**KEY messages:**

- Sexually transmitted infections (STIs) are easy to diagnose and treat. They are also, to some extent, preventable. Yet, untreated, they can have severe health, economic and social consequences.

- The number of STIs diagnosed in genito-urinary medicine (GUM) clinics in the UK has soared over the last eight years, from 450,000 new cases in 1995 to just over 700,000 new cases in 2003.

- The direct medical cost to the UK of newly acquired STIs in 2003 was around £413 million. This estimate is based on the lifetime cost of treating STIs. It includes the expense of treating acute STIs and the sequelae of untreated or inadequately treated acute STIs.

- The direct medical cost to the North West of newly acquired STIs in 2003 has been estimated at almost £60 million.

- STIs are unique - a special approach needs to be taken with regards to funding and providing sexual health services.

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**Introduction**

This report analyses sexually transmitted infections (STIs) from an economic perspective. While the costs of STIs are substantial, the majority of economic research around sexual health has been on HIV and AIDS. This report presents an overview of the epidemiology of the five most common STIs in the UK and North West, and sets out the changes in sexual behaviour and incidence of STIs. There is a brief introduction to welfare economics and the different forms of economic evaluation and subsequently the costs of STIs are described and evidence on the effectiveness of interventions examined. Finally, current policy is assessed and issues for the North West sexual health networks are identified and actions recommended.

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**Overview of STIs in the UK and North West**

**Sexual Behaviour**

The most important factor to explain the changing incidence of STIs is sexual behaviour. Sexual behaviours that may cause an increase in the chances of transmission include an increase in the rate of unprotected intercourse, partner change and changing sexual practices. To evaluate changes in sexual behaviour several studies have been undertaken. The two most important behavioural surveys for the general population are the National Survey of Sexual Health and Lifestyle (NATSAL), which was undertaken in 1990 and repeated in 2000, and the Omnibus contraception and sexual health survey, which has been carried out annually by the Office of National Statistics since 1997. The key findings of these surveys are presented in Box 1 [overleaf].

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“If you think health care is expensive now, wait until you see what it costs when it’s free”

P.J. O’Rourke
**Box 1 - Changing Sexual Behaviour in the UK**

**Natsal [1990-2000]**

**Sexual partnerships**

**Between 1990 and 2000:**
- The average number of heterosexual partners over a lifetime rose from 8.6 to 12.7 for men and from 3.7 to 6.5 for women.
- The average number of heterosexual partners in the last five years rose from 3.0 to 3.8 for men and from 1.7 to 2.4 for women.
- The percentage of individuals who reported ever having had a homosexual partner rose from 3.6% to 5.4% for men and from 1.8% to 4.9% for women.
- The percentage of individuals who reported having a homosexual partner in the last five years rose from 1.5% to 2.6% for men and from 0.8% to 2.6% for women.
- The median age of first intercourse has fallen, from 17 years among 16-19 year olds in 1990 to 16 years among 16-19 year olds in 2000.

**Condom use**
- Condom use on all occasions in the four weeks prior to the survey had risen from 18.3% to 24.4% for men and from 14.9% to 18.0% for women.
- Those who had two or more partners in the past year and did not use condoms consistently rose from 13.6% to 15.4% for men and from 7.1% to 10.1% for women.

**Omnibus 2001 [2000-2001]**

**Awareness of sexually transmitted infections**
- Around two-thirds of individuals said that what they had heard about HIV/AIDS and STIs had not influenced their behaviour at all.
- A quarter of individuals said that they used condoms more often during intercourse as a result of the threat of STIs.
- Only 2% of men and 5% of women said they are tested for STIs when they change partners.
- Television was cited by 59% of individuals as the major source of information about HIV/AIDS and other STIs. Newspapers, magazines and books were the second biggest source of information with 21%.
- Despite a slight improvement since 2000, awareness of STIs in the general population remains low with 5.5% of men and 27% of women unaware that chlamydia was an STI.

