What more evidence do we need? Priorities for cancer information that makes a difference.

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SCN – Dunblane, 8th March 2024

Cancer control

"Cancer control aims to reduce the incidence, morbidity, and mortality of cancer and to improve the quality of life of cancer patients through the systematic implementation of evidence-based interventions in prevention, early diagnosis, treatment, and palliative care. "

Parkin DM. The role of cancer registries in cancer control. *Int J Clin Oncol* 2008;13(2):102-11.

4 IN 10 CANCER CASES CAN BE PREVENTED...

...MAKE A CHANGE TO REDUCE THE RISK OF CANCER

- Be smoke free
- Keep a healthy weight
- Be safe in the sun
- Avoid certain substances at work such as asbestos
- Protect against certain infections such as HPV and H.Pylori
- Drink less alcohol
- Eat a high fibre diet
- Avoid unnecessary radiation including radon gas and x-rays
- Cut down on processed meat
- Avoid air pollution
- Breastfeed if possible
- Be more active
- Minimise HRT use

Larger circles indicate more UK cancer cases

Circle size here is not relative to other infographics based on Brown et al 2018.

Source: Brown et al, British Journal of Cancer, 2018

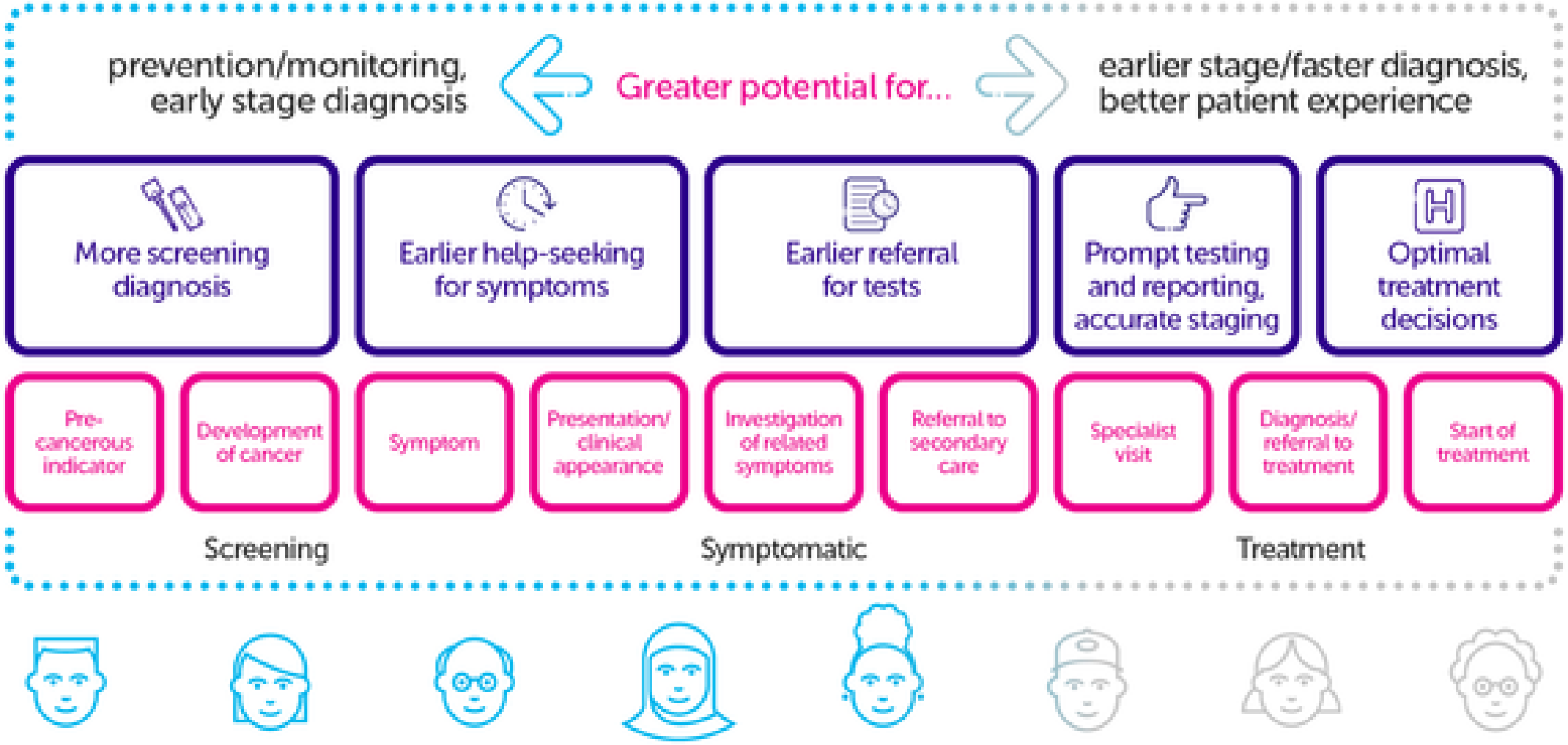
LET'S BEAT CANCER SOONER
cruk.org/prevention

