceptual framework of the outcomes associated with IBCHI in primary health care, as well as potential influencing factors.

Strategies to engage a stakeholder in a systematic review of measurement properties

Suelen M. Goes, Catherine Boden, Xiaoke Zeng, Stephan Milosavljevic

Collaborators: Catherine Boden; Xiaoke Zeng; Stephan Milosavljevic

Background and Objectives: Engagement of stakeholders when undertaking a systematic review improves relevance of research questions, increases transparency of research activities, facilitates uptake of results into policies, and accelerates outcomes adoption into practice. Furthermore, the aim of this presentation is to describe strategies used to engage a stakeholder in a systematic review of measurement properties.

Methods: We will depict stakeholder engagement throughout the design, conduct and interpretation of the systematic review; outline relevant characteristics, qualities and events of stakeholder meetings and interactions with regard to applicability of results.

Results: Our stakeholder partner's team is composed of clinicians and policy-makers. We plan to hold two stakeholder meetings and a focus group discussion with clinicians and stakeholder representatives. The first meeting has been completed with relevant research questions, key concepts and study design articulated and adapted. We have also worked in close collaboration, through emails and phone calls, with stakeholder's team, which improved the quality of the protocol. The second consultation will interpret findings, and identify reporting and knowledge translation goals to determine effective ways for communicating outcomes. The focus group is intended to reduce barriers and encourage policy makers and clinicians to review and discuss the systematic review results in a manner to facilitate clinically relevant outcomes.

Conclusions: Since findings of this systematic review will be applicable to both clinicians and policy-makers, the engagement of our stakeholder partner has provided a unique perspective, offering specific knowledge and experience, and the potential to target the best use of review outcomes for the stakeholders' needs.

Better reporting of health equity in randomized trials: CONSORT-Equity 2017

Manosila Yoganathan, Vivian Welch (1, 2), Ole F. Norheim (3), Richard Cookson (4), Janet Jull (2), Halvor Sommerfelt (3), Peter Tugwell (1); 1.University of Ottawa; 2.Bruyère Research Institute; 3.University of Bergen; 4.University of York

Collaborators: The participants of the Boston Equity Symposium 2016 and the CONSORT-Equity Research team.

Background and Objectives: Health equity concerns the absence of differences in health that are avoidable by reasonable action. Randomized trials can potentially assess effects on health equity by: 1) evaluating interventions focused on people experiencing social disadvantage, or 2) exploring differences in the effect of the intervention between groups experiencing different levels of social disadvantage. Randomized trials have been found to rarely report information that may inform decisions about health equity. The CONSORT (Consolidated Standards of Reporting Trials) reporting guideline and its extensions do not address this gap. We aim to develop an evidence based reporting guideline to improve reporting of health equity in randomized trials.

Methods: We collected empirical evidence by: 1) Assessing CONSORT and its extensions; 2) Assessing 200 health equity relevant trials; 3) conducting key informant interviews; and 4) reviewing other related guidance. We gathered input from a range of users (n=168) using an online survey and held a consensus meeting of global opinion leaders representing potential users and methodologists to discuss the importance of each CONSORT item until consensus was reached.

Results: We reached agreement on extensions for 16 of the standard CONSORT items and the inclusion of one new item on ethics. Examples of good reporting for each item were provided with the explanation for each item.

Conclusions: This CONSORT-Equity 2017 reporting guideline provides standards for improving the reporting of health equity in randomized trial. Uptake of CONSORT-Equity 2017 will make it easier for decision makers to find and use evidence from randomized trials to reduce unfair inequalities in health.

Risk of Bias in surgical studies: a comparison of Downs and Black with ACROBAT-NRSI

M. Astin, A. Nardelli, P. Vaidya, L-A. Topfer, and T. Stafinski.

Collaborators: A. Nardelli, P. Vaidya and T. Stafinski.

Background and Objectives: Many surgical studies of new or novel interventions are non-randomised in design. There are a limited range of validated tools for assessing non-randomised studies and few apply directly to surgery. We sought to explore the utility of the ACROBAT-NRSI risk of bias tool (ROB) compared to Downs and Black in the context of transplant surgery.

Methods: We conducted a HTA of ex vivo lung perfusion for lung transplantation compared to standard transplantation. All included studies were non-randomised, and assessed for risk of bias with the Downs and Black tool. Since no power calculations were performed, question 27 was omitted. We assessed the 12 comparative studies using the recently developed Cochrane ACROBAT –NRSI.

