

## Gold Coast Public Health Unit

# Gold Coast 2018 Commonwealth Games Summary Report





## Contents

1. Introduction	4
2. Context	5
2.1 Background	5
2.2 Mass Gathering	5
2.3 GC2018 Vision & Objectives	6
3. The Gold Coast Public Health Unit's role during the Gold Coast 2018 Common	wealth
Games	7
4. Planning	8
4.1 Working Groups & Committees	8
4.2 Evidence & Risk Based Planning	8
4.3 A Planned response	8
4.4 Surveillance and reporting systems	13
4.5 Communications	14
4.6 Stakeholder engagement	14
4.7 Testing and exercises	15
5. Games Time Operations	17
6. Key Highlights from Operational Cell Reports	21
6.1 Gold Coast Public Health Unit Emergency Operations Centre	21
6.2 Public Health Incident Log	21
6.3 Enhanced Surveillance	24
6.4 Queensland Health Disease Surveillance Activities	26
6.5 International Surveillance	28
6.6 Venue Based Surveillance (Gold Coast)	29
6.7 Venue Based Surveillance (Regions)	31
7. Legacy, learnings and recommendations	33
7.1 Planning & Collaboration; GOLDOC, City of Gold Coast and Public Health	33
7.2 Enhanced Surveillance	33
7.3 GeneXpert®	33
7.4 Accreditation Access to the Village and Venues	34
7.5 Early Public Health presence in the Polyclinic	34
7.6 Field training for Master of Applied Epidemiology Scholars	35
7.7 Legacy Documents	35
7.8 Networks & Communications	35
List of Appendices	37
1. List of Working Groups & Committees	38
2. Stakeholders	39
3. Collaborative Documents Developed for the Games	41
4. Testing & Exercises	42
5. Gastro Illness Pamphlet	43
6. Gastro Illness Questionnaire	44
Author acknowledgements	46
The Gold Coast Public Health Unit Team	47



2

## **Table of Figures**

Figure 1: Layers of Planning for the Games9
Figure 2 - Drinking Water Station at a Venue13
Figure 3: Consultation for the Games16
Figure 4: Reporting & Event Timeline17
Figure 5: Daily Rhythm for Games time 4 Apr – 15 Apr 201818
Figure 6: Communication Pathways for reporting during the commonwealth Games20
Figure 7: Daily emails received by the Gold Coast Public Health Unit Emergency Operations Centre (EOC) by type, 20 March to 18 April 201821
Figure 8: Daily incidents reported to the Gold Coast Public Health Unit by primary notification source, 20 March - 18 April 201822
Figure 9: Daily gastroenteritis syndrome presentations to Gold Coast Health (public) emergency departments, 20 March - 18 April 201824
Figure 10: Daily count of gastroenteritis illness presentations to sentinel sites reported to the Gold Coast Public Health Unit, 20 March to 18 April 201825
Figure 11: Daily count of completed gastro illness questionnaires received by the Gold Coast Public Health Unit, 20 March to 18 April 2018
Figure 12: Notifications reported to the Gold Coast Public Health Unit by Queensland Health Communicable Diseases Branch; Influenza (lab confirmed), Salmonella (all) and Cryptosporidiosis 20 March to 18 April 2018





## 1. Introduction

The Gold Coast 2018 Commonwealth Games (GC2018) was held on the 4th to 15th April 2018 and was the largest sporting event in Australia this decade. Around 6,600 athletes and team officials from 70 member counties and territories participated across 18 sports and 7 parasport events held on the Gold Coast, Brisbane, Townsville and Cairns.

Public health commenced planning for the GC2018 in 2015 with the establishment of the GC2018 Public Health Coordination Group (GC2018 PHCG) that reported to the GC2018 Medical Executive Steering Committee Co-Chaired by GOLDOC and Queensland Health.

The aim of the GC2018 PHCG was to protect and promote the health and wellbeing of the community at the GC2018 through minimising the risk of illness and harm arising from communicable diseases, food safety, water quality and environmental health hazards.

To deliver on this the Gold Coast Public Health Unit (GCPHU) implemented a risk based environmental health compliance program, enhanced communicable disease surveillance system and incident response framework in collaboration with key partners at the local, state and national levels.

The Unit was involved in the response planning for the Games which included attending desktop exercises to test responses and communication systems. Response planning involved working closely with various partners, including the Gold Coast 2018 Commonwealth Games Corporation (GOLDOC), Queensland Health and the emergency services.

We would like to thank Dr Heidi Carroll, Public Health Incident Controller GC2018, Queensland Health and Ms Sophie Dwyer, Executive Director Health Protection Branch, Queensland Health and Co-Chair GC2018 PHCG.

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## 2. Context

## 2.1 Background

The Gold Coast hosted the 21<sup>st</sup> Commonwealth Games (the Games) between the 4 and 15 April 2018. It was the largest event hosted within Australia so far, this decade with approximately 6,600 athletes and officials and 15,000 volunteers attending the Games. The number of spectators to the event was estimated at around 1.5 million people.

Competing at the Games were 70 nations and territories across 18 different venues. The main venues for the Games were on the Gold Coast, however Townsville and Cairns hosted the preliminary basketball competition, and Brisbane hosted the shooting and indoor cycling. The Gold Coast was the location of the Commonwealth Games Village (Athlete's Village).

Para-sports were included within the main program for the first time and there were an equal number of men and women's medals contested.

The Queen's Baton Relay arrived on the Gold Coast on the 1 April 2018 with celebration events planned through its journey on the Coast.

Running alongside the Games was Festival 2018 which ran for 12 days. This was a cultural festival showcasing various genres such as music, dance and visual arts. On the Gold Coast the Festival was centred around two locations; Broadbeach and Surfers Paradise, with smaller events scattered throughout the Coast. Brisbane, Cairns & Townsville also held events. Approximately 500,000 people were expected to attend. Quick Facts 70 Nations & Territories 6,600 athletes & officials 15,000 volunteers 18 sports 7 para-sports 18 venues 275 gold medals to be won 1.5 million spectators

## 2.2 Mass Gathering

The event was a mass gathering due to the large volumes of people who would be arriving from all corners of the globe. An event of this size is an ideal opportunity for the spread of infectious diseases, between those visiting and living on the Gold Coast.