CANCER RESEARCH UK

Acting across the diagnostic pathway

CANCER RESEARCH UK

Together we will beat cancer



Produced by the Strategic Evidence Team, Policy, Information and Communications Directorate, Cancer Research UK

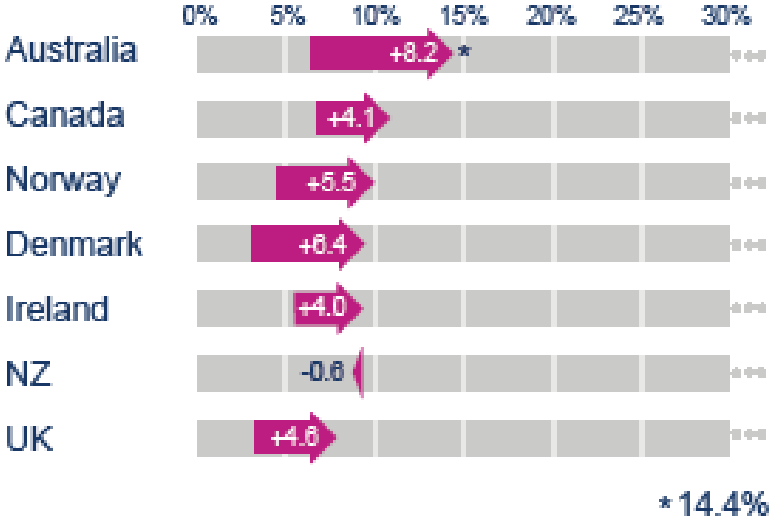
5-year net survival changes

5-year net survival changes, 1995-1999 to 2010-2014

* = Highest 2014 survival for this country

Pancreatic cancer

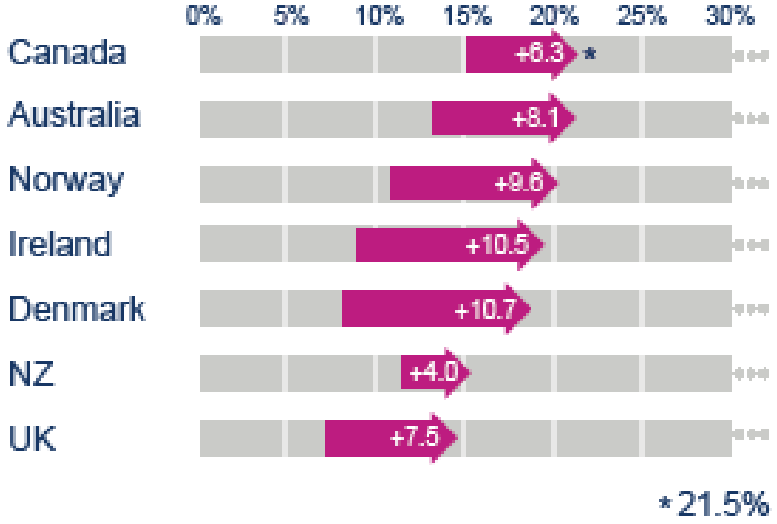
5-year net survival changes, 1995-1999 to 2010-2014



