



Faculty of Public Health

Of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

OSPHE 03

Hepatitis C Action Plan for primary care

HEPATITIS C ACTION PLAN FOR PRIMARY CARE

CANDIDATE PACK

Candidate task

Who are you and what is the task?

You are required to advise what actions need to be taken to implement the national Hepatitis C action plan in primary care in your local area.

Who is your audience?

A verbal presentation to a lead GP commissioner, who develops and plans work with individual GP practices in the community.

How long have you got?

8 minutes of preparation using briefing pack and instructions to candidate.
Up to an 8 minute presentation during which time you will be asked questions.

You have:

- briefing pack
- blank paper to make notes
- flip chart and marker pens.

Outline of situation

You are working in a public health department which provides support to the local community services as well as commissioning from the local hospitals.

A new national action plan has been published to tackle the problem of Hepatitis C. The main aims of the plan are to identify and treat patients in the community with Hepatitis C, including both patients known to have the infection already, and those so far undiagnosed. The case-finding aspect of the campaign is mainly intended to identify those patients with a history of possible high-risk behaviour that puts them at some risk of having contracted Hepatitis C, and includes a national media campaign to raise awareness.

Candidate guidance

Candidate task

You are required to advise what actions need to be taken to implement the national Hepatitis C action plan in your local area

You are a member of the local public health team who provides advice to the local health community, including the commissioning and provision of community services functions. You are expected to summarise verbally those areas relevant to implementing such a policy:

- why this issue is important,
- how you might estimate the sorts of numbers of patients who might come forward,
- what primary care and other community services are expected to do,
- what other services need to be planned once the patients with Hepatitis C are detected.

Competencies addressed.

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
- 4) Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.
- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions

At the station

The marker examiner will ask you for your candidate number, introduce you and ask you to begin the presentation. The role player will ask you questions during your presentation.

There is a clock in the Examination Room.

The candidate briefing pack should stay in the room and that you should only take any working notes and flip charts, if used, to undertake the task into the examination room.

Candidate Briefing Pack

- I Local Health Needs Assessment Summary
- II Summary of NICE evidence
- III Summary of Hepatitis C action plan (proposed new actions)

I. Local Health Needs Assessment Summary

The area covered by the primary care organisation has a resident population of 200,000 with an average age distribution.

The socio-demographic profile of the area is mixed: about 75% of the area is very deprived and Life Expectancy is low. There are around 1500 known Intra-venous drug mis-users.

About 25% of the population is more middle-class. Although health indicators in this part of the population are much better, they are aware of health issues and often quite vocal on matters of importance to them.

A local district general hospital outpatient gastro-enterology department has about 25 patients under active treatment for Hepatitis C at present, with some 250 known Hepatitis C positive patients on a hospital database. There is a single needle exchange scheme in the urban area which offers reactive advice about Hepatitis C and testing on request. A recent needs assessment has estimated that there may be up to 1500 people locally infected with Hepatitis C.

II. Summary of NICE guidance January 2004

Positive evidence of effective treatment in some patients with Hepatitis C

'Combination therapy with pegylated interferon alfa and ribavirin is recommended for the treatment of people aged 18 years and over with moderate to severe chronic hepatitis C'

<http://www.nice.org.uk/page.aspx?o=101627> (accessed September 30th 2005)

III. Selected excerpts: Hepatitis C Action Plan for England Department of Health July 2004 Chapter 5: recommendations (selected)

<http://www.dh.gov.uk/assetRoot/04/08/47/13/04084713.pdf> (accessed 30th September 2005)

Action 2: Increasing awareness and reducing undiagnosed infections

***Key issue:** An estimated five out of every six people with chronic hepatitis C are unaware of their infection. This requires action to increase awareness of hepatitis C amongst health professionals, the public and high-risk groups and the promotion of testing in a range of accessible clinical and community settings.*

New actions

- The Department of Health will produce guidance on hepatitis C testing for health professionals about who should be offered testing, the nature of pre- and post-test discussion, and referral for specialist assessment.

Action 4: Prevention

***Key issue:** There is evidence of ongoing transmission of hepatitis C, particularly among injecting drug users. Prevention efforts need to be intensified to reduce the spread of hepatitis C in at-risk populations.*

New actions

- The Department of Health will develop health promotion information explaining the risks of injecting drugs and how to avoid hepatitis C and other blood-borne viruses to give to all young people entering juvenile and young offenders' establishments and to other offenders.

HEPATITIS C ACTION PLAN FOR PRIMARY CARE

MARKER EXAMINER PACK

The candidate task

You are required to advise what actions need to be taken to implement the national Hepatitis C action plan in your local area

A verbal presentation to a lead GP commissioner, who develops and plans work with individual GP practices in the community.

You are expected to summarise verbally those areas relevant to implementing such a policy

- why this issue is important
- how you might estimate the sorts of numbers of patients who might come forward
- what primary care and other community services are expected to do
- what other services need to be planned once the patients with Hepatitis C are detected

Competencies tested

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
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- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

INFORMATION FOR THE MARKER EXAMINER

Examiner situation

The Marker Examiner will ask for the candidate's number and then say

"I want you to imagine now that you are doing a presentation on a Hepatitis C action plan to a GP commissioner in your organisation who is sitting here is likely to want to ask you a few questions. Please introduce yourself and begin your presentation "

then hand over to the role player examiner to proceed.

Marking Guide for Examiners

HEPATITIS C ACTION PLAN

Key A=Excellent, B=Good, C=Adequate, D=Just below, F=Well below

Points to consider in order to grade the candidate.

1. Has the candidate appropriately demonstrated presenting skills in a typical public health setting (presenting to a person or audience)?

The candidate summarises clearly and with emphasis on key points, avoiding jargon and makes eye contact and appropriate non-verbal communication. Language appropriate to the audience.

2. Has the candidate appropriately demonstrated listening skills in a typical public health setting (listening and responding appropriately)?

Understanding the questions asked or else seeks clarification of the query being raised. Responds to and clarifies questions.

3. Has the candidate demonstrated ascertainment of key public health facts from the material provided and used it appropriately?

The candidate describes the target population- more vulnerable groups such as intravenous drug users (1500 in this scenario) and also established middle class groups (risky behaviour long ago). Identifies national campaign may not reach all target groups effectively. Identifies the action plan identifies several aspects – two particularly relevant to primary care; Action 2 - accurate case finding of existing positive patients, and Action 4 - prevention role – targeting high risk groups. Identifies that there is a NICE approved effective treatment.

4. Has the candidate given a balanced view and/or explained appropriately key public health concepts in a public health setting?

Concepts of targeting / opportunistic case finding, appreciates potential public anxiety, demand arising from a DH led public health campaign to raise awareness, identification and testing of patients may have training implications in primary care. Value of intervention early on in natural history of disease.

5. Has the candidate demonstrated sensitivity in handling uncertainty, the unexpected, conflict and/or responding to challenging questions?

Recognises likely anxieties for patients and GPs (large number of worried patients consulting), Commissioning pressures / needs and the costs of the anti-viral therapy. Media interest.

Examiner Briefing Pack

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I. Local Health Needs Assessment Summary

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About 25% of the population is more middle-class. Although health indicators in this part of the population are much better, they are aware of health issues and often quite vocal on matters of importance to them.

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Action 2: Increasing awareness and reducing undiagnosed infections

***Key issue:** An estimated five out of every six people with chronic hepatitis C are unaware of their infection. This requires action to increase awareness of hepatitis C amongst health professionals, the public and high-risk groups and the promotion of testing in a range of accessible clinical and community settings.*

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- The Department of Health will produce guidance on hepatitis C testing for health professionals about who should be offered testing, the nature of pre- and post-test discussion, and referral for specialist assessment.

Action 4: Prevention

***Key issue:** There is evidence of ongoing transmission of hepatitis C, particularly among injecting drug users. Prevention efforts need to be intensified to reduce the spread of hepatitis C in at-risk populations.*

New actions

- The Department of Health will develop health promotion information explaining the risks of injecting drugs and how to avoid hepatitis C and other blood-borne viruses to give to all young people entering juvenile and young offenders' establishments and to other offenders.

HEPATITIS C ACTION PLAN FOR PRIMARY CARE

ROLE PLAYER EXAMINER BRIEFING PACK

The Marker Examiner will greet the candidate and check their details and will hand over to you to start the session.

You will then thank the candidate for coming to the strategic group meeting and ask them to start the presentation.

During the presentation you should ask (and rephrase the questions if needed)

- "Can you clarify exactly how people catch hepatitis C?"
- "Do drugs provide a cure?"
- "Would it not be better to vaccinate the whole population?" (This is an unexpected type question!)

It is your role to end the session and ensure the candidate moves out of the room at the correct time.



Faculty of Public Health

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OSPHE 08

Report of High Mortality in Cardiac Surgery in your Local Unit

**REPORT OF HIGH MORTALITY IN CARDIAC
SURGERY IN YOUR LOCAL UNIT**

CANDIDATE PACK

Candidate task

Who are you and what is the task?

As a member of a Public Health Team you are required to advise on how you would approach the investigation of the finding of a high cardiac surgery mortality in your local unit.

Consider what approach you will take to investigating the findings, what possible explanations may exist for the findings, and how you are going to proceed. Pay particular attention to being clear and concise in your report to the commissioning manager and cover these three areas:

- What possible explanations may lie behind this sort of finding.
- What you advise is done next.
- What, at this early stage, should be said to the press.

You have a briefing pack and blank paper to make notes and a flip chart and marker pens to use if you wish.

Who is your audience?

A manager responsible for leading the commissioning in your organisation.

How long have you got?

8 minutes of preparation using briefing pack and instructions to candidate.

Up to 8 minutes verbal presentation and discussion with the commissioning manager.

Outline of situation

You are working in a public health department which provides support to a team who commission cardiac services. A report on cardiac surgery mortality was published yesterday (the data in the briefing pack). Your local unit is hospital 'e'. The manager responsible for leading the commissioning in your organisation has emailed you the report and asked to see you. The manager has indicated that they are very concerned about the data and needs your advice. In particular, the unit has recently taken on two new cardiac surgeons, one of whom specialises in operations on complex or high-risk patients.

The manager has also had a call from the local newspaper, who also have the data, and will want your advice on what to say when they speak to them after seeing you.

Candidate guidance

Candidate task

You are required to advise on how you would approach the investigation of the finding of a high cardiac surgery mortality in your local unit.

Consider what approach you will take to investigating the findings, what possible explanations may exist for the findings, and how you are going to proceed. Pay particular attention to being clear and concise in your report to the commissioning manager and cover these three areas:

- What possible explanations may lie behind this sort of finding.
- What you advise is done next.
- What, at this early stage, should be said to the press.

Competencies addressed.

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
- 4) Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.
- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

At the station

You will find a marker examiner who will not ask you any questions.

You will find a role-player who will role play an health services commissioning manager with concerns about the high cardiac surgery mortality.

There is a clock in the examination room.

An examiner will ask you for your candidate number and introduce you. The other examiner or actor will begin the station.

The candidate briefing pack should stay in the room and that you should only take any working notes and your flip charts, if used, as needed to undertake the task into the examination room.

Another copy of the candidate briefing pack is available in the Examination Room.

Candidate Briefing Pack

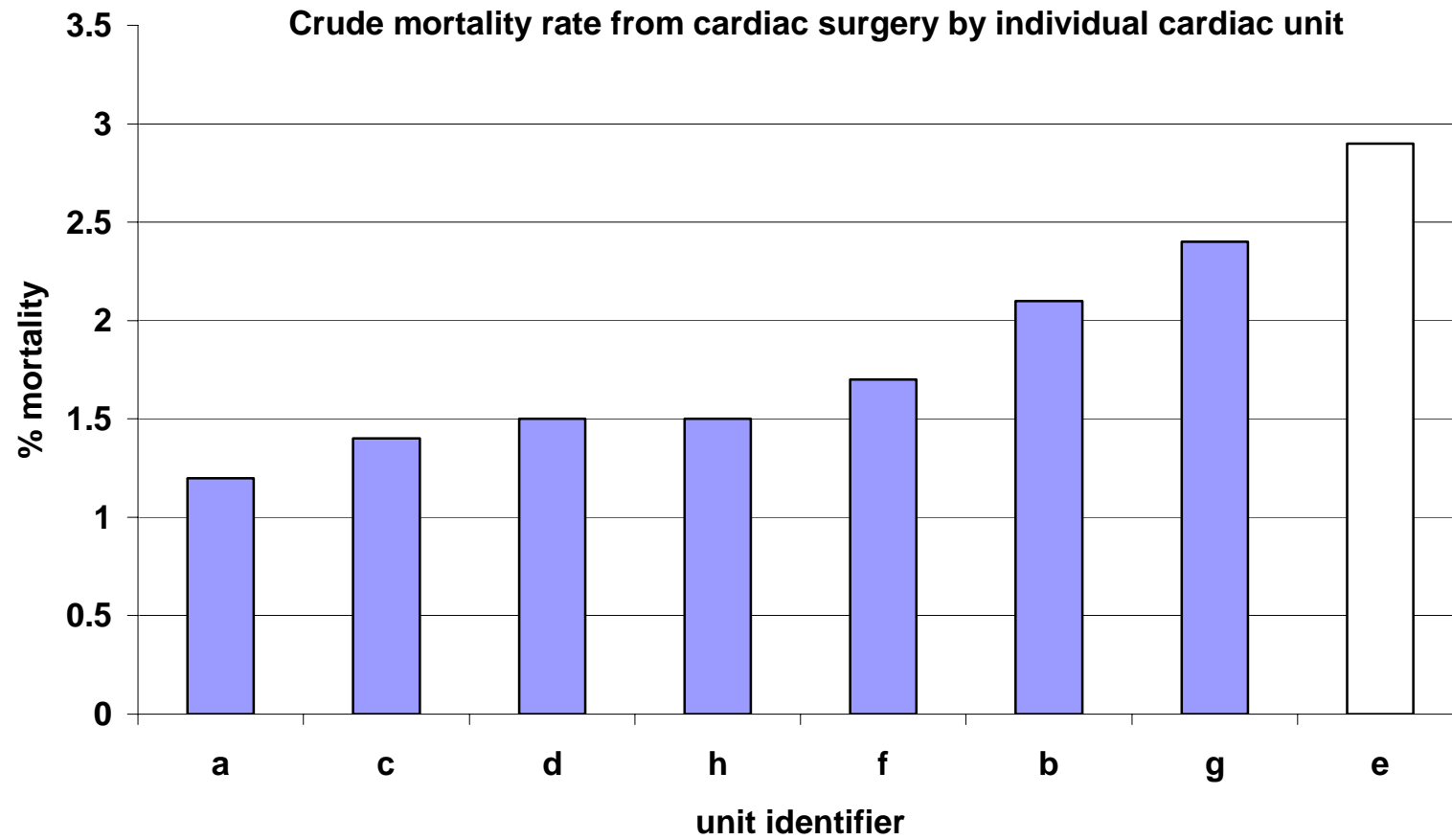
A recent report has been published by the Society of Cardiothoracic Surgeons. In it, the following information has been presented (Figure 1 and Table 1 - from which Figure 1 has been constructed).

