



*National Institute for  
Health Research*

School for Primary Care Research

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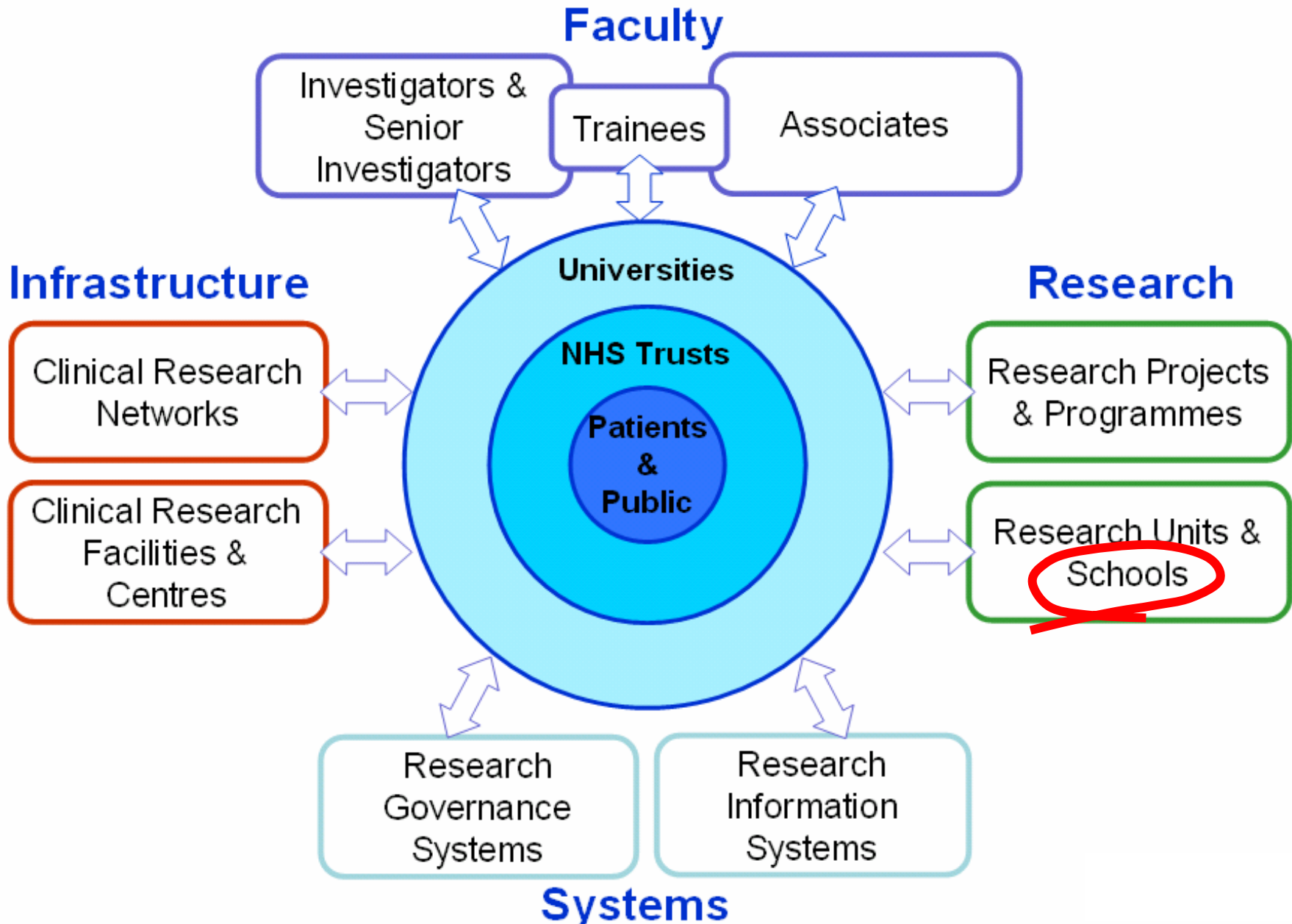
*Increasing the  
evidence base for  
primary care  
practice*

# NIHR School for Primary Care Research

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# National Institute for Health Research





# NIHR School for Primary Care Research

- Launched October 2006
- Aim: to increase the evidence base for primary care practice
  - High quality research to inform clinical practice;
  - Strategic leadership to support development of research.

