DRAFT FOR CONSULTATION

GUIDELINES FOR MANAGING LOCAL OUTBREAKS OF SEXUALLY TRANSMITTED INFECTIONS.

An outbreak plan

Produced by

The HIV/STI Division, PHLS Communicable Disease Surveillance Centre

in collaboration with the Medical Society for the Study of Venereal Diseases (MSSVD), The Association of Genitourinary Medicine (AGUM) and the Public Health Medicine Environmental Group (PHMEG).

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NOTE TO ALL READERS:

A toolkit is being developed which will accompany these guidelines.

Key components include:

- **Surveillance Toolkit/Minimum Dataset**
- **PHLS CDSC Incident Control Plan**
- **Sample Questionnaires**
- **Effective Interventions for control of outbreaks**
- **PHLS Incident Report Outline**
- **Confidentiality Principles for STI's**

GLOSSARY OF ABBREVIATIONS

CCDC: Consultant in Communicable Disease Control

CPHM: Consultant in Public Health Medicine

DHA: District Health Authority

CDSC: Communicable Disease Surveillance Centre

GUM services: Genitourinary medicine services

ID Physician: Infectious Diseases Physician

OCG: Outbreak Control Group

RDPH: Regional Director of Public Health

RE: Regional Epidemiologist

STIs: Sexually transmitted infections

SECTION 1:

PRINCIPLES OF MANAGING OUTBREAKS OF ACUTE INFECTIOUS DISEASES AND SEXUALY TRANSMITTED INFECTIONS

1 PURPOSE

1.1 This guidance is designed primarily for CCDCs, Public Health, Regional Epidemiologists, Health Authorities and Genitourinary Medicine Staff.

1.2 It aims to make explicit, arrangements for the investigation, management and control of acute incidents and outbreaks of sexually transmitted infections (STIs), hereafter referred to as outbreaks.

Box 1. Definition of terminology

Epidemic/ Outbreak

A rapid increase in the levels of an infection. An epidemic is usually heralded by an exponential rise in the number of cases in time and a subsequent decline as the susceptible population reduces. Epidemics may arise from the introduction of a novel pathogen (or strain) to a previously unexposed (naive) population or as a result of the regrowth of susceptible numbers some time after a previous epidemic due to the same infectious agent.

Or

The occurrence of cases of an illness clearly in excess of expectancy (Benenson)

STI Outbreak

An overarching term which includes: observed number of cases greater than expected over a defined time period; linked cases of STIs; the need for re-organisation of services or identification of additional resources to manage cases; any case of congenitally acquired infection. (CDSC, 2000)

1.3 Examples of recent STI outbreaks of syphilis in London and Manchester can be found in the CDR at the website addresses listed below:

http://www.phls.co.uk/publications/CDR%20Weekly/archive/news2701.html#syphilis

http://www.phls.co.uk/publications/CDR00/cdr1000.pdf

2 RATIONALE FOR AN STI OUTBREAK PLAN

2.1 STIs are a major public health concern. They cause significant burden on individuals and the health service. After sustained declines in STI incidence observed during the first 15 years of the HIV/AIDS pandemic, disease incidence is again rising. These increases have in turn placed a significant burden on GUM clinics resources, severely limiting their capacity to deal with additional pressures resulting from local outbreaks.

2.2 During the late 1990s, a number of outbreaks of STIs were observed in the UK. These typically involved diseases which were in decline (e.g. gonorrhoea), low endemic or elimination phases locally (e.g. syphilis). They have characteristically involved individuals who initially had higher rates of sexual partner change, less effective contact with the health care system and/or lower educational or socio-economic status. More recently, outbreaks occurring in high risk

networks (e.g. internet chat rooms) have been reported. The outbreaks are often confined to discreet geographic areas, but may however involve multiple sites due to contact between high transmission networks or 'core groups' in different locales.

2.3 These outbreaks signify a failure in public health control measures, place significant burden on existing GUM and public health resources, and often generate considerable media interest. Proactive planning of disease control measures and interventions is required to deal with these outbreaks effectively and efficiently.

2.4 This guidance has been written to help the effectiveness of districts response in the control and prevention of STI outbreaks at local and regional levels.