Results: Across four domains of the Downs and Black instrument, total scores ranged from 14(52%) to 21(78%) from a target of 27. Scores were mostly strong for reporting (low ROB); external validity varied widely across studies; bias for outcome measures and study conduct scored moderate to high (moderate ROB); and selection bias scored low to moderate (higher ROB). Scoring of ACROBAT indicated that ROB was mostly low-moderate for confounding; departure from co-interventions; missing data; outcome measurements and selection of reported results. There was low ROB for misclassification of the intervention; and low-serious bias in selection of participants.

Conclusions: The ACROBAT-NRSI is a useful tool for ROB assessment in the context of surgical studies, covering more domains and not relying upon numerical scoring systems.

WORKSHOPS, ORAL PRESENTATIONS & POSTER ABSTRACTS

Perceptions on Cochrane reviews from Health Information from All discussion list

Jordi Pardo Pardo

Collaborators: Kayla Richardson

Background and Objectives: Health Information for All (HIFA) is an initiative to increase access to health information in low and middle-income countries, build around an e-mail discussion list. We analyzed how Cochrane reviews are mentioned, used and viewed in the HIFA list.

Methods: We ran a search through the emails in the listserv in a 22-month period dated between January 3, 2015, and October 24, 2016. We performed a search of the subject and body of the emails using "Cochrane" as the sole search term.

Results: We included 56 emails discussing Cochrane reviews. Eighteen messages referenced Cochrane reviews for information purposes. The other 38 discussed Cochrane and systematic reviews more generally. On the reviews, EPOC and Pregnancy and Childbirth were the groups more frequently cited. On the general discussion, for topics emerged about Access, Use of Reviews, Systematic Review Discussion, and Organizational Discussion. Cochrane reviews were in general seen as the gold standard. Questions were raised about how the reviews are addressing needs of high-income countries. Commenters also addressed the point of a Cochrane divide between and elite highly informed and the vast majority of practitioners with no access. Activities to increase the reach of Cochrane like the partnership with Wikipedia or translations were seen as key to increase impact.

Conclusions: Cochrane reviews are highly regarded, but there are limitations for increasing their impact in low and middle-income countries.

A new instrument to assess the credibility of effect modifiers

Stefan Schandelmaier, Stefan Schandelmaier, Xin Sun, Matthias Briel, Hannah Ewald, Neera Bhatnagar, Tahira Devji, Farid Foroutan, Romina Brignardello, Behnam Sadeghirad, Yaping Chang, Gordon Guyatt

Background and Objectives: Debates regarding the credibility of effect modifiers are often contentious. Although it is desirable to identify effect modifiers that explain heterogeneity, subgroup analyses may lead to spurious inferences in randomized trials and meta-analysis. Authorities have, in response, suggested varying criteria to assess the credibility of effect modifiers but a formal, consensus-based instrument remains unavailable. We will develop a new instrument to assess the credibility of putative effect modifiers in randomized trials and meta-analyses

Methods: We will follow a rigorous instrument development process, which will involve expert panels and users. We will perform a qualitative systematic survey of the methodological literature discussing credibility of effect modifiers. We systematically searched Medline, Embase and Textbooks and identified 409 potentially relevant full text. We are currently abstracting candidate items for the new instrument (e.g. pre-specification, test of interaction, small number of subgroup analyses) and methodological concepts. We will randomly choose 20 experts who will form two panels. Panel 1 will be involved in the instrument development and panel 2 in the testing phase. We will involve 40 users who will apply the draft instrument to a sample of subgroup analyses using formal user testing methods. We will test the final instrument in a reliability study.

Results: At the time of the conference, we will present the concept and the results of the systematic survey of the methodological literature.

Conclusions: We expect that the new instrument will have immediate impact on the analysis, interpretation, and reporting of effect modifiers in individual trials and meta-analysis.

Effectiveness of implementation interventions in improving physician adherence to guideline recommendations in heart failure: a systematic review

Deepti Shanbhag, Ian D. Graham, Karen Harlos, Brian Haynes, Itzhak Gabizon, Stuart Connolly, Harriette Van Spall

Background and Objectives: The uptake of heart failure (HF) guideline recommendations remains suboptimal. We reviewed implementation interventions that improve physician adherence to these recommendations, and identified contextual factors associated with implementation success.