Your local cardiac unit is labelled 'e' (clear bar) and is in a deprived area.

Table 1: Results of annual audit of operative mortality of cardiac surgery units in the Region. Operation: isolated coronary artery bypass grafting.

| unit | Crude operative mortality (%) | Number of operations performed annually |
|----------|-------------------------------|---|
| A | 1.2 | 1600 |
| B | 2.1 | 378 |
| C | 1.4 | 1956 |
| D | 1.5 | 1577 |
| E | 2.9 | 310 |
| F | 1.7 | 1867 |
| G | 2.4 | 688 |
| H | 1.5 | 877 |

Figure One



**REPORT OF HIGHMORTALITY IN CARDIAC
SURGERY IN YOUR LOCAL UNIT**

**MARKER
EXAMINER PACK**

INFORMATION FOR THE CANDIDATE PACK

Candidate task

The candidate is required to advise on how you would approach the investigation of the finding of a high cardiac surgery mortality in your local unit.

Consider what approach you will take to investigating the findings, what possible explanations may exist for the findings, and how you are going to proceed. Pay particular attention to being clear and concise in your report to the commissioning manager and cover these three areas:

- What possible explanations may lie behind this sort of finding.
- What you advise is done next.
- What, at this early stage, should be said to the press.

Outline of the situation

Competencies addressed.

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
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- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions

INFORMATION FOR THE MARKER EXAMINER

State Examiner situation

The Marker Examiner will ask for the candidate's number and then say

"I want you to imagine now that you are doing a presentation on cardiac surgery mortality to a commissioning manager for cardiac services in your organisation who is sitting here is likely to want to ask you a few questions. Please introduce yourself and begin your presentation "

then hand over to the role player examiner to proceed.

Marking Guide For Examiners

High Mortality in cardiac surgery in a local unit

A=Excellent, B=Good, C=Adequate, D=Just Below, E=Well Below

1. Has the candidate appropriately demonstrated presenting skills in a typical public health setting (presenting to a person or audience)?

The candidate summarises clearly and with emphasis on key points, avoiding jargon and makes eye contact and appropriate non-verbal communication.

2. Has the candidate appropriately demonstrated listening skills in a typical public health setting (listening and responding appropriately)?

Candidate responds appropriately to the questioning of the role player and understands questions – and asks if unclear.

3. Has the candidate demonstrated ascertainment of key public health facts from the material provided and used it appropriately?

Unit e has the highest mortality rate but low actual numbers of cases, is in an area of high deprivation, has two new cardiac surgeons, one years data only, No standardisation, casemix or risk-scored adjustments, small numbers – no confidence intervals presented.

4. Has the candidate given a balanced view and/or explained appropriately key public health concepts in a public health setting?

Explanations: Basic data error, Random fluctuation (small numbers and confidence intervals), crude mortality is not case-mix adjusted, Higher co-morbidity from deprived catchment not picked up by simple casemix, local complication rates/clinical governance issues related to new surgeons or procedures (that may be a local problem). Check what procedures are being undertaken. Mortality is not the only important outcome measure (may mention definition of operative mortality), Need time trends to assess if this is a new or enduring issue. Good candidates may spot there appears to be an association with higher mortality rates and smaller total activity levels.

5. Has the candidate demonstrated sensitivity in handling uncertainty, the unexpected, conflict and/or responding to challenging questions?

Verify data, Candidates should identify that the explanations to the presented findings may be multi-factorial, and that the finding itself needs to be established as factually correct before any conclusions or definitive action can be taken. Demonstrates that conflict or misunderstanding with unit surgeons is likely if inappropriate premature comments made by manager to the press. Need to work collaboratively with surgeons.

Examiner Briefing Pack

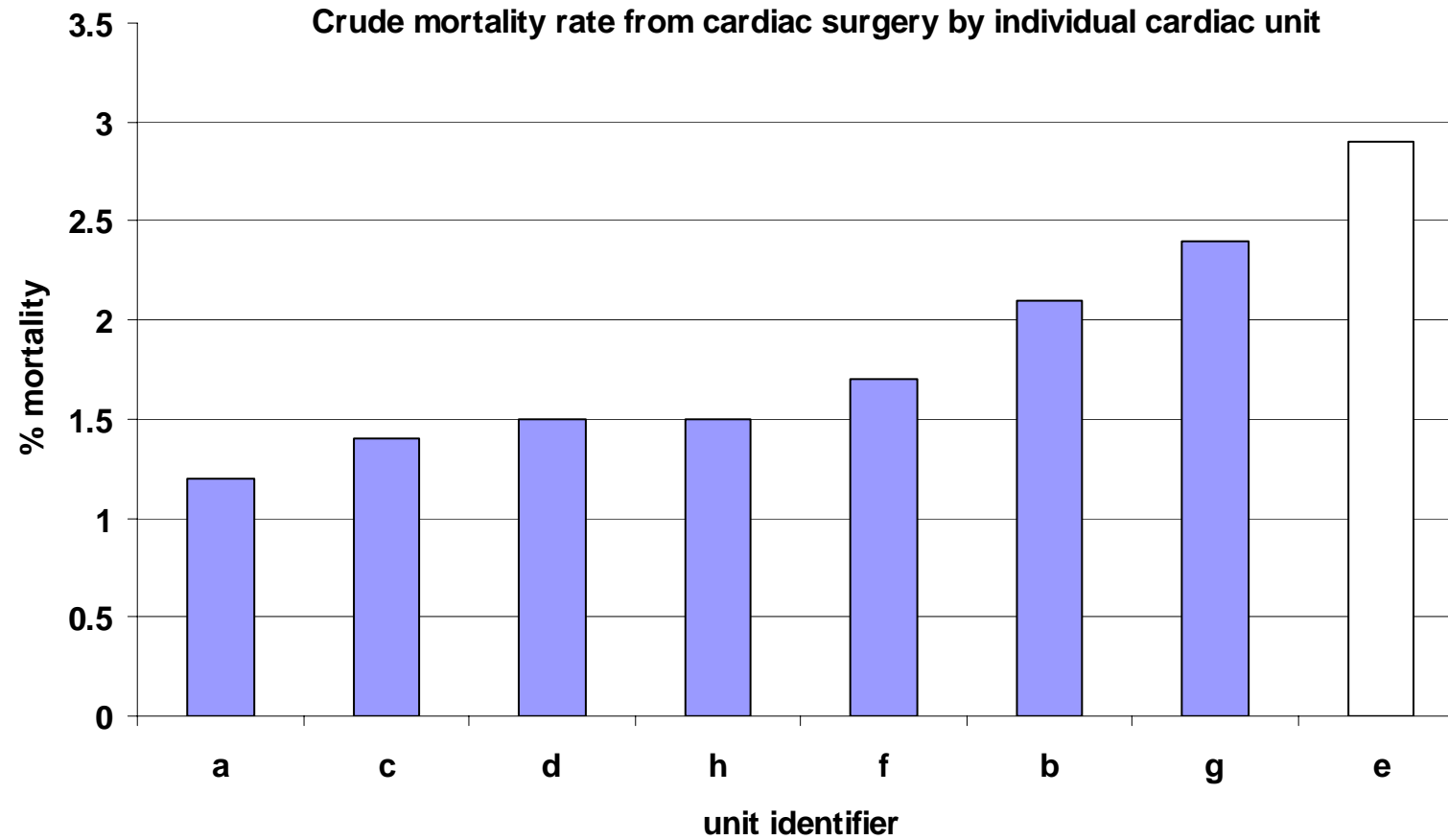
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Figure One



**REPORT OF HIGHMORTALITY IN CARDIAC
SURGERY IN LOCAL UNIT**

**ROLE PLAY EXAMINER
BRIEFING PACK**

OSF



Faculty of Public Health

Of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

OSPHE 017

Balloon Kyphoplasty



**NEW MEDICAL PROCEDURE: INTRODUCTION OF
BALLOON KYPHOPLASTY**

CANDIDATE PACK



Candidate task

You have 8 minutes to prepare for the next OSPHE. The OSPHE will be an 8-minute meeting between yourself, representing a local public health department and a fundraiser to discuss a proposal to use charitable funds to start a new procedure (balloon kyphoplasty) at the hospital.

Outline of situation

A local voluntary group has raised £5,000 for the orthopaedic department of the small local general hospital in memory of the mother of one of the members who died with severe osteoporosis. She had suffered a number of spinal compression fractures. The local orthopaedic surgeon is very keen to put it towards development of balloon kyphoplasty a new technique for the treatment of vertebral compression fractures. £5,000 would buy the necessary equipment and training but not pay for the ongoing consumable costs (cement and disposable parts of the equipment). There is no specialist spinal surgeon at the hospital.

Imagine that you are a member of the public health department responsible for advising about commissioning acute services. Your manager has asked to meet with the fundraiser to explain the procedure and that there may be better uses for the money. You are aware that the physical facilities for patients in the orthopaedic department are not good and that the money could be spent on updated basic equipment for the physiotherapy department.

Read the briefing pack and prepare for an 8-minute meeting with the fundraiser and you are expected to lead the discussion. You are not required to present material using any visual aids. Use your own experience and the information from the briefing pack. The briefing pack has information about balloon kyphoplasty from the UK National Institute for Health and Clinical Excellence (NICE) and also some patient information from the Internet.



Candidate guidance

You are to conduct an 8-minute meeting with the fundraiser, played by an actor, to explain the procedure and discuss the merits of introducing balloon kyphoplasty at a local general hospital. Use language that is understood by both parties. You need to ensure that you:

- explain that, in the NHS new treatments are evaluated by NICE before they are taken up in regular practice;
- make sure there is a shared understanding of the balloon kyphoplasty procedure. The briefing pack and diagrams will be in the OSPHE room;
- summarise the evidence from the NICE assessment of balloon Kyphoplasty.
- interpret and balance evidence from both sources to inform decision-making.
- explain why new treatments may be unsuitable for local settings until more evidence of effectiveness in routine practice is available.
- suggest alternative uses for the money for example updating basic physiotherapy equipment.

You should lead the discussion to ensure the fund raiser understands your points.

The Examination room

An actor playing the fundraiser, the main examiner and a copy of the briefing pack will be in the exam room. There may be an observer too. You will be introduced to those present before you go in-role as the representative of the local public health department.

You do not need to take this briefing into the examination room but you may make and take in your own notes. However these will not be considered in the assessment and the examiner will collect these before you leave the examination room.

Resources available

This OSPHE summary

O17.1 NICE Interventional Procedure Guidance
Balloon kyphoplasty for vertebral compression fractures November 2003

O17.2 Extract from the Kyphon Patient Information Centre Website, Balloon Kyphoplasty Patient Information

Separate documents to be enclosed with briefing.

BRIEFING PACK PAPER 017.1 COVER SHEET FOR:

**NICE – INTERVENTIONAL
PROCEDURE GUIDANCE 20
BALLOON KYPHOPLASTY FOR
VERTABRAL COMPRESSION
FRACTURES**

Balloon kyphoplasty for vertebral compression fractures

1 Guidance

1.1 Current evidence on the safety and efficacy of balloon kyphoplasty for vertebral compression fractures does not appear adequate to support the use of this procedure without special arrangements for consent and for audit or research. Although the benefits and risks of this procedure appear similar to those for percutaneous vertebroplasty in the first few months after the procedure is carried out (see 2.6.1), there is insufficient long-term evidence to substantiate this at present. Clinicians wishing to undertake balloon kyphoplasty for vertebral compression fractures should inform the clinical governance leads in their Trusts. They should ensure that patients offered it understand the uncertainty about the procedure's safety and efficacy and should provide them with clear written information. Use of the Institute's *Information for the Public* is recommended. Clinicians should ensure that appropriate arrangements are in place for audit or research. Publication of safety and efficacy outcomes will be useful in reducing the current uncertainty. NICE is not undertaking further investigation at present.

1.2 The following are recommended:

- This procedure should only be undertaken when there are arrangements for good access to a spinal surgery service, and with prior discussion between a specialist multidisciplinary team that includes a radiologist and a spinal surgeon.
- Clinicians should receive training to reach an appropriate level of expertise before carrying out this procedure. In particular, they must follow the manufacturer's instructions for making the cement, to reduce the risk of embolisation.

- The procedure should be limited to patients whose pain is refractory to more conservative treatment.

2 The procedure

2.1 Indications

- 2.1.1 Balloon kyphoplasty is a procedure used to treat patients with vertebral compression fractures. Vertebral compression fractures are most commonly a result of osteoporosis. Other causes include malignancy in the vertebrae and, more rarely, vertebral haemangiomas.
- 2.1.2 Vertebral compression fractures can lead to progressive spinal deformity, with abnormal curvature (kyphosis). This can lead to increased risk of further fracture at adjacent levels or progressive malalignment, deformity and pain. Patients with kyphosis often have a reduced appetite due to bloating and/or bowel obstruction. They also have an increased risk of falls.
- 2.1.3 In general, balloon kyphoplasty is indicated in patients with recent fractures and curvature of the spine.