2.5 The guidance outlines the underlying principles of outbreak investigation and proposes an organisational framework within which districts should operate in the approach to the management of local outbreaks. In addition, it highlights the roles of the key players, with suggestions for establishing formal working relationships. It is emphasised that this guidance is primarily for Public Health Specialists, CCDCs (Consultants in Communicable Disease Control), DsPH, GUM Physicians and Regional Epidemiologists. The role of CDSC (Colindale) in assisting with outbreak investigation is also defined.

3 UNDERLYING PRINCIPLES

3.1 The current legal framework for communicable disease control is included in_the toolkit and is applicable to arrangements and responsibilities required of Health Authorities in respect of STIs.

3.2 The underlying principles of outbreak investigation are outlined in the PHLS CDSC Incident/Outbreak Plan (1998) (see toolkit) and are equally applicable to STIs. In particular:-

- Primacy of local statutory responsibility for the control of STIs is recognised and accepted
- District Health Authorities (DHAs) and the Regional Directors of Public Health (RDsPH) each have a formal responsibility to ensure that local arrangements for the control of STIs are appropriate and effective
- NHS Trusts have the dual responsibility to ensure that patients are cared for appropriately and to collaborate with commissioners of services and others in securing appropriate arrangements for the control of STIs
- Once formulated, continuing arrangements should be in place to ensure that all parties potentially involved should acknowledge their particular responsibilities
- Agreed policies should be subject to review at appropriate intervals.

3.3 However STIs have particular features which make them distinct from other infectious diseases. These need to be taken into consideration when planning interventions to control outbreaks.

- Many STIs often associated with some degree of ***stigma*** which may make those infected or at risk reluctant to identify themselves or to take up appropriate services

- ***Confidentiality*** concerns for patients and providers may restrict the availability of GUM clinic held data.
- ***Partner Management***. For many bacterial STIs, effective management and control involves treating both the infected index patient and their sexual contact(s). Failure to do so may result in reinfection and/or continued onward transmission of the infectious agent.
- ***Sexual behaviour*** underpins STI transmission. Although interventions may succeed in reducing or eliminating disease incidence, sustained behavioural change may be required to reduce and eliminate vulnerable sexual networks.

3.4 While the basic principles of STI outbreak investigation are the same as those for any outbreak of infection, particular features of STI outbreaks warrant different arrangements for their investigation and control. Special features of STI outbreaks include:-

- **Identification:** Identification and initial investigation of outbreaks can be by the local GUM physician , the CCDC or Microbiologist. Routine surveillance by a CCDC or Microbiologist may identify an outbreak where people travel to different clinics from different areas so that a rise is not noted at one particular clinic.
- **Multi-disciplinary approaches needed:** The nature of outbreaks of STI is such that a range of professionals other than public health (CCDC) may be involved in their investigation. Of critical importance is involvement of GUM consultants and sexual health advisers at GUM clinics.
- **Tailoring interventions:** Interventions used to control STI outbreaks will depend on the disease and the 'at risk' population affected. The identification of sexual contacts and sexual networks will be crucial to effective intervention and health promotion specialists may have a role in the dissemination of prevention messages.
- **Time-scales:** The timeframe within which STI outbreaks will be investigated and controlled will usually be significantly greater than for other outbreaks of infection

4 ORGANISATIONAL FRAMEWORK FOR LOCAL STI SURVEILLANCE AND CONTROL

4.1 The responsibilities of the NHS for the control of communicable disease are set out in HSG(93)56 as modified by EL(95)31 and reinforced by EL(97)13 (see toolkit). In practice, this means that for STIs:

- In **NHS trusts** these are the responsibility of the GUM consultant and in the wider community, they should come under the remit of the CCDC, as for other communicable diseases. CDSC is responsible for surveillance at regional and national levels.
- **DHAs** have a responsibility to ensure effective arrangements for local surveillance of STIs. Local arrangements for surveillance should be agreed between the CCDC and GUM physicians. These should include a system for alerting the CCDC early to a potential local problem. (see toolkit for further guidance on local surveillance) For each DHA, arrangements for the control of STIs should ensure that both routine and emergency work are dealt with in a timely and effective manner
- For **NHS Executive Regional Offices**, on behalf of the RDPH, the PHLS under contract provides a regional epidemiology service to undertake its responsibilities in communicable disease control. These are discharged by Regional Epidemiologists (RE). The primary objective of the regional epidemiology service is to assist DHAs in fulfilling their obligations for communicable disease control, including STIs. Nevertheless, RDsPH reserve the right to instruct REs to act on their behalf
- On behalf of the Department of Health, **CDSC** [Regional Units and Colindale] assist DHAs and

other organisations with carrying out their statutory responsibilities for communicable disease control. The prevention of STIs and the investigation and management of episodes of infection are critically dependent on the receipt of good information. Timely intervention is dependent on the existence of sound surveillance systems.