Overall the increase in risky sexual behaviour continues, with the number of partners over a lifetime increasing as well as the number of partners in a five-year period. The average age at first sexual intercourse has also continued to decrease. In addition, public awareness of STIs is still poor. The impact of government campaigns to raise awareness is unclear, since government information leaflets, General Practitioners (GPs), family planning clinics and Genito-urinary Medicine (GUM) clinics together are being reported as the major source of information on STIs by only 7% of respondents. Emphasis may need to be put on other forms of sexual health and relationship education.

**Box 2 - Epidemiology of STIs in the UK**

- Overall attendances at GUM clinics in England, Wales and Northern Ireland rose to over 2 million in 2003. This was a 140% increase since 1995 and a 37% increase since 2002 alone.
- Total diagnoses at GUM clinics continued to increase with a 57% increase in new cases diagnosed between 1995 and 2003.
- Genital chlamydia remains the most frequently diagnosed STI seen in GUM clinics with nearly 90,000 diagnoses in 2003. This represents a 9% increase since 2002 and means that nearly three times more cases were diagnosed in 2003 than 1995.
- 1,575 new cases of syphilis were diagnosed in 2003, 350 more than in 2002 (28% increase). The majority of the 1,575 cases are in London and the North West where there have been outbreaks in the last few years.
- New cases of gonorrhoea in 2003 were 3% lower in 2003 than 2002 with 24,309 cases diagnosed. However, the number of new cases of homosexually acquired gonorrhoea rose by 11%.
- Diagnoses of genital herpes also decreased with 17,990 cases of first time infections in 2003, 2% less than the previous year.
- Genital warts are the second most commonly diagnosed STI in GUM clinics. In 2003 there were 70,883 new cases, a 2% increase since 2002 and an increase of 27% since 1995 (15,215 more cases).
- The burden of STIs does not fall evenly across all population groups. The groups most at risk include women, under twenty-five year olds, gay men and certain ethnic minorities. There is also a strong socio-economic link, with the poorest areas demonstrating the largest incidences of STIs.
Incidence of Sexually Transmitted Infections in the UK

Surveillance is provided in the UK by the Health Protection Agency (HPA) through the collection and collation of KC60 forms, which record the number of new episodes of STIs diagnosed in GUM clinics. However, as many STIs are asymptomatic or can become asymptomatic over time and are not always identified or treated in GUM clinics these figures dramatically underestimate the true incidence of STIs, for example as seen in the recent chlamydia screening pilot studies. A summary of the changes in the numbers of STI cases diagnosed in GUM clinics is given in Box 2.

Focus on the North West

Overall the North West has experienced an increase in the number of STIs diagnosed annually in GUM clinics from 13,443 in 1995 to 28,968 in 2003. This represents an increase of 115% during an eight-year period, more than any other region. The North West remains the region with the second highest number of new diagnoses in GUM clinics annually after London. The North West’s proportion of all STIs diagnosed in England has risen from 12.7% to 15% of the total diagnoses (Table 1). Further details of STIs in the North West are given in Box 3.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>East Midlands</td>
<td>8,897</td>
<td>8.4</td>
<td>13,813</td>
<td>7.1</td>
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<tr>
<td>Eastern</td>
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<td>North-East</td>
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<td>North-West</td>
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<td>28,968</td>
<td>15.0</td>
<td>115</td>
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<td>South-East</td>
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<td>24,295</td>
<td>12.6</td>
<td>86</td>
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<tr>
<td>South-West</td>
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<td>8.2</td>
<td>15,113</td>
<td>7.8</td>
<td>75</td>
</tr>
<tr>
<td>West Midlands</td>
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<td>9.2</td>
<td>18,720</td>
<td>9.7</td>
<td>93</td>
</tr>
<tr>
<td>Yorkshire and Humberside</td>
<td>11,109</td>
<td>10.5</td>
<td>21,027</td>
<td>10.9</td>
<td>89</td>
</tr>
<tr>
<td>England</td>
<td>105,580</td>
<td>100.0</td>
<td>193,240</td>
<td>100.0</td>
<td>83</td>
</tr>
</tbody>
</table>