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2006

Birmingham

Bristol

Cambridge

Manchester

Oxford

2008

Birmingham

Bristol

Keele

Manchester

Nottingham

Oxford

Southampton

UCL

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# Five programmes of research

- **Prevention & Early Diagnosis**
- **Monitoring and Management of long term conditions**
- **Comorbidity**
- **Patient practitioner interface**
- **Research methods**

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# Clinical Themes

- **Cardiovascular**
- **Infections**
- **Mental health**
- **Musculoskeletal**
- **Medicines management**
- **Changing behaviour**

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# Role of self-monitoring in hypertension

- **Self monitoring of blood pressure is useful in the diagnosis and management of hypertension**
- **Multiple measurements of blood pressure allow a better estimation of "true" blood pressure**
- **Self monitored blood pressure correlates better with risk of stroke than office readings**


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# Self-monitoring of blood pressure

## CLINICAL REVIEW

 For the full versions of these articles see [bmj.com](http://bmj.com)

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## Blood pressure self monitoring: questions and answers from a national conference

Richard J McManus,<sup>1</sup> Paul Glasziou,<sup>2</sup> Andrew Hayden,<sup>3</sup> Jonathan Mant,<sup>4</sup> Paul Padfield,<sup>5</sup> John Potter,<sup>6</sup>  
Emma P Bray,<sup>1</sup> David Mant<sup>2</sup>

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Self measurement of blood pressure was introduced in the 1930s and is now practised by almost 10% of the general population of the United Kingdom.<sup>1,2</sup> Because blood pressure monitors are now readily available and cheap (as little as £10; €11.8; \$15), self monitoring is likely to increase—in the United States and Europe up to two thirds of people with hypertension self monitor.<sup>3</sup> At present we have insufficient evidence to make use of multiple blood pressure readings generated from home monitoring in clinical care. This review—which is based on available evidence from randomised trials, systematic reviews, and expert consensus—discusses the clinical importance of self measurement of blood pressure in establishing the diagnosis of hypertension, in subsequent

reduced earlier rather than later.<sup>5,6</sup> The British Hypertension Society recommends that hypertension is diagnosed by using a series of office blood pressure readings taken over one to 12 weeks, depending on the blood pressure level.<sup>7</sup> Self monitoring can provide more precise data in a much shorter time.

### Improved accuracy

Self monitoring can improve diagnostic and predictive accuracy. A large cohort study in Japan showed that self monitoring predicted the risk of stroke better than office readings. In this study, risk of stroke increased 29% (95% confidence interval 16% to 44%) for each 10 mm Hg increase in systolic blood pressure. The risk of stroke was



- **UK cancer survival is worse than in most European countries**
- **Could earlier diagnosis in general practice help?**





# Ovarian Cancer

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96 (5 of 8) 105% Find

**PRACTICE**

**EASILY MISSED?**  
**Ovarian cancer**

William Hamilton,<sup>1</sup> Usha Menon<sup>2</sup>

Ovarian cancer is the leading cause of death from gynaecological cancer in the United Kingdom. Around 4400 deaths occur each year, and UK mortality figures are worse than comparable European ones.<sup>1</sup>

**Why is it missed?**

The vagueness and non-specific nature of the symptoms, lack of serious pain or physical disability, and lack of awareness cause women to dismiss the symptoms as being related to normal body changes, such as the menopause, or to stress.<sup>2</sup> The initial symptoms are often suggestive of benign gastrointestinal or urinary conditions, which are also much more common than ovarian cancer. The predominance of gastrointestinal symptoms means that women are often misdiagnosed as having irritable bowel syndrome or gastritis.<sup>3</sup> In women over 50, the new onset of irritable bowel syndrome-like symptoms should raise the possibility of serious disease, including ovarian cancer.

Even if cancer is considered, colorectal cancer is more common, and patients are often sent on the wrong investigative pathway. Current UK referral guidelines recommend urgent investigation only in the presence of abnormal vaginal bleeding or a palpable pelvic mass.<sup>4</sup> Both are uncommon early features. Screening is not

**Main symptoms of ovarian cancer**

| Symptom                     | Frequency reported to GP before diagnosis | Positive predictive value in primary care |
|-----------------------------|---|---|
| Abdominal pain              | 53%                                       | 0.3%                                      |
| Fatigue                     | 39%                                       | Unknown, but will be small                |
| Abdominal distension        | 36%                                       | 2.5%                                      |
| Diarrhoea                   | 27%                                       | Unknown, but will be small                |
| Bloating                    | 17%                                       | 0.3%                                      |
| Pelvic pain                 | 16%                                       | Unknown                                   |
| Increased urinary frequency | 14%                                       | 0.2%                                      |
| Abnormal vaginal bleeding   | 13%                                       | 0.5%                                      |
| Weight loss                 | 10%                                       | Unknown                                   |

**CASE SCENARIO**

Susan was 52 when she first noticed symptoms of urinary urgency, then abdominal swelling and intermittent abdominal pain. Because at the time she was tearful and tired as a result of work difficulties, and urinalysis was normal, her general practitioner thought that she was depressed. After several more attendances, however, her abdomen was examined, and a mass was felt on vaginal examination. Rapid investigation, including transvaginal ultrasound and serum CA125, led to surgery and a diagnosis of stage III ovarian cancer.