Methods: We searched for studies published since 1990, testing interventions to improve uptake of Class I HF guidelines. We extracted data using the EPOC and Process Redesign frameworks. Primary outcomes included: proportion of eligible patients offered guideline-recommended pharmacotherapy, self-care education, left ventricular function assessment, and/or device consideration.

Results: We included 35 studies, including 9 randomized controlled trials (RCTs). Provider-level interventions (N=13 studies) included: audit and feedback, reminders, and education. Organization-level interventions (N=15) included: medical records systems changes, multidisciplinary teams, and clinical pathways. System-level interventions (N=3) included financial incentives. Four studies assessed multi-level interventions. We synthesized results narratively due to statistical/conceptual heterogeneity. Twenty-nine studies reported significant improvements in at least 1 primary outcome. Clinical pathways, multidisciplinary teams, and multifaceted interventions were most consistently successful, while audit and feedback alone was largely ineffective. Several RCTs showed pharmacist and nurse-led interventions to particularly improve target dose prescriptions. Baseline assessment of barriers, staff training, iterative intervention development, and leadership commitment were associated with intervention effectiveness. Most studies (N=18) had medium risk of bias; 8 RCTs had low risk of bias.

Conclusions: Our study is limited by the quality and heterogeneity of the primary studies. Clinical pathways, multidisciplinary teams, and multifaceted interventions appear to be most consistent in increasing guideline uptake. Our work highlights the need for improved research methodology to reliably assess the effectiveness of implementation interventions.

Methodological insights from a prognostic factor exemplar review: Individual recovery expectations and prognosis of outcomes in non-specific low back pain

Andrea Smith, Jill Hayden

Background and Objectives: Prognostic studies are helpful for the information they provide on the likelihood of a particular outcome or disease recurrence, identifying target groups for treatment, or suggesting interventions to modify factors associated with poor outcomes. We report on methods and processes for a prognostic factor review investigating the available evidence about the association of one prognostic factor, individual recovery expectations, with outcomes of low back pain. Individual recovery expectations are what a patient 'expects to occur' with respect to their health condition over time. This topic was selected as an exemplar as it is important, easily understood, and includes methodological challenges useful for illustrating the conduct of a prognostic systematic review.

Methods: We used best methods, including those adapted from intervention and diagnostic test accuracy systematic reviews. Guidance documents, including an annotated protocol/review, will help inform evidence-based methods for future prognostic factor systematic reviews.

Results: 3,207 articles were screened and 86 studies included in this review. 46 (53%) of included studies were identified through focused electronic searches. References searches of prognostic factor and expectations reviews identified an additional 36 (42%) included studies. 49 studies (57%) measured general expectations, 23% measured treatment expectations, and 15% measured self-efficacy expectations. 54% of studies were assessed as 'low' or 'moderate' risk of bias. Only 33% of studies reported both adjusted and unadjusted results for syntheses.

Conclusions: Prognostic systematic reviews are complex; our exemplar identified methods gaps at all stages of the review. Better reporting in primary studies and further methodological investigation is necessary to advance prognosis systematic reviews.

Priority setting: connecting with guideline developers

Shireen Harbin, Andrea Furlan

Background and Objectives: We aimed to prioritize the update of published reviews from Cochrane Back and Neck (CBN) by reaching out to guideline developers for their clinical expertise

Methods: We reached out to the CBN Editorial board members to recommend back pain guideline developers from around the world. We contacted one in the UK, one in the US, one in Canada, and three in Australia. We sent an Excel spreadsheet listing our published reviews (generated from Archie) and asked teams to highlight the ones we should prioritize for update. We also asked teams to propose new titles.

Results: To date we have received recommendations from two groups; one of these groups also provided a list of new titles, highlighting the ones they considered a priority. We reviewed the titles and collated the ones recommended by both groups to make a master list. A total of 20 published reviews have been recommended for update and 9 new priority titles. We are expecting recommendations from two more groups. Once we've collated all the responses, we will make final decisions in discussion with our editorial board.

Conclusions: Priority setting is key to making the best use of resources. Having the recommendations of guideline developers allows us to focus our energies on producing clinically relevant reviews which will be used in guideline development. It also supports our ability to turn down titles that are clinically irrelevant, allowing our group to better manage our workload.

