

**Queensland Health
and
Department of Education and Training**

Working Agreement for the Assessment of Clusters
of Non-communicable Disease

January 2011



**Queensland
Government**

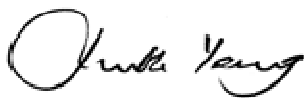
Foreword

The Department of Education and Training (DET) and Queensland Health (QH) respond to inquiries about suspected clusters of non-communicable diseases, mainly cancer, in DET facilities emanating from their staff or from community members.

Concerns from staff have mainly related to breast cancer, which is the most commonly diagnosed cancer in Queensland women. Both the Department of Education and Training and Queensland Health take these concerns seriously.

In Queensland, cancer is a common disease with one in every two men and one in every two women developing some type of cancer by the age of 85 years. International and national evidence indicates that, in almost all instances, suspected clusters or groups of disease in one place are found to be a normal chance occurrence with no identifiable environmental cause. The assessment of concerns about cancer cases in a workplace or a confined location can be a complex and resource intensive task, and one that requires thorough planning and careful assessment.

This document has been established to outline the partnership between the Department of Education and Training and Queensland Health in addressing staff and public concerns about reported clusters of non-communicable disease in Department of Education and Training workplaces.



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January 2011



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1. Overview

Queensland Health (QH) and the Department of Education and Training (DET) take concerns about possible environmental causes of non-communicable disease seriously. The purpose of this document is to outline an agreed process between QH and DET for the assessment of clusters of non-communicable disease such as cancer (hereinafter referred to as 'cluster') within DET workplaces, including the:

- roles of QH and DET in the management and assessment of reported clusters
- scope and processes for different types of disease cluster assessment
- roles and responsibilities of each agency in different types of assessment
- processes for conducting, reporting, recording and communicating the outcome of an assessment.

Fact sheets, forms and templates for cluster assessments can be found on the DET Creating Healthier Workplaces website at <http://education.qld.gov.au/health/research/index.html>.

2. Scope

The scope of this working agreement is limited to clusters of non-communicable disease in DET facilities in Queensland. Where necessary, the physical setting of the reported cluster may extend outside the DET facilities and involve nearby streets, suburbs or communities if there has been concern about a similar occurrence of disease which may or may not have common links. In such situations, QH and DET will jointly decide who is the appropriate authority to undertake the assessment and management of the cluster.

The scope of this document is limited to Type 1, Type 2 and Type 3 cluster assessments, according to the Queensland Health Guidelines: Assessment of Clusters of Non-communicable Disease (the 'Guidelines').¹ It is important to note that while each Type is a cluster assessment in its own right and on its own merit, assessment of any suspected clusters initially involves a Type 1 cluster assessment, that is, inquiry response. Based on available evidence in Australia² and worldwide^{3,4} most Type 1 assessments can be closed at the initial inquiry after a brief appraisal by an experienced Public Health Medical Officer or an experienced epidemiologist. Occasionally, Type 2 assessments are warranted. Type 3 assessments are rarely justified. The Types are briefly discussed below.

Type 1 assessment

Type 1 cluster assessment is a local response from a QH facility when a suspected cluster is first reported to QH by an informant. The purpose of Type 1 assessment is to assess the information provided by the informant to determine whether or not the reported cases could potentially be a cluster. Many Type 1 assessments only require a brief appraisal by an experienced Public Health Medical Officer or a Senior Epidemiologist.

Type 2 assessment

The purpose of a Type 2 cluster assessment is to determine, using available data, whether or not there is an excess of cases that meet the case definition and have had sufficient exposure to a biologically plausible causal agent for the type of disease reported.

Type 3 assessment

Type 3 cluster assessment aims to quantify the excess of disease cases under assessment and undertake a detailed assessment of exposure to biologically plausible causal agents. The criteria required to undertake a Type 3 assessment are rarely fulfilled, and therefore this level of assessment is rarely undertaken.

Type 4 assessment

Type 4 cluster assessment is mainly conducted for research purposes. The goal of a Type 4 assessment is to explore hypotheses that have arisen from a Type 3 cluster assessment, and which were not addressed by the assessment.