5 PREREQUISITES FOR IMPLEMENTING THE STI OUTBREAK PREVENTION AND CONTROL PLAN

5.1 **Professional responsibilities:** It should be recognised that a number of key professional groups and other agencies have an important role in the prevention and control of STIs. These include Genitourinary Medicine (GUM) physicians, CCDCs, Consultants in Public Health Medicine (CsPHM), Sexual Health Advisors at GUM clinics, Sexual Health Promotion staff and a range of voluntary organisations working in the area of sexual health.

5.2 The effective control of STIs at district level is dependent on the provision of adequately resourced, high quality genitourinary medicine services. DsPH are responsible for assessing the need for GUM services in their region and the DHA is responsible for commissioning adequate and appropriate levels of high quality GUM services.

5.3 **Communication:** Directors of Public Health should ensure that there is regular, (at least twice yearly) formal contact between these key staff; an example of how this might be achieved would be the establishment of a District *Sexual Health Forum.* Colleagues with particular responsibility for STIs should be members of this forum, but should also have regular meetings with each other in relation to control of STIs. These arrangements will ensure the existence of well-informed, up to date networks which will facilitate effective investigation and intervention in the event of an outbreak

5.4 **Local adaptation:** DPHs should also ensure that this plan is distributed to and discussed with all those involved with STI prevention and control within the district. It may be necessary for GUM physicians, ID physicians, microbiogists, Public Health Departments and other key local players to collaboratively produce appropriately adapted plans for local use.

5.5 **Contingency planning:** The locally adapted plan should identify financial resources/ contingency funds that may be called upon should financial support be needed in supporting disease control interventions (e.g. health promotion, additional GUM services, outreach work.

5.6 GUM physicians should inform the local CCDC without delay of an unexpected rise in the number of cases of any STI.

SECTION 2:

GUIDELINES FOR MANAGING LOCAL ACUTE STI INCIDENTS WITHIN DISTRICTS

6 MANAGING LOCAL STI OUTBREAKS WITHIN THE DISTRICT SETTING

6.1 The responsibility for the control of STIs is shared between a number of different organisations with specific responsibilities carried by particular members of staff. It is important that these collaborate with each other in the event of a suspected outbreak and where appropriate, reach joint decisions on key issues. Close liaison between GUM consultants and CCDCs will be particularly important.

6.2 For local outbreaks, it rests with the professional judgement of the CCDC to determine if, and when, CDSC Regional Units and/or Colindale and the DH should be informed of the outbreak.

6.3 This section describes the general approach to the investigation of local outbreaks of STIs by describing the objectives and key elements in such investigations.

7 PHASES AND OBJECTIVES OF LOCAL STI EPIDEMIC CONTROL:

7.1 The identification, management and control of a localised STI epidemic may be described in three phases:

7.2 **PRELIMINARY PHASE:** The preliminary investigation should be carried out jointly by the GUM physcian, CCDC, microbiolgist and ID physician. The objectives of the preliminary phase are to determine:

- Whether a problem exists
- The nature and extent of the outbreak
- What immediate steps need to be taken to: identify those who are ill; identify contacts of cases; ensure patients receive appropriate care
- Whether the episode is of sufficient significance to require special arrangements for investigation and management

