

The following scenarios were at the February 2007 OSPHE exams. As you will appreciate, they represent my recollections of the events and the stations and the approaches to the questions and tasks essentially reflect my personal understanding of what was required at the stations.

The station topics were as follows:

Don't confuse me with statistics
Waste resource centre
Drug related deaths
Prisons and smoking cessation
Microdiscectomy for slipped disc
Temozolomide and Glioblastoma Multiforme

1. Don't confuse me with statistics!

You are a member of the local public health team. In this station, you are to meet with a local councilor who has kindly honoured a meeting your DPH requested. The DPH requested this meeting because they felt there is increasingly urgent need for the local authority to work with health as new health statistics for your PCT area suggests need for joint action. The councilor is spooked by statistics and technical terms and will like you in the course of the meeting to explain some terms in simple language.

You are given two charts, with one of them showing trends in mortality under 75yrs from circulatory diseases and the other showing the same for cancers from 2003 to 2006. The charts also display Directly Standardised Mortality Rates. Other information talks about the fact that life expectancy for men had risen by 0.2 yrs in the PCT but when compared to national figures, the gap had actually widened by 2.4 yrs. For women, the life expectancy had fallen by 0.1yrs and the DPH was quite alarmed at this. Alcohol and certain digestive disorders were highlighted as playing roles in the LE picture among women.

When you meet with the councilor, he will ask you to explain life expectancy, mortality and DSR in simple language. Then you are expected to take him through the story that the charts tell (deaths from circulatory diseases falling, deaths from cancers rising recently, LE among men rising but still not looking good in comparison with national picture). You will also need to explain what might be responsible for those stats (alcohol in women, rising liver Cirrhoses and CLD, lung cancer) as well as specific areas you need the councilor and his organization to work with your team – alcohol and smoking.

The councilor's role is scripted to ask a question on why there is no screening programme for lung cancer in women. You need to answer in the light of Wilson and Jungner or National Screening Commission criteria – the condition, the screening test, the treatment and the screening programme.

2. Waste resource centre

In this station, you are to meet with a local representative of a pressure group (I think), who is worried about the fact that the local PCT has not resisted the proposed siting of a modern waste resource centre in the geographical area. They want the PCT to shut it down or prevent it from being situated there (not sure which now).

You are to get across to the rep the following points:

What the PCT is doing to be able to inform the processes regarding the WRC.
What the local area stands to gain from the location of the WRS in their area.
The benefits of a modern waste management to environmental sustainability

A pretty long reading material is attached. In that material, the main points to get across are that:

Shutting it down is not the responsibility of the PCT but that the PCT has definite roles, which it is playing.

A HIA is being done and will inform relevant agencies regarding the situation.
The WRC uses modern methods of handling solid waste and that incineration will only be last option when all other newer and better avenues of disposing of solid waste have been exhausted.

There are benefits cited in the reading material – obviation of need for transporting waste by public transport, local employment and generation of biofuels (you need to identify more).

3. Drug related deaths

The main point in the background to this station is that drug related deaths are increasing in your locality. A 'substitute prescription' policy is in place whereby methadone is prescribed by GPs and dispensed to drug users. About 3,000 drug users in your patch are on methadone presently and there are worries that people are just being offered methadone which they take and 'sleep off' into their deaths. A local journalist who is quite friendly with your health organization is keen on finding out from you (a member of the public health team) what exactly is going on.

The reading material contains data on drug related deaths (defined in the reading material) classified as accidental, intentional and suicide for the years 2001 to 2005. It presents actual numbers and not rates. You are given further data suggesting that unemployment rates among drug users is 50%, that many of them have underlying mental ill-health and that only 3 out of the 57 drug related deaths in your patch were in people on methadone substitution.

The journalist asks you to explain the picture - just talk her through the statistics. In the stats, you identify that there has not been a real increase in the numbers (remember, not rates) of deaths due to accidental drug overdose. Instead, the numbers of suicides had greatly increased. I wondered if the increase in suicides were related to underlying social and mental health

issues in that population. The thing to point out however was the fact that less than 5% of the drug related deaths (you need to define drug related deaths to the journalist) are in methadone users. Then you need to explore what things could be done to address drug use, the rising suicide numbers and the underlying social and mental health issues. I think it is an opportunity to get in important health promotion messages, awareness of these underlying issues among drug users as well as need for joint working to address the wider determinants of health – unemployment and social exclusion.

Some people might be careful about attributing a picture of increase to the stats considering that we are given only absolute numbers and not rates. My worry with this is that we are interested in drug-related death rates among drug users (and we have a denominator for this population) and not in the general population. Suicide rates were actually given and were clearly on the rise although one may wish to observe that confidence intervals were not given.