3. Operational details

3.1 Cluster Management

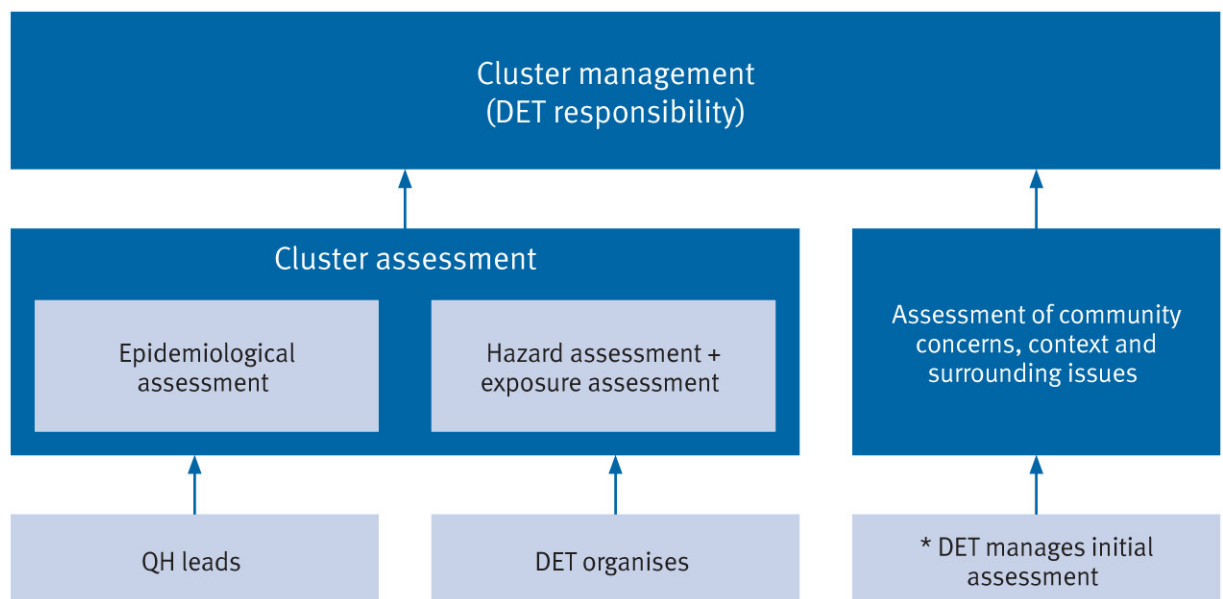
The roles and responsibilities of the Cluster Manager and the Cluster Assessor as described in this document are generic to the assessment, regardless of the assessment Type. The intensity of those roles and responsibilities will vary according to the assessment Type.

Clusters must be managed in a timely, empathetic and effective manner, based on the best available evidence. Cluster management is distinct from cluster assessment (Figure 1). Cluster management is defined as the evaluation and implementation of appropriate options in response to the cluster assessment and related matters.¹ Effective cluster management requires the implementation of multiple strategies in a timely manner. The process incorporates information relating to environmental science as well as epidemiological, social, economic and political aspects. The key role of a Cluster Manager is to adequately inform the cluster management process by providing clear and objective information, including any uncertainties related to the assessment.

The cluster management process can be influenced by related community concerns, surrounding issues or the context within which the suspected cluster was reported (Figure 1). These may relate to broader health and safety concerns or more general management issues. It is the Cluster Manager's responsibility to address these issues within the management context of the cluster.

As Cluster Manager, DET will usually have the accountability arising from their ownership of an affected site, such as a school. In some cases, several agencies may be involved in the assessment so the roles and responsibilities of the individual entities must be clearly defined. DET will manage the assessment by defining and delegating the roles and responsibilities of all persons involved in the assessment.

Figure 1: Overview of cluster management and cluster assessment¹



* Management of this aspect may vary depending on the context of each situation

3.2 Cluster Assessment

Cluster assessment is the scientific process to determine if there is an increased number of cases of disease and, similarly, to determine if there is a biologically plausible causal agent for the disease. A cluster assessment seeks to identify if a greater-than-expected number of cases of the same or similar type of disease have occurred within a group of people in a geographic area over a specified period of time, and if there is a biologically plausible causal agent for the disease.⁵

Cluster assessment comprises two coupled components — epidemiological assessment, and hazard and exposure assessment (Figure 1), both of which are necessary for a complete assessment of the cluster. Hazard and exposure assessment usually focuses on environmental factors because the concern usually stems from a perception that an environmental agent in a neighbourhood, school or workplace is causing the disease. In recognition of this, the combined assessment will be termed 'Environmental Site Assessment' (ESA).