2.2 Outline of the procedure

- 2.2.1 Balloon kyphoplasty is performed by inserting a balloon-like device (inflatable bone tamp) through a channel created by a drill in the fractured vertebra. The tamp is positioned in the vertebral body and inflated slowly until the normal height of the vertebral body is restored or the balloon reaches its maximum volume. This is intended to restore vertebral height and correct kyphosis before the next stage of the procedure, which is injection of cement. Balloon kyphoplasty may also help to improve

Interventional Procedure Guidance 20

This guidance is written in the following context:

This guidance represents the view of the Institute which was arrived at after careful consideration of the available evidence. Health professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of health professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

pulmonary and gastrointestinal function and reduce the likelihood of subsequent vertebral compression fractures.

- 2.2.2 Conventional treatment for vertebral compression fractures is focused on the alleviation of symptoms with analgesic medications and spinal support. Recently, there has been increased interest in minimally invasive procedures for the treatment of vertebral compression fractures, including balloon kyphoplasty and percutaneous vertebroplasty. Balloon kyphoplasty is essentially a modification of percutaneous vertebroplasty; it differs in that a balloon is used to create a space before the cement is injected.

2.3 Efficacy

- 2.3.1 Preliminary data indicate that the main benefits of balloon kyphoplasty are in restoring vertebral height, correcting kyphosis and relieving pain. For more details refer to the sources of evidence below.
- 2.3.2 There is a lack of data on the long-term secondary benefits of kyphosis correction such as improved pulmonary function.
- 2.3.3 The Specialist Advisors' opinions on the efficacy of the procedure ranged from extreme concern to complete confidence. The disparity of their opinions appeared to result from the lack of good quality evidence.

2.4 Safety

- 2.4.1 Balloon kyphoplasty is intended to reduce the risk of cement leakage associated with vertebroplasty. However, the available data on balloon kyphoplasty are currently inadequate to assess its long-term safety.
- 2.4.2 Reported complications of this procedure are uncommon but include serious neurological sequelae. In studies identified, the most commonly reported complication was cement leakage. For more details refer to the sources of evidence below.

- 2.4.3 The Specialist Advisors listed the main complications as infection, cement leakage, allergy, and nerve or spinal damage. One Advisor suggested that the complication rate was not yet clear; others reported that the incidence of cement leakage was lower with balloon kyphoplasty than with percutaneous vertebroplasty.

2.5 Other comments

- 2.5.1 The Medicines and Healthcare products Regulatory Agency (MHRA) has recently issued a safety notice on the use of cement in balloon kyphoplasty (MDA/2003/021). <http://devices.mhra.gov.uk>.

2.6 Further information

- 2.6.1 NICE issued guidance on percutaneous vertebroplasty in September 2003.

Andrew Dillon
Chief Executive
November 2003

Information for the Public

NICE has produced information describing its guidance on this procedure for patients, carers and those with a wider interest in healthcare. It explains the nature of the procedure and the decision made, and has been written with patient consent in mind. This information is available from www.nice.org.uk/IPG020publicinfoenglish and in English and Welsh from www.nice.org.uk/IPG020publicinfowelsh.

Sources of evidence

The evidence considered by the Interventional Procedures Advisory Committee is described in the following document.

Interventional procedure overview of balloon kyphoplasty for vertebral compression fractures, March 2003.

Available from: www.nice.org.uk/IP179overview

Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference: N0351. *Information for the Public* can be obtained by quoting reference number N0352 for the English version and N0353 for a version in English and Welsh.

The distribution list for this guidance is available on the NICE website at URL www.nice.org.uk/IPG020distributionlist

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National Institute for Clinical Excellence

MidCity Place, 71 High Holborn, London WC1V 6NA, website: www.nice.org.uk

Briefing paper 17.2

Extract from the Kyphon Patient Information Centre Website

Balloon Kyphoplasty Patient Information

How the Balloon Works

Balloon Kyphoplasty is a minimally invasive treatment in which orthopaedic balloons are used to gently elevate the bone fragments in an attempt to return them to the correct position. Before the procedure, you will have diagnostic studies, such as x-rays and magnetic resonance imaging (MRI), to determine the exact location of the fracture.

Balloon Kyphoplasty can be done under local or general anesthesia-your doctor will decide which option is appropriate for you. Typically, the procedure takes less than one hour per fracture treated and may require an overnight hospital stay.

With a hollow instrument, the surgeon creates a small pathway into the fractured bone. A small, orthopaedic balloon is guided through the instrument into the vertebra. The incision site is approximately 1 cm in length.



Balloon
Placement

Next, the balloon is carefully inflated in an attempt to raise the collapsed vertebra and return it to its normal position.



Full inflation

Once the vertebra is in the correct position, the balloon is deflated and removed. This process creates a void (cavity) within the vertebral body.



Void within vertebral
body

The cavity is filled with a special cement to support the surrounding bone and prevent further collapse.



Filling the cavity
with cement

The cement forms an internal cast that holds the vertebra in place. Generally, the procedure is done on both sides of the vertebral body.



The internal cast

VCF Frequently Asked Questions*

What is a Vertebral Compression Fracture?

A Vertebral Compression Fracture (VCF) occurs when the thick block of bone at the front of the vertebra in the spine collapses, which may cause the spine to shorten and fall forward. This may result in thoracic and lumbar spinal deformity and is often seen in elderly people. This spinal deformity, commonly known as a Dowager's Hump, is also referred to as "kyphosis."

What causes a VCF?

These types of fractures are most often caused by osteoporosis ("porous bone"), a disease which causes bones to become fragile and easily broken. VCFs can also be caused by cancer or a traumatic event, such as a fall or car accident.

Balloon Kyphoplasty Frequently Asked Questions*

What can Balloon Kyphoplasty do for me?

Balloon Kyphoplasty is a minimally invasive procedure for patients suffering from painful fractures of the spine, specifically Vertebral Compression Fractures (VCFs). Balloon Kyphoplasty repairs the fracture and can offer you immediate pain relief, a rapid return to daily activities and improved quality of life. Please note that Balloon Kyphoplasty can not always be used to help every type of VCF. Only your doctor can decide if the procedure is right for you.

Can Balloon Kyphoplasty alleviate my back pain?

Doctors report that patients experience immediate pain relief after Balloon Kyphoplasty. However, back pain can be caused by a number of conditions. Your doctor can determine whether your pain is caused by a vertebral compression fracture and if Balloon Kyphoplasty is a possible solution for you.

Will Balloon Kyphoplasty help me to stand straighter? Can it also alleviate disc problems (herniated degenerative discs)? Pinched nerves? Sciatica? Paralysis?

In many patients, Balloon Kyphoplasty has been shown to restore much of the height lost as a result of a vertebral compression fracture. However, Balloon Kyphoplasty is only used in fractured bones and not in other parts of the anatomy susceptible to deformation, such as soft tissue, joints, or discs. Complete straightening of the back is achieved in some, but not all, cases.

Physician Frequently Asked Questions

Can any doctor perform Balloon Kyphoplasty?

Doctors performing Balloon Kyphoplasty first attend a special training course organised by Kyphon and run by doctors who have extensive experience with the procedure. For the benefit of patients we maintain a list of doctors who are trained on Balloon Kyphoplasty and who have indicated a willingness to accept patient referrals.

What kind of doctors are trained to perform Balloon Kyphoplasty?

Orthopedic surgeons, neurosurgeons, and interventional neuroradiologists who specialize in treating the spine can be trained to perform Balloon Kyphoplasty. Physicians treating patients with osteoporosis (General Practitioners, Rheumatologists, Endocrinologists, Physiotherapists, and Geriatricians) can refer their patients with painful vertebral compression fractures to the trained surgeon or specialist for Balloon Kyphoplasty. After the procedure, the patient should return to the osteoporosis-treating physician for drug treatment and physical rehabilitation

How many doctors are trained to perform Balloon Kyphoplasty?

Over 1,500 specialists in Europe, South Africa, the Middle East, and Korea are trained to perform Balloon Kyphoplasty. In addition, more than 3,000 doctors in the United States are trained to use Kyphon products. As Kyphon continues to provide regular training courses, this number continues to grow.

Procedure FAQs

How many Balloon Kyphoplasty procedures have been performed?

Over the three years ending December 2003 (the latest date for which we currently have information), approximately 70,000 Balloon Kyphoplasty procedures have been performed worldwide.

Is Balloon Kyphoplasty experimental?

No. Balloon Kyphoplasty is performed worldwide by at least 3,900 physicians. All Kyphon products are CE marked (this means that the products meet the highest quality and safety standards as set by the European norms and requirements) and approved for use in most European countries and South Africa. Kyphon products are also cleared by the FDA for use in the United States. The first Kyphon device was originally licensed to be sold in July 1998.

Is Balloon Kyphoplasty a risky procedure?

There are risks and benefits associated with every medical and surgical procedure. Clinical reports suggest that the complications associated with Balloon Kyphoplasty are <1%. However, only you and your doctor can determine whether the potential benefits of this procedure outweigh the risks in your particular case.

Role Play Brief

You are a commissioning manager for the NHS. This means that you are responsible for agreeing with the providers (in this case the hospital cardiac surgery unit) what work is done each year on behalf of the local population you serve. You are based in a primary care trust with colleagues from public health who support the local clinical network, help provide technical advice and assist you to ensure that NHS care you commission is safe and appropriate. The PCT, and you, have a responsibility alongside the provider hospital, if care is not delivered to a high standard.

Thus, the apparent finding of a high operative mortality in your unit is worrying and you want to find out what is going on.

The candidate is a relatively junior member of the public health team but nevertheless you expect them to explain what possible reasons may exist for this and the plan of action to investigate it, especially in case it requires some action on your part. As such you are anxious to ensure the important aspects are covered but you have received good advice from the public health team in the past and so are confident that they can outline what needs to be done.

You are meeting the candidate on a one-to-one basis. Although this is the first meeting, you expect some clear actions to be identified from it. The candidate has been asked to present a verbal summary to you lasting no more than 5 minutes – it may be shorter.

Starting the station

Following the examiner confirming the candidates identity, you will start the session by saying

“Many thanks for coming. Perhaps you could outline(in up to 5 minutes) what this finding of a high cardiac surgery mortality might be about and what we need to do?”

What questions need to be covered?

You need to make sure that the candidate should clearly identify to you:

- What possible explanations they think may lie behind this sort of finding.
- What they advise is done next.
- What, at this early stage, should be said to the press (“how do we handle the press”)

You should probe to ensure they volunteer all the possible explanations they can think of and also how they think they would communicate with the cardiac surgeons involved, as this is a sensitive issue. Because the press is interested, asking the candidate what they think should be said at this stage is important. It is quite acceptable, and in fact probably correct, for the candidate to respond that they need to liaise with their senior colleagues and the head of communications in the organisation on this.

Candidate task and objectives

The candidate is required to advise on how you would approach the investigation of the finding of a high cardiac surgery mortality in your local unit.

Consider what approach you will take to investigating the findings, what possible explanations may exist for the findings, and how you are going to proceed. Pay particular attention to being clear and concise in your report to the commissioning manager and cover these three areas:

- What possible explanations may lie behind this sort of finding.
- What you advise is done next.
- What, at this early stage, should be said to the press.

Station background

Cardiac surgery is a general term for operations on the heart but in this context relates mainly to the operations of heart bypass surgery (which is usually carried out by opening the chest wall and bypassing a blocked heart artery with a section of artery or vein taken from elsewhere on the patients body) or coronary angioplasty (where a tiny balloon wrapped around a wire is passed into the heart artery and pumped up – thereby breaking or dilating a blocked area within the heart artery. Sometimes a wire expander (stent) is inserted to help keep the expanded area open).

Operative mortality is usually defined as death during the operation or within 30 days of it. This measure is a standard way of comparing how different hospitals perform, and well liked in some circles. However, unless the raw information is adjusted for age, sex, level of illness and operation type (casemix) and other complicating factors such as other serious conditions the patients may suffer from at the time of operation ('co-morbidity'), the results of any one unit are difficult to compare fairly with one another.

New surgeons in a unit and small numbers of overall cases being operated on a year have been shown to be associated with higher operative mortality in some studies.

Factors that affect operative mortality include casemix and co-morbidity differences, but it is also important to make sure that the observed finding is real- it could be a simple numerical error or it could be due to chance (and so be completely different the following year). Also, once adjusted for differences in the levels of illness or other conditions, the actual rates may be similar or even better than other units in the report.

Naturally, cardiac surgeons are often very concerned about operative mortality rates and it is important to work closely with them to gain cooperation and trust that the results are carefully examined to help understand what conclusions should be drawn, and what action needed, in such situations.

Any no go areas?

Not really.

Level of conflict or cross-examining required.

Not high- important to identify if the candidate recognises the sensitivity of the issue, not jumping to conclusions and the importance of a careful approach to the local clinicians involved (cardiac surgeons). Also makes it apparent that conflict with the unit/surgeons is likely if inappropriate comments are made to the press.

How the station will close.

As role playing commissioning manager you should bring this to a close after 8 minutes in total. You should stop the candidate after 5 minutes of verbal presentation so you can probe as outlined above.

It is your role to end the session and ensure the candidate moves on at the correct time.