*14.4%

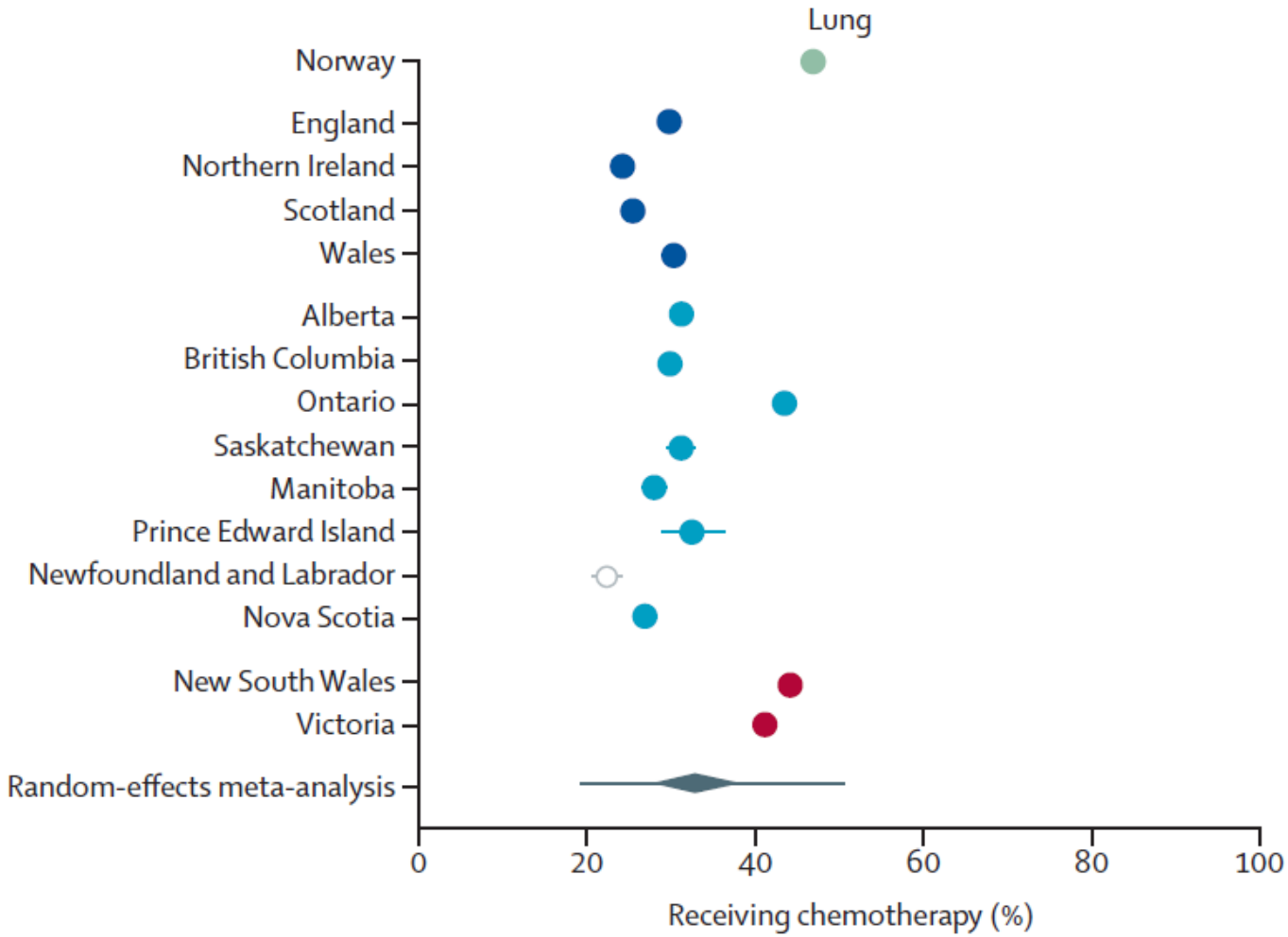
Lung cancer

5-year net survival changes, 1995-1999 to 2010-2014



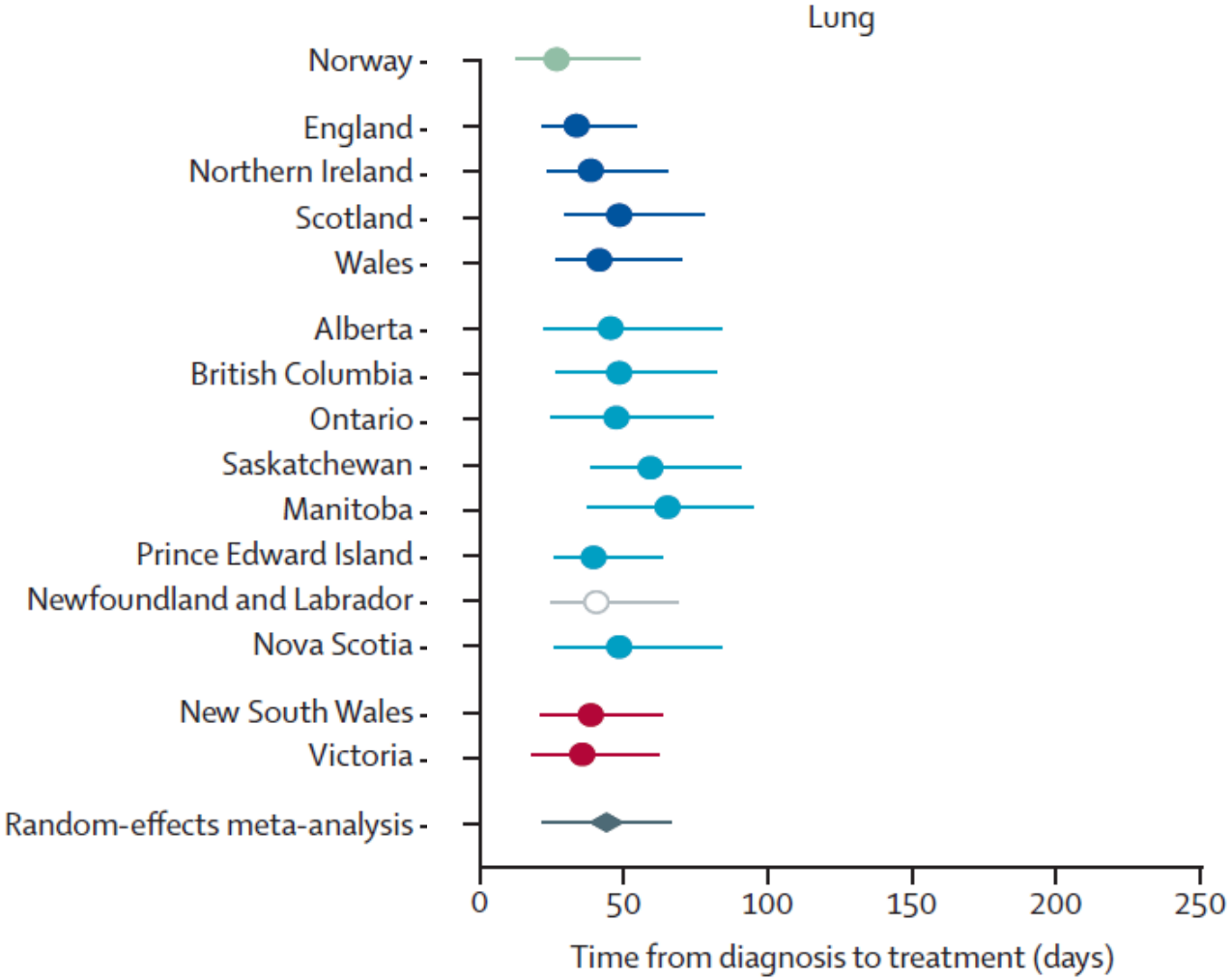
*21.5%

Figure 1: Overall crude proportion of patients treated with chemotherapy in each jurisdiction, by cancer site



Source: McPhail S, et al. Lancet Oncol 2024;25:338-51.

Figure 3: Median time-to-chemotherapy for each jurisdiction, by cancer site



Source: McPhail S, et al. Lancet Oncol 2024;25:338-51.

Tertiary prevention of cancer

About minimising:

- Morbidity – mental and physical
- Social, economic, educational, spiritual and other negative impacts

How do you answer questions about your services?

- How does new drug X compare with existing drug Y? In terms of treatment response? Survival? Adverse effects?
- Should all patients with stage 3 cancer have adjuvant chemotherapy?
- How do we forge agreement on divisive issues when the evidence underpinning it is good? Or when it's poor? Or absent?
- There are service models used in Belgium which we don't use in Scotland. Could we adopt these? What would be the implications?
- We've recently changed how we deliver our service. What standards should the new service maintain? How do we measure this?
- What's the best way to organise a service that delivers optimal clinical outcomes, is cost effective, minimises logistical impacts on patients, but is sustainable and drives quality improvement?

Healthcare Improvement Scotland Evidence Directorate

Our work provides evidence that helps health and care services to improve in different ways.