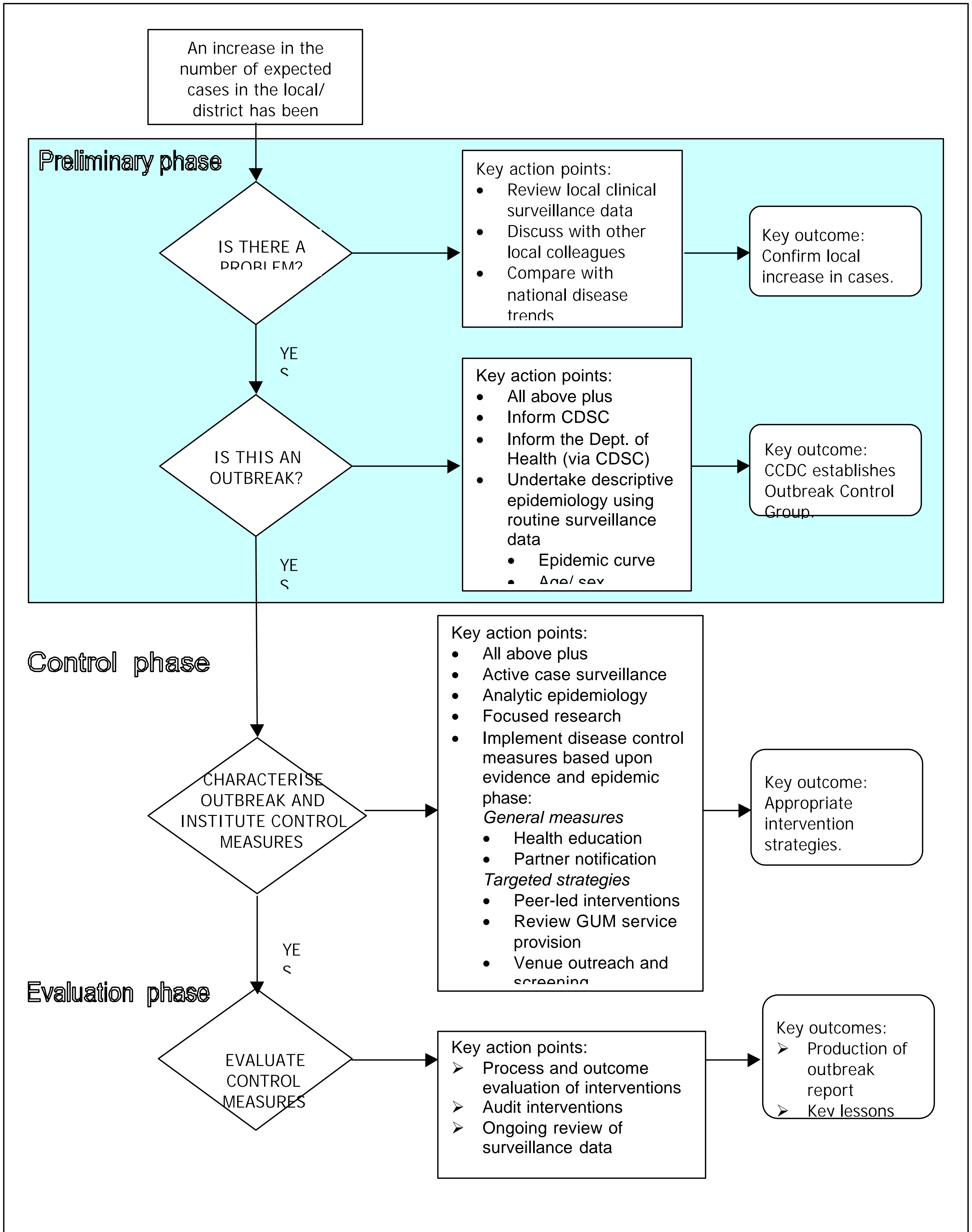
7.3 **CONTROL PHASE:** Characterised by the formation of an outbreak control team, this phase aims to develop and implement strategies geared towards interrupting the onward transmission of infection and preventing further cases of acute STI amongst the affected population. Specific objectives include:

- To identify sexual contacts of cases and to intervene to prevent spread
- To identify relevant transmission networks and institute appropriate interventions.
- To identify linked cases
- To provide effective management for patients
- To prevent recurrence of infection

7.4 **EVALUATION PHASE:** This phase includes the evaluation of the effectiveness of interventions which have been implemented during the control phase. Specific objectives are:

- To monitor the effectiveness of the interventions taken
- To change or supplement interventions based on an evaluation of their effectiveness and outcomes

8 FLOW CHART FOR MANAGING LOCALISED STI OUTBREAKS



9 PRELIMINARY PHASE

9.1 The preliminary phase of an outbreak investigation aims to confirm the existence of an outbreak and, if necessary, to institute, immediate control measures.