4. Prisons and smoking cessation

You are to meet with the commissioning manager of your local PCT to discuss prison health. Your PCT's smoking cessation services are stretched to the limit and the Trusts budget is overspent. The local prisons health data show that 83% of its population are smokers, compared to the smoking rate of 35% in the local general population. The smoking cessation services only offer one smoking cessation clinic every two weeks in the prison. You need to advise what needs to be done.

The background reading highlights the fact that a comprehensive health needs assessment has never been done on the prison population and also highlights the effectiveness of your PCT's smoking cessation service over the past two years (falling) – you need to describe how this was estimated (numbers remaining smoke-free at 4 weeks/numbers setting quit date). Other audit data breaks down the effectiveness of smoking cessation services in different settings. Smoking cessation offered by a trained person based locally in the setting had the highest effectiveness while prison smoking cessation outreaches, as done by your PCT, has the lowest effectiveness rates.

Relevant sections of national policy are also included in the reading materials and highlights the fact that services offered prison populations must be commensurate with those offered the general population.

You need to identify issues of inequity here (prison population in greater need than general but getting less service). You will be challenged on whether and how the smoking cessation services needed to adjust to offer equitable services to the prison. You will also be asked whether a HNA is necessary.

It might be that it is worth having a trained person in location at the prison, although you'd have to be conscious of the potential resource implication of this. If you offer this suggestion, you may be asked to consider that smoking

cessation offered to a prison population is only 18% effective, compared to 38% for general population. Some people would wonder if effectiveness figures would be different if there was someone on ground in the prison, as this might improve engagement and adherence.

5. Microdiscectomy for slipped disc

In this station, you would be walking in to meet a professor of orthopaedic surgery who is just finishing his presentation (actually reads out the last two slides of his presentation) persuading the NHS that microdiscectomy for herniated intervertebral disc is better than standard discectomy. Your task is to challenge this professor's conclusions by making reference to an unpublished PhD thesis that used data from a randomized controlled trial of microdiscectomy and physiotherapy to do an economic evaluation of those two. You also have access to findings of other RCTs comparing both microdiscectomy and standard discectomy to physiotherapy.

The professor's argument is that MD is less invasive, safer and results in quicker recovery than standard discectomy. You are to look at the graphs (actually survival curves) and identify that indeed MD in comparison with physiotherapy leads to quicker improvements in ODI (Oswestry Disability Index) as well as in sciatica and back pain measured by the Visual Analogue Scale, but that after 12 months (for disability and sciatica) and 24 months (for back pain), the differences either disappear or become non-significant as evidenced by the Confidence Limits on the curves. Clearly, he did not note this fact. The NHS would be greatly interested in sustainability of outcomes.

The material also includes a cost-effectiveness analysis with a sensitivity analysis based on an assumption of productivity losses for affected patients ranging from £0 to £183. The essential gist of the matter is to recognize that patients' incremental cost is negligent compared with the incremental cost borne by the NHS. Also microdiscectomy appears to be more cost-effective when higher productivity losses are assumed. This would mean that it would be more cost-effective to the NHS to use microdiscectomy on richer patients than on poorer ones (this wealth difference being indicated by socioeconomic class). This clearly raises up issues of equity and makes the procedure less attractive.

Most people were fazed by the health economics in the material but the important thing was just to recognize that it was a sensitivity analysis assuming various productivity losses.

6. Temezolomide and Glioblastoma Multiforme

In this station, your CE just wants you to advise him real quick on whether the PCT should fund Temezolomide for a 35 yr old woman with Glioblastoma

Multiforme. He wants to know what the implications might be of funding and not funding it both to the PCT and to the woman.

In the background reading you are given the information that this woman has a six-year-old son, that 20 people in your patch get gliomas every year, 8-9 of which are Glioblastoma Multiformes. Unblinded randomised controlled studies show that the overall survival and disease-free survival after treatment with the drug are significantly better compared to placebo. The figures are unadjusted however. Further information suggests that only 1 out of 6 people commenced on Temozolomide are alive after two years. The cost of the drug over and above radiation is £11,000.

You might want to establish the following facts to the CE:

- Although outcomes from the RCT seem good, you have worries about how reliable they are considering non-blinding and non-adjustment.
- Only 1 in 6 are alive on temozolomide after 2 years.
- If funded for this woman, in the course of the year, you would have to establish why her case is an exceptional case. Failing that, you'd have to set apart some £88,000 £99,000 to fund other GBMs in a year.
- The opportunity costs of funding this woman's treatment is immense - £11,000 can fund 2-3 hip replacements and will pay the salary of a specialist rehab nurse for 4 months.
- Having said that, we need to consider that this woman will die soon if not funded and a six year old child may have to go into care (? cost shifting, compassion?).

The essential summary is that it should not be funded because there will be ongoing financial consequences and the evidence for its effectiveness for this woman is not convincing.

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