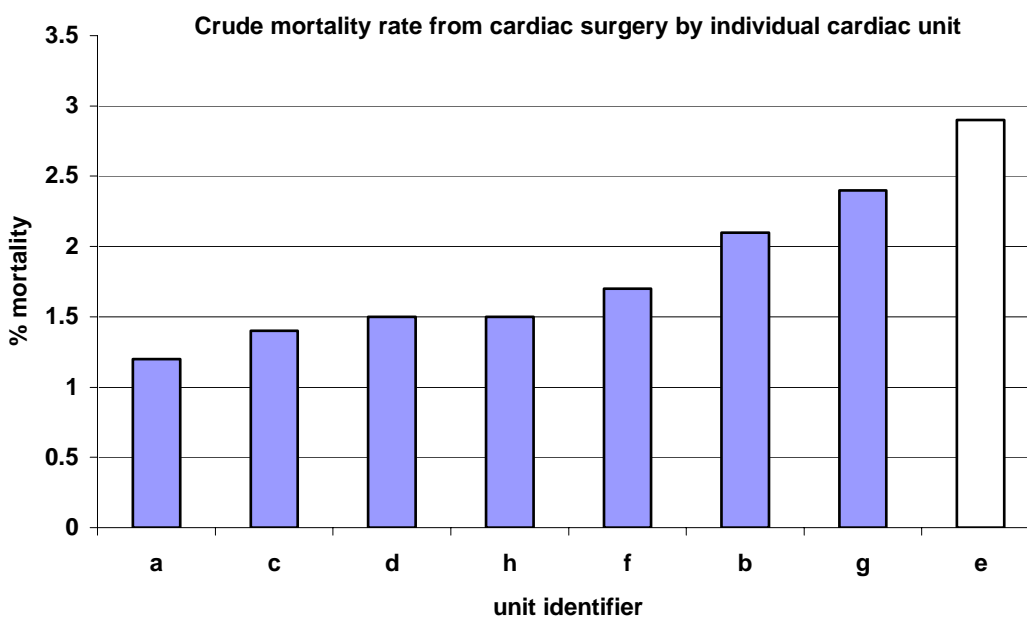
A recent report has been published by the Society of Cardiothoracic Surgeons. In it, the following information has been presented (Figure 1 and Table 1 - from which Figure 1 has been constructed).

Your local cardiac unit is labelled 'e' (clear bar) and is in a deprived area.

Table 1: Results of annual audit of operative mortality of cardiac surgery units in the Region. Operation: isolated coronary artery bypass grafting.

| unit | Crude operative mortality (%) | Number of operations performed annually |
|----------|-------------------------------|---|
| a | 1.2 | 1600 |
| b | 2.1 | 378 |
| c | 1.4 | 1956 |
| d | 1.5 | 1577 |
| e | 2.9 | 310 |
| f | 1.7 | 1867 |
| g | 2.4 | 688 |
| h | 1.5 | 877 |

Figure One



OSPHE 017 Balloon Kyphoplasty



Actor/candidate interaction

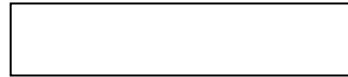
The candidate has been asked to lead the discussion. S/he should have in mind a list of points that they want to tell you. Ask for clarification if you do not understand what the candidate is telling you.

The points to be covered are:

- the role of NICE in evaluating new procedures before they are taken up into regular practice by the NHS;
- description of the balloon kyphoplasty procedure. The briefing pack and diagrams will be in the OSPHE room;
- summarising the evidence from the NICE assessment of balloon Kyphoplasty.
- interpreting and balance evidence from both sources to inform decision-making.
- explaining why new treatments may be unsuitable for local settings until more evidence of effectiveness in routine practice is available.
- suggesting alternative uses for the money for example updating basic physiotherapy equipment.

You are aware that the physical facilities for patients in the orthopaedic department are not good and can mention this to the candidate during the OSPHE. If the candidate asks you for suggestions for alternative uses for the money mention that you have noticed that equipment (heat machines etc) in the physiotherapy department is old and often out of order. If they suggest purchasing replacements for this basic equipment as a good use of the money, act interested.

At the end of the session it is your responsibility to end it and to ensure that the candidate leaves the room on time. (The Examiner at this point will need to be concentrating on their marking sheet).



**NEW MEDICAL PROCEDURE: INTRODUCTION OF
BALLOON KYPHOPLASTY**

**MARKER
EXAMINER PACK**



INFORMATION FOR THE EXAMINER

Examiner situation

An actor will play the fundraiser.

A copy of the candidate briefing pack will be in the exam room. There may be an observer too. The candidate has been told that they should lead the discussion/chair the meeting.

The examiner should check the candidate details and then introduce the candidate to fundraiser and then ask the candidate to go in-role as the representative of the local public health department to lead the discussion.

What the actor has been told

The actor knows that the candidate has been asked to lead the discussion. The 6 areas the actor is expecting to be covered are:

- explaining that, in the NHS new treatments are evaluated by NICE before they are taken up in regular practice;
- making sure there is a shared understanding of the balloon kyphoplasty procedure. The briefing pack and diagrams will be in the OSPHE room;
- summarising the evidence from the NICE assessment of balloon Kyphoplasty.
- interpreting and balance evidence from both sources to inform decision-making.
- explaining why new treatments may be unsuitable for local settings until more evidence of effectiveness in routine practice is available.
- suggesting alternative uses for the money for example updating basic physiotherapy equipment.

The actor is aware that the physical facilities for patients in the orthopaedic department are not good and may mention this to the candidate during the OSPHE.

Examiner Briefing Pack

O17.1 NICE Interventional Procedure Guidance
Balloon kyphoplasty for vertebral compression fractures November 2003

O17.2 Extract from the Kyphon Patient Information Centre Website, Balloon Kyphoplasty
Patient Information

Additional information for examiner/model answer

The candidate has received a briefing pack including information from the company that supply the equipment and evaluation of balloon kyphoplasty by the National Institute for Clinical Excellence (NICE), the body that assesses the effectiveness of medical treatments on behalf of the National Health Service in the UK.

OSPHE 017 Balloon Kyphoplasty



The NICE guidance recommends that balloon kyphoplasty should only be undertaken when there are arrangements for good access to a spinal surgery service. The procedure should be limited to patients whose pain is refractory to more conservative treatment. The specialist Advisors' opinions on the efficacy of the procedure ranged from extreme concern to complete confidence. The disparity of their opinions appeared to result from the lack of good quality evidence.

Explain that, in the NHS new treatments are evaluated by NICE before they are taken up in regular practice. If the candidate starts to mention NICE without explaining it then ask them what it is.

Explain what the balloon Kyphoplasty procedure entails:

It is used for spinal collapse when the bony part of the spine has become weak and been crushed. This is not the same as slipped disk, the disks are between the bony parts of the spine. A balloon is put into the crushed bone and "blown up". The balloon is filled with cement (similar to the material that sticks hip replacements in place) and thus replaces the bony vertebra and supports the spine. The appended explanation and diagrams from the company website explain it

Explain that balloon Kyphoplasty is still an experimental treatment and that NICE has advised that it is only used in units with specialist spinal surgeons, that surgeons should be adequately trained and that it should only be considered if all other treatments have failed.

Describe how the money could better be spent on updating basic equipment for the physiotherapy department.



Marking Guide For Examiners

Balloon Kyphoplasty

1. Presenting communication skills in a typical Public Health setting (presenting to a person or audience).

Basic pass

The candidate uses appropriate language for a lay person (avoids jargon and where appropriate explains what terms mean.)

Makes plausible points of appropriate length (i.e. does not over dominate the conversation but on the other hand is not left saying very little)

An excellent candidate would give a clear explanation of the technology involved and confidently lead the discussion/chair the meeting.

2. Listening communication skills in a typical Public Health setting (listening and ascertaining key Information).

Basic pass

The candidate checks that there is a shared understanding of the balloon kyphoplasty procedure and a shared understanding of the guidance and options put forward.

Expresses sorrow and empathy about the mother's death.

Answers appropriately questions asked and where necessary seeks clarification from the actor.

An excellent candidate would pick up on clues given by the actor about what s/he would consider acceptable alternative uses for the money.

3. Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.

Basic pass

The candidate well summarises and explains the evidence from the NICE assessment of balloon kyphoplasty, including 2 of the points below

- Mentions that there is no long term evidence of effectiveness in guidance.
- Mentions that a range of multi-disciplinary staff are needed for the procedure to be safe
- Mentions that there should be on site spinal surgery and that this is not available locally, therefore, there are safety issues in the local hospital

An excellent candidate would mention all three points

4. Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.

Basic pass

The candidate explains why new treatments may be unsuitable for local settings until more evidence of effectiveness in routine practice is available.

The candidate is able to give a balanced public health view i.e. benefits of local access for a service versus quality and safety issues of specialised services which may, therefore, need to be at centralised locations that may not be local.

OSPHE 017 Balloon Kyphoplasty



- Mentions that well provided basic services can have considerable benefits compared to some highly specialist services.
- The candidate is able to interpret and balance evidence from both sources to inform decision-making.

An excellent candidate would use information from both sources in the discussion and would give examples of other new technologies and how they are introduced into healthcare systems.

5. Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

Basic pass

The candidate does not give in to pressure to try a local specialised inappropriate service.

The candidate keeps making the point that could not recommend it locally because of the need for specialised local support which is not available.

The candidate suggests alternative uses for the money for example updating basic physiotherapy equipment or contributing to a specialised centre which local residents could then travel to and benefit from.

An excellent candidate would pick up cues from the role player and use them to persuade him/her that there are better ways to use the money.



**NEW MEDICAL PROCEDURE: INTRODUCTION OF
BALLOON KYPHOPLASTY**

ACTOR BRIEFING PACK

Fundraiser



Candidate task and objectives

The OSPHE will be an 8-meeting between the candidate, representing a local public health department, yourself as a fundraiser to discuss a proposal to use charitable funds to start a new procedure for the treatment of osteoporosis at the hospital (balloon kyphoplasty).

Station background

Any resemblance between the fundraiser and the Duchess of Cornwall is purely accidental. Your mother recently died with osteoporosis, after many years of severe deformity and pain. She had suffered a number of painful compression fractures of her spine. You should indicate that you were very upset over your mother's death but are doing OK now. You have raised £5,000 for a new type of treatment for vertebral compression fractures called balloon kyphoplasty. It was suggested by the local orthopaedic surgeon who is keen to introduce it locally. £5,000 would buy the necessary equipment and training but not pay for the ongoing consumable costs (cement and disposable parts of the equipment). There is no specialist spinal surgeon at the hospital. NICE, the National Institute for Health and Clinical Excellence, is the body that assesses the effectiveness of medical treatments on behalf of the National Health Service in the UK, has reviewed this new technology. You are also aware that the physical facilities for patients in the orthopaedic department are not good and that the money could be spent on updated basic equipment for the physiotherapy department.

The candidate has been asked to meet with you and lead a discussion and to explain the treatment to you and give clear reasons why that treatment should not be funded in a small local hospital in language that you can understand. S/he has also been asked to suggest other possible uses for the money that has been raised.

This station is designed to test the candidate's ability to collect the appropriate information to rapidly and accurately assess the value of a proposed new treatment.

The candidate has received a briefing pack including information from the company that supply the equipment and evaluation of balloon kyphoplasty by the National Institute for Clinical Excellence (NICE).

Additional information for the actor

The NICE guidance recommends that balloon kyphoplasty should only be undertaken when there are arrangements for good access to a spinal surgery service. This is not the case at the local hospital. The procedure should be limited to patients whose pain is not helped by more conservative treatment. Overall there is a lack of good quality evidence about whether balloon kyphoplasty is safe and effective when used at a local hospital.



Faculty of Public Health

Of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

OSPHE 020

Teenage Pregnancy

**TEENAGE PREGNANCY: LATEST ANNUAL HEALTH
DATA SHOWS YOUR LOCAL AREA HAS THE WORST
TEENAGE PREGNANCY RATE IN THE REGION**

CANDIDATE PACK

Candidate task

Who are you and what is the task?

You are required to verbally brief a radio reporter on the finding of a high teenage pregnancy rate locally.

Who is your audience?

A radio reporter. The interview is not live but being recorded and points made can be repeated/clarified.

How long have you got?

8 minutes of preparation using briefing pack and instructions to candidate.

Up to 4 minutes verbal presentation followed by 4 minutes discussion with the reporter. The reporter may ask questions during the first 4 minutes.

Outline of situation

You are working as part of a team in a public health department. You work in an area with widespread high levels of deprivation.

One role of your team is to support the teenage pregnancy action plan, which is led by the local council. You receive a call from your communications team who say that a local radio has picked up some statistics on teenage pregnancy that have just been released by the Department of Health. The radio reporter is interested in the role of the NHS (or health organisation) and wants your response to the recent finding that of your area has the highest teenage pregnancy rate in the region. They are running the headline story that day and want a short interview, which is to be pre-recorded and broadcast later in the day. The reporter has access to the same data as you.

You have a briefing pack and blank paper to make notes.

Candidate guidance

Candidate task

You are required to prepare a 4 minute verbal presentation followed by a 4 minute discussion with a local radio reporter on the finding of a high teenage pregnancy rate locally.

Look at the data presented. Consider what additional data you need to further investigate this finding. Plan a verbal response to the radio reporter. The report is not live and so will be edited prior to broadcast. Remember to communicate facts in a simple concise manner for this radio audience.

Pay particular attention to being clear, concise and professional in your report and cover these three areas:

- 1) summarise the findings for a public radio audience. Be Brief. This includes making sure they understand what teenage pregnancy actually means in this context;
- 2) state what additional information might you seek in exploring this further and what steps you will be taking next;
- 3) what public health message(s) might you want to communicate to the listening public given this opportunity.

Competencies tested

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
- 4) Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.
- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

At the station

You will find an examiner who will not ask you any questions.

You will find an actor who will role-play the radio reporter.

There is a clock in the room.

The examiner will ask you for your candidate number, introduce you. The actor will begin the station.

The candidate briefing pack should stay in the room and that you should only take any working notes needed to undertake the task into the examination room.

Candidate Briefing Pack

- I Department of Health briefing
- II Health Development Agency 2003 Evidence-base
- III Graph of your local area teenage pregnancy rates over time compared with England.