It was therefore important to ensure that there was an early identification system in place to identify any potential public health threats both on the Gold Coast, in Australia and within the countries outside of Australia. These systems needed to capture information quickly so that public health threats could be identified and responded to quickly.

There was also the added pressure of negative media scrutiny to prevent communicable disease outbreaks at the Games such as norovirus. In recent years large sporting events such as the Winter Olympics 2018, Pyeongchang, South Korea and the World Athletics Championships 2017, London, UK both succumbed to outbreaks of Norovirus during the events. One of the objectives at these Games was to prevent something similar occurring.



## 2.3 GC2018 Vision & Objectives

The Gold Coast Public Health Unit (GCPHU) developed a vision and objectives for the delivery of the Games.

The GCPHU vision for the Games:

To protect and promote the health and wellbeing of the community at Commonwealth Games time through minimising the risk of illness and harm arising from communicable diseases, food safety, water quality and environmental health hazards.

GCPHU had three objectives for the Games. They were:

- 1. To work with key partners to protect and promote the health and wellbeing of the community prior to, during and immediately after the Gold Coast 2018 Commonwealth Games through minimising the risk of illness and harm arising from communicable diseases, food safety, water quality and other environmental health hazards (e.g. smoking, medicines and poisons, waste, mosquitoes etc.).
- 2. To undertake risk based, enhanced compliance activity and health risk assessments prior to and during the Games.
- 3. To prepare for a rapid response to a foodborne illness or communicable disease outbreak and public health incidents.





## 3. The Gold Coast Public Health Unit's role during the Gold Coast 2018 Commonwealth Games

The GCPHU had the responsibility to work with key partners to minimise any risk to public health, whether to those involved in the Games, visiting the Gold Coast or the general community. GCPHU worked across the Gold Coast area and liaised with regional Public Health Units and the City of Gold Coast (Council) to ensure that any public health issues across the competition venues, training and accommodation venues and Festival sites were monitored.

The GCPHU had a commitment to provide a daily situation report (sitrep) to the Gold Coast Hospital Health Service (GCHHS) Health Emergency Operations Centre (HEOC) and the Public Health Incident Controller (PHIC) based in the State Health Emergency Coordination Centre (SHECC).

The GCPHU used surveillance, reporting and intelligence data to inform the daily sitrep which included information on public health threats, incidents and trends. There was also assurance that any issues noted on the sitrep were being responded to, with the aim to minimise any public health risk.

There was also a commitment to assist GOLDOC with their response to incidents during the Games, whether that be through advice for notifiable diseases, details on how to prevent the spread of disease and complaint investigation.



## 4. Planning

## 4.1 Working Groups & Committees

The GC2018 Public Health Coordination Group (PHGCG) was one of four working groups established under the GC2018 Medical Executive Steering Committee (MESC). The PHGCG consisted of five working groups to look at the following aspects of Public Health:

- Communicable Disease Control, Health Surveillance and Public Health Incident Response
- Environmental Health Hazards
- Food Safety and Standards
- Health Promotion
- Water Quality

The working groups established relationships with key internal and external stakeholders, identified the risks associated with the Games and the strategies to mitigate those risks. All the working groups met on a regular basis in the lead up to the Games.

A full list of the working groups and committees that GCPHU participated can be found in Appendix 1.

## 4.2 Evidence & Risk Based Planning

As a starting point similar events around the globe were analysed to see what learnings came from their experiences. Events such as the Sydney and London Olympics, Glasgow Commonwealth Games and the G20 held in Brisbane in 2014 provided this initial intel. The World Health Organisation's document, *Public Health for Mass Gathering Guidelines* was also utilised.

The risk analysis for the Games was performed early in the planning phase in February 2016 by each of the working groups. Risk registers were developed which identified the risks and the strategies to mitigate them. The risk-based approach would be used to drive the responses to those risks.

In total, there were 99 risks identified by the working groups. The three that were considered to have the highest public health risk were:

- a communicable disease outbreak;
- foodborne illness outbreak and
- impacts on core and / or essential public health work.

The risks that were identified by GCPHU were aligned with those from the organising committee (GOLDOC), Queensland Health and the Gold Coast Hospital and Health Service.

## 4.3 A Planned response

#### Whole of Unit

Concept of Operations

A Concept of Operations document was developed in collaboration with the GCPHU and Queensland Health. The document established the planning process with several layers, which would deliver a successful outcome with a major contribution to the operational obligations of GOLDOC Medical Functional Area, Queensland Health, the City of Gold Coast and other local governments. The layers of planning were summarised indicatively and shown below:

Queensland Government

#### Figure 1: Layers of Planning for the Games



#### **Operational Plan**

The Operational plan included the capabilities of the GCPHU both in business as usual operations and during the Games; the delivery model for activities during the Games; identified key partners; and identified the key public health risks.

#### Service Delivery Standard

The GCPHU proposed a minimum service delivery standard for Queensland Health Public Health Units for the Games. These services complimented the public health activity undertaken by key partners, and in particular, the City of Gold Coast. The service delivery standard included:

- proposed audits;
- sampling and swabbing numbers and sources;
- incident response;
- public and health promotion messaging; and
- number of personnel needed.

Regular internal meetings were held with a core group whose role was to ensure that the key deliverables were completed. A project plan was developed which listed the key deliverables, person responsible and the milestones. The project plan was a standing agenda item at the internal meeting and assisted the team in keeping a track of the progress of the deliverables.

#### **Communicable Disease**

Communicable Disease led the State Wide Communicable Disease Working Group and as part of that group a risk assessment was undertaken and identified controls developed.