- our advice, guidance, standards & intelligence inform decision making
- everything we do is relevant to the needs of health and care services and users
- we use the best methodological and technological approaches
- we understand the importance of all types of evidence, from research to experiential

How can HIS Evidence help you?

When you request help from HIS Evidence, we will ask you about:

- the unmet clinical/service need which the HIS product may address
- anticipated benefits of implementation
- the level of uncertainty associated with a technology, procedure or test
- evidence of inappropriate variation in practice in NHSScotland
- the relationship to wider inequalities.

Also, epidemiology, the affected population, relevant health outcomes for staff and patients, relationship to national priorities, etc

SHTG Recommendation

What can be delivered by HIS	Advantages	Disadvantages	Timescale / Resource
Recommendation for health and social care professionals for a single named product, class of comparator products, or procedures	Provides an appraisal of a health technology which incorporates clinical and cost effectiveness and the views of patients and the public, health and social care professionals, health technology appraisal (HTA) agencies and industry views and social and organisational implications. NHS Boards are required to consider the recommendation in service planning and configuration.	Only applicable to health technologies	6–9 months Health Services Researcher, Project Officer, Health economist

For example

- Tumour profiling tests to guide adjuvant chemotherapy decisions for patients with early breast cancer
- Colon capsule endoscopy (CCE-2) for the detection of colorectal polyps and cancer in adults (2020) *updated by a 2022 Innovative Medical Technology Overview*

SHTG Assessment

What can be delivered by HIS	Advantages	Disadvantages	Timescale / Resource
A targeted analysis to provide support for decision making across health and social care in Scotland	May include a critical appraisal or summary of existing evidence; or primary analyses, such as economic modelling or budget impact assessment; or qualitative synthesis Can be used where you have an existing process for developing recommendations based on quality-assured evidence	Does not include recommendations	3–6 months Health Services Researcher, Project Officer, Health economist

For example

- Capsule sponge technologies for the detection of Barrett's oesophagus and early-stage oesophageal cancer
- Consideration of selective internal radiation therapies (SIRT) for treating primary hepatocellular carcinoma (liver cancer)
- Pretreatment DPYD genetic testing for patients who are prescribed chemotherapy involving fluoropyrimidines
- Digitally supported prehabilitation programmes for people who have been diagnosed with cancer, prior to definitive treatment *(in development)*

SHTG Adaptation

What can be delivered by HIS	Advantages	Disadvantages	Timescale / Resource
An adaptation of a published HTA conducted outside of Scotland with particular emphasis on applicability to NHSScotland	Avoids repeat development of guidance which already exists but brings in line with Scottish context. Can supplement original publication with new information relevant to Scotland.	Requires existing HTA covering the relevant topic which is of sufficient quality to warrant adaptation.	3–6 months Health Services Researcher, Project Officer, (Health economist)

SIGN guideline

What can be delivered by HIS	Advantages	Disadvantages	Timescale / Resource
Evidence-based recommendations for effective and safe practice in management of clinical conditions	Recommendations are based on systematic review of current evidence NHS Boards are required to consider the recommendations in service planning and configuration. Multidisciplinary stakeholder input Includes views of patients and public Patient version developed	Requires time commitment and regular contribution from development group members	12-24 months (for up to 6 key questions) SIGN Programme Manager, Health Services Researcher, SIGN patient involvement officer

For example
- SIGN 146: Cutaneous melanoma
- SIGN 140: Management of primary cutaneous squamous cell carcinoma
- SIGN 137: Management of lung cancer

SIGN adaptation guideline

What can be delivered by HIS	Advantages	Disadvantages	Timescale / Resource
Evidence-based recommendations extracted from existing published guidelines and adapted where required for the Scottish context. Can be published as RDS toolkit or SIGN guideline.	Recommendations are based on systematic review of current evidence NHS Boards are required to consider the recommendations in service planning and configuration. Multidisciplinary stakeholder input Includes views of patients and public Patient version developed	Requires time commitment and regular contribution from development group members	12 months (for up to 5 key questions) SIGN Programme Manager, Health Services Researcher, SIGN patient involvement officer

For example
- SIGN 169: Perinatal mental health conditions
- SIGN 170 (forthcoming): optimising glycaemic control in people with type 1 diabetes