Box 3 - Epidemiology of STIs in the North West of England

- Diagnoses of chlamydia increased 262% between 1995 and 2003, compared to an increase in England of 192%. There was a 19% increase in cases between 2002 and 2003, while the national increase was only 9%.
- The North West has suffered from a well documented syphilis outbreak that has seen cases of syphilis rise from around ten to twenty cases diagnosed annually before 1998, to around two hundred cases diagnosed every year by 2003, an increase of over 1600%. New cases of syphilis fell between 2002 and 2003 for the first time in six years.
- New cases of gonorrhoea diagnosed annually in GUM clinics trebled in the North West between 1995 and 2003, compared to a national increase of only 137%. However, since 2001 the number of new cases in the North West has decreased.
- Between 2002 and 2003, annual diagnosis of genital herpes rose 23%, from 1,535 cases to 1,896, compared to an increase in England of 14.3%.
- Cases of genital warts rose from 41% between 1995 and 2003 compared with a national increase of 27%. However the high increase in the North West between 1995 and 2003 is due to a larger annual increase in cases diagnosed in 2003 than previous years. There was a 12% increase between 2002 and 2003 alone, while nationally the increase was just 2%.
Welfare Economics

Welfare economics is the branch of economics that applies social choice theory in a bid to assist policy decisions. It does not describe how the economy works; rather it describes how well it works. Economics is concerned with how scarce resources are allocated. However, welfare economics examines different allocations of goods depending on society’s objectives. The two key objectives in assessing the effectiveness of markets to provide a socially beneficial allocation of goods are efficiency and equity.

One of the longest held tenets in economics is that when free markets are perfectly competitive they allocate resources efficiently. However, efficiency in itself does not mean that allocations are desirable. For example, free market allocations may result in the majority of society’s goods being held by a small number of individuals. Government intervention in markets is justified when the resulting allocation is more socially beneficial than in a free market. This may occur when either there are inefficiencies in the market or if the efficiency losses of government intervention are outweighed by social gains from a more equitable allocation. The free market for healthcare fails to allocate resources efficiently due to informational deficiencies as patients often do not have the level of information needed to choose the correct treatment they require or they lack the technical knowledge to use the information. In addition, there is also uncertainty for individuals and insurers about future healthcare needs. This means there are gaps in the insurance market that lead to a lack of provision for those most in need of healthcare. In the UK the National Health Service (NHS) deals with some of these problems. As treatment is on the whole decided by doctors, many problems of consumer ignorance are solved. Healthcare is tax financed and free at point of delivery; this in effect provides blanket insurance for the population. There is little fee for service, which prevents an oversupply of healthcare, and healthcare is rationed by the existence of a budget constraint for the NHS as a whole. The idea in principle is that if supply is limited the optimal amount of healthcare is provided.

Problems do still exist under the NHS with questions over the efficiency of provision and the overall amount spent on healthcare. However, the NHS by international standards is one of the most efficient and equitable systems of healthcare. Unfortunately, while the NHS deals well with most treatments, STIs differ from other forms of injury or illness in a number of ways that means they have a unique set of characteristics and also a unique set of problems. Some of these problems are due to the nature of STIs. Others are caused or exaggerated by the current structure of health care in the UK. These problems will be examined later in the report.

From Theory to Policy – Evaluating Interventions

Given the problems in the free market, interventions are necessary but how do we decide what interventions should take place? In order to judge what interventions should be performed there are several different forms of analysis that can be undertaken. These techniques try to determine whether an intervention is worthwhile and also the most effective method by which it can be achieved. The three kinds of economic analysis are shown in Box 4.

Box 4 - Evaluating Interventions

- Cost-benefit analysis (CBA) - CBA assesses whether an intervention is worth doing at all. Both the costs and benefits of an intervention are measured in monetary units. Because the same units are used an assessment can be made in terms of whether the benefit outweighs the cost.

- Cost-effectiveness analysis (CEA) - CEA is the most commonly used evaluation technique in health economics. It is used where the consequences of different interventions may vary but can be measured in terms of common effect. In terms of health care, benefits may be measured in cases averted or life years saved etc. This method of analysis cannot be used to assess whether an intervention is worthwhile, instead it is used to compare interventions to see which are more successful given their costs.