During the lead up to the Games, Communicable Disease liaised with GOLDOC and provided support in the formation of procedures and policies that were to be used by GOLDOC during the Games. These included procedures concerning the control of infectious disease outbreaks within the Village; procedures for the Accommodation Group (Housekeeping) around cleaning of bodily fluid spills; recommendations on the tender process for appropriate and effective cleaning products; and information on cough etiquette, sharps disposal and hand hygiene.

**Queensland** Government

9

Communicable Disease also had an input into GOLDOC's *Medical and Pharmacy Handbook* which was to be provided to all the CGA's.

Audits were undertaken of workforce accommodation venues to ensure that they were acceptable from a communicable disease perspective. This involved liaising with GOLDOC, the venue owners and the Workforce Management and providing advice and guidance around reducing the risk an outbreak within the accommodation venue.

Communicable Disease held discussions with Queensland Police Service (QPS) and the Queensland Ambulance Service (QAS) concerning the management of unwell staff. Advice was provided in relation to this issue and information factsheets were provided to QPS for distribution to their staff around managing their own public health and preventing illness.

GOLDOC also held desktop scenarios and exercises around public health with communicable disease participating in these.

#### Epidemiology

The epidemiology team conducted joint risk analyses and planning with the Communicable Disease working group and participated in Health Promotion and Environmental Health planning meetings.

A total of 18 risks were identified in relation to outbreaks in the community or Games village. Improving situational awareness and early detection of outbreaks was identified as a key requirement to inform prompt and effective public health response.

In 2016, the epidemiology team commenced scoping the feasibility of enhancing the existing notification-based surveillance system to incorporate real time syndromic data and dashboard analytics. The project team consulted with:

- Mass gathering experts, including World Health Organisation Collaborating Centres for Mass Gatherings at Public Health England (UK) and Flinders University (Australia)
- Technical experts, including the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Centre for Health Innovation (Gold Coast), and the Research Group of Ecosystem Change, Infectious Disease Transmission and Early Warning, Queensland University of Technology.
- Key data custodians, including the National Incident Room (Australia), Queensland Department of Health Communicable Diseases Branch and the Preventive Health Unit, Gold Coast Health Emergency Department, Pharmacy Guild (Gold Coast), three private hospitals and 19 sentinel general practices.
- Key partners in the Health Surveillance and Public Health Incident Response Working Group;) and the broader GC2018 Public Health Games Coordination Working Group.

The following enhancements to the existing notification-based surveillance system were deemed feasible for the GC2018 Games:

- Real time (15 minute) syndromic surveillance of gastroenteritis illness presentations to public emergency departments
- Near real time (daily) surveillance of reported gastroenteritis illness presentation to three private emergency departments, 13 HEALTH (telehealth service), 19 sentinel general practices and 11 sentinel pharmacies
- Twice weekly surveillance of reported global disease outbreaks by the National Incident Room.



In the lead up to the GC2018 Games, the project team carried out the following planning and development steps to establish a functional enhanced surveillance system:

- Developed and tested a 'gastro syndrome' informed by three years of public emergency department data and notifiable conditions system (NOCS) data
- Established upper and lower limits to interpret daily counts of the gastro syndrome relative to day specific average
- With the technical support of the Centre for Health Innovation, developed a dashboard for real-time monitoring of gastro illness presentations to public emergency departments
- Developed and tested a brief web-based questionnaire to collect exposure histories from community members presenting with gastro illness
- With the support of the Health Promotion and Communications team, developed promotional resources, such as posters and pamphlets
- Developed data collection and reporting tools and processes to communicate with key public health response teams
- Developed decision-making algorithms for the use of surveillance information to support communicable disease and environmental health investigations

#### **Environmental Health**

Environmental Health conducted health risk assessments (HRA) of each of the known training and competition venues well in advance of the Games. The HRA looked at what possible public health risks were at the venue i.e. whether food was supplied, whether there was a cooling tower on site etc. This then enabled any potential risks to be identified.

During the development of the Athlete's Village, GCPHU had an input into how the Athlete's Village was designed and how it would be utilised during the Games. Recommendations were put forward in relation to the minimisation of the spread of disease through structural and operational practices once the Games began. Extensive work was undertaking around the water supplies to the Athlete's Village in collaboration with GOLDOC and environmental consultants to minimise any risk to the occupants at the Athlete's Village during Games time.



GCPHU and the City of Gold Coast's, Health, Regulatory and Lifeguard Services Branch met monthly to coordinate the environmental health response during the Games. Both the GCPHU and City of Gold Coast Environmental Health Teams worked closely together to align roles and responsibilities, which aimed to ensure that these were clearer to both agencies during



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the Games. Linkages between the field staff were established and this lead to improved joint working and information sharing which lead to quicker incident responses during the Games.

In the months leading up to the Games, Environmental Health at the various public health units across the State where the Games venues were located, conducted targeted audits to assess compliance with public health legislation. The audits were undertaken at:

- training and competition venues;
- accommodation venues;
- food suppliers and manufacturers;
- pharmacies;
- tobacco retailers; and
- restaurants, clubs & pubs with smoking areas

These were chosen as they were considered to have more of an impact directly on the Games and those visiting the Gold Coast. Where required those audits also comprised a sampling regime which included food, environmental, recreational and drinking water samples.

Prior to the Games, GCPHU met with the GOLDOC catering managers and the nominated caterers for the Games venues. Development of procedures and agreed incident reporting arrangements were established and an understanding of the catering operations was determined. This assisted with the quick notification of any food related illnesses or complaints and therefore a quicker response.

Quick Facts Premises audited before the Games: 23 Accommodation venues 54 Designated outdoor smoking areas 3 Theme parks 57 Outdoor eating and drinking areas 25 Food manufacturers

During Games time, a venue audit roster was developed for the Environmental Health Officers (EHOs). This was a plan of proactive audits various training and competition venues, the Games Family Hotel and Festival Sites during the Games. EHOs were allocated specific venues which lead to a consistent approach for monitoring compliance and also provided an overview of the issues and "state of play" at the venue during Games time.

