Evidencing the Impact of Knowledge Services in the NHS in Scotland

Sarah Morton, Co-Director,

Centre for Research on Families & Relationships, University of Edinburgh

24 September 2013

Presentation for the Canadian Knowledge Transfer and Exchange Community of Practice, Toronto

Based on work carried out by:
Sarah Morton and Sheila Inglis (SMCI associates),
with Suzanne Wilson Improvement Manager (Knowledge
into Action) NHS Education for Scotland

Commissioned by

NHS Education for Scotland and

Health Improvement Scotland

In this session:

- Background to NHS K2A programme

- The K2A evaluation challenge

- Evaluation principles

- Contribution approaches to impact

- NHS example

- Remaining challenges

- Q&A

NHS Scotland

- Quality Strategy:
  - Person-centred; Safe; Effective; Efficient; Equitable; Timely
- Strategic priorities:
  - Improve integrated health & care and enhance wellbeing.
  - Improve care experience, empowering practitioners & people who use services.
  - Minimise avoidable harm from healthcare.
  - Generate better value for money.

K2A Infrastructure

Primary drivers
Primary drivers are system components which will contribute to moving the primary outcome.

Conceptual design of change package

By March **2015**, NHSScotland will support a national, forward-looking and sustainable approach to embedding the application of knowledge in all frontline delivery of care and healthcare improvement activities.

Knowledge into Action tools and approaches are embedded in frontline practice and healthcare improvement initiatives.

Organisational structures and governance processes support national and local alignment, integrated working and co-ordinated implementation of knowledge into action approaches.

Clinicians and senior managers are actively committed to embedding knowledge into action in frontline practice and organisational policy.

Knowledge into action capabilities are widespread across the workforce, led and supported by a network of knowledge brokers with high levels of expertise in knowledge into action.

1. **Evidence Search and Synthesis**:
   A coordinated local and national approach to evidence search and synthesis – combining evidence from research with evidence from practice and the experience of teams, patients and carers.

2. **Actionable knowledge:**
   Deployment of actionable knowledge products and decision support for local and national use.

3. **Relational use of knowledge**:
   Supporting knowledge exchange and dissemination through methods for relational use of knowledge.

4. **Building organisational capacity and culture** for use of knowledge – through strategic leadership, of local knowledge into action plans, building roles and workforce capability in utilising knowledge.

5. A national **knowledge broker network**, integrated with improvement and clinical teams, trained and supported to deliver the range of knowledge into action support.

6. Transforming management of the **physical library resource.**

The K2A research

- Defining method & high impact national projects
- Informed by
  - Davies et al literature review: 2011
  - Test of Change projects
  - NES & HIS 2012: Getting Knowledge into Action to Improve Healthcare Quality: Report of Strategic Review and Recommendations.

Evaluation

Value

'establishing **how well** the initiative was planned and implemented, how others **perceive** it, its **unintended effects** and how it **compares** to where it has been (or could be) implemented elsewhere'
– Russell et al., 2011

Impact

Outcome

Benefit

'we can only be sure to improve what we can actually measure' – Darzi, 2008

Worth

Contribution

Evidence-based decision making

Russell, N., Wallace, L. and Ketley, D. (2011) Evaluation and measurement for improvement in service-level quality improvement initiatives. Health Serv Manage Res. 24(4):182-9.

Why evaluate?

Addressing accountability

Assuring value for money

Setting priorities

Assisting learning

Improving outcomes

Summative or formative purposes?

