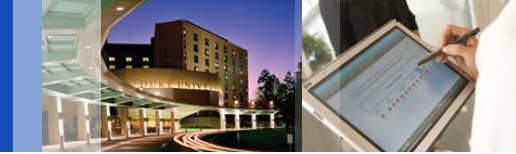


Moving the Evidence Review Process Forward

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External Evidence Review Workgroup

- Anne Comeau, PhD
- Nancy Green, MD
- Alex Kemper, MD
- Alix Knapp
- KK Lam, PhD
- James Perrin, MD
- Lisa Prosser, PhD
- Special help from Sara Copeland, MD, Lisa Vasquez, Alaina Harris, Ned Calonge, MD, and Scott Grosse, PhD



Core Principles

- Comprehensive
- Unbiased
- Transparent
- Fair



Challenges

- Inconsistent case definitions
- Variable duration of follow-up across reports
- Variations in outcomes that are reported
- Proxy outcome measures are common
- Significant knowledge is in case reports and case series
- Individual cases can appear in multiple reports
- Harms of screening and harms of treatment seem underreported



Improving the Process

- One-day meeting with experts in evidence evaluation convened in April 2011
- IOM released standards for the conduct of high-quality systematic evidence reviews
(<http://www.iom.edu/Reports/2011/Finding-What-Works-in-Health-Care-Standards-for-Systematic-Reviews.aspx>)
- The AHRQ Methods Guide for Effectiveness and Comparative Effectiveness Reviews was released August 2011
(http://www.effectivehealthcare.ahrq.gov/ehc/products/60/318/MethodsGuide_Prepublication_Draft_20110824.pdf)



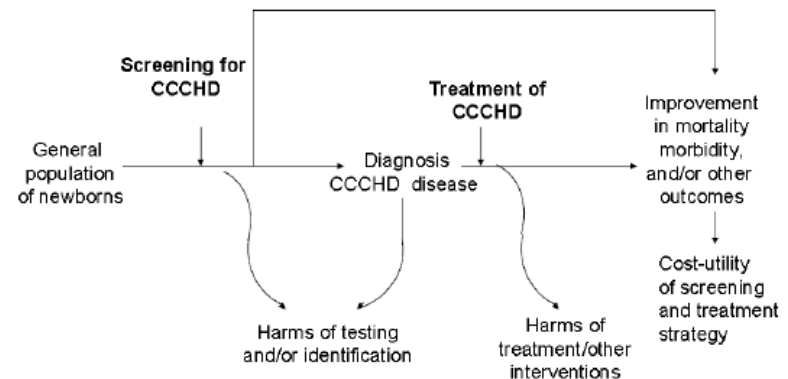
Incorporating New Processes

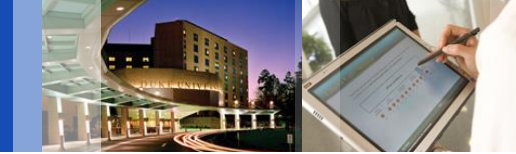
- Refining the development of the work plan
 - *Case definitions*
 - *Analytic framework*
 - *Key questions*
- Improving data abstraction
 - *Completeness*
 - *Transparency*
 - *Allow for future updates as new evidence becomes available*
- Data synthesis and presentation
 - *Further standardize the report*
 - *Adding quantitative synthesis through modeling*
- Assisting the SACHDNC with collection of “missing data” (e.g., workforce)



Refining the Process of the Work Plan

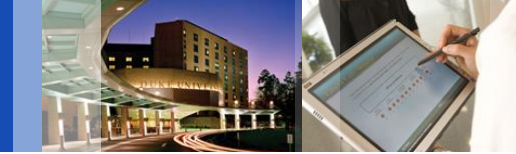
- All reports have used a similar analytic framework
- The analytic framework is used to develop the key questions
- Case definitions are developed from the nomination form





Refining the Process of the Work Plan

- In the future, the analytic framework will be tailored more specifically
 - *Time horizon*
 - *Comparator (e.g., usual clinical care vs. no screening)*
 - *Outcomes*
- Similarly, case definitions will be specifically defined – have already begun using a technical expert panel
- The analytic framework and the case definitions will be used to develop
 - *Key questions in PICOT format (population, intervention, comparison, outcome, timing)*
 - *Preliminary but well-defined search strategy created in partnership with a medical librarian for wide array of databases (MEDLINE, EMBASE, Cochrane, ClinicalTrials.gov, proceedings of specific meetings, etc.)*
 - *Expected rules for study design inclusion (which will probably be everything)*
 - *Preliminary list of experts for interview*



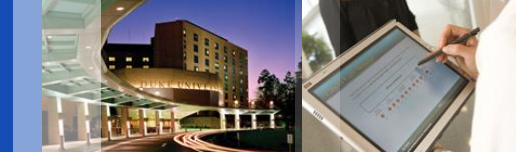
Refining the Process of the Work Plan

- Considerations before moving forward with the work plan
 - *Further peer-review by technical panel*
 - *Public comment period*
 - *Review by liaisons from the SACHDNC*
- If these occur, will need to assure that the evidence review workgroup remains external to the SACHDNC



Improving Data Abstraction

- Development of evidence tables can be challenging because of study heterogeneity, especially with the incorporation of case studies and small case series
- Traditionally, this requires multiple rounds of data abstraction, which can introduce error
- Difficult to maintain tables in a way that allows for easy updating



Improving Data Abstraction

- Solution: Distiller software (<http://systematic-review.net>)
 - *Web-based*
 - *Tracks reports and facilitates reviews into user-developed forms*
 - *Produces a wide variety of reports (e.g., status, reliability [κ], reasons for exclusion, quality scoring, evidence tables)*
 - *Improves efficiency and accuracy*
 - *Used within the Duke Evidence-based Practice Center*



Data Synthesis and Presentation

- More detailed evidence tables for each key questions
- Expanded grading and evaluation of individual studies and the body of evidence for each key question
 - *Risk of bias*
 - *Consistency*
 - *Precision*
 - *Directness*
 - *Reporting Bias*



Data Synthesis and Presentation

- Decision modeling to provide a quantitative assessment of the findings
 - *Linked to analytic framework*
 - *Complement the narrative summary and evidence tables*
 - *Can address areas of uncertainty to help inform SACHDNC decision-making process*
 - *Identify important areas for new research*
- Lisa Prosser, PhD, will discuss this approach in greater detail in the subsequent session



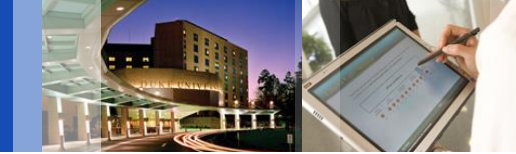
Data Synthesis and Presentation

- As with the work plan, consideration of
 - *Further peer-review*
 - *Public comment period*
 - *Review by liaisons from the SACHDNC*
- Need to protect the evidence review from external pressure



“Missing Data”

- Undoubtedly, there will be gaps of significant interest to the SACHDNC not available from the published literature or reliably available from the grey literature
 - *Workforce*
 - *Economic information*
- In partnership with the SACHDNC, we can help develop strategies to collect this information
- Next steps will depend on what is needed



Next Steps

- Work with the SACHDNC to formalize the process into a brief manual of procedures
- Complete the review on screening newborns for hyperbilirubinemia (led by Dr. Perrin), which will introduce the new decision modeling approach (led by Dr. Prosser)
- We look forward to more nominated conditions!!