#### **Health Promotion**

Key stakeholders were engaged to identify health promotion opportunities in May 2016. Agreed opportunities included:

- To identify shared key messaging
- Volunteerism enhancements
- Healthy food and Water policies for events and new venues
- Supportive environment for sun safety
- Reconciliation
- Public Health messaging inclusion in Games family handbook
- Public Health messaging via ticketing point of sales
- Enhanced surveillance system development

#### Outcomes:

A Healthy Hub concept was initially submitted as an optimal avenue for health promotion across venues. The Hub aim was to make healthy behaviours including hydration, sun protection and hand hygiene integral to Games activities. Water provision trailers were to complement permanent water stations in and around competition areas and provide easy promotion of accessible drinking water to ensure spectator hydration throughout competition.



The Healthy Hub concept was not implemented; however, many elements of the Hub concept were addressed through other strategies.

The Sun Safety and Heat Related Illness Mass Gathering Guidelines were developed as evidence-based guide and Legacy tool to promote the creation of supportive environments for health at future mass gatherings. The Sun Safety Mass Gathering Guidelines was developed in collaboration with and co-endorsed by Queensland Health, Preventive Health Unit and Cancer Council Queensland.

The guidelines were presented the GOLDOC Medical Functional Area and communicated to GOLDOC uniform, security and communication teams. Public Health worked with the GOLDOC uniform team to access the inclusion of best practice materials and design elements into uniforms (see Figure 2) and volunteer packs including sunscreen access and water bottle provision.

Mass Gathering Guidelines were published fact sheets on the <u>Public Health webpage</u>.



Figure 2: Commonwealth Games official uniform – sun safe design

Advice was provided to Medical, Communications and Security regarding supportive environments for

wat.er consumption (refill stations (see Figure 3) and allowance of water bottles through security checks) as well environmental and health benefits of increasing water consumption via tap water. Advice was also provided to Gold Coast City Council (Gold Coast Water) and a project was implemented to support tap water as a preferred choice (Choose Tap).



Figure 3: Drinking Water Station at a Games Venue

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Health Promotion messaging was provided to GOLDOC via the Medical Functional Area (MED FA) to inform the messaging within the Games Family communications (such as the Chef de Mission).

A range of public health fact sheets were developed by environmental health and communicable disease teams to provide evidence-based guidance on developing and implementing protective health practices and reducing health risks. These tools were promoted to businesses, vendors and partners and made available via the <u>public health</u> <u>webpage</u>.

## 4.4 Surveillance and reporting systems

The GCPHU embarked on three years of planning, development, piloting and refinement to implement an enhanced surveillance system during the Games.

Gastroenteritis illnesses are one of the most commonly identified communicable disease issues for mass-gathering events. Isolated cases and potential outbreaks of gastroenteritis illness were anticipated prior to and during the 2018 Gold Coast Commonwealth Games. Significant planning and preparedness was invested to facilitate the timely identification of

**Queensland** Government gastroenteritis cases, including engagement and involvement of relevant stakeholders, enhancement of usual notification gastroenteritis disease surveillance and the establishment of new data capture processes. An exposure questionnaire was developed for cases who presented with gastroenteritis symptoms to public and private emergency departments (EDs) and multiple healthcare services in the Gold Coast. Cases who presented to the public EDs were also sent the questionnaire via an SMS-based link following discharge.

In addition to routine surveillance of the Queensland Notifiable Conditions System (NOCS), the GCPHU conducted enhanced surveillance including the following:

- Real time syndromic surveillance of gastroenteritis symptom presentations to Gold Coast Health public hospital Emergency Departments
- Near real time (24 hourly) syndromic surveillance of gastroenteritis symptom presentations to, three major private hospitals, 13 HEALTH, and 20 sentinel General Practices (GPs), including the Home Doctors Service
- Collection and analysis of (voluntarily provided) food and water exposure information from community members who presented to health care facilities with symptoms of gastroenteritis, approached by:
  - 24-hour post discharge SMS invitation to brief online self-completed questionnaire (public emergency department)
  - Verbal invitation to a brief interviewer assisted questionnaire (13 HEALTH)
  - Poster and pamphlet invitation to brief online self-completed questionnaire (private emergency department, sentinel GPs, and sentinel community pharmacies)
- Daily monitoring of Notifiable Conditions Register for all notifiable conditions across
   Queensland
- Daily monitoring of global outbreaks/emerging infectious diseases, supported by the National Incident Room
- Monitoring of alerts from Public Health Rapid, Emergency, Disease and Syndromic Surveillance (PHREDDS), New South Wales
- Surveillance of workforce in partner organisations
- Monitoring of 'gastro' related Twitter posts and Google searches in the Gold Coast region.

## 4.5 Communications

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It was agreed before the Games who the nominated spokesperson would be should media statements or announcements be required. Liaison with other parties including the local government, Queensland Health and the Gold Coast Hospital and Health Board was undertaken to ensure that all parties were clear on who would be the spokesperson and the consistent messaging that would be used.

## 4.6 Stakeholder engagement

The GCPHU held its first meeting relating to the Games in November 2015. As mentioned previously, various working groups were established in the lead up to the Games which enabled the GCPHU to meet and work collaboratively with numerous stakeholders. Figure 4 shows the consultation with stakeholders by the GCPHU. A full list of stakeholders can be found in Appendix 2.

GCPHU's major stakeholder was the City of Gold Coast and especially the Environmental Health team. Regular strategic and operational meetings were held with joint working during the Games planned.



14

GCPHU worked extensively with GOLDOC to advise and provide guidance on various aspects of public health. This advice and guidance helped to shape GOLDOC's procedures and policies, as well as providing input into high level documents such as the *Medical & Pharmacy Handbook* and *Chef de Mission Manual*.

GCPHU also provided information to the Queensland Police Service (QPS) who were deploying a large number of officers to the Gold Coast from various parts of Queensland for the Games. The QPS provided information to every officer in the form of a "show bag" which included useful public health information from GCPHU in terms of food safety, hand hygiene and preventing the spread of disease such as norovirus.

A list of the collaborative documents can be found in Appendix 3.