I. Adapted from original DH Teenage Pregnancy Unit Document

Data and Analysis to Inform Local Teenage Pregnancy Strategies. January 2004

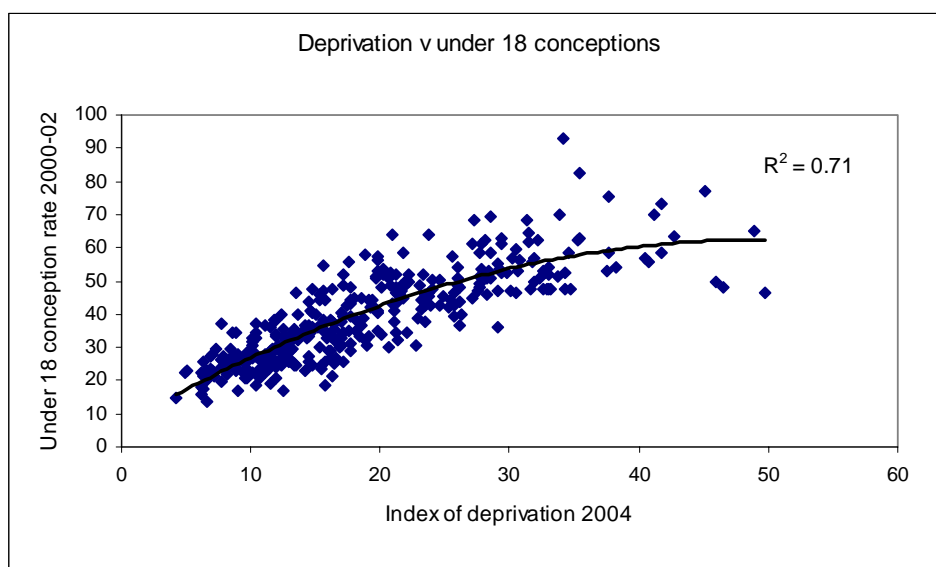
Factors associated with high teenage pregnancy rates

1. Local Authority Analysis

Deprivation

Variations in teenage pregnancy rates largely mirror the pattern of deprivation across England, with high teenage pregnancy rates overwhelmingly concentrated in areas of high deprivation. However, the relationship between teenage pregnancy and deprivation is not consistent across the country, with some local authorities having rates markedly higher, or lower, than would be expected given their overall level of deprivation (see Figure 1)

Figure 1: Local authority deprivation score 2004 v under 18 conception rate 2000-02

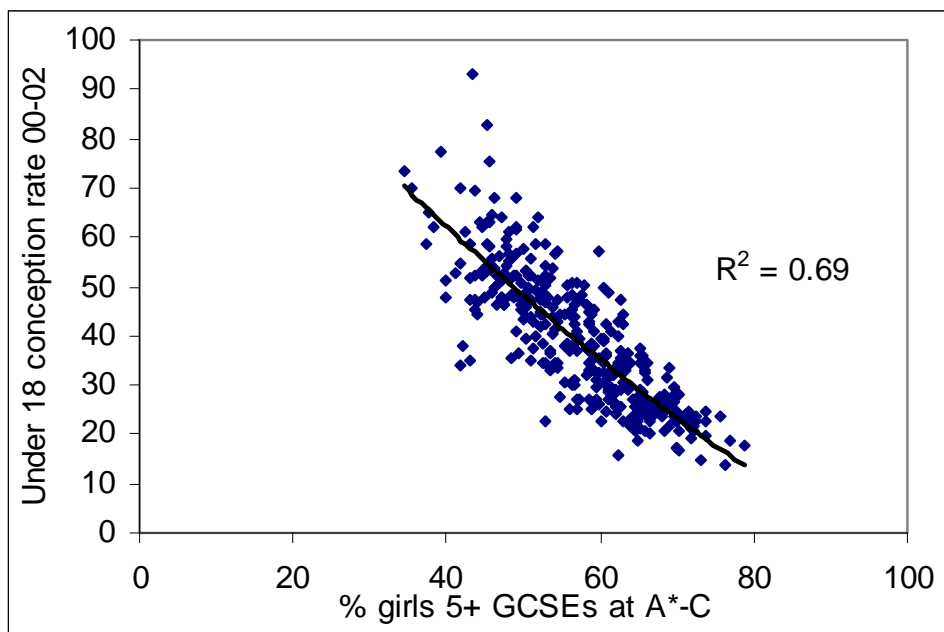


This demonstrates that deprivation is not the whole story, and that clearly other factors have an important role to play in determining teenage conception rates.

Educational attainment

It is well established that teenage pregnancy rates are strongly associated with low levels of educational attainment. An analysis of GCSE results by pupils' local authority of residence shows higher under 18 conception rates in areas with poorer GCSE outcomes (see figure 2). This association between educational attainment and teenage pregnancy is still apparent *after adjusting for the role of deprivation*.

Figure 2: Percentage of girls achieving 5+ GCSEs at A*-C v under 18 conception rate 2000-02



Ethnicity

There is evidence that rates of teenage motherhood are higher among particular ethnic groups. Assessing this association is often problematic given the lack of routine conception data by ethnicity. Census 2001 data on **teenage mothers** suggest that rates of teenage motherhood are higher than would be expected among those of 'Black Caribbean', 'Mixed White and Black Caribbean' and 'Other Black' ethnicity, and lower among all Asian and Chinese ethnic groups. This finding **is not** adjusted for levels of deprivation.

2. Ward level Analysis. *The characteristics of wards with high under 18 conception rates.*

Ward level conception data demonstrates the highly concentrated nature of teenage pregnancy across England with 50% of all under 18 conceptions in the 20% of wards with the highest under 18 conception rates. These 'hotspots' are in areas categorised by ONS as large public housing estates; deprived urban communities living in terraced housing; and multicultural areas concentrated in the north east and south east of London. Market research data suggest that young people in these areas are of low social grade, live in weak family structures, and are typified by low aspirational but status-seeking behaviour - which often accentuates traditional gender roles (for example, contraception being the sole responsibility of women).

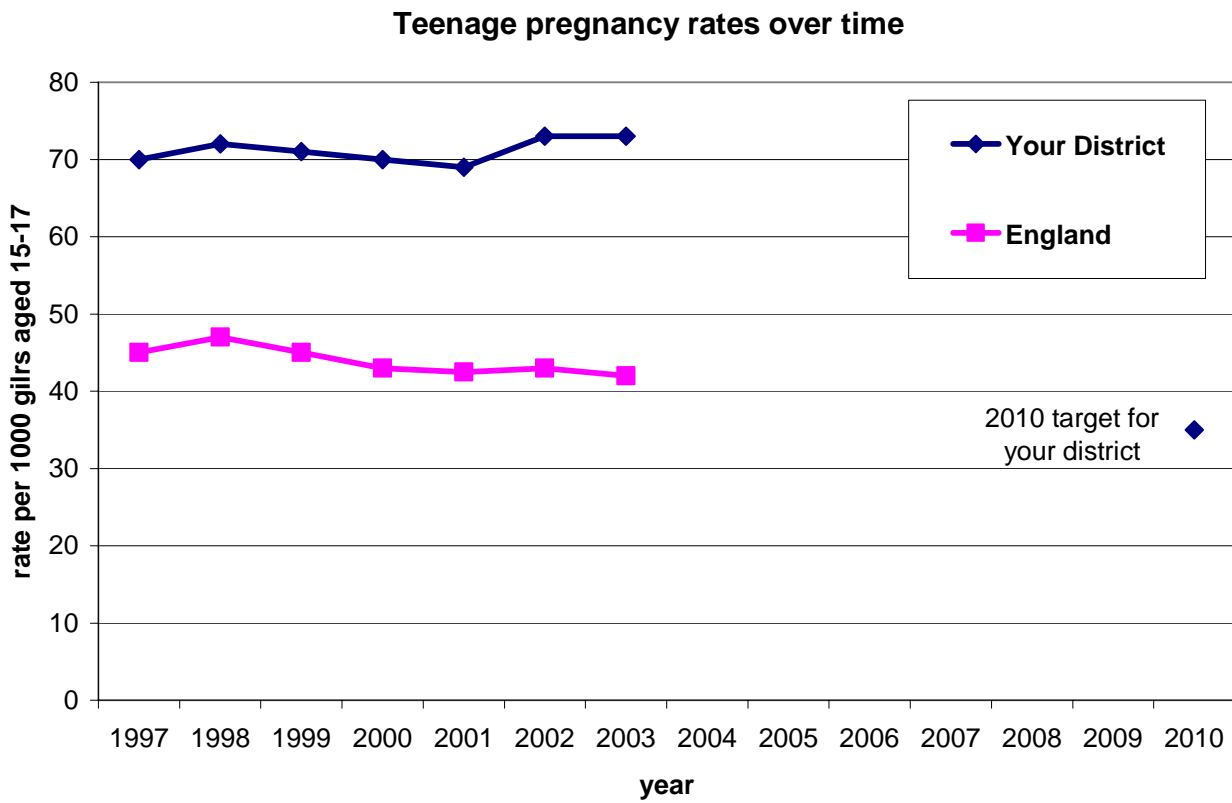
II. Extracts from the Health Development Agency Evidence Briefing Summary (HDA 2003) on the evidence base for reducing teenage conceptions.

Good (strong evidence contained in category 1 or 2 reviews) evidence was found for the effectiveness of the following interventions aimed at preventing unintended teenage pregnancy:

- School-based sex education, particularly linked to contraceptive services (measured against knowledge, attitudes, delaying sexual activity and/or reducing pregnancy rates)
- Community based (eg family or youth centres) education, development and contraceptive services.
- Youth development programmes: although the evidence base for this was small, reviews indicate that programmes focusing on personal development (programmes that support and teach confidence, self-esteem, negotiation skills), education and vocational development may reduce pregnancy rates
- Family outreach: some good evidence was found for the effectiveness of including teenagers' parents in information and prevention programmes.

III. Local Teenage Pregnancy Rate Trends

Adapted from output graph from the Teenage Pregnancy Unit, DH



**TEENAGE PREGNANCY: HEALTH DATA SHOWS
YOUR LOCAL AREA HAS THE WORST TEENAGE
PREGNANCY RATE IN THE REGION**

MARKER EXAMINER PACK

INFORMATION FOR THE CANDIDATE PACK

Candidate task

The candidate is required to prepare a 4 minute verbal presentation followed by a 4 minute verbal response to a local radio reporter on the finding of a high teenage pregnancy rate locally.

The candidate has been asked to look at the data presented. Consider what additional data you need to further investigate this finding. Plan a verbal response to the radio reporter. The report is not live and so will be edited prior to broadcast.

Pay particular attention to being clear, concise and professional in your report and cover these three areas:

- 4) Summarise the findings for a public radio audience. This includes making sure they understand what teenage pregnancy actually means in this context.
- 5) State what additional information might you seek in exploring this further and what steps you will be taking next.
- 6) What public health message(s) might you want to communicate to the listening public given this opportunity.

Outline of the situation

Competencies tested

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
- 4) Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.
- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

INFORMATION FOR THE MARKER EXAMINER

State Examiner situation

The Marker Examiner will ask for the candidate's number and then say

"I want you to imagine now that you are doing a presentation on high teenage pregnancy rates to a local radio reporter who is sitting here is likely to want to ask you a few questions. Please introduce yourself and begin your presentation. The interview is not live."

then hand over to the role player examiner to proceed.

Marking Guide For Examiners

Teenage Pregnancy

Key A=Excellent, B=Good, C=Adequate, D= Just below, F=Well below

1. Has the candidate appropriately demonstrated presenting skills in a typical public health setting (presenting to a person or audience)?

The candidate summarises clearly and with emphasis on key points, avoiding jargon and at a level suitable for a general radio listening audience. Makes eye contact and appropriate non-verbal communication.

2. Has the candidate appropriately demonstrated listening skills in a typical public health setting (listening and responding appropriately)?

Candidate responds appropriately to the questioning of the actor/radio reporter and understands what they need from the candidate as the public health representative. Asks questions or seeks clarification if unclear.

3. Has the candidate demonstrated ascertainment of key public health facts from the material provided and used it appropriately?

High local levels of teenage pregnancy, no discernable trend locally. Local area has high deprivation – assume this affects educational attainment. Clear link with population level deprivation, educational status, and certain ethnic groups at Local Authority and ward levels. DH summary suggests that other factors may also affect individual local circumstances.

4. Has the candidate given a balanced view and/or explained appropriately key public health concepts in a public health setting?

The candidate's answer appreciates the key facts and that they need to explain that factors associated with 'wider determinants of health' appear to be associated with higher rates of teenage pregnancy, without implying causation. These factors are presented as deprivation, educational attainment (independent of deprivation) and some BME grouping (not independent of deprivation). Implications for services of evidence-base. Candidates may develop the concept of self-worth and personal; expectations, social capital.

5. Has the candidate demonstrated sensitivity in handling uncertainty, the unexpected, conflict and/or responding to challenging questions?

Should be able to adopt a 'fact-finding and report back' approach to uncertainty about what is already happening locally. Should identify that the causes of high rates are multi-factorial. Appropriate answer to the question that "nothing much so far seems to have worked?" (long time lag, need to affect other determinants eg educational status, possibility that NHS services not yet appropriate.)

Examiner Briefing Pack

- I Department of Health briefing
- II Health Development Agency 2003 Evidence-base
- III Graph of your local area teenage pregnancy rates over time compared with England.