- Cost-utility analysis (CUA) - CUA measures utility as the unit of outcome. The most common measure is the quality adjusted life year (QALY). This combines the quality and quantity of life into one index measured on a scale from 0 to 1. Interventions are then assessed in terms of the cost per QALY gained.

The cost of STIs depends on the perspective from which the costs are viewed. From the viewpoint of the major provider of sexual health services, the NHS, the direct costs of STIs include the cost of prevention programs, diagnoses and treatment as well as the subsequent cost of treating complications that develop from untreated STIs. In order to get a complete picture of the cost it is also necessary to consider the indirect costs. Many of these, like the pain and discomfort of those affected, are hard to quantify as they are largely subjective. Others, like the loss of productivity to those affected, are easier to evaluate and given those predominantly affected are aged between 16 and 44 years, can be quite high.
Untreated STIs can lead to a range of complications. The precise cost of these complications is hard to ascertain due to uncertainty over the exact causal relationship between STIs and serious long-term consequences, uncertainty surrounding incidence of STIs, varying treatment and drug costs. A summary of the potential consequences of STIs is shown in Box 5.

Being able to place a value on costs is essential in planning the most efficient level of funding for sexual health, as well as determining appropriate levels of funding for prevention, screening and treatment. Unfortunately there has been little research done on the cost to the UK of STIs although there is now work underway on chlamydia. Estimates have been made for the cost of treating chlamydia to the UK with the NHS thought to spend over £100 million annually on chlamydia complications alone. The most commonly quoted figure for overall cost is that the UK spends between £700 million to £1 billion annually on treating STIs and their sequelae. The basis for some of these estimates and how they are derived, is unclear.

This report attempts to make an estimate of the direct cost of treating STIs and their sequelae for the UK and North West, based on the limited information available, and as a result should only be thought of as a rough guide. Due to the potential long-term consequences of STIs, incidence rather than prevalence costs were calculated. The incidence figures were derived from 2003 KC60 returns with estimates for the number of new cases of STIs treated in non-GUM settings and for the number of new cases of STIs untreated. The cost data were taken from a study estimating the cost of STIs to American youth aged 20-24, and therefore will not mirror UK costs exactly. The costs were discounted according to age, the medical price index was used to bring the costs up to date and they were converted to GBP using the 2003 USD/GBP exchange rate. Such estimates place the direct medical cost of treating newly acquired STIs and their sequelae in the UK in 2003 at 413 million pounds. The cost to the North West was estimated to be 58 million pounds, around 14% of the total. These estimates underestimate the total cost to society though as they only take into account the direct costs to the NHS. This study also omitted the cost of treating HIV and AIDS. While the precise causal relationship is uncertain, STIs make the transmission of HIV more likely, and one estimate places the cost of treating HIV and AIDS attributable to STIs as high as 500 million pounds annually. Therefore the actual total to the UK and North West when indirect costs and HIV and AIDS costs are factored in is likely to be much higher. A summary of the direct medical costs of STIs is provided in Table 2.

**Box 5 - Potential consequences of selected STIs if untreated**

- **Chlamydia** - Pelvic inflammatory disease (PID), ectopic pregnancy, infertility and conjunctivitis in adults (babies born to infected mothers may also suffer from conjunctivitis or pneumonia).
- **Gonorrhoea** - PID, scarring of the fallopian tubes, ectopic pregnancy and infertility. Gonorrhoea can also be transmitted during birth and cause conjunctivitis in babies.
- **Syphilis** - disability, in rare cases death, syphilis in pregnant women may lead to miscarriage or stillbirth, and babies born to syphilitic mothers may show signs of congenital syphilis.
- **Genital warts** - commonest types of genital warts rarely cause complications, however, HPV-16 and HPV-18 may lead to cervical cancer.
- **Genital herpes** - a first episode of herpes during pregnancy is potentially dangerous to the baby during labour.