## 4.7 Testing and exercises

The GCPHU was involved in several test exercises prior to the Games. These were important to ensure that during the Games, policies, procedures, communication pathways and incidents response plans were known, understood and in place. The exercises were arranged mainly by GOLDOC and involved many different agencies, with the GCPHU having varying involvement in those exercises. GCPHU also ran their own exercises to test responses, internal reporting, external and internal communication pathways.

Appendix 4 shows the exercises that GCPHU participated in prior to the Games.





#### **Figure 4: Consultation for the Games**





## 5. Games Time Operations

The Games began on the 4 April, however daily situation reporting from all agencies began from the 20 March 2018 and continued until the 18 April 2018 – these dates were considered to be "Games Time". Figure 5 shows the timeline for reporting and events for the Games.



Figure 5: Reporting & Event Timeline

From the 20 March 2018 the GCPHU Emergency Operations Centre (EOC) was activated and would remain in operation until the 18 April 2018. The EOC was managed by the incident control team, led by the Sector Commander and supported by the Duty Officer and Support Officer.

All calls and correspondence (e.g. emails) were fed through the EOC through a dedicated phone line and email account. Everything was logged in an incident log and the contents raised throughout the Games time during the daily incident management team meeting (IMT).

The IMT meetings were held every morning where tasks within the log were assigned to the Epidemiology, Environmental Health or Communicable Disease teams for actioning and logged as completed, as appropriate.

End of shift reports from the EHO's were also collated by the incident control team which provided the vital information required for the generation of the daily sitreps.

Daily duties and responsibilities in the EOC:

- Update incident log when new information became available
- Update call log
- Preparing documents for meetings
- Monitor incoming emails, telephone calls

Quick Facts During the EOC operations: 176 meetings were held during the 22 days of the Games; an average of 8 meetings held per day

(including 6

teleconferences).



- Set up Sit Rep templates daily for Environmental Health, Epidemiology, and Communicable Disease teams.
- Take minutes at IMT meeting and PHIC teleconference
- At the end of the day photocopy, compile and file EHO shift reports and give copy of reports to Environmental Health leaders
- Regular data entry into the data management system used by the Environmental Health team for the collection of data on the samples taken by EHOs and their respective results.
- Collation of the daily Situation Report (SitRep). Information provided in this report came from the Epidemiology team, Environmental Health team and Communicable Disease Control team.
- Compile and disseminate daily Ministerial Dot Points

The EOC operated on a daily rhythm which dictated the times of meetings and teleconferences, and the deadlines for the daily sitreps. The daily rhythm for the Games period can be seen in Figure 6 below.

05:45	Exceptions reporting (if required)
07:15	Daily Syndromic Surveillance Summary
07:30	EOC open
08:00	Medical Command Centre (MCC) Teleconference (Sector Commander (SC), Manager Environmental Health (MEEH), Public Health Medical Officer (PHMO))
08:45	Syndromic Surveillance Review (Epidemiology (Epi), Environmental Health (EH), Communicable Disease (CDC), PHMO)
09:00	CHO Teleconference (if invited)
09:30	GCPHU Daily Briefing
10:00	HEOC teleconference (SC)
12:00	PHIC teleconference (SC, MEH, PHMO)
13:00	Ministerial Dot Points to Public Health Incident Commander (PHIC)
14:00	EH/Epi/CD daily reporting
15:00	Situation Report to Health Emergency Operations Centre (HEOC) and PHIC
16:00	HEOC teleconference
15:00	EOC closes
20:00	MCC Teleconference (if required)

Figure 6: Daily Rhythm for Games time 4 Apr – 15 Apr 2018

During the Games, GOLDOC produced the Games Wide Partner Report which had information from various agencies involved with the Games. This was circulated amongst those agencies daily. GCPHU's sitreps helped to inform this daily report.

GC2018 Games Wide Partner Report Contributors

- GOLDOC
- Commonwealth Games Federation
- Commonwealth Games Association of Australia



- City of Gold Coast
- Office of the Commonwealth Games (OCG) (Queensland Government)
- Australian Government
- Police & Emergency Services
- Transport Partners
- Health
- Event Cities (City of Townsville, Cairns Regional Council, Brisbane City Council)



Figure 7 shows the communication pathways during the Games for reporting by the GCPHU. The GCPHU EOC reported directly to the GCHHS HEOC and to Queensland Health's PHIC. Indirectly, information came from and to GOLDOC's Medical Command Centre and the City of Gold Coast. Other agencies included within the communication pathways were:

- Joint Emergency Services Committee (JESC);
- Department of Health:
  - Health Protection Branch (HPB);
  - Infection Control Branch (ICB); and
  - Communicable Disease Branch (CDB)





Figure 7: Communication Pathways for reporting during the commonwealth Games





## 6. Key Highlights from Operational Cell Reports

## 6.1 Gold Coast Public Health Unit Emergency Operations Centre

During Games Time, the Emergency Operation Centre (EOC) was the key communication point within the GCPHU and between the GCPHU and its partners.

In summary, a total of 176 meetings were held while the EOC was in operation, of which the majority were scheduled internal meetings and teleconferences with external partners.

The EOC received a total of 1,380 emails during its operation period, equally distributed between internal and external communication. The EOC documented the highest count of daily emails during Games Time, specifically from the 9th to 12th April (four days), which was largely attributable to an increase in communication related to incident notification and management.



Figure 8: Daily emails received by the Gold Coast Public Health Unit Emergency Operations Centre (EOC) by type, 20 March to 18 April 2018

## 6.2 Public Health Incident Log

The GCPHU maintained a log of all communicable disease and environment health incidents reported to the unit. During the 30-day enhanced surveillance period 20 March – 18 April 2018, 133 incidents were recorded, of which 79 (60%) were recorded during the competition period 4-15 April.

In general, more incidents were recorded in the second half of the games than the first. The highest number of incidents were recorded for the fifth and seventh day of the games (16 and 15 incidents, respectively).



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Nearly half (46%) of all incidents were reported to the GCPHU via the Medical Command Centre (MCC), followed by a food or gastro complaint form (24%), and enhanced surveillance (18%).