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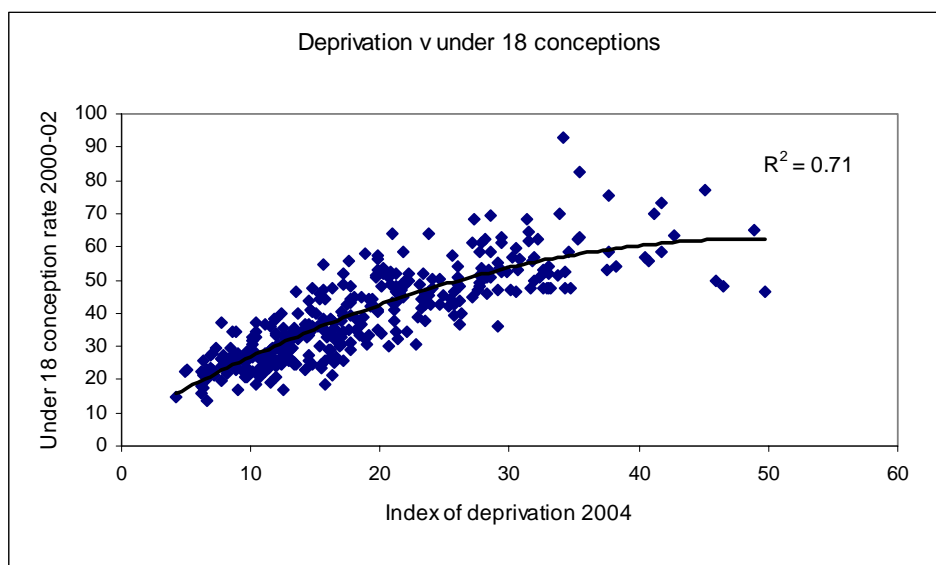
Factors associated with high teenage pregnancy rates

1. Local Authority Analysis

Deprivation

Variations in teenage pregnancy rates largely mirror the pattern of deprivation across England, with high teenage pregnancy rates overwhelmingly concentrated in areas of high deprivation. However, the relationship between teenage pregnancy and deprivation is not consistent across the country, with some local authorities having rates markedly higher, or lower, than would be expected given their overall level of deprivation (see Figure 1)

Figure 1: Local authority deprivation score 2004 v under 18 conception rate 2000-02

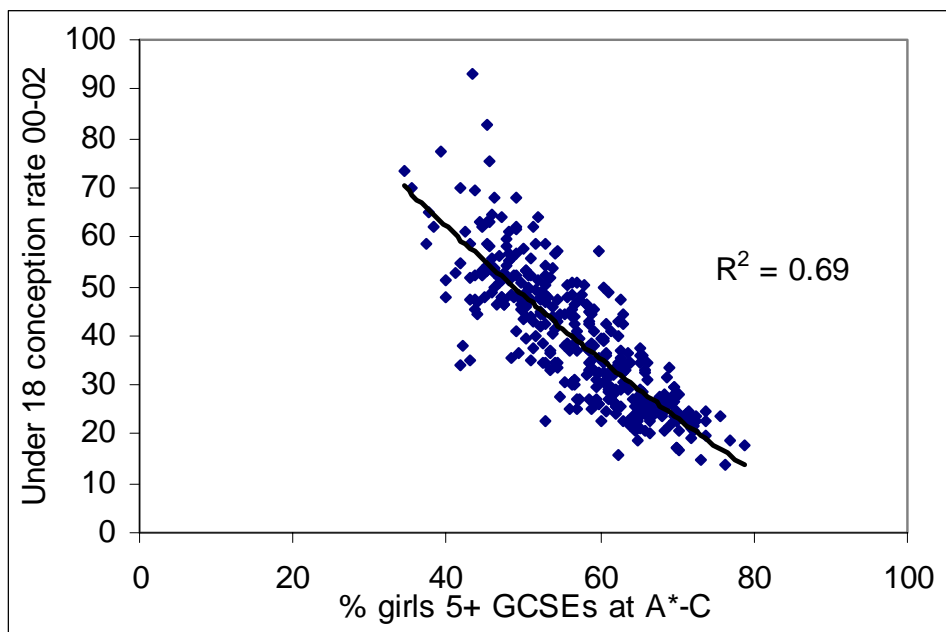


This demonstrates that deprivation is not the whole story, and that clearly other factors have an important role to play in determining teenage conception rates.

Educational attainment

It is well established that teenage pregnancy rates are strongly associated with low levels of educational attainment. An analysis of GCSE results by pupils' local authority of residence shows higher under 18 conception rates in areas with poorer GCSE outcomes (see figure 2). This association between educational attainment and teenage pregnancy is still apparent *after adjusting for the role of deprivation*.

Figure 2: Percentage of girls achieving 5+ GCSEs at A*-C v under 18 conception rate 2000-02



Ethnicity

There is evidence that rates of teenage motherhood are higher among particular ethnic groups. Assessing this association is often problematic given the lack of routine conception data by ethnicity. Census 2001 data on **teenage mothers** suggest that rates of teenage motherhood are higher than would be expected among those of 'Black Caribbean', 'Mixed White and Black Caribbean' and 'Other Black' ethnicity, and lower among all Asian and Chinese ethnic groups. This finding is not adjusted for levels of deprivation.

2. Ward level Analysis. *The characteristics of wards with high under 18 conception rates.*

Ward level conception data demonstrates the highly concentrated nature of teenage pregnancy across England. These 'hotspots' are in areas categorised by ONS as large public housing estates; deprived urban communities living in terraced housing; and multicultural areas concentrated in the north east and south east of London. Market research data suggest that young people in these areas are of low social grade, live in weak family structures, and are typified by low aspirational but status seeking behaviour - which often accentuates traditional gender roles (for example, contraception being the sole responsibility of women).

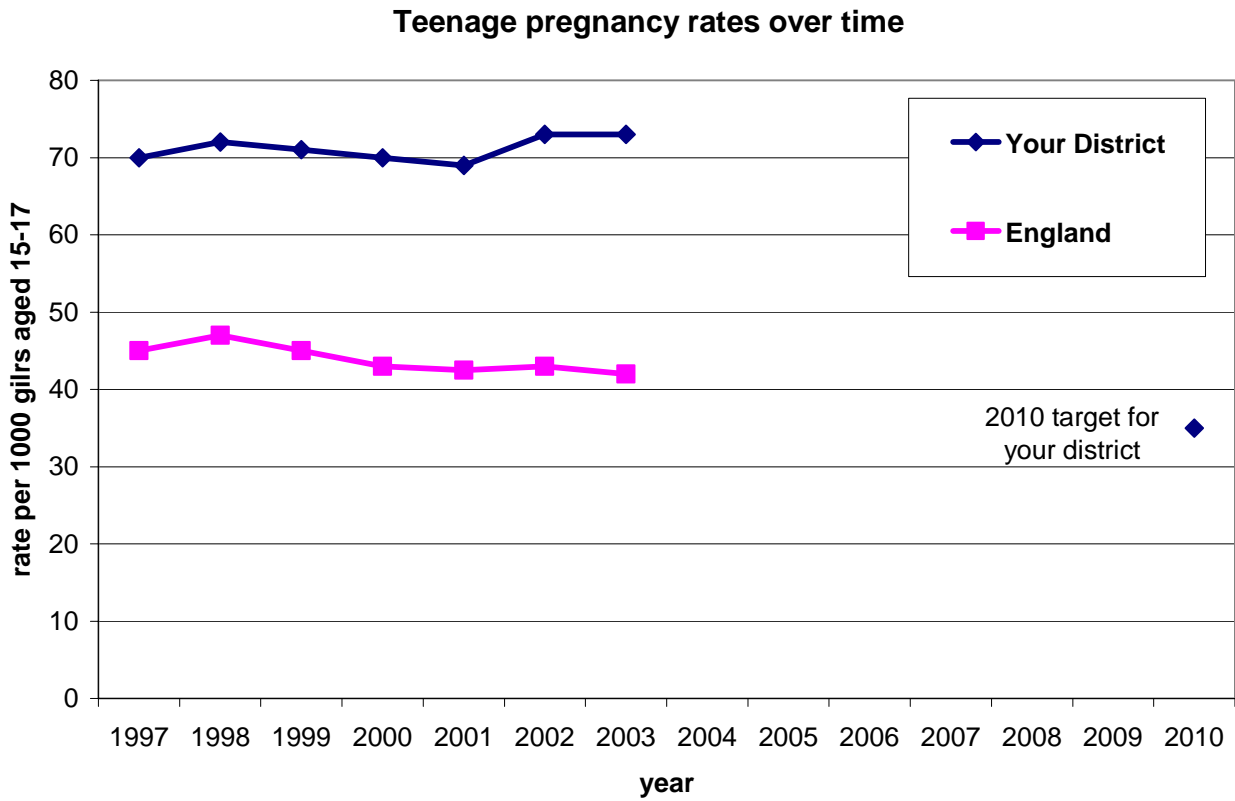
II. Extracts from the Health Development Agency Evidence Briefing Summary (HDA 2003) on the evidence base for reducing teenage conceptions.

Good (strong evidence contained in category 1 or 2 reviews) evidence was found for the effectiveness of the following interventions aimed at preventing unintended teenage pregnancy:

- School-based sex education, particularly linked to contraceptive services (measured against knowledge, attitudes, delaying sexual activity and/or reducing pregnancy rates)
- Community based (eg family or youth centres) education, development and contraceptive services.
- Youth development programmes: although the evidence base for this was small, reviews indicate that programmes focusing on personal development (programmes that support and teach confidence, self-esteem, negotiation skills), education and vocational development may reduce pregnancy rates
- Family outreach: some good evidence was found for the effectiveness of including teenagers' parents in information and prevention programmes.

III. Local Teenage Pregnancy Rate Trends

Adapted from output graph from the Teenage Pregnancy Unit, DH



**TEENAGE PREGNANCY: HEALTH DATA SHOWS
YOUR LOCAL AREA HAS THE WORST TEENAGE
PREGNANCY RATE IN THE REGION**

ACTOR BRIEFING PACK

Candidate task and objectives

The candidate has been asked to prepare a 4 minute verbal presentation followed by a 4 minute discussion with a local radio reporter on the high teenage pregnancy rate locally.

He/she has been asked to look at the data presented. They have been asked to consider what additional data they need to further investigate this finding. They are to plan a verbal response to the radio reporter. The report is not live and so will be edited prior to broadcast.

They have been asked to pay particular attention to being clear, concise and professional in the report and cover these three areas:

- Summarise the findings for a public radio audience. Be brief. This includes making sure they understand what teenage pregnancy actually means in this context.
- State what additional information might you seek in exploring this further and what steps you will be taking next.
- What public health message(s) might you want to communicate to the listening public given this opportunity.

Station background

Teenage pregnancy is associated with high levels of deprivation, poor educational attainment in the local population of young people, especially at age 14-15 and also with certain Black and Black Caribbean groups (although this ethnic link could be wholly explained by levels of deprivation). The Department of Health summary (enclosed) suggests that your local area has very high teenage pregnancy rates.

There is good evidence that services that engage young people in a holistic way, addressing their concerns and expectations, are more successful at achieving changes (reductions) in teenage pregnancy rates, as are services that are clearly designed for teenagers, both in their location and timing and in the way they are run and staffed - appealing to teenagers and being culturally sensitive. This includes NHS services.

Teenage pregnancy is defined for this purpose as the annual rate of conceptions (pregnancies) in girls aged under 18, per 1000 girls aged 15-17, to give a rate (eg 70 per 1000). From this data, graphs of teenage pregnancy rates can be drawn. The situation in this scenario shows that the area the candidate is representing has a very high level of teenage pregnancy, possibly explained by its high level of deprivation and poor educational attainment. Although this latter point (the education link) is not explicitly mentioned as a local issue, it is likely to be a factor.

Actor/Role Play Brief

Actor brief.

You are a radio reporter. A briefing from the Department of Health has been sent to you and it shows that the local area has very high rates of teenage pregnancy. They have been high for many years and do not appear to be reducing, despite there having been a teenage pregnancy action plan for the last 4 years – you reported on it some time ago with hopes at that time of it making a difference to these high levels.

The candidate is a relatively junior member of the public health team but nevertheless you expect them to explain what possible reasons may exist for this, their plans to find out why rates are not reducing and what they are going to do. You have received good advice from the public health team in the past and so are confident that they can outline what needs to be done. Although the teenage pregnancy action plan is led by the local council, it is a health target to try and achieve reductions, and many NHS services exist around contraception and sexual health. You wonder if these are adequate.

You are recording this for editing and use in a feature you are going to put out later in the day on this topic. The candidate has been asked to present a verbal summary to you lasting no more than 4 minutes and they have been told that you may interject /ask questions during this initial brief presentation.

Starting the station

Following the examiner confirming the candidate's identity, you will start the session by saying "Many thanks for coming in today. Could you briefing summarise for our listeners what this latest health report is telling us about teenage pregnancy locally.."

What questions need to be covered?

You need to make sure that the candidate should clearly identify to you:

- Summarise the findings for a public radio audience. This includes making sure they understand what teenage pregnancy actually means in this context.
- State what additional information might they seek in exploring this further and what steps they will be taking next.
- **You should ask the candidate at some point "It seems as though nothing much has worked so far to reduce teenage pregnancy?"**
- What public health message(s) might they want to communicate to the listening public given this opportunity.

Any no go areas?

The outcome of teenage pregnancy is either a decision to have a therapeutic (induced) medical abortion or progression of the pregnancy naturally. Detailed probing / questioning about abortion should be avoided in this scenario.

Level of conflict or cross-examining required.

Not high. Gently probe obvious inconsistencies in the candidates narrative.

How the station will close.

The actor/radio reporter should bring this to a close after 8 minutes in total. You should stop the candidate after 4 minutes of verbal presentation so you can probe as outlined above.

You will enclose the session and make sure the candidate leaves the room at the appropriate time.



Faculty of Public Health

Of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

OSPHE 026

Public Concerns about Mobile Phones

PUBLIC CONCERNS ABOUT MOBILE PHONE MASTS

CANDIDATE PACK

Candidate task

You have 8 minutes to prepare for the next OSPHE.

Imagine that you are a health protection specialist at a local health protection unit. Read the following briefing pack and prepare for an 8-minute briefing interview with a local newspaper reporter. You are not required to present material using any visual aids. Use your own experience of the issue and the information from the briefing pack.

Outline of situation

A mobile telephone mast is planned to be erected in a prominent position about half a mile from a primary school. A protest group based in the school, concerned about media reports that childrens' health can be damaged by living near a mobile phone mast has contacted a local newspaper for support. The newspaper has contacted you, as a member of the local health protection unit for the area. They want to interview you to learn about what is known about the risks of living near a mobile phone mast.