Standards and Indicators

What can be delivered by HIS	Advantages	Disadvantages	Timescale / Resource
Standards are statements of the level of service public should expect. Indicators support service standards and are tools for quality improvement	Based on evidence relating to effective clinical and care practice, feasibility and service provision Responsive to service users' needs and views Cover key issues relating to provision of safe, effective, person-centred care NHS Boards are expected to meet all standards	Generally apply to wide areas of care, eg sexual health, prevention and management of pressure ulcers	Varied – includes facilitated consultation (focus groups, interviews, online, survey etc) Programme Manager Information Scientist Project Officer

For example
- Breast screening standards
- Bowel screening standards
- Core standards for screening programmes

Rapid evidence approaches

Rapid literature search

What is required from SCN?	What can be delivered by HIS	Advantages for SCN	Disadvantages for SCN	Timescale / Resource
Focused question topic (including PICO elements)	Search results, with deduplication and general sifting for appropriateness	Ready for interpretation and use to support evidence-based decision making	No overview included	2 weeks per question Information Scientist

Rapid evidence overview

What is required from SCN?	What can be delivered by HIS	Advantages for SCN	Disadvantages for SCN	Timescale / Resource
Focused question topic (including PICO elements)	Overview of volume, general quality and main conclusions of a limited body of evidence	No recommendations included	No recommendations included	1 month per question Information Scientist Health Services Researcher

PICO – *Population, Intervention, Comparator, Outcomes*. These elements are required in the creation of search protocol when carrying out systematic literature reviews

Consensus approaches

Primer for consensus

What is required from SCN?	What can be delivered by HIS	Advantages for SCN	Disadvantages for SCN	Timescale / Resource
Overarching questions eligible to be addressed by consensus recs (ie which have not already been answered using evidence-based methods)	List of recs extracted from published evidence-based guidelines and consensus-based position statements or other guidance.	Can identify when evidence-based recs have already been developed, and consensus may be less appropriate. Includes appraisal of quality of guidelines where relevant recommendations appear	May only be helpful when established consensus development process is established and available to make use of this product	2 weeks per question Information Scientist Health Services Researcher or Programme Manager