Research impact challenges

- What types of use/impact are of interest?
- When to assess impact?
- Importance of context – assessing actual or potential impacts?
- Dealing with attribution and additionality – constructing a convincing impact narrative
- Getting away from linear models research use/impact

K2A Evaluation Framework

- Based on Contribution analysis
- K2A Evaluation principles
- A context specific problem-focused approach to planning and evaluation
- A clear method of linking K2A activities to wider outcomes
- The potential to aggregate from project-level data to programmes
- A pragmatic approach which can help with planning, encourage reflexivity and create learning communities which will enhance planned K2A processes

K2A Evaluation Principles

- **Include 'criteria for success' from different levels of the system**

- **Be easy to use** and enhance the planning and implementation process rather than detract from it

- **Link k2A activities to wider outcomes**, **whilst also seeking to understand processes, relationship and capacity building**

- **Acknowledge that there are many influences on these outcomes**,

- **Provide evidence about the effectiveness** of different K2A processes to enhance learning about K2A

Gabbay and Le May (2004)
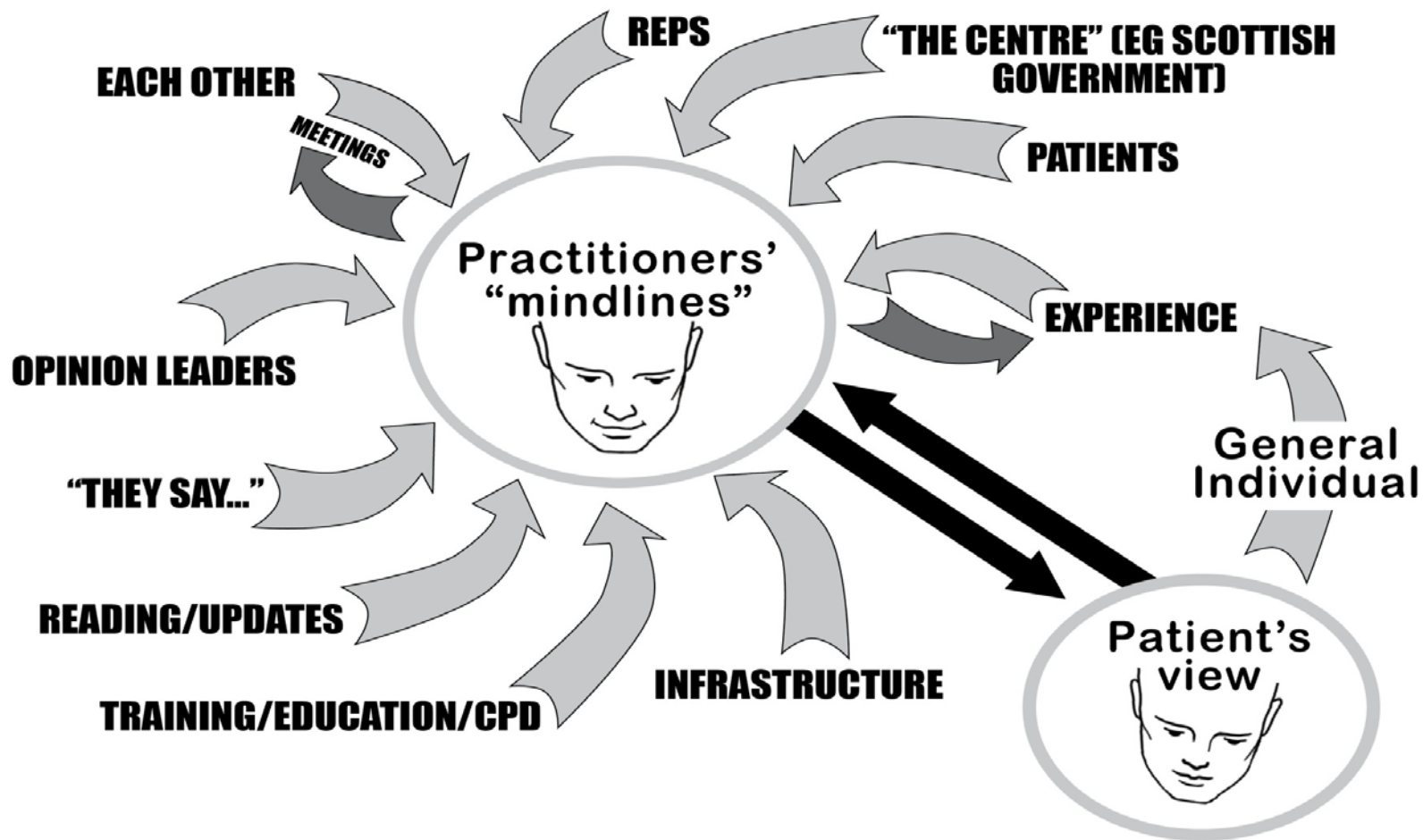
Combining knowledge for practice
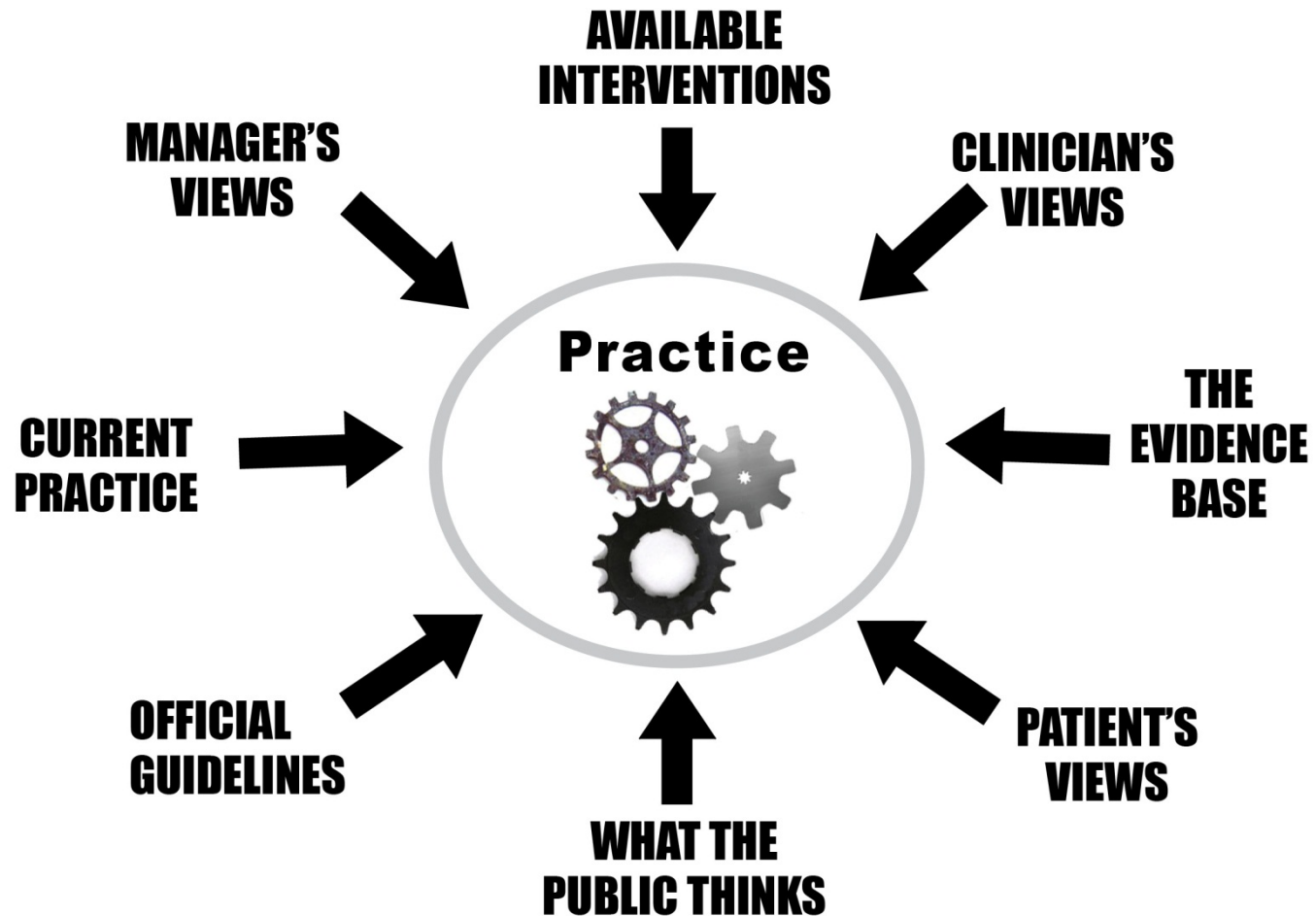
Basic ideas of CA