9.2 Establishing the existence of local outbreaks may be difficult for a number of reasons. Current surveillance systems are often inadequate for timely detection of incidents; the responsibility for local STI surveillance is currently unclear; thresholds alerting the need for further clarification are non-existent.

9.3 Nevertheless, a number of other mechanisms may alert the GUM or ID physician, CCDC or microbiologist to a local STI epidemic. These include initial clinical suspicion of an increase in the number or a proportionate rise in the number of cases seen over a defined period (variation in proportions suggested); the appearance of specific alert conditions e.g. congenital infections, antibiotic resistant organisms; comparison of observed versus expected using statistical techniques or cumulative summaries.

9.4 It is important to exclude other causes of localised increases in disease reports (including artefactual explanations) before declaring a localised epidemic. These should be investigated and excluded before an epidemic is identified.

9.5 At minimum, descriptive epidemiological investigations should be undertaken at this stage by the local GUM and CCDC. Three questions need to be answered as early as possible: W*hat pathogen is causing the outbreak? Who is primarily involved? Is there a source?*. This involves establishing a case definition; describing the epidemic curve; describing any geographic clustering; and describing the age and sex distribution of those involved. The CCDC will be able to provide local epidemiological expertise in these matters. An absolute threshold for action is difficult to define as each local situation will be different. *(see pg. 4 for a definition of an outbreak)*

9.6 Based on the result of the preliminary descriptive investigations, the CCDC will decide whether to convene an Outbreak Control Group (OCG). The objectives of forming an OCG are:

- To bring together the relevant people with the appropriate skills to deal with the problem
- Through the co-ordinated action of the group to ensure that:
  - those who are affected receive appropriate treatment
  - at risk sub-populations are identified and targeted for STI prevention
  - containment measures are in place to prevent further spread of infection
  - the interventions are monitored for effectiveness
  - necessary changes to prevent a recurrence of the problem are identified

9.7 In the case of an outbreak of STI, the recommendation is that membership of the OCG should include the following, although others may be needed in particular cases:

Box 2. Key members of STI control group

- Director of Public Health
- Consultant in Communicable Disease Control or Consultant in Public Health Medicine
- Consultant in GU Medicine
- Consultant Microbiologist
- Senior representative of Primary Care Group/Trust
- Senior manager (nominee of Chief Executive of the Trust)
- Sexual Health Advisor from GUM clinic
- Secretarial support to the group
- DHA Press Officer
- Representative from relevant voluntary organisation(s)

9.8 When it is decided that it is necessary to convene an OCG, REs or other CDSC Consultant Epidemiologists will usually be informed of the situation and where it would be helpful, invited to join the group. Under certain circumstances, the RDPH may require the RE to be a member of the OCG. Box 3 highlights some of the OCG's responsibilities:

Box 3. Responsibilities of the STI OCG

- Review the epidemiology
- Review the microbiology
- Review the information obtained on sexual contacts/networks
- Assess the adequacy of control measures
- Determine the need for further investigations
- Communicate with appropriate REs and public health professionals in England, other parts of the UK and overseas
- Communicate as appropriate with the media
- Produce a final report about the incident with a section outlining any lessons to be learned

9.9 OCGs may also invite PHLS microbiologists and other staff to assist in the investigation of local outbreaks. When this occurs, it is important that the roles and responsibilities of the different arms of the PHLS are made explicit to the OCG to avoid possible confusion over the PHLS contribution.

9.10 The suggested agenda for first meeting are outlined in Box 4.

Box 4. Agenda for the first meeting of the STI OCG

- Examine available evidence
- Ensure appropriate GUM services are available to deal with individual patients
- Agree who will have access to data in individual GUM records
- Devise strategy for identification of sexual contacts and those 'at risk' of infection
- Define measures necessary to identify at-risk sub-populations and target them for STI prevention (see toolkit for details of effective interventions)
- Assess the effectiveness of contact tracing
- Ensure confidentiality principles are agreed (See toolkit)
- Identify any additional expert assistance which might be required
- Identify personnel and other resources necessary to manage the outbreak
- Define responsibilities for communications to the public, press and other organisations and individuals

9.11 Involving the voluntary sector may be particularly important when dealing with hard to reach or marginalised communities. They may also be particularly useful in community mobilization and facilitating more detailed investigation and studies. There are no strict guidelines as to *when* involvement should occur and the OCG should be guided by the local context.