How Evidence Based Research Transforms Care at Bruyère Continuing Care

Vivian Welch, **Elizabeth Ghogomu**, Beverly Shea, Jason Nickerson, Peter Walker

Background and Objectives: The Bruyère Evidence Review Group (BERG) at the Bruyère Research Institute (BRI) works together with the Bruyère Continuing Care to provide rapid tailored best evidence to improve the quality of patient-centred care.

Methods: Clinical or program questions submitted by local champions are prioritized by the Senior Leadership Team. The BERG team in consultation with the champions defines the plan, and carries out a rapid review of best evidence, using systematic and explicit methods. The clinical or management champions consult with the Senior Leadership on the implementation of these findings to guide practice and improve the quality of patient care processes, clinical outcomes and patient experience.

Results: Fifteen rapid reviews have been completed or are in progress on various topics including: falls prevention in long-term care and continuing care; respiratory therapy and care; concept mapping to build coordinated, person-centred, and high-quality care; process for complaint management; living environments for people with dementia and community-based alternatives to long-term care. We used synthesised evidence from Cochrane reviews and guidelines as the most common source of evidence. These have resulted in innovative practices at Bruyère Continuing Care such as the creation of the Office of patient experience.

Conclusions: The BERG has been an exceptional catalyst to promote evidence based practice change to enhance healthcare experience for patients, residents, families and staff at Bruyère Continuing Care.

Efficient literature searches for systematic reviews: something old, something new, something borrowed, something Cochrane

Rachel Couban, Vahid Ashoorion

Background and Objectives: Background: Although the Cochrane Collaboration has most clinical topics covered with its network of review groups, people still persist in performing systematic reviews outside of Cochrane Reviews. To what extent can we make use of the work of others in performing the literature searches for these reviews? Can techniques to reduce research waste be successfully applied at this stage of a review? Objectives: I will share my strategies for introducing efficiency into the process of searching the literature for systematic reviews.

Methods: Methods: First, locate your review in the constellation of research using tools like CDSR, Campbell Library, JBI Library, Epistemonikos and Prospero SR to identify existing systematic reviews on similar or related topics. Find search strategies that have been used before, and reviews that have identified sets of relevant studies for your topic. Identify the range of potential search strategies for your topic, and understand the component concepts or "blocks" of your search strategy. Find out if there are study design search filters or hedges that look good for your review. Next, focus on what your review needs to shine. Recruit the necessary information to validate your search blocks, then optimize them. Work with your team to "test" your strategy and refine it so that comprehensiveness and manageability are optimized.

Results: Results: A good systematic review search is valid, adaptable and transparent.

Conclusions: Conclusions: Systematic reviews are an inexpensive, low-resource form scientific research, but still they should be robust for replication and show efficiency at the literature searching stage.

Community Systematic Review – A novel collaborative systematic review approach

Rachel Ogilvie, Jill Hayden, **Andrea Smith**

Background and Objectives: Systematic reviews inform clinical guidelines and decision-making. In the past 10 years, there have been at least 100 overlapping reviews published on the topic of exercise therapy for low back pain. While some duplication is useful, the efforts of searching, selecting and extracting data from the same studies represents thousands of hours of research waste. As a result of small teams using manual processes and tools systematic reviews are inefficient and quickly become outdated, often by the time of publication, leading to evidence-to-practice gaps. We propose a more efficient approach called 'Community Systematic Review' involving multiple research teams working collaboratively on smaller projects within a large review topic. Community Systematic Review will be made feasible in Cochrane through new tools, technologies, and team coordination.

Methods: We will describe the Community Systematic Review approach, tools and technological supports, using our pilot work as an example. We have proposed to test this new approach on our completed Cochrane review of exercise for low back pain by synthesizing evidence about the effectiveness of two treatments: motor control and aerobic exercises. In our pilot work, we will build the Community Systematic Review team, and evaluate the feasibility of tools, technological supports, and team coordination.

Results: This novel Community Systematic Review approach, which explicitly integrates collaboration, will make it easier and more efficient to produce systematic reviews and updates.

Conclusions: The Community Systematic Review of exercise for low back pain will serve as a model for this novel type review approach in other health research fields.