- Takes a 'logic model'/'outcomes planning'/'results chain' approach

- Assembles evidence to validate the logic model

- Includes an examination of alternative explanations of change

- Contribution analysis builds a credible case about what difference is being made

Why take this approach?

- K2A projects are complex

- Knowledge is embedded in relationships – engagement is crucial

- K2A is context specific and the framework can be adapted to context

- Reflecting along the way more likely to be successful

Spheres of influence

ISSUE, CONTEXT and DRIVERS

Socio-economic, political, Technological factors

Existing policies, practices, beliefs

Actors, networks in research, policy and practice, power

Capacity of target groups to respond

Receptiveness of context

Organizations, resources, systems, skills

WHY? (State)
Your environment of *indirect influence*
e.g., practice sectors, the public, communities of interest where you do not make direct contact

WHAT do we want by WHOM?
(Behavioral Change)
Your environment of *direct influence*
e.g. people and groups in direct contact with your operations, immediate research users, collaborators and partners

HOW? (operational)
Your operational environment
You have *direct control* over the behaviours within this sphere

Impact or change

Action

Capacity

Engagement

Activities

Outside influences increase as we move 'outward' along the chain

Adapted from S Montague 2009

The K2A Evaluation Process

Develop a results chain

Assess risks and assumptions

Identify indicators

Decide on methods

Collate, review, adapt

Write your contribution story

More effective practice…	Practitioners able to apply knowledge to healthcare to achieve national improvement targets
⬆	
Practice, behaviour change	More use of K2A, better relationships, adoption of local tools and projects
⬆	
Knowledge, attitudes, skills	K2 A skills increased, better understanding of role of K2A, understanding of the issues in the project areas and what is needed to facilitate change
⬆	
Reactions	K2A projects seen as relevant and timely, time allocated to engaging with it and to facilitating the engagement of others
⬆	
Reach	Each project identifies and engages the appropriate people at micro, meso and macro levels.
⬆	
Outputs	Appropriate products and services are developed for each of the four projects.
⬆	
Activities	Four national K2A projects
⬆	
Resource	The resources employed in the national K2A projects (e.g. financial resources, human resources, institutional resources)

Creating a results chain

- Start with inputs and activities
- Add outcomes – include everyone's criteria for success
- Work through the other steps
- Involve stakeholders

MORE EFFECTIVE PRACTICE & WIDER OUTCOMES: the result of these changes is ...impact on ....people or groups

CHANGES IN BEHAVIOR OR PRACTICE: these things were done differently or these behaviours were affected

KNOWLEDGE/ATTITUDES/SKILLS: : We address these abilities, skills, gaps in services

AWARENESS/REACTION: we address these issues…we expect the clients to react in these ways….

ENGAGEMENT/REACH…we intend to reach…clients in these ways..