<table>
<thead>
<tr>
<th>Infection Type</th>
<th>UK (£)</th>
<th>North West (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia</td>
<td>66,770,049</td>
<td>9,501,065</td>
</tr>
<tr>
<td>Syphilis</td>
<td>728,147</td>
<td>96,624</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>4,171,309</td>
<td>448,510</td>
</tr>
<tr>
<td>Genital Warts</td>
<td>122,742,461</td>
<td>17,453,969</td>
</tr>
<tr>
<td>Genital Herpes</td>
<td>11,862,571</td>
<td>1,243,968</td>
</tr>
<tr>
<td>Other</td>
<td>206,348,220</td>
<td>29,041,456</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>412,622,759</td>
<td>57,785,593</td>
</tr>
</tbody>
</table>

Table 2: The estimated direct medical cost of STIs.
What interventions are effective in preventing STIs?

The national strategy for sexual health and HIV\(^\text{15}\) stressed the importance of health promotion activities in changing the current trend of increasing incidence of STIs. It also recognised that the current evidence base for guiding interventions was poor and unsystematic. Since then, the Health Development Agency (HDA) has produced an evidence briefing outlining the effectiveness of non-clinical interventions in preventing STIs\(^\text{16}\). Their report could provide strong evidence for the effectiveness of only a handful of interventions, namely school sex education programs, some forms of partner notification and small group programs. It identified that there was sufficient review evidence that interventions with a theoretical underpinning were likely to be more effective. It also highlighted that provision of information and self-efficacy were essential elements in prevention programs. There was tentative review-level evidence that STI prevention activities were more likely to be effective if they emphasised risk reduction rather than promoted abstinence only, and if they used peers and community leaders. In addition there was tentative review level evidence that multi-component interventions that focus on a range of personal and structural determinants of risk were more likely to be effective. However, the most important finding of the HDA review was to reveal the limitations of the evidence base. There was very little cost-effectiveness or cost-saving data, very few UK reviews and those reviews that there were tended to be clustered around certain interventions, e.g. sex education in schools. A summary of different interventions that have been shown to be effective is presented in Box 6.

**Box 6 - Summary of the findings of the Health Development Agency Evidence Briefing**

<table>
<thead>
<tr>
<th>Sufficient review-level evidence of effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some types of partner notification, for some STIs</td>
</tr>
<tr>
<td>Provider referral is more effective than patient referral</td>
</tr>
<tr>
<td>Patient referral can be improved by simple forms of patient assistance</td>
</tr>
<tr>
<td>School-based sex education programmes</td>
</tr>
<tr>
<td>Small group work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tentative review-level evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual risk counselling by professionals</td>
</tr>
<tr>
<td>Patient education and counselling in improving partner notification via patient referral</td>
</tr>
<tr>
<td>Sex education begun before the onset of sexual activity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost-effective interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is tentative review-level evidence that STI prevention interventions can be cost effective and even cost saving, particularly when targeted at ‘high risk’ groups such as school excludees.</td>
</tr>
<tr>
<td>Mackay (2000)(^\text{17}) - Despite the evidence base for cost effectiveness being small, Mackay cites two studies of behaviourally effective interventions that have been shown to be cost-effective. One focuses on HIV prevention, the other on HIV/STI and pregnancy prevention. He indicates that the high cost of treating HIV and STIs means that appropriate interventions are likely to be cost saving and cost-effective.</td>
</tr>
<tr>
<td>Pinkerton (1998)(^\text{18}) - Pinkerton et al. conclude that due to the high costs of treating HIV/STIs and their consequences, most risk reduction interventions would be cost saving. Pinkerton et al. also stress the greater societal savings from initiatives targeted at adolescents rather than adults, due to the reductions in life expectancy (for HIV), the reproductive health consequences for women (e.g. PID, ectopic pregnancy) and more opportunity for ongoing transmission.</td>
</tr>
</tbody>
</table>
National Sexual Health Policy

Within the national strategy, targets for STIs are identified and these include:

- **Reduce the transmission of STIs and HIV by reducing levels of unsafe sex** – national goal of achieving 25% reduction in the number of newly acquired HIV infections and gonorrhoea infections by 2007.

- **Reduce the prevalence of STIs** – by setting a national standard that all GUM services should offer an HIV test to clinic attendees on their first screening for STIs, and working towards access to GUM services within 48hrs.