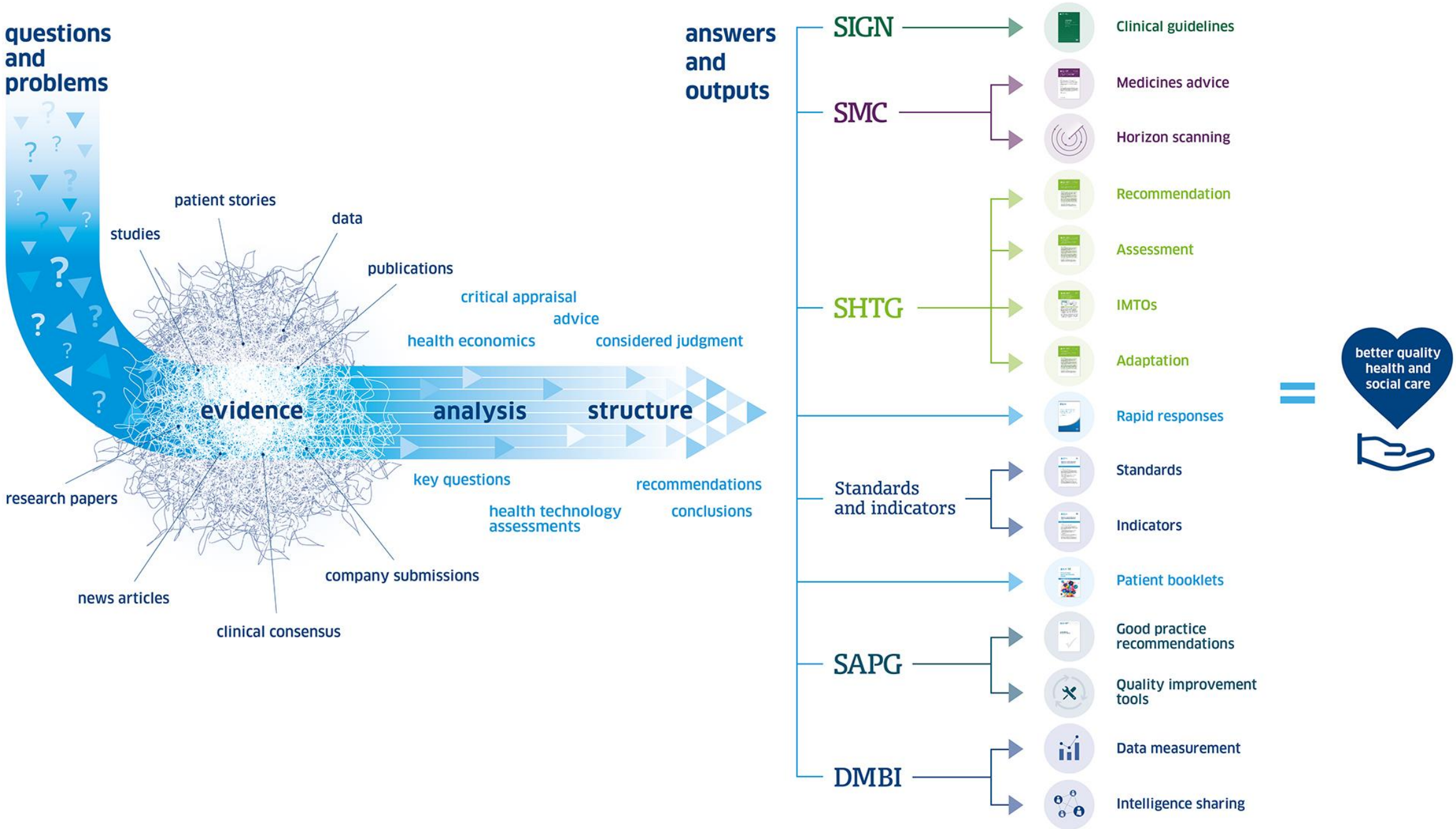
Consensus approaches

Development of consensus recommendations

What is required from SCN?	What can be delivered by HIS	Advantages for SCN	Disadvantages for SCN	Timescale / Resource
Overarching questions to be addressed by consensus recommendations Initial statements on which to base consensus (see above) Pool of relevant individuals from which consensus panel can be chosen.	Management and delivery of a formal consensus methodology applied to the proposed question. This will yield statements which have achieved consensus and those which have not, with a commentary around the choices and revisions made by the expert panel.	Provides statements or recommendations with the assurance of being subject to formal consensus. Multiple recommendations can be developed in parallel	There is less confidence in whether outcomes will be achieved when following recommendations based on consensus than on an evidence-based methodology.	4 months (from the point at which questions / initial statements are available) Programme Manager

How do you answer questions about your services?

Your issue	Our product
How does new drug X compare with existing drug Y? In terms of treatment response? Survival? Adverse effects?	Rapid evidence overview (also SMC !)
Should all patients with stage 3 cancer have adjuvant chemotherapy?	SIGN guideline
How do we forge agreement on divisive issues when the evidence underpinning it is good? Or when it's poor? Or absent?	SHTG or SIGN recommendation SHTG or SIGN recommendation Consensus statement
There are service models used in Belgium which we don't use in Scotland. Could we adopt these? What would be the implications?	SHTG or SIGN adaptation
We've recently changed how we deliver our service. What standards should the new service maintain? How do we measure this?	Standards and Indicators
What's the best way to organise a service that delivers optimal clinical outcomes, is cost effective, minimises logistical impacts on patients, but is sustainable and drives quality improvement?	Review of evidence of clinical and cost effectiveness, submissions from third sector organisations, budget impact analysis


questions and problems
patient stories
data
studies
publications
critical appraisal
advice
health economics
considered judgment
evidence
analysis
structure
key questions
recommendations
health technology assessments
conclusions
research papers
company submissions
news articles
clinical consensus
answers and outputs
SIGN
Clinical guidelines
SMC
Medicines advice
Horizon scanning
SHTG
Recommendation
Assessment
IMTOs
Adaptation
Rapid responses
Standards and indicators
Standards
Indicators
Patient booklets
SAPG
Good practice recommendations
Quality improvement tools
DMBI
Data measurement
Intelligence sharing
better quality health and social care

Workshop/discussion

In which of the following areas are there uncertainties that affect how well you can do your job? Which has the greatest 'unmet need'? Why?
How would the Network use the advice?

- Treatment options in early-stage prostate cancer
- Head and neck cancer – diagnosis? referral? assessment? treatment?
- Management of menopausal symptoms and/or side effects of hormone therapy in women with breast cancer
- Use of bisphosphonates in early-stage breast cancer
- Something else?