9.12 Because of the delicacy of issues surrounding STIs, the press officer for the health authority might also need to be involved at an early stage.

10 CONTROL PHASE

10.1 The control phase is defined by further characterization of the STI epidemic and the institution of appropriate control measures. At this stage, activity is defined and coordinated by the outbreak control team. Advice and support by CDSC is also a feature of this stage. Key elements of the control phase are outlined below.

10.2 **Active case surveillance**: Once an outbreak has been established, the normal, passive, surveillance relying reports is often replaced by a more active phase. In this phase investigators (local, regional or national) are often sent to the affected area to collect more detailed information. The active surveillance may include a range of interventions including: collecting more detailed case information; reference laboratory testing of isolates; case interviews; social and sexual network investigation; monitoring of partner notification effectiveness and information;. Molecular epidemiology may be used to identify disease clusters and short chain transmission networks. CDSC can help with questionnaire design and development at this stage.

10.3 **Analytic epidemiology:** The decision to undertake a case-control or cohort study to identify possible sources or foci of infection depends largely on the objectives of the investigation and the resources available to the OCG. In either case, understanding the risk factors associated with the epidemic are important for targeting intervention programs. CDSC can help with data analysis if the study has been developed in partnership with them.

10.4 **Microbiological investigation:** Microbiological investigations form an important part of the STI control phase. Local microbiologists may be required to provide detailed descriptive laboratory data on the STI being investigated. For certain conditions (e.g. gonorrhea, syphilis) local microbiologists may be asked to forward isolates to reference laboratories for confirmatory testing and further phenotypic or genotypic typing. Molecular studies are particularly useful in uncovering linked transmission chains and confirming high transmission sexual networks. The roles of the NHS Microbiologist are outlined in Section 14. CDSC (Colindale and REs) are available to assist in arranging specialist microbiological support through the PHLS laboratory network and with other collaborators.

10.5 **Focused research studies** may be undertaken to understand the social context driving the local epidemic. This may range from in-depth interviews to socio-anthropologic investigations to understand the social-economic context. Focused investigation may be particularly useful with hard to reach or marginalised populations. They may also highlight novel, appropriate and acceptable methods for intervention.

10.6 **Control measures**: A number of effective STI control interventions are available for implementation. However, they will all require some investment in resources in the short and long term. The OCG must ensure that the interventions being implemented are appropriate to the epidemic phase and distribution of cases in the population.

10.7 Understanding the epidemic phase may help to target the disease interventions and the surveillance tools for monitoring disease trends. Local CCDCs, epidemiologists and GUM specialists should determine whether the local epidemic appears to be in a growth (phase 1); hyperendemic (phase 2); decline (phase 3) or elimination phase (phase 4). The epidemic may also be concentrated in *spread networks* (characterised by high rates of partner acquisition or poor contact with health services) and *maintenance networks* (which facilitate on-going transmission and persistence in the community). Control methods can be considered in two main dimensions, (see Box 5);

Box 5. Range of interventions which may be considered for implementation

Measures to find and treat additional cases (secondary prevention)
Partner notification
Social and geographic network analysis
Publicity campaigns to encourage those at risk to come forward for screening
Alerting local practitioners (both GUM and general practice) to improve ascertainment of cases
Provision of additional clinic sessions

Measures to attempt to modify sexual risk taking behaviour (primary prevention)
General health promotion campaigns
Targeted health promotion campaigns
Targeted outreach work

See toolkit for additional information on interventions

10.8 Campaigns which aim to improve access to STI screening and treatment services may place unbearable strain on existing GUM resources. Measures to increase case finding therefore have to be linked to arrangements for additional service provision. Most GUM physicians would prefer that patients were seen in GUM rather than GP clinics for assessment and treatment. This reflects the expertise available within clinics for STI diagnosis and treatment, provision of sexual health advice, and partner notification.