According to the QH guidelines,¹ lifestyle and genetic factors should also be considered as part of the broader process of cluster assessment, because of their importance in disease causation. While these factors are of substantial importance in any assessment, the primary data sources for comparing observed and expected case numbers, such as the Cancer Registry, do not enable a quantitative appraisal of these factors. Furthermore, in Type 1 and Type 2 cluster assessments only limited qualitative assessment of these factors is feasible. In Type 3 assessments a more detailed qualitative assessment of lifestyle and genetic factors may be justified.

4. Roles of Department of Education and Training

In response to a concern raised within a DET workplace, DET will take the overall management role in responding to the concern and will identify a lead officer as the Cluster Manager. Detailed guidelines for cluster management are beyond the scope of this document, but the high level responsibilities include the following:

- a) Establish the governance processes for cluster management activities.
- b) Provide information as needed for the cluster assessment.
- c) Assess the community concerns, context and surrounding issues that relate to the reporting of the suspected cluster.
- d) Appraise the results of the cluster assessment, including the nature of the assessment, methodology applied and the uncertainty involved in the assessment.
- e) Define and evaluate available management options.
- f) Decide on appropriate action and oversee implementation.
- g) Monitor and evaluate the effectiveness of the actions taken.
- h) Implement any changes to the cluster management cycle.
- i) Manage community engagement and media communication.

The role of DET in cluster management of a suspected DET workplace cluster is outlined in section 4.1 and in graphical form in Appendix 1.

4.1 DET as Cluster Manager

The Cluster Manager will coordinate and oversee the DET response, establishing a pivotal link between the workplace, DET Regional and Central Offices, QH and other parties engaged to assist with the cluster assessment.

The Cluster Manager will:

- 4.1.1 Liaise directly with the DET informant, usually the site manager, about the concerns at the DET worksite.
- 4.1.2 Discuss with the site manager/informant the extent of the concerns at the site, including:
 - the level of anxiety
 - the extent to which the concerns have spread among staff, school community and the general public
 - the extent to which factors other than concerns relating to the disease cases and/or perceived exposure to a hazard, impact upon the concerns: for example, industrial relations or management matters.

- 4.1.3 Discuss with the site manager possible options to address the concerns, including:
 - the provision of relevant health information material, such as QH fact sheets
 - the conduct of an information session for concerned staff at the site
 - the options of further cluster assessment, including epidemiological assessment, and environmental site assessment.
- 4.1.4 Notify the local public health unit of the concern and seek:
 - initial advice and guidance in relation to concerns
 - possible assistance in delivering a site information session to concerned staff.
- 4.1.5 Collect from staff relevant information as detailed in the 'Initial informant interview for reported cluster' form developed by QH.
- 4.1.6 Notify DET Corporate Communications and Marketing of the concern and the extent of concern spread. DET Corporate Communications and Marketing in turn will liaise with the QH Integrated Communications.
- 4.1.7 Provide the informant or site manager with QH factsheets for staff information.
- 4.1.8 When required, contract an occupational hygienist or environmental scientist from external sources in collaboration with QH.
- 4.1.9 Where required, coordinate a staff information session at the worksite, to include:
 - overview of DETs commitment to staff health, safety and wellbeing
 - outline of how DET manages these concerns
 - health information on cancer and cancer clusters delivered by QH
 - feedback from concerned staff regarding actions they would like to see happen to address their concerns.
- 4.1.10 Where required coordinate through the DET Director Organisational Health Unit, the conduct of an ESA.
- 4.1.11 Maintain contact with the site manager in relation to the current status of the assessment.
- 4.1.12 Provide written briefs to the Minister for Education and Training and relevant DET executive in relation to the status of the assessment.

4.2 Director Organisational Health Unit

Where the Director Organisational Health Unit is not the DET Cluster Manager, the Director will:

- 4.2.1 provide assistance and advice to the DET Cluster Manager.
- 4.2.2 coordinate and fund the conduct of the environmental site assessment.
- 4.2.3 support DET Corporate Communications and Marketing with the development of any media statements.
- 4.2.4 brief the Minister for Education and Training, where required, on the status of any disease cluster assessment.

4.3 Corporate Communications and Marketing

When notified of a disease cluster concern within a DET workplace, DET Corporate Communications and Marketing will:

- 4.3.1 Manage and coordinate the DET interface with the media and public
- 4.3.2 Liaise and coordinate with QH Integrated Communications in relation to the development and release of media information including QH approvals for any health related information before forwarding to media.