- **Raise awareness of services.**

- **Reduce the stigma associated with STIs.**

As outlined above, what might be effective in reducing STIs and HIV is poorly understood and even less is known about the cost of meeting such targets. In addition, GUM funding has been based on historic levels resulting in inequality in funding across different regions. However, some changes in funding have been announced to support the process.

Funding for sexual health

While sexual health services are funded out of the unified funding formula, the actual level of spending is a local decision made according to the priorities of each Primary Care Trust (PCT). In fact, in many cases allocations for sexual health are incorporated into larger payments to NHS Trusts and it can be they who then decide how much GUM services receive. From 2005, however, there will be “payment by results” with GUM clinics receiving £83 for each STI case seen. In addition, there has been investment of £55 million nationally from the Department of Health to pump prime sexual health services.

The Future

The recent White Paper on public health, Choosing Health, set out the future direction of sexual health care, with the Government intending to spend £300 million over the next three years, including £130 million on GUM clinics, £80 million on extending the chlamydia screening programme, £50 million on a nationwide advertising programme to raise awareness of the issues, and a further £40 million will be spent on improving prevention services such as contraception services.
Problems in Sexual Health

1. Information Problems

Efficiency of allocation of health care relies on commissioners having the necessary information. In the case of sexual health this involves research on effectiveness of interventions and routine surveillance of the epidemiology of STIs. Currently, information on what works in prevention, as well as the local epidemiology of STIs is poor.

Gaps in the evidence base - The evidence for the effectiveness of different kinds of intervention remains dispersed and unsystematic. Reviews and studies have varied greatly in their quantity and quality. In particular, most of the evidence on the effectiveness of STI interventions originates from North America and due to the variations in prevalence, health care systems, socio-economic environment and institutions the value of such studies to guide UK policy is dubious.

Surveillance system - KC60 forms provide routine surveillance in the UK. These forms have several limitations including only dealing with aggregate data, and no record of residency or behavioural data. There is also no record of repeat visits or co-infection of STIs making it hard to determine those at most need of sexual health services or prevention work.

Furthermore, incidence rates are also underestimate as many STIs are asymptomatic and KC60 reports only record STI cases diagnosed and treated in GUM clinics. To date, all national attempts to bring in an enhanced STI monitoring system have proved unsuccessful. However, Health Protection Agency North West, the sexual health team, Centre for Public Health, and the North West Public Health Observatory are currently in the process of setting up a pilot STI surveillance system designed to collect disaggregated data direct from GUM clinics in the region.

2. Lack of awareness of STIs in the population

Lack of awareness of STIs and their consequences is a problem in the UK. Underestimating the consequences of STIs means that individuals may take more risks in sexual behaviour and may not take advantage of opportunities such as STI screening. In addition, there is still a belief that STI testing is invasive and painful, which may lead to further distortions in the level of risk undertaken and health services consumed. While raising awareness is a priority, with GUM services as a relatively scare resource, it is important to do this proportionately. Causing overestimation of the costs of STIs and the risk faced can lead to an over consumption of sexual health services available.

3. Moral Hazard

In the UK the NHS acts as a compulsory insurance program and results in individuals not facing the true costs of their actions. Individuals face lower pecuniary costs to treatment than they would in a free market. This causes individuals to change their behaviour taking higher risks, as the costs from catching an STI are perceived to be lower. This problem increases for the NHS as procedures increase in cost, become easier to carry out, become more easily accessible and more effective and means that the cost of treatment shifts from the patient to the health service. For most health services the problem of moral hazard is limited by restricting the provision of service through budgets measured by need. Waiting lists in effect act to limit the demand for health service and to some extent prioritise those that are most necessary. For STIs (as an infectious disease) rationing is ineffective and leads to increasing prevalence of illness.

4. Externalities

Externalities exist where an individual’s action cause benefits or costs to others. In terms of sexual health, externalities exist because infection can be spread to others in society. Treating an individual, therefore, decreases the likelihood of spread to others and there is an additional social benefit to treatment of STIs.