All incidents reported to the GCPHU during the enhanced surveillance period were person related (rather than a food or water venue), of which 84% were games associated (table 1). Almost of third of games associated persons were athletes or officials (32%), followed by paid and unpaid workforce (25%) and security (16%). A considerable proportion of incidents involved an athlete or official from the Commonwealth region of Africa (29%), Caribbean and Americas (24%) (table 2). There was no remarkable difference in incidents reported to the GCPHY by sport.

## Table 1: Incidents (games associated person) reported to the Gold Coast Public Health Unit, 20 March to 18 April 2018

Games association	n	%
Athlete/official	38	32%
Workforce (paid and unpaid)	30	25%
Workforce (security)	19	16%
Spectator	17	14%
Emergency services	8	7%
Media	7	6%
Total	119	100%

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Figure 9: Daily incidents reported to the Gold Coast Public Health Unit by primary notification source, 20 March - 18 April 2018

 Table 2: Incidents (athletes and officials) reported to the Gold Coast Public Health Unit by Commonwealth region, 20 March to 18 April

Region	n	%
Africa	11	29%
Caribbean and Americas	9	24%
Europe	7	18%
Pacific	7	18%
Asia	4	11%
Grand Total	38	100%

Gastroenteritis illness was the most common incident reported to the GCPHU (68%), followed by Influenza like illness (10%) (table 3). This was anticipated as partners were requested to report these conditions to the GCPHU as part of enhanced surveillance.

Most incidents were followed up (80%), while others were either deemed not necessary for follow-up or referred to City of Gold Coast (16% and 1%, respectively). Environmental sampling, clinical specimen collection and three-day food histories were conducted in response to 37, 24 and 54 percent of incidents, respectively.

Table 3: Incidents (games related persons) reported to the Gold Coast Public Health Unit by diagnosis, 20March to 18 April 2018

Diagnosis	n	%
Gastroenteritis	77	68%
Gastro (unspecified)	67	59%
Gluten intolerance	3	3%
Norovirus	3	3%
Enteropathogenic E coli	1	1%
Campylobacter	1	1%
Mesenteric adenitis	1	1%
Salmonella	1	1%
Influenza	11	10%
Influenza A	5	4%
Influenza B	4	4%
Unspecified	2	2%
FBI complaint	8	7%
Dehydration	5	4%
Abdo cramps/pain	4	4%
Other	4	4%
Mumps	2	2%
Varicella	2	2%
Malaria	1	1%
Total	114	100%



## 6.3 Enhanced Surveillance

## Syndromic Surveillance (Public Emergency Departments)

During the enhanced surveillance period 20 march to 18 April 2018, there were 339 presentations to Gold Coast Health Emergency Departments that met the pre-defined syndrome of "gastroenteritis". Compared to the four-year average (2014-17) for the same time, the number of gastroenteritis presentations during the GC2018 enhanced surveillance period was almost two standard deviations higher than expected. It is important to note this number may be attributed to changes in practitioner coding and awareness of the enhanced gastro surveillance project.

The daily count of gastroenteritis syndrome presentations was higher than the day specific four-year average 18 days of the enhanced surveillance period, of which 7 of these days fell on the 11-day games competition period 4 - 15 April (Figure 10). Of the days with higher than average counts of gastro presentations, only one exceeded the day specific upper limit (95% confidence interval). As the requirement to alert an outbreak was set to two consecutive days of gastro presentations counts above the upper limit, no outbreaks were alerted by syndromic surveillance during the enhanced surveillance period.



Figure 10: Daily gastroenteritis syndrome presentations to Gold Coast Health (public) emergency departments, 20 March - 18 April 2018



## Sentinel site surveillance

Gastroenteritis illness presentations to private emergency departments (3), general practice (19), telehealth via 13 HEALTH and a home visiting doctor service via 13 SICK were monitored over the enhanced surveillance period.

There were 840 reported cases of gastroenteritis illness presentations to sentinel sites during the enhanced surveillance period, an average of 28 per day (figure 11). The most presentations were recorded for the home visiting doctor service and 19 general practices (39% respectively), followed by the telehealth service (12%) and presentations to the three private emergency departments (9%).



Figure 11: Daily count of gastroenteritis illness presentations to sentinel sites reported to the Gold Coast Public Health Unit, 20 March to 18 April 2018

## **Gastro Illness Questionnaire**

To improve identification of gastroenteritis illness and situational awareness of potentially hazardous food or water venues in the community, the GCPHU developed a brief web-based food and water exposure history questionnaire – the "Gastro Illness Questionnaire".

Persons who presented with gastroenteritis symptoms to a health care facility were invited to complete the questionnaire via a pamphlet containing a URL and QR code to the web-based questionnaire. Facilities included three private emergency departments, 19 general practices, and 11 community pharmacies (sentinel sites). Two other recruitment pathways included a 24-hour post discharge SMS invitation for persons who presented to public emergency departments (syndromic site), and a verbal invitation for persons accessing 13 Queensland Health's telehealth service, 13 HEALTH (sentinel site).



A total of 154 questionnaires were completed during the enhanced surveillance period 20 March to 18 April 2018, an average of five per day. Figure 10 describes counts of completed gastro illness questionnaires received by three types of health care presentation sites; public emergency department (syndromic site), public emergency department and at least one sentinel site, and sentinel site only. Slightly more questionnaires were completed by persons who accessed a sentinel site only for care (40%) than those who presented to a public emergency department only (36%), followed by persons who presented to public emergency department and a sentinel site (22%).



Figure 12: Daily count of completed gastro illness questionnaires received by the Gold Coast Public Health Unit, 20 March to 18 April 2018

## 6.4 Queensland Health Disease Surveillance Activities

The Epidemiology and Research Unit of the Communicable Diseases Branch (CDB), in collaboration with Gold Coast Public Health Unit developed and provided advanced reporting to support the epidemiology and surveillance capacity of Public Health Units (PHUs) during the period of the Commonwealth Games 2018.