11 EVALUATION PHASE

11.1 The evaluation of control interventions represents an important phase of the outbreak control. There is currently little robust research evidence on effective outbreak control strategies and systematic evaluation will be useful adjuncts. Both process and outcomes evaluations should be undertaken to evaluate the effectiveness of instituted interventions.

11.2 Key **process measures** depend on the intervention, but may include: proportion of target population accessed, numbers of target population accessing intervention; uptake of intervention; frequency and coverage of intervention delivery; number and uptake of STI screening tests; number, range, coverage and type of health promotion interventions.

11.3 The chief **outcome measure** is an eventual reduction in the number of reported cases and is usually monitored by using an epidemic curve. It should be noted however that case reports may initially increase following intensified case identification efforts. In some instances, the decline in case reports may not ever return to baseline due to overall increasing secular trends in the general population, or the establishment of the infection in hard to reach core groups.

11.4 To ensure that the standards of outbreak investigation remain relevant and that new aspects of investigation and/or control are identified, the CCDC may audit the management of local incidents/outbreaks in conjunction with GUM and the RE.

12 DECLARING AN INCIDENT OVER

12.1 There are no strict criteria for declaring that an STI epidemic is over. Ideally, this should be a reduction in the incident case reports to pre-epidemic levels. However, as most localised outbreaks will occur against a background incidence, aiming towards complete elimination or eradication of the STI may be unrealistic. Nevertheless, this objective may be appropriate for local outbreaks triggered by unusual cases e.g. congenital infections or antimicrobial resistant strains.

12.2 Thus a variety of criteria for declaring an outbreak over may apply including:

- Stabilisation and/ or decline in incident case reports
- Decline in case reports to ‘baseline’ levels
- Decrease in reports to levels which can be managed within existing resources
- Return of local disease rates to national levels
- Reduction in disease prevalence (where available)
- High coverage (sceening, vaccination) of at-risk groups
- High awareness and uptake of interevention among at-risk group

13 REPORT WRITING

13.1 At the conclusion of an outbreak, a report should be prepared by the OCG and circulated to the DHA and other agencies involved, including GUM, and CDSC. It is important that all those involved in controlling the outbreak are acknowledged and provided with the opportunity to view the final report (See the toolkit for a CDSC incident report outline)

13.2 The lessons learned from investigation of local and regional incidents may, in conjunction with MSSVD, be used to refine these guidelines and develop material for training purposes.

13.3 Following investigations the local CCDC, in conjunction with CDSC, should maintain heightened surveillance of the infection in question to monitor the effectiveness of interventions.

14 SUMMARY OF KEY ROLES AND RESPONSIBILITIES IN MANAGING STI OUTBREAKS

Professional	Chief Responsibilities
GUM Physician	• Early identification of increasing STI incidence or outbreaks and communication of that information to CCDC's • Facilitate confirmation of outbreaks through focused studies • To appraise capacity (services, resources) of local GUM services to respond to the STI outbreak • In conjunction with the OCG, to identify locally appropriate and acceptable control measures • In conjunction with the OCG, to help implement appropriate control measures
CCDC	• Identification of outbreaks through routine surveillance • Provides local epidemiological support to investigating the STI outbreak. • Highlighting priority to the Health Authority and advocate, if necessary for additional investment/ resources to deal with outbreak • Following investigations the local CCDC, in conjunction with CDSC, should maintain heightened surveillance of the infection in question to evaluate the effectiveness of interventions • The CCDC may audit the management of local incidents/outbreaks in conjunction with GUM and the RE • The lessons learned from investigation of local and regional incidents may be used to develop material for training purposes
NHS Consultant Microbiologist and/or PHL Director	• Identification of outbreaks through routine surveillance • Provide expert microbiological advice to the OCG on interpretation of clinical data, methodology of investigation and collection of specimens • Provide expert microbiological advice for control measures • Arrange prompt analysis and reporting of clinical samples as required • Arrange for further testing at appropriate reference laboratories • Advise on the use of specialist diagnostic methods in the identification of linked cases
STI OCG Chairman	• Direct and co-ordinate the overall management of the outbreak • Ensure that each member of the control group understands his/her role and responsibility • Be available throughout the episode for consultation and advice • Be responsible for liaison between senior staff, including the clinicians concerned • Be responsible for ensuring the proper timely communications between members of the OCG and other parties, including: Chief Executive of the Trust, Regional Director of the Public Health, CDSC, Department of Health, Public and media • The OCG have responsibility for declaring the incident over
Regional epidemiologists	• Identification of possible regional outbreaks through routine surveillance