5. Roles of Queensland Health as Cluster Assessor

The role of QH as the Cluster Assessor in a suspected DET workplace cluster is outlined in graphical form in Appendix 1.

- 5.1** The primary role of QH as Cluster Assessor involving DET facilities is to lead the epidemiological assessment of a non-communicable disease cluster in DET facilities. In particular, QH will collect, with the assistance of the Cluster Manager, all required information about the cases. This may include, but not be limited to:
- age
 - sex
 - period of employment
 - cancer type
 - date of diagnosis
 - range of staff numbers over relevant period
 - any known environmental concerns staff might have
 - site history, such as previous mixed farming, reclaimed land.
- 5.2** Based on this information, a QH assessor such as a Public Health Medical Officer or a senior epidemiologist will be appointed to assess cancer rates of staff at the DET facility under assessment, and compare those rates with the Queensland rates for that particular cancer type.
- 5.3** If indicated by the QH Cluster Assessor, QH may need to access the Queensland Cancer Registry data for verification of cases. This action will require approval by the QH Director-General.
- 5.4** QH will work collaboratively with any external party hired by DET for hazard and environmental site assessment.
- 5.5** QH will inform and update DET of the type of assessment it considers appropriate to undertake, based on the guidelines.¹
- 5.6** When requested, QH staff will attend a briefing to DET staff by the Cluster Manager or representative. If invited, QH staff will deliver a presentation to DET staff on basic information about cancer clusters, assessment processes, progress and any up-to-date results on the specific assessment.

6. Departmental briefing

6.1 Department of Education and Training

- As soon as concerns are formalised, the DET officer responsible for coordinating the action at the workplace should contact their Regional Office, Central Office, or Institute supervisor.
- Regional or Institute Directors or Assistant Directors-General are to be informed of the concern.
- The Deputy Director-General Corporate Services, will be notified by email as soon as possible to ensure the Director-General, Chief Operating Officer Regional and Institute Operations, Minister for Education and Training and Executive Director, Corporate Communications and Marketing are informed of the concern.
- Director Organisational Health Unit can be contacted at any point and/or nominated to coordinate the flow of information to the Deputy Director-General Corporate Services and Corporate Communications and Marketing.
- The appointed Cluster Manager will be required to provide regular written briefings to ensure DET Executive Management and the Minister for Education and Training remain informed of the status of the assessment.

6.2 Queensland Health

- Details of QH roles and responsibilities as Cluster Assessor are defined in the QH guidelines.
- As soon as possible after the assessment is initiated, the Executive Director, Health Protection should be notified by email to ensure the Minister for Health is also notified.
- If there is likely to be substantial public concern or media interest, the Executive Director Health Protection Directorate should be notified by email.
- QH Integrated Communications should be notified as soon as possible after the commencement of the assessment, if there is a likelihood of substantial public concern or media interest.

7. Communication

Communication is an integral part of all types of cluster assessment. Without a clear and consistent communication approach, the Cluster Manager and the cluster assessment team cannot respond effectively to community and stakeholder concerns, including any that might arise during the assessment. Communication of the cluster assessment and findings to key stakeholders such as affected individuals, affected communities and the media, is primarily the responsibility of the Cluster Manager, which is DET for all assessments of DET workplaces. This communication requires careful and sensitive consideration and proactive issues management and may require input from QH Integrated Communications and senior management.

7.1 Inter-agency

Any cross-institutional communication will be jointly agreed by DET and QH. This could be a situation where concerns of the incidence of cancer originated from a DET facility but later spread to the nearby community, street or suburb which then brought the relevant local authority to the assessment team.

7.2 Media and public

- Both DET and QH will inform each other of any media or public statement they plan to issue regarding the assessment. When required, both DET and QH will share the draft of the public statement in order to ensure the accuracy of information.
- QH will lead the discussions with the media on the epidemiological assessment and health related matters.
- DET will lead in relation to cluster management and environmental site assessment.