You have been told that the questions will be in the areas of.

- Is there any evidence that public exposure to radio-frequency radiation from phone masts in public places is a risk to health.
- Is exposure from phone masts of the same order as the exposure from using a phone.
- Why does the NRPB/HPA report, Mobile phones and Health 2004 advocate precaution in the use of phones by children
- What is that precautionary advice for children.

Candidate guidance

You are to give an 8-minute briefing interview with a local newspaper reporter about the health effects of mobile telephone masts.

You should summarise the evidence about whether there is a health risk to the general population associated with mobile phone mast exposures. Explain that that exposure to radiofrequency radiation from phones is many times greater than exposure from base station antenna. Give at least 2 reasons why children may be at higher risk if they use mobile phones.

You should answer questions in a way that appreciates the potential risks in comparison with other risks that people face daily and interact with the media in an appropriate manner and giving explanations at a level of complexity suitable for a local newspaper.

Resources available

This OSPHE summary

Two briefing papers, one extracted from a publication by from an official scientific advisory body (NRPB Document), the other from a public concern group Website.

The Examination room

An actor playing the local newspaper journalist, an examiner and a copy of the briefing pack will be in the exam room. There may be an observer too. You will be introduced to those present before you go in-role as the representative of the local health protection unit.

You do not need to take these notes into the examination room but you may make and take in your own notes. These notes will not form part of the assessment. The examiner will collect these before you leave the examination room.

Candidate Briefing Pack

Document 26.1, an extract from the executive summary of the recent NRPB (now HPA) report "Mobile Phones and Health 2004"

Documents of the National Radiological Protection Board (NRPB): Volume 15, No. 5 Mobile Phones and Health 2004: Report by the Board of NRPB Extracts from the Executive summary (including additions, deletions and minor revisions)

Background physics

Radio-frequency radiation is not the same as ionising radiation (nuclear radiation). The fields have much lower energies and are not capable of causing ionisation of atoms and molecules in living cells. Radio waves have been around in the environment for many years, carrying all the usual TV radio and other signals. Mobile phones use different frequencies than TV and broadcast radio, but there is no accepted biological hypothesis to suggest that they are qualitatively different

Using a mobile phone can expose tissues adjacent to the antenna to levels of RF radiation more than a thousand times higher than people would normally encounter from base stations (masts). This is measured as the SAR value of the phone. We understand from the Mobile Manufacturers Forum that all mobile phones presently marketed in the UK comply with both national (NRPB, now HPA) and international (ICNIRP) standards for SAR.

The Stewart Report 2000

Concerns about the possible impact of mobile phone technologies on health led the UK government to set up the Independent Expert Group on Mobile Phones (IEGMP) in 1999. Its report, *Mobile Phones and Health* (the Stewart Report), was published in May 2000. It stated:

- The balance of evidence to date suggests that exposures to radio frequency (RF) radiation below NRPB and ICNIRP (International Commission on Non-Ionizing Radiation Protection) guidelines do not cause adverse health effects to the general population.
- There is now scientific evidence, however, which suggests that there may be biological effects occurring at exposures below these guidelines.
- We conclude therefore that it is not possible at present to say that exposure to RF radiation, even at levels below national guidelines, is totally without potential adverse health effects, and that the gaps in knowledge are sufficient to justify a precautionary approach.
- We recommend that a precautionary approach to the use of mobile phone technologies be adopted until much more detailed and scientifically robust information on any health effects becomes available.

Since 2000, the widespread development in the use of mobile phones world-wide has not been accompanied by associated, clearly established increases in adverse health effects. Within the UK, there is a lack of hard information showing that the mobile phone systems in use are damaging to health.

Nevertheless, the following issues have to be taken into consideration.

First, the widespread use of mobile phone technologies is still fairly recent and technologies are continuing to develop at a pace which is outstripping analyses of any potential impact on health.

Second, there are data which suggest that RF fields can interfere with biological systems.

Third, it has not yet been possible to carry out necessary long-term epidemiological studies and evaluate the findings. However, an increase in the risk of acoustic neuromas has recently been reported in people in Sweden with more than ten years' use of mobile phones. Epidemiological studies, because of a lack of sensitivity, may miss any effects in small subsets of the general populations studied.

Fourth, a number of people also report symptoms they ascribe to electromagnetic hypersensitivity arising from exposure to a range of electromagnetic fields (EMFs), including fields from mobile phones, encountered in everyday life.

Sixth, IEGMP considered that children might be more vulnerable to any effects arising from the use of mobile phones because of their developing nervous system, the greater absorption of energy in the tissues of the head and a longer lifetime of exposure. The potential for undertaking studies to examine any possible effects on children, however, are limited for ethical reasons. **The Board concludes that, in the absence of new scientific evidence, the recommendation in the Stewart Report on limiting the use of mobile phones by children remains appropriate as a precautionary measure.**

Base stations, there remain concerns in the UK about the impact of base stations on health and well-being. Despite current evidence which shows that exposures of individuals are likely to be only a small fraction of those from phones, they may impact adversely on well-being. The Board supports the ongoing audit of base stations to provide reassurance to the public that exposures from base stations are small fractions of exposure guidelines.

The Board believes that the main conclusions reached in the Stewart Report in 2000 still apply today and that a precautionary approach to the use of mobile phone technologies should continue to be adopted.

Mobile phones and SAR values

The Board welcomes the provision of information on the SAR from phones by all manufacturers using a standard testing procedure. It recommends that comparative information on the SAR from phones is readily available to the consumer. The inclusion of comparative data on the SAR from phones in its promotional literature by at least one retailer is a welcome development.

Document 26.2, a web page from a voluntary group concerned about the health effects of mobile phone masts.

Extract, with minor amendments, from the Mast Sanity Website (Stewart report briefing)

The Faculty does not take responsibility for the accuracy of the information in this briefing

<http://www.mastsanity.org/documents/InfoSheets.htm#1Stewart>

Why are you against mobile phones - they can be very useful surely?

We are not against mobile phones. They are very useful and have saved lives in emergencies. We are against the unregulated growth of the new mast network for 3G phones because the new masts are closer together (especially in urban areas) and operate at higher frequencies. We believe that the evidence strongly suggest the higher frequency services (like 3G) are more dangerous to humans, especially children.

Why do we want to make 'health' the issue?

Because many people have genuine and legitimate concerns about the adverse effects on their health from mobile phone masts close to schools, hospitals and homes. The Stewart Report concluded that health issues had not yet been resolved. We want the government to adopt, in full, the precautionary approach recommended by the Stewart Report. This is our chance to be wise before the event - unlike the experiences with Thalidomide, BSE, overhead power lines and so on. If the government accept all the findings of the Stewart Report then their guidelines to local authorities must not exclude health as a pertinent planning issue.

Research Facts

The emissions from these masts are not stopped by bricks and mortar. Closing your door and shutting your windows does not protect you! Masts produce microwaves, we know they HEAT. The emissions from masts are the same except much lower so they do not heat the body up quite so much, though it still has an effect on our bodies. However heating is not the only effect of microwaves. The non-heating effects that scientists have now proved change the cell and how it works are NOT regulated in this country. Many eminent scientists argue that there is a link between cancer/leukaemia and the siting of these masts.

The radiation is known to affect systems in the brain influencing it in a way that can cause headaches and also memory problems, two of the most widely reported side effects. It also shortens the duration of REM sleep and the secretion of a substance called melatonin decreases. Both of these effects are consistent with reports of sleep disruption. Not all people are affected and the severity of reactions will vary from person to person, according to the robustness of their immune system. This makes the occurrence of non-thermal effects more difficult to predict, regulate and control, but does not mean they should be ignored.

Children are particularly susceptible because they are still growing (so their cells are dividing at a faster rate) and their nervous system is still developing. On top of that their immune systems are also weaker than adults and their skulls are smaller and thinner causing them to absorb substantially more radiation than adults. The electrical brain wave activity does not settle into a stable pattern until the age of 12 so below this age their brain waves are more susceptible to interference from the microwave emissions - similar to radio interference.

The telecommunication companies and the Government agencies CANNOT categorically say that occurrences of cancer and leukaemia, especially in children, are not directly associated with the sitting of masts, maybe in the school grounds, maybe on top of a block of flats. These masts are everywhere and most people don't know they're there. You might be suffering from one of the known problems and not realise why.

PUBLIC CONCERNS ABOUT MOBILE PHONE MASTS

MARKER EXAMINER PACK

Candidate task

The candidate has 8 minutes to prepare for the OSPHE.

He/she has been asked to imagine that he/she is a health protection specialist at a local health protection unit and to read the following briefing pack and prepare for an 8-minute briefing interview with a local newspaper reporter. The candidate is not required to present material using any visual aids.

Outline of situation

A mobile telephone mast is planned to be erected in a prominent position about half a mile from a primary school. A protest group based in the school, concerned about media reports that childrens' health can be damaged by living near a mobile phone mast has contacted a local newspaper for support. The newspaper has contacted you, as a member of the local health protection unit for the area. They want to interview you to learn about what is known about the risks of living near a mobile phone mast.

The candidate has been told that the questions will be in the areas of:

- Is there any evidence that public exposure to radio-frequency radiation from phone masts in public places is a risk to health.
- Is exposure from phone masts of the same order as the exposure from using a phone.
- Why does the NRPB/HPA report, Mobile phones and Health 2004 advocate precaution in the use of phones by children
- What is that precautionary advice for children.

INFORMATION FOR THE MARKER EXAMINER

State Examiner situation

The Marker Examiner will ask for the candidate's number and then say

"I want you to imagine now that you are doing an interview on radio masts and mobile phones to the local newspaper reporter who is sitting here is likely to want to ask you a few questions. Please introduce yourself and begin your presentation "

then hand over to the role player examiner to proceed.

The examiner will not be expected to intervene in the scenario. An actor playing the local newspaper journalist and a copy of the briefing pack will be in the exam room. There may be an observer too. There is a copy of the briefing pack in the OSPHE station. The candidate may make notes to take into the meeting but these will not be considered in the assessment.

Examiner Briefing Pack

The examiner will be provided with a copy of the candidate pack and actor pack.

What the actor has been told

As well as a summary of the scenario, including the 4 questions to ask, the actor has been told that in his/her role as a reporter, s/he has researched the issue by reading the website of an anti-mast group (Mast Sanity, in the briefing pack). The reporter realises that the information Mast Sanity presents will favour one side of the argument but is still concerned that there are hidden health risks from living next to a mobile phone mast.

The actor has been told that it is not appropriate to ask if the candidate would let their children go to a school near a mast, but you could ask if families in such situation should be reassured by the scientific findings.

The actor has been told to end the interview when all 4 questions have been dealt with.

Examiner model answer

The briefing papers will give you enough information to assess the candidate's answer. The actor will ask the 4 questions listed in bullets above. In case the examiner is unfamiliar with the technicalities please note that:

- Radiofrequency radiation is qualitatively different from ionising (nuclear) radiation. Unlike nuclear radiation it cannot cause ionisation of atoms and molecules in living cells
- The precaution advocated in the report applies to use of mobile phones but NOT to exposure to mobile phone antennae. Hands-free kits also reduce exposure.
- The recommendations about masts mainly refer to planning processes.
- The briefing lists a number of reasons why precaution is advocated for children:
 - Because mobile telephones are a new technology, we cannot be 100% certain that there are no long-term effects. This uncertainty justifies a precautionary approach to the use of mobile phones by children.
 - There is some reason to believe that, if there is an adverse effect, children may be at greater risk if they use mobile phones (thinner skulls, longer exposure, no child-specific research). This means that young children should not have phones, if they do have them they should only use them in emergencies and use text rather than phone because that decreases the exposure.

Marking Guide for OSPHE 026 - Public Concerns about Mobile Phones

1. Has the candidate appropriately demonstrated presenting skills in a typical public health setting (presenting to a person or audience)?

The candidate summarises clearly and with emphasis on key points, avoids jargon, makes eye contact and appropriate non-verbal communication, and develops rapport with the journalist

2. Has the candidate appropriately demonstrated listening skills in a typical public health setting (listening and responding appropriately)?

Candidate responds appropriately to the questioning of the role player and understands questions – and asks if unclear. The candidate should act in a way that is empathetic to anxious families by showing concern and not dismissing fears “outright”

3. Has the candidate demonstrated ascertainment of key public health facts from the material provided and used it appropriately?

The candidate summarises the evidence about health risks to the general public associated with mobile phone mast exposures by explaining that a careful review of the scientific evidence does not suggest that there is any risk in places the public have access to. The candidate says that the levels of microwave exposure from using mobile phones are many times (100s or 1000s of times) higher than the exposures from masts.

4. Has the candidate given a balanced view and/or explained appropriately key public health concepts in a public health setting?

The candidate gives at least 2 reasons why children may be at higher risk if they use mobile phones (thinner skulls, longer exposure, no child-specific research). Communication of risk concepts. May use examples to explain why risks of new technology may not be understood early on in their use.

5. Has the candidate demonstrated sensitivity in handling uncertainty, the unexpected, conflict and/or responding to challenging questions?

Candidates would note that radiofrequency radiation has been in the environment for many years. Candidates should be given credit for giving reassuring messages that also recognise that there is still scientific uncertainty. Good candidates may contrast some of the allegations in the website with what is known from the science.

PUBLIC CONCERNS ABOUT MOBILE PHONE MASTS

ACTOR BRIEFING PACK

Candidate task and objectives

The candidate has been told that a mobile telephone mast is planned to be erected in a prominent position about half a mile from a primary school. A protest group based in the school, concerned about media reports that childrens' health can be damaged by living near a mobile phone mast has contacted a local newspaper for support. You are the reporter for that newspaper. A member of the local health protection unit for the area (the candidate) has agreed to give you an 8 minute face-to-face interview about what is known about the risks of living near a mobile phone mast from a scientific perspective.