Professional	Chief Responsibilities
	• To support those with local statutory responsibility for communicable disease control, including STIs • Identifying and agreeing input with the CCDC and other relevant organisations • Help with the investigation and control of the outbreak by inputting to the OCG, offering expertise and/or field support • Securing additional expertise from CDSC (Colindale) • Assistance with co-ordinating the handling of the media as well as re-assurance of the public • Keeping the NHS Executive and DH informed and seeking their support as and when required • Assistance with auditing incidents • Support with the development of training exercises
CDSC Colindale	• Provide guidance on the overlap between public health and GUM • Provide guidance for factors to consider to rule out artefacts in observed increases in numbers of STIs • Provide a national context for any rises observed • Providing information resources of (national and international) to advise about acute incidents and their management • Provide advice on local research studies which may be undertaken • Assist in the development of investigative tools such as standardised questionnaires • Occasionally to provide personnel to assist with field investigation or analysis of results (either from the regional or national centres) • Development of methods to evaluate control measures

15 OUTBREAKS INVOLVING MORE THAN ONE DISTRICT IN A REGION

15.1 Regional Epidemiologists or other CDSC Consultant Epidemiologists may became aware of such outbreaks from: CCDCs , GUM Physicians, routine regional and or national surveillance information.

15.2 RDsPH carry a responsibility for ensuring effective collaboration in dealing with outbreaks which cross health authority boundaries. In practice, this function is discharged by REs.

15.3 When outbreaks start in one district and subsequently involve more than one district the RE, in conjunction with the relevant CCDCs, may advise the OCG on the most appropriate mechanisms to ensure co-ordination of activities. In some circumstances, it may be appropriate to convene a single OCG with representatives from the other DHAs which may be involved. Frequently, the DHA which is most affected will take the lead role. In outbreaks which cross several boundaries in a region, it may be appropriate to convene an 'over-arching' OCG which works closely with the District OCGs.

15.4 When a number of districts are affected, the RE is likely to become involved and will offer the appropriate assistance; DHAs may not have the resources and capacity to deal unaided with large, complex incidents/outbreaks. When this occurs the responsibility for invoking wider arrangements must rest with the local professionals. However if the RDPH has grounds for believing that the involvement of the RE is necessary it is generally accepted by the DHA concerned.

15.5 When outbreaks are detected through routine regional or national surveillance, REs initiate the relevant investigation, with support from CCDCs and/or CDSC Colindale, as and when appropriate.

15.6 When Consultant Epidemiologists at CDSC Colindale become aware of local or regional outbreaks, the relevant RE is informed. Where input from 'Colindale' is required, a senior staff member from HIV/STI division at CDSC (Colindale) will discuss the incident with the RE and offer support in the areas outlined in paragraph 10.

16 CDSC SUPPORT IN REGIONAL OUTBREAK INVESTIGATIONS

16.1 **The CDR 'front page'** . Is frequently used to inform public health and other health professionals about district and regional outbreaks and to request their assistance in case finding etc. In these situations, the Editor of the CDR should clear the 'front page' with the relevant public health, GUM professionals and REs. E-mails and Epinets can also be used to disseminate information quickly.

16.2 **Reports on incidents:** Where REs contribute to the investigation of incidents they should try to encourage the publication of a report by the OCG.

16.3 **Lessons learnt:** Following the investigation of incidents, CDSC regionally should maintain

heightened surveillance of the infection to evaluate the effectiveness of control measures. REs have a particular role in assisting with auditing incidents. The aim of auditing is to identify the lessons learnt and influence future policy and practice, both locally, regionally and nationally. The audit of incidents may review epidemiological methods, clinical case definitions, public health response, microbiological aspects including approach to linked cases, as well as evaluation of control measures and assessment of effectiveness of contact tracing.

16.4 **Training materials**: The investigation of incidents may highlight particular methodological problems in epidemiology and/or management issues. Thus, incidents may provide useful training material for public health/GUM and other professionals. REs, in conjunction with CCDCs have a role in the development of training exercises. The use of particular incidents for training purposes should be agreed with the district(s) concerned.