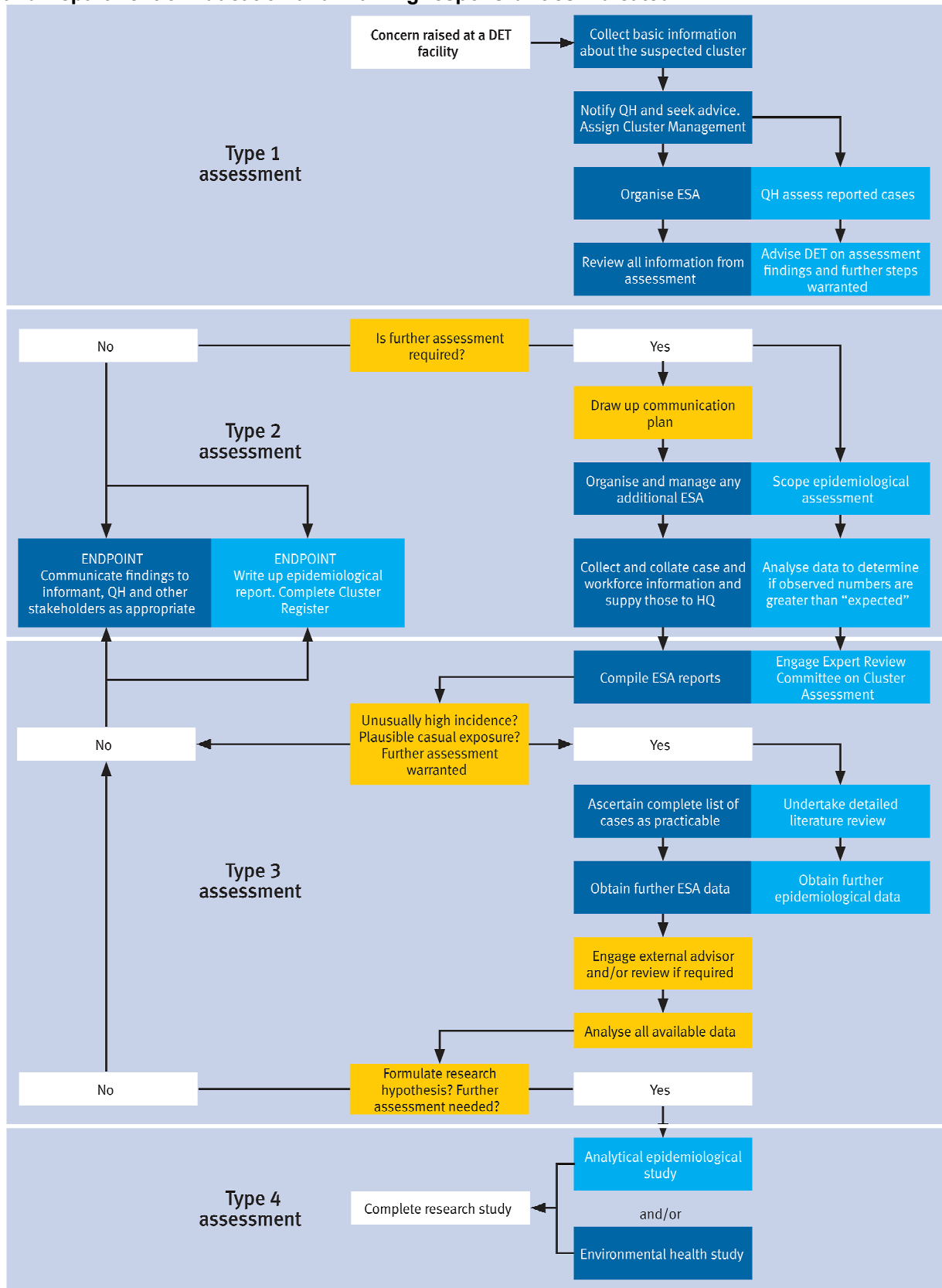
8. Agreement Review

This working agreement will be reviewed biennially in line with the review of the Queensland Health Guidelines: Assessment of Clusters of Non-communicable Disease.¹

References

1. Queensland Health. Queensland Health Guidelines: Assessment of Clusters of Non-communicable Disease. http://www.health.qld.gov.au/ph/Documents/pdu/cluster_assessment.pdf. Accessed 4 November 2010.
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3. Caldwell G. Twenty two years of cancer cluster investigations at the Centres for Disease Control. *American Journal of Epidemiology* 1990;132:S43-S47.
4. Thun M, Sinks T. Understanding cancer clusters. *CA A Cancer Journal for Clinicians* 2004;54:273-280.
5. Centres for Disease Control and Prevention. About Clusters. <http://www.cdc.gov/nceh/clusters/about.htm>. Accessed 2 April 2010.

Appendix 1: Non-communicable disease cluster assessment pathways with Queensland Health and Department of Education and Training responsibilities indicated.



QH: Queensland Health
 DET: Department of Education and Training
 ESA: Environmental site assessment