Actor Briefing

You should act the part of a junior reporter on a small-town local newspaper. Ask questions, let the candidate answer but do not cross examine the candidate who may not have known anything about mobile phones before the exam!

In your role as a reporter, you have researched the issue by reading the website of an anti-mast group (Mast Sanity, in the briefing pack in the room). You realise that the information they present favours one side of the argument but you are concerned that there are hidden health risks from living next to a mobile phone mast.

The candidate has been told that the questions will be in the areas of.

- Is there any evidence that public exposure to radio-frequency radiation from phone masts in public places is a risk to health.
- Is exposure from phone masts of the same order as the exposure from using a phone.
- Why does the report advocate precaution in the use of phones by children
- What is that precautionary advice for children.

Please use these as the basis for your questions:

A satisfactory candidate would be able to:

- explain that a careful review of the scientific evidence does not suggest that there is any risk to the public from mobile phone masts in places the public have access to,
- say that the levels of microwave exposure from using mobile phones are many times (100s or 1000s of times) higher than the exposures from masts,
- explain that, because mobile telephones are a new technology, we cannot be 100% certain that there are no long-term effects. This uncertainty justifies a precautionary approach to the use of mobile phones by children. There is some reason to believe that, if there is an adverse effect, children may be at greater risk if they use mobile phones (thinner skulls, longer exposure, no child-specific research). This means that young children should not have phones, if they do have them they should only use them in emergencies and use text

rather than phone because that decreases the exposure. Hands-free kits also reduce exposure,

- act in a way that is empathetic to anxious families by showing concern and not dismissing fears "outright".

Note that briefing available to the candidate summarising the Health Protection Agency review of the scientific evidence may appear to contradict directly some of the inferences in the Mast Sanity website extract (see below). Please recognise that the Mast Sanity website only gives you access to the Mast Sanity "side" of the argument and the candidate would be expected to answer from the Health Protection Agency material using the Mast Sanity briefing find out where the concerns are.

Please probe if the candidate has not answered any of the 4 main questions. You should end the interview once all the questions have been asked unless the time runs out, in which case, just stop.

It is not appropriate to ask if the candidate would let their children go to a school near a mast, but you could ask if families in such situation should be reassured by the scientific findings.

It is your role to end the session and ensure that the candidate moves on at the correct time.

Actor Briefing document. Note that the candidate also has this document

Document 26.2, a web page from a voluntary group concerned about the health effects of mobile phone masts.

Extract, with minor amendments, from the Mast Sanity Website (Stewart report briefing)

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Research Facts

The emissions from these masts are not stopped by bricks and mortar. Closing your door and shutting your windows does not protect you! Masts produce microwaves, we know they HEAT. The emissions from masts are the same except much lower so they do not heat the body up quite so much, though it still has an effect on our bodies. However heating is not the only effect of microwaves. The non-heating effects that scientists have now proved change the cell and how it works are NOT regulated in this country. Many eminent scientists argue that there is a link between cancer/leukaemia and the siting of these masts.

The radiation is known to affect systems in the brain influencing it in a way that can cause headaches and also memory problems, two of the most widely reported side effects. It also shortens the duration of REM sleep and the secretion of a substance called melatonin decreases. Both of these effects are consistent with reports of sleep disruption. Not all people

are affected and the severity of reactions will vary from person to person, according to the robustness of their immune system. This makes the occurrence of non-thermal effects more difficult to predict, regulate and control, but does not mean they should be ignored.

Children are particularly susceptible because they are still growing (so their cells are dividing at a faster rate) and their nervous system is still developing. On top of that their immune systems are also weaker than adults and their skulls are smaller and thinner causing them to absorb substantially more radiation than adults. The electrical brain wave activity does not settle into a stable pattern until the age of 12 so below this age their brain waves are more susceptible to interference from the microwave emissions - similar to radio interference.

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Faculty of Public Health

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Working to improve the public's health

OSPHE 100

Health Impact Assessment of a Municipal Waste Incinerator

**HEALTH IMPACT ASSESSMENT OF A MUNICIPAL
WASTE INCINERATOR**

CANDIDATE PACK

Candidate task

Who are you and what is the task?

You are a member of a local public health team within the NHS/health service. You are asked to present a summary outlining the major stages of a health impact assessment (HIA) of a proposed municipal rubbish incinerator development close to a population area.

Who is your audience?

A public health manager in your team leading the planning of the work of the department for the coming year (they have little experience of what a Health Impact Assessment involves).

How long have you got?

8 minutes of preparation using briefing pack and instructions to candidate.
8 minutes presentation during which the examiner will ask you questions.
Flip chart or verbal presentation.

Outline of situation

Description of the proposed incinerator development.

The area covered by the primary care organisation has a resident population of 150,000. A planning application has been received by the local Council for additional capacity at the current local municipal household waste incinerator of some 50,000 tons of extra waste. The incinerator is within one kilometre of the edge of the town; it is known that the plume from the incinerator chimney often falls on a part of the city that has some of the greatest levels of deprivation locally. The council have asked the local Director of Public Health for help.

You have a briefing pack and blank paper to make notes and a flip chart and marker pens to use in your presentation if you wish.

Candidate guidance

The task: You are asked by your Director of Public Health to outline how a Health Impact Assessment (HIA) of this proposal might be undertaken, and s(he) has also provided you with some background information (candidate briefing pack). You are required to briefly present an outline of the major stages of an HIA you might undertake to a public health manager in your team leading the planning of the work of the department for the coming year (they have little experience of what a Health Impact Assessment involves).

You should cover:

- What is a health impact assessment?
- What major stages need to be undertaken in an HIA and who are the stakeholders?
- What sort of specialist advice will they require from the HPA? Provide a brief background to the situation.

Competencies tested

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
- 4) Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.
- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

At the station

An examiner will ask you for your candidate number and an examiner will introduce you and then you should begin your presentation.

The candidate briefing pack should stay in the room and that you should only take your working notes/flip chart needed to undertake the task into the examination room.

A clock is available in the examination room.

Candidate Briefing Pack

- I Extract from DH committee on carcinogenicity 2000.
- II Extract from a DEFRA report 2003.
- III Summary of HIA methodology (Health Development Agency 2005)

I. Extract from DH committee on carcinogenicity 2000

Incinerators.

The Department of Health's committee on Carcinogenicity published a statement in March 2000 evaluating the evidence linking cancer with proximity to municipal solid waste incinerators in the United Kingdom (Committee on Carcinogenicity. Cancer incidence near municipal solid waste incineration in Great Britain. Statement COC/00/S/001, Dept of Health 2000):

The committee concluded that 'any potential risk of cancer due to residency (for periods in excess of ten years) near to municipal solid waste incinerators was exceedingly low and probably, not measurable by the most modern techniques'.

Several studies have examined possible adverse effects on respiratory health among people living near incinerators and failed to show any excess of acute chronic respiratory symptoms.

II. Extract from DEFRA report 2004.

(Department for the Environment, Food and Rural Affairs. Review of Environmental and Health Effects of Waste management municipal Solid Waste and Similar Wastes. Enviro Consulting Ltd and University of Birmingham. March 2004.

Municipal Waste Incineration:

" we found that approximately one additional hospital admission would occur every five years as a result of emissions from an individual waste incinerator facility. One death would be expected to be brought forwards due to emissions from an individual waste incinerator facility every 100 years. The number of additional cancer cases would be lower still".

III Health Development Agency: 'Clarifying approaches to Health Impact Assessment' HDA 2005.

<http://www.publichealth.nice.org.uk/page.aspx?o=505665> accessed 12.11.2005

The purpose of Health Impact Assessment is to:

- Identify the potential health consequences of a proposal on a given population
- Maximise the positive health benefits and minimize potential adverse effects on health and inequalities.

The preferred starting point for HIA is a proposal (policy, programme, strategy, plan, project or other development) that has not yet been implemented. Its primary output is a set of evidence-based recommendations to inform the decision-making process associated with the proposal. These recommendations aim to highlight practical ways to enhance the positive aspects of a proposal, and to remove or minimize any negative impacts on health and inequalities (known as a prospective HIA).

Steps in Health Impact Assessment

- 1 Deciding whether to undertake an HIA (screening)
- 2 Deciding how to undertake the HIA (scoping)
- 3 Identifying and considering the evidence of health impact (appraisal)
- 4 Formulating and prioritising recommendations
- 5 Further engagement with decision makers
- 6 Ongoing monitoring and evaluation

**HEALTH IMPACT ASSESSMENT OF A MUNICIPAL
WASTE INCINERATOR**

MARKER EXAMINER PACK

INFORMATION FOR THE CANDIDATE PACK

Candidate task

Who are you and what is the task?

The candidate has been told that he/she is a member of a local public health team within the NHS/local health system. He/she has been asked to present a summary outlining the major stages of a health impact assessment (HIA) of a proposed municipal rubbish incinerator development close to a population area.

Who is your audience?

A public health manager in your team leading the planning of the work of the department for the coming year (they have little experience of what a Health Impact Assessment involves).

How long have you got?

8 minutes of preparation using briefing pack and instructions to candidate.
8 minutes presentation during which the examiner will ask you questions
No discussion with the marker examiner.

Outline of the situation

Description of the proposed incinerator development.

The area covered by the primary care organisation has a resident population of 150,000. A planning application has been received by the local Council for additional capacity at the current local municipal household waste incinerator of some 50,000 tons of extra waste. The incinerator is within one kilometre of the edge of the town; it is known that the plume from the incinerator chimney often falls on a part of the city that has some of the greatest levels of deprivation locally. The council have asked the local Director of Public Health for help.

You have a briefing pack and blank paper to make notes and a flip chart and marker pens to use if you wish.

Candidate guidance

The task: You are asked by your Director of Public Health to outline how a Health Impact Assessment (HIA) of this proposal might be undertaken, and s(he) has also provided you with some background information (candidate briefing pack). You are required to briefly present an outline of the major stages of an HIA you might undertake to a public health manager in your team leading the planning of the work of the department for the coming year (they have little experience of what a Health Impact Assessment involves).

You should cover:

- What is a health impact assessment?
- What major stages need to be undertaken in an HIA and who are the stakeholders?
- What sort of specialist advice will they require from the HPA? Provide a brief background to the situation.

Competencies tested

- 1) Presenting communication skills in a typical Public Health setting (presenting to a person or audience).
- 2) Listening communication skills in a typical Public Health setting (listening and ascertaining key information).
- 3) Demonstrating ascertainment of key Public Health points from the material provided and using it appropriately and in relation to wider Public Health information sources.
- 4) Giving a balanced view and/or explaining appropriately key Public Health concepts in a Public Health setting.
- 5) Appropriately and sensitively handling uncertainty, the unexpected, conflict and/or responding appropriately to challenging questions.

INFORMATION FOR THE MARKER EXAMINER

State Examiner situation

The candidate has been told that the role-playing Examiner (as a member of the Public Health Department) may ask questions or seek clarification during the presentation.

The Marker Examiner should check the candidate's number and then say

"I want you to imagine now that you are doing a presentation on this Health Impact Assessment to a public health manager in your team leading the planning of the work of the department for the coming year, who is sitting here is likely to want to ask you a few questions. Please introduce yourself and begin your presentation "

then hand over to the role-player to proceed.

Marking Guide For Examiners

HIA Municipal Waste Incinerator

Key A=Excellent, B=Good, C=Adequate, D=Just below, E=Well below

Points to consider in order to grade the candidate.

1. Has the candidate appropriately demonstrated presenting skills in a typical public health setting (presenting to a person or audience)?

The candidate summarises clearly and with emphasis on key points, avoiding jargon and makes eye contact and appropriate non-verbal communication.

2. Has the candidate appropriately demonstrated listening skills in a typical public health setting (listening and responding appropriately)?

The candidate understands the situation being described and prepares a response that relates to it. The candidate understands questions asked and gives an adequate response.

3. Has the candidate demonstrated ascertainment of key public health facts from the material provided and used it appropriately?

Identification of the need for a HIA. Identification of how to undertake an HIA including who may / should undertake these (public health function within PCT or council) and identification of stakeholders and method to seek comment and communicate with them. May include Health Service, Council, Residents and tenants groups, Environmental groups, Health protection agency, Commercial or council Waste disposal company/section, Other local pressure groups, Education/schools representatives, Local politicians, Regional Public health teams, Media
The candidate identifies that the healthy effects of the proposal appear to be minimal. This may lead the candidate to reasonably question the need for an HIA at all.

4. Has the candidate given a balanced view and/or explained appropriately key public health concepts in a public health setting?

Answer identifies the concept of risk and its communication, the use of specialist environmental assessment, why an HIA may be necessary (function of public health specialists, addressing public concern about local health issues, required by guidance, leadership in technical public health work).

5. Has the candidate demonstrated sensitivity in handling uncertainty, the unexpected, conflict and/or responding to challenging questions?

Candidates appreciate that the DH and DEFRA reports essentially state that the overall health effects appear to be minimal but community uncertainty of risk may be a major issue needing work through the HIA process. Often high levels of community scepticism about 'experts'.

Examiner Briefing Pack

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Include same briefing as given to candidate.

**HEALTH IMPACT ASSESSMENT OF A MUNICIPAL
WASTE INCINERATOR**

**“ROLE PLAYER EXAMINER”
BRIEFING PACK**

The Marker Examiner will greet the candidate and check their details and will hand over to you to start the session.

You are playing the role of a public health manager in a local Department of Public Health team leading the planning of the work of the department for the coming year (you have little experience of what a Health Impact Assessment involves but have a bigger view of what the whole department has to deliver. You work closely with the head of the team (the Director of Public Health) who needs this work to be carried out but you need to know what has to be done so you can begin to assess resource time and use.

You will then thank the candidate for meeting you to explain the process involved in undertaking the HIA and ask them to start the presentation.

During the presentation you should ask (and rephrase the question if needed)

- “Is it not usually the case in these situations that community representatives tend to not believe anything which comes from an “expert?”

It is your role to end the session and ensure the candidate moves out of the room at the correct time.