The reports:

- were designed to identify the results of recent laboratory testing undertaken by doctors in the geographical area of the Gold Coast and other locations with Commonwealth Games venues.
- presented line listed data and were sent daily to the PHUs involved (Gold Coast, Cairns, Townsville, Metro South and Metro North).
- included high level epidemiological interpretation of the line listed data to the Gold Coast PHU.
- contained sufficient information to allow PHU staff to follow up cases with requesting Doctor
- identified laboratory tests ordered through the Polyclinic, the medical and allied health clinic set up for residents of the Games village. The Notifiable Conditions Register (NOCS) was set up to specifically receive and identify these results using the Games Accreditation Number (GAN) of the athlete or official. The GAN was used as the UR number in AUSLAB and NOCS.



In addition, a modified weekly report for the GCPHU using a rolling 4-week comparison period rather than a year-to-date period was provided. The data were extracted from the reporting database and sent each Monday during the games period.

The CDB also prepared a summary of the International Disease Surveillance Report for GCPHU based on information provided by the Commonwealth Department of Health during the games period.

### Public Health Emergency Operations Centre

An Epidemiologist was rostered as part of Public Health Emergency Operations Centre (PHEOC) in Charlotte Street for the period of the games. Along with a Public health nurse and support officer, the team's role was to provide support to the Public Health Incident Controller (PHIC).

### Outcomes

There were several notifications received for athletes and officials related to the Commonwealth Games. These notifications were received by NOCS with the GAN as the identified UR number or the hospital UR number; if the case was hospitalised. The daily public health unit teleconference was also a source of information on notifications. In addition to the notifiable diseases, there was a games-related case of norovirus.

There were also non-games related outcomes when the GCPHU identified a potential outbreak of cryptosporidiosis in a local swimming pool. They identified this cluster of cases as a result of the line list report provided by CDB.

Following the end of the Commonwealth Games period, all notifications identified as Games related were updated in NOCS to reflect their overseas or interstate status for state and national reporting requirements.

Figure 13 summarises the notifications reported to the GCPHU by the CDB during the enhanced surveillance period.





Figure 13: Notifications reported to the Gold Coast Public Health Unit by Queensland Health Communicable Diseases Branch; Influenza (lab confirmed), Salmonella (all) and Cryptosporidiosis 20 March to 18 April 2018

## 6.5 International Surveillance

the Australian Government Department of Health provided enhanced international communicable disease surveillance to the Queensland Department of Health (QLD Health) during the Commonwealth Games.

Existing international surveillance was adapted to identify disease threats that could potentially be introduced via travellers to the mass gathering. Reports were composed and distributed monthly during January and February, followed by weekly reports from late February and daily reports two weeks preceding and throughout the Games period until four days following the closing of the event. In addition to QLD Health and the Gold Coast Public Health Unit, the reports were provided fortnightly to the heads of Communicable Disease Branches in each State and Territory, and summarised reports were distributed to general practitioners and microbiologists throughout Queensland.

Criteria were developed and used to determine which international disease events should be reported and monitored. These criteria included the possible risk of disease importation, whether the affected population were likely to travel to the Games, and the potential for continued transmission within Australia.

From January to the four days after the closing ceremony, 27 disease events were identified and monitored. Notable events included:

- The largest reported outbreak of Lassa fever in Nigeria, which was ongoing throughout the Games period.
- Dengue activity in the Pacific, known to cause seasonal outbreaks and lead to exported cases.
- A significant outbreak of meningococcal disease in Fiji.
- Ongoing outbreaks of mumps in the Pacific, including a large cluster in Auckland, New Zealand.



## 6.6 Venue Based Surveillance (Gold Coast)

#### **Environmental Health Team**

Environmental Health conducted a venue surveillance and sampling programme which included accommodation, training and competition venues. Compliance with the legislation was monitored which focused on the protection of public health. Areas of focus included:

- Food safety
- Drinking and recreational water quality
- Tobacco exposure
- Medicines and poison storage

Environmental Health responded to public health incidents reported during the Games such as food complaints where a food borne illness was alleged.

Any issues noted from the proactive audits carried out by the EHOs, were raised with GOLDOC catering, Cleaning & Waste and the matter addressed as a matter of urgency to minimise any public health risk.

During the Games EHOs collected various samples which were sent to the Queensland Health Forensic Scientific Services Laboratory (QHFSS) for analysis. Quick Facts 348 Food samples 30 ice bath samples 21 Swimming pool samples 51 Drinking water samples

The samples collected were analysed for various pathogens and compliance with known standards. Samples were taken of:

- food prepared at the venues;
- swimming pools and ice baths used by the athletes for training and during events; and
- drinking water sources.

In summary 450 samples were collected, Table 4 summaries percentage of the samples that were not satisfactory.

#### Table 4: Results of the Samples Taken during the games

Sample Type	n samples	% Marginal/ unsatisfactory/ potentially hazardous
Food	348	13%
Drinking Water	51	35%
Recreational Water (inc. Ice baths)	51	55%

Below are some notable environmental health incidents that occurred during the Games:

#### Ice Baths

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**Building a healthier community** 

Various venues provided ice baths for the athletes to use after training or competition as an aid to recovery. Some of the sporting teams also provided their own. Some of the baths are fixed and connected to pool filtration systems, while others are portable and resemble inflatable pools.

The ice baths are used by the athletes immersing all or part of their bodies into the baths as it is believed that the cold helps to reduce soreness from exercise. Showers are also provided for athletes to utilise prior to the immersion.



Ice baths across the venues were sampled and it was found that 63% of them were failing basic microbiological standards that are expected of swimming pools and spas, with *Pseudomonas spp.* detected in some of the samples. One bath was so grossly contaminated that it was removed from use until it had been thoroughly cleaned.

#### Allergens

As such a large volume of food was to be produced at the Games, there was a large focus on preventing food borne illness within the Games Community through good food safety and handling practices. However, very little consideration was given to allergens and complaints of this nature was not expected in large numbers.