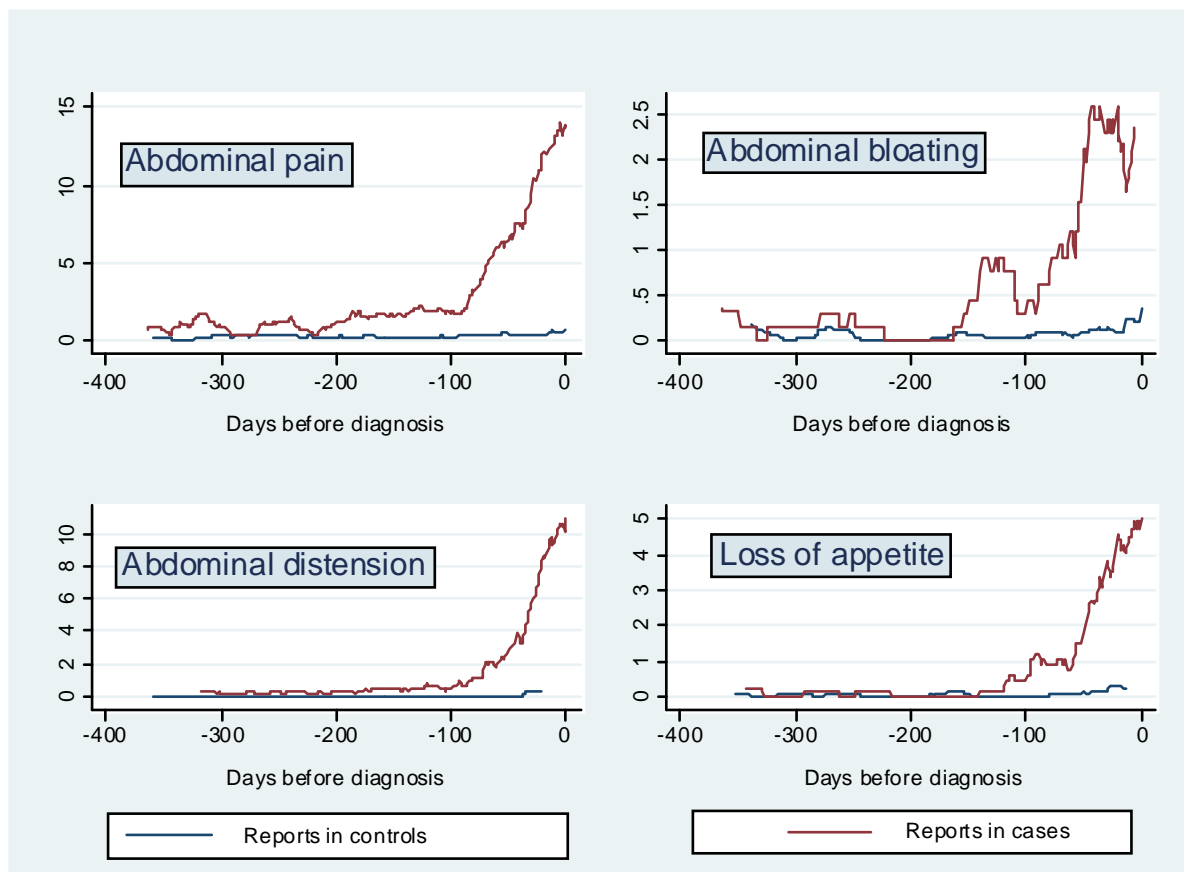
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# Diagnosis of ovarian cancer: time before diagnosis when symptoms presented

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## Likelihood ratios of symptoms and signs for ovarian cancer

|                               | <b>Bloating</b> | <b>Abdominal pain</b> | <b>Appetite loss</b> | <b>Distension</b> |
|-------------------------------|-----------------|-----------------------|----------------------|-------------------|
| <b>LR as a single symptom</b> | 0.3             | 0.3                   | 0.6                  | 2.5               |
| <b>Abdominal bloating</b>     |                 | 0.8                   | 3.3                  | 3.0               |
| <b>Abdominal pain</b>         |                 |                       | 1.0                  | 3.1               |
| <b>Loss of appetite</b>       |                 |                       |                      | >5                |



# Co-morbidity

- How common are co-morbidities?
- What are the mechanisms through which co-morbid conditions interact?
- How should co-morbidity influence the way in which primary health care is organised and quality of care assessed?
- How can we measure outcomes in ways which both take account of co-morbidity and reflect how patients value health and illness?



# Patient-Practitioner Interface

- Use of graphics for risk communication;
- E-health and use of new technologies to promote self-care;



## New research methods

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- 1. Informatics: To develop methods for the integration of research and clinical data**
- 2. Patient Safety: To develop methods for studying diagnostic error**
- 3. Recruitment and retention: To develop a programme of work with the primary care research network (PCRN)**



## Future strategy

- **Expanded remit to include research training and capacity development**
  - **Dovetailing with NIHR research training fellowships, academic clinical fellows and clinical lecturers**
- **Currently writing business plan for next five years**
  - **New collaborations between member departments**
  - **Using core funding to catalyse large multicentre studies**

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**Website: [www.nspcr.ac.uk](http://www.nspcr.ac.uk)**

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