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**PRIMARY CARE**  
HEALTH SCIENCES



*National Institute for  
Health Research*

# Assessment of clinical need

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# DEC theme: Needs Assessment

**Diagnostic Evidence**  
**Co-operative**  
Oxford

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## Needs assessment

Identifying unmet diagnostic testing needs in primary care



2. To what extent do you agree with the...

- Disagree Completely
- Strongly Disagree
- Somewhat Disagree
- Somewhat Agree
- Strongly Agree
- Agree Completely



# What is clinical needs assessment?



# What is clinical needs assessment?

‘a process by which information is gathered regarding the scope and potential impact of gaps or deficiencies in the current delivery and practice of health care’

# Why perform needs assessment?

- Provision of information on a problem to guide design and development of solutions
- To guide development of strategies for the eventual introduction of a product
- Poor product uptake common where there is a shortfall between capability and expectations
- To highlight context-specific holes in health service provision and to assess the potential of a technology to address these



# Who conducts assessments?

- Healthcare product manufacturers
- Health authorities
- Academic institutions

# Components of needs assessment

- **Critical review** of information to identify gaps in health care
- Identification of methods or technologies that may help to address shortfalls
- Identification of stakeholder requirements
- Consideration of potential barriers and facilitators to uptake of new technologies



# Types of clinical needs assessment?





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# Case study 1: Review

## Components of needs assessment: Development of PET services in England

- Critical review of information to identify gaps in health care
- Identification of methods or technologies that may help to address shortfalls
- Identification of stakeholder requirements
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**A Framework for the Development**  
of  
**Positron Emission Tomography (PET)**  
**Services**  
**in England**

Department of Health  
October 2005

Gateway Number 5265



# Development of PET scan services in England

- Review of existing evidence carried out by the Department of Health to identify needs and highlight benefit
- Identified clinical benefit
- Identified current shortfalls and contrasted with other W. European countries
- Detailed estimate of need based on throughput and population
- Identified costs of provision and additional requirements



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# Case study 2: Questionnaire

## Components of needs assessment: Questionnaire based survey of primary care

- Critical review of information to identify gaps in health care
- Identification of methods or technologies that may help to address shortfalls
- Identification of stakeholder requirements
- Consideration of potential barriers and facilitators to uptake of new technologies



# Point-of-care Testing in UK Primary Care: a needs assessment

Philip J. Turner, Ann Van den Bruel, Caroline Jones, Annette Plüddemann, Carl Heneghan, Matthew Thompson, Christopher Price and Jeremy Howick

# Research methodology: questionnaire development

- Systematic review of qualitative research (Jones et al. 2013)
- Discussion with content experts
- Piloted with 30 GPs / family doctors in the UK
- Survey was conducted online through Doctors.net



# Point-of-care diagnostics: example of open questions

## Q1 Diagnosis

Please name up to 5 conditions for which a POCT could help you make a **DIAGNOSIS**. Please list the conditions irrespective of whether or not POCTS currently exist

- a) \_\_\_\_\_ (please specify)
  - b) \_\_\_\_\_ (please specify)
  - c) \_\_\_\_\_ (please specify)
  - d) \_\_\_\_\_ (please specify)
  - e) \_\_\_\_\_ (please specify)
- I do not believe POCTS would help me make a diagnosis

*Open end; Must select "Open End a" or "I do not believe..." ; Open ends b-e are non-mandatory*



# Survey response rates

- Survey was made available to 1635 regionally representative GPs in the UK in 2012
- 1109 recipients completed the survey



Conditions for which GPs (family doctors) would like to have POC diagnostics to assist with diagnosis, & monitoring and management?

# Historic research priorities in primary care

Health Technology Assessment 1997; Vol. 1: No. 5 (Executive summary)

## Review

### *Executive summary*

### **A review of near patient testing in primary care**

FDR Hobbs<sup>1</sup>                      GH Thorpe<sup>3</sup>  
BC Delaney<sup>1</sup>                     ASM Earl-Slater<sup>4</sup>  
DA Fitzmaurice<sup>1</sup>                S Jowett<sup>1</sup>  
S Wilson<sup>1</sup>                         RS Tobias<sup>1</sup>  
CJ Hyde<sup>2</sup>

<sup>1</sup> Department of General Practice

<sup>2</sup> Department of Public Health and Epidemiology

<sup>3</sup> Wolfson Applied Technology Laboratory

<sup>4</sup> Health Services Management Centre

### **Proposed research priorities**

(Note: A modelling exercise to demonstrate the potential for health gain should be considered before embarking on a full-scale evaluation.)

Further primary research, if the quantitative systematic review indicates that knowledge is incomplete. Likely topics are those identified above for further systematic reviews.

Primary research into NPTs or EDI where promising evidence exists but where there is insufficient material to justify a further quantitative review. For example:

- screening for iron deficiency in the child development clinic
- NPT for the exclusion of deep venous thrombosis
- NPT for HbA<sub>1c</sub> in the practice diabetic clinic
- NPT for microalbuminuria in the practice diabetic clinic
- home monitoring of blood glucose by patients in tight control of diabetes
- NPT for cardiac muscle damage in the diagnosis of acute chest pain



# Clinicians attitudes to POC tests: facilitators and barriers?

## **Q6 Other comments**

Please share any other comments, including benefits and concerns about POCTs.

*Open end. Non-Mandatory*

# References

1. Jones, C.H., et al., *Primary care clinicians' attitudes towards point-of-care blood testing: a systematic review of qualitative studies*. BMC Fam Pract, 2013. **14**: p. 117.
2. Howick, J., et al., *Current and future use of point-of-care tests in primary care: an international survey in Australia, Belgium, The Netherlands, the UK and the USA*. BMJ Open, 2014. **4**(8).
3. Weigl, B.H., et al., *The Value of Clinical Needs Assessments for Point-of-Care Diagnostics*. Point of care, 2012. **11**(2): p. 108-113.
4. Hobbs, F.D., et al., *A review of near patient testing in primary care*. Health Technology Assessment, 1997. **1**(5): p. 231.
5. *A Framework for the Development of Positron Emission Tomography (PET) Services in England*, Department of Health, 2005.
6. Plüddemann, A., et al., *Prioritisation criteria for the selection of new diagnostic technologies for evaluation*. BMC Health Serv Res, 2010. **10**: p. 109.