ACTIVITIES/OUTPUTS: We plan….. activities/projects… to be delivered in these ways

INPUTS: We have these resources (financial, human, technical) …

Morton (2012)

Evidencing outcomes

Creating a convincing evidence chain

- Logic-model approach - judged on the robustness of logic

- Need to evidence steps in the chain

- Risks and assumptions approach to generate evidence

MORE EFFECTIVE PRACTICE & WIDER OUTCOMES: : improved patient care, treatment and diagnosis

CHANGES IN BEHAVIOR OR PRACTICE Improved and timely access to evidence-based recommendations, decisions informed by evidence, improved partnership working

KNOWLEDGE/ATTITUDES/SKILLS: : improved understanding of diagnosis etc and appropriate therapies, increased skills for knowledge staff, wider awareness of knowledge network

AWARENESS/REACTION: seen as useful and relevant, helpful to EBP and time saving

ENGAGEMENT/REACH...staff in remote and rural areas with no access to lib services, and wider NHS Scot healthcare staff

ACTIVITIES/OUTPUTS: Evidence summaries produced in response to requests via web, mobile plus support via libraries

INPUTS: Online clinical enquiry and answering service for NHS Scotland delivered by information professionals

What assumptions do you make, what risks are there?

Morton (2012)
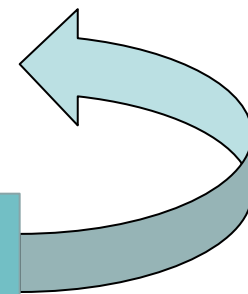
- Assessing risks and assumptions
  - What are the other influencing factors?
    - Other policies and services
    - Other factors in the target population's lives
  - What assumptions do you make to get from one step to the next?
  - What are the risks that these won't happen as you imagine?
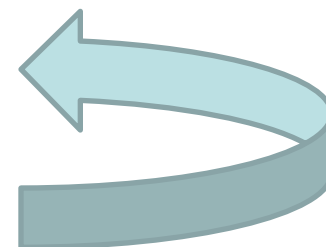
Risks and assumptions 1

Indicators: # of knowledge services staff who promote CLEAR, #of enquiries per board/ service Feedback on barriers to service use

Assumptions: accessible by the right people, appeal to way of working, have time to participate etc
Risks: staff not aware of services, technological barriers, knowledge staff willing to particpate

ENGAGEMENT/ REACH Primary care or staff in remote and rural areas engaged with project

ACTIVITIES/OUTPUTS: Evidence summaries produced in response to requests via web, mobile plus support via libraries

© Sarah Morton, CRFR

Risks and assumptions 2

CHANGES IN BEHAVIOR OR PRACTICE: Improved and timely access to evidence-based recommendations, decisions informed by evidence, improved partnership working

KNOWLEDGE/ATTITUDES/SKILLS: improved understanding of diagnosis etc and appropriate therapies, increased skills for knowledge staff, wider awareness of knowledge network
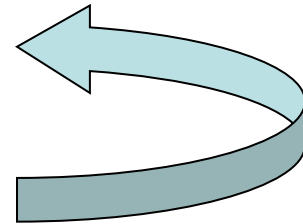
Indicators: staff feedback that they found reviews easy to read and use, relevance to practice.
Evidence source: user survey, focus group and interviews

Assumptions: Evidence reviews relevant, easy to read and link with previous knowledge
Risks: Staff disagree with finding, challenges current practice

Evidencing results

- What will the measures of success be?
- How will evidence for these measures be gathered?
- What evidence is already being gathered?
- What other sources of evidence need to be added to this?

Identify indicators and methods

- Identify one or two indicators for each step of the results chain

- Some may be supported by other research

- Use service level data as a start

- List of potential indicators

- Monitoring and review plan

Indicator suite

- Developed from work by Mansfield and Grunewald (2013) on indicators for knowledge brokering and Montague on evidencing results

- Reworked to fit in with contribution framework developed here

	Evaluation criteria	Typical indicators	Possible sources
Capacity, Knowledge, skill	Measures of individual and group changes in knowledge, abilities, skills	Levels of understanding of key concepts Levels of self-expressed commitment to specific related areas and related actions identified Levels of new knowledge about issues addressed	Review of target groups Tracking further use of project materials Network analysis
Awareness, Reaction	What participants say about the projects, fit with current thinking, timeliness,	Reaction to project different stakeholder groups Comments about project Analysis of context at practice and policy levels	Evaluation individual activities Review processes Tracking participants over different time frames Contextual analysis