The problem of externalities has been exacerbated by the introduction of market (Quasi-market) approaches into the NHS, which introduce more competition into the supply side. However, this means that individual GUM clinics and PCTs do not bear the full cost of the spread of STIs. STIs are unusual because they are easily transmissible over regional boundaries, the user population is highly mobile and stigma makes treatment and partner notification difficult. For these reasons, STIs require an essentially national service with national rather than local management and policy. A good example of this is the outbreak of syphilis in Manchester, which rapidly spread to other parts of the country. However, since the cost of this spread was borne by other PCTs these areas did not spend the socially optimal amount to contain the outbreak but rather the individually optimal amount.

5. Lack of capacity/funding for sexual health services

The rapid rise in those attending GUM clinics has meant that sexual health resources have been placed under increasing strain. The primary outcome of a lack of resources in GUM clinics is seen in delays in access. Since the end of the 1990s there has been a sharp increase in waiting times from around one week for a routine appointment to over six weeks\(^28\). The increase in those accessing GUM services had been caused by a number of factors. Changes in sexual behaviour including a greater rate of partner change, the number of lifetime partners, and a lower median age for first intercourse to 16, have resulted in a higher prevalence of STIs. It may also be a result of the information campaigns like the “sex lottery” or a decrease in the stigma attached to sexual health care. The increase over the past eight years in those seeking reassurance over their good sexual health has been dramatic with attendances more than doubling from around 900,000 annually to over 2 million. Actual diagnoses however have only increased by a quarter of a million. This means that whereas around 50% of those attending GUM clinics in 1995 were diagnosed with having an STI, in 2003 only 33% were diagnosed with having an STI.\(^29\) While sexual health resources are scarce, this raises questions about the effectiveness of public information campaigns, particularly national campaigns, at targeting the groups most in need of sexual health services. This is of particular concern as delays in seeing those infected leads to further spread of infection. NATSAL estimates a two-week delay results in a further two to four infections. Furthermore, as appointments are made so far in advance, rates of those not attending have increased dramatically.

Waiting lists and packed booking systems have increased the number of individuals travelling outside their local area for treatment and also those utilising other settings for diagnosis and treatment. This means that existing local GUM surveillance is a poor measure of local need.

Lack of capacity also means prevention is traded off against treatment instead of optimal levels of each being implemented. In reality, as treatment outcomes are currently more easily quantified, prevention is usually severely under-funded.

Sexual health funding also suffers in the NHS quasi-market due to the lack of patient voice. This lack of patient voice means that sexual health remains a low priority among PCTs, strategic health authorities and at a national level.

### Action Points

1. **Better co-ordination of research**

Moves towards improving the evidence base have already begun with economic evidence being collated and reviewed in the Cochrane library and organisations like the Health Development Agency reviewing best practice for non-clinical interventions. Research is also being undertaken on the cost-effectiveness of screening for chlamydia in different settings. However, such information must be released in an integrated and organised fashion in order to move sexual health services on to an evidence based and cost effective footing.

2. **Improved surveillance**

Surveillance is currently facilitated by the HPA nationally. However, the data collected and the timeliness of the data collection is insufficient for the effective coordination of services and targeting of scarce resource. Ensuring that there are minimum standards for disaggregated data collection should allow data to be properly analysed at a local, regional or national level and ensure that interventions are targeted effectively.

3. **Information provision to individuals**

Information provision, or health promotion, is the key to the Government’s approach to sexual health and it has continued its commitment to providing information campaigns which allow individuals to make informed choices. The evidence of low levels of awareness of issues surrounding sexual health is clear. Interventions can be more efficiently put into place once improvements have been made to the evidence base and surveillance system.

4. **Capacity/Funding**

The lack of funding and capacity in GUM clinics means that STIs settle at a higher prevalence in the community than if there were no delays to access, and result in higher overall annual cost of STIs (e.g. through later complications). A real risk associated with meeting 48 hour waiting times without appropriate resource, is even less time and money available for prevention and a decrease in quality of care. Both factors could lead to a further increase in STIs.
References

24. Hayek, Economics and Knowledge 1937, On the use of knowledge in society 1945

We welcome your feedback on both content and style.

This report is also available on our website http://www.nwpho.org.uk

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