MAPS

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Cochrane Canada

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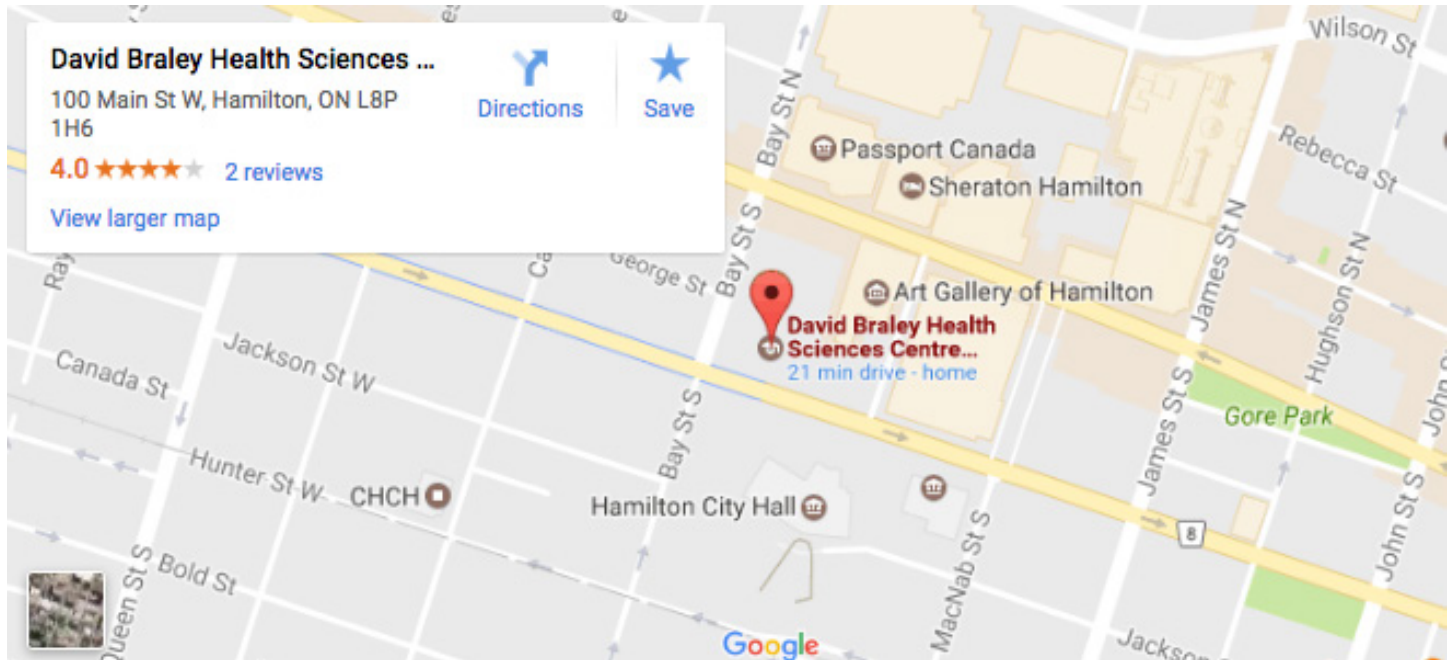
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From Toronto, Oakville, Burlington
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Parking
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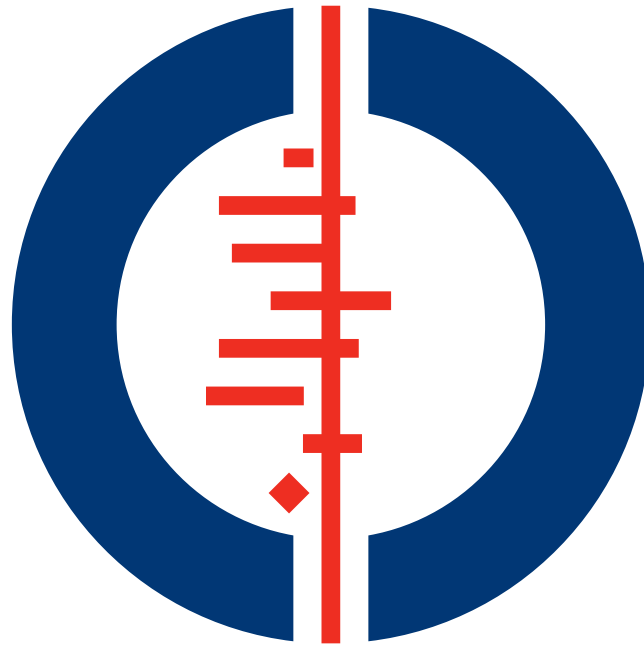
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