Common assessment methods

- Participants views on policy or practice change
- Tracking behaviour before and after
- Network analysis, feedback on relationships
- Review of target groups
- Tracking further use of project materials
- Evaluation individual activities (survey etc)
- Review processes
- Tracking participants over different time frames
- Contextual analysis
- Web-use tracking
- Meeting attendance records
- Seminar/conference evaluations
- Observation and reflection of interactions
- Project monitoring, management or team meeting reviews etc

Suggested indicators for…	Outputs	Reach	Reaction	Knowledge, attitudes and skills	Practice, behaviour change
an online community of practice (CoP) or knowledge sharing forum	CoP available for potential members	# of members	# of contributions (differentiated by content type, such as discussion, file, blog, wiki entry) # of views of different content types (discussion, file, blog, wiki entry, etc.) distribution of member participation (contributors who also comment vs. contributors without comments vs. email only members) Y/N - would target audience miss intervention if discontinued/not set up in the first place (as judged by supplier and target audience itself)	# of one-to-one conversations you have had as a result of the portal Y/N - have you talked to someone you did not talk to before/would not have talked to without the community?	Y/N - have you worked with anyone outside the portal that you met here? Y/N - Can you give an example for what the CoP enabled you to do?

Collate, review adapt

- Acknowledging complexity
- Many factors influencing change
- Not everything is planned
- More than one strand in a results chain
- Need to reflect and learn along the way
- Seek to understand what is working and why

Bringing it all together

- Evaluation plan
  - Outcomes chain – what will success look like?
  - Risks and assumptions
  - Indicators and evidence
- Monitoring and review plan
  - Timescales and responsibility

Monitoring and review plan

Project Title:

Overall timescale for project (e.g. May 2013-May 2014)

Sources of evidence to show the project is working

- What do you already know about the target group?
- What external sources might be useful (e.g. child protection register, school data)?
- Using your completed results chain, with risks and assumptions, list the evidence sources you can use, indicators you have suggested and the timescales for collection below.

List each evidence collection method from template:	Identify indicators for use in each method:	Identify times for data collection and review (month 1, 3 etc):	Who will be responsible for gathering this data?
e.g Assessment data	# project users Profile of project users % from target groups	End of month three and quarterly afterwards	Project staff collect Research officer collate and feed back to project

Write a contribution story

- Can be in different formats for different audiences

- Presents the results, acknowledging the context and external factors

- Talks through the contribution and how it came about

- Acknowledges limitations

Conclusions

- Interesting a practical way of talking about outcomes esp idea of 'contribution' helpful

- Emerging practice

- Not as robust as some other methods

- Allows for change, adaptation and learning

- Cycle of planning and evaluating helpful but balance doing and evaluating

- Gets to grips with complexity whilst remaining doable

References

Mansfield, W. and P. Grunewald (2013). The use of Indicators for the Monitoring and Evaluation of Knowledge Management and Knowledge Brokering in International Development, Institute of Development Studies.

Montague, S. (2011). Practical (Progress) Measurement and (Impact) Evaluation for Initiatives in Complex Environments. Performance Management Network.

Getting Knowledge into Action to Improve Healthcare Quality: Report of Strategic Review and Recommendations June 2012 NHS Education for Scotland

http://www.knowledge.scot.nhs.uk/media/CLT/ResourceUploads/4016980/20120805%20K2A%20short%20report%20for%20Board%20distribution%20v2%200.pdf

Morton, S. and J. Flemming (2013). Assessing research impact: A case study of participatory research. Edinburgh, Centre for Research on Families and Relationships: Research Briefing 66.

Questions…comments…..???

s.morton@ed.ac.uk

www.crfr.ac.uk

www.ssphr.ac.uk