However, the first complaint involving gluten was received on the 20 March 2018 and by the end of the games in April, the GCPHU had received a total of 7 complaints involving an allergen or ingredient that could cause a reaction or intolerance, which constituted 28% of all complaints received.

#### Salmonella Sushi

Following routine sampling at a competition venue, *Salmonella Birkenhead* was detected within a sushi product. An audit was promptly conducted of the manufacturer and the caterers with further food samples being sent for analysis.

All manufacturer samples were found to be satisfactory and all food handling controls in compliance with the food standards code. The probable cause was the handling at the retail outlet as the audit found that there was inadequate temperature control of the products, as well as issues with stock rotation.



#### Foreign object complaints

Two complaints were received concerning a foreign object found in food; one being a piece of metal and the other a large piece of plastic.

One of the items was from a manufacturer on the Gold Coast and as a result a joint inspection with EHOs from GCPHU and the City of Gold Coast was undertaken. Changes to the manufacturing process were put in place as a result.

The other complaint was investigated by Metro South Public Health Unit as the manufacturer was within their jurisdiction.

#### **Communicable Disease Team**

**Gold Coast Health** 

**Building a healthier community** 

The Communicable Disease team undertook a variety of activities during the Games which included contact tracing, providing advice and food borne illness investigations.

During the Games a PHN was situated within the polyclinic at the Village during the Games. The PHN supported the polyclinic with the daily line listing providing advice and following up with any suspected illness cases. The PHN also played a major role liaising with the Commonwealth Games Associations (CGA) at the heads of Village meeting about any reported illnesses. Any issues relating to communicable disease that were noted at the various Games venues were also followed up by the PHN, with appropriate advice being provided to the venue management.

The syndromic surveillance information that was coming into the Unit from the various sources was investigated by the PHN's, along with any necessary contact tracing.

Below are some notable communicable disease incidents that occurred during the Games:



#### Mumps

A case of suspected mumps was notified to the Unit and the PHN provided advice to the infected person, required that the person be isolated to prevent further spreading of the disease and organised for testing to confirm the condition. Contact tracing was then required and serology for the immune status of the contacts was undertaken. The MMR vaccination was offered to the contacts and advice provided to all parties involved. No further connected cases were notified.

#### Influenza

There were 11 cases of influenza during the Games. Where necessary the cases were isolated to prevent further spread of the influenza, and in some cases the accommodation required cleaning, again to prevent any further spread. Some of the contacts required vaccinations which were organised by the team.

#### Varicella

During the Games a case of suspected varicella presented. The person was advised to stay isolated to minimise the risk of further spread of the disease. Following testing, the case was positive for varicella and contact tracing was undertaken. No further issues were noted.

## 6.7 Venue Based Surveillance (Regions)

There were also other venues for the Commonwealth Games based in Cairns, Townsville and Brisbane. Environmental Health Officers at the following Public Health Units also conducted public health venue surveillance and sampling at accommodation, training and competition venues within these locations:

- Tropical Public Health Unit (Cairns)
- Townsville Public Health Unit
- Metro South Public Health Unit

#### Metro South Public Health Unit

#### **Environmental Health**

During the Games Metro South Public Health Unit (MSPHU) Environmental Health Officers conducted 16 inspections at the two Games venues in Brisbane (Qld State Velodrome (QSV) and Belmont Shooting Range (BEL)). This included 5 inspections at QSV and 11 inspections at BEL.

The inspections focused on the potential public health risks pertaining to food, water (drinking, spas and ice baths), drugs and poisons, environmental health hazards (e.g. mosquito breeding areas) and nominated outdoor smoking places. Where possible, inspections were conducted jointly with Environmental Health Officers from Brisbane City Council.

MSPHU took 33 food samples during the Games. These were held as retention samples in the event of a complaint or notification of an alleged food borne illness. No such complaints were received.

MSPHU also took 23 water samples from the venues in Brisbane. All samples were submitted to QHFSS. One recreational water sample (from warm water spa) returned a positive result of *Pseudomonas aeruginosa*. This resulted in corrective action being taken by the venue owners and clearance samples being received.

#### Foreign object complaints

During the Games, MSPHU responded to 2 complaints relating to food supplied at Gold Coast venues:

• foreign matter in a salad (metal); and



• a salad with an unsatisfactory microbiologically (E. coli) result

Both complaints were referred to MSPHU as the manufacturer was based in the MSPHU area. Both complaints were investigated jointly by MSPHU and Brisbane City Council Environmental Health Officers.

#### Communicable Disease

During the Games a case of gastroenteritis which was suspected to have originated in Brisbane venue was referred to Metro South.

#### Sunshine Coast Public Health Unit

#### Communicable Disease

A case of mumps was referred to the Sunshine Coast Public Health Unit following a positive mumps presentation of a person who had recently been to the Sunshine Coast. An investigation was undertaken, and no co-primary cases were identified in the Sunshine Coast area.





## 7. Legacy, learnings and recommendations

The GC2018 Commonwealth Games presented a unique opportunity for learning and reflection. This section describes the key learning of GCPHU staff and students, informed by a team debrief held two days after the official closing ceremony of the Games and documented reflections of senior staff that have been shared in presentations and reports with the broader local and state-wide public health community

## 7.1 Planning & Collaboration; GOLDOC, City of Gold Coast and Public Health

Establishing the Public Health Coordination Group in 2015 under the GC2018 Medical Executive Steering Group proved invaluable in terms of integrating public health services into GOLDOC planning; the ability for public health to provide advice and identify public health issues to contribute to GC 2018 planning, documentation and influence decision making.

It also provided the opportunity to engage with, contribute and work in partnership with other GOLDOC functional areas including Cleaning, Catering and Waste; Security; Venues; Village; Sport; Workplace, Health and Safety and Venues which was extremely beneficial.

Based on the benefits recognised, it is recommended that organising committees employ an Environmental Health Officer or Public Health Nurse to assist with planning for of public health issues relating to a mass gathering event. Alternatively, at least one public health position should be backfilled to permit adequate time spent physically based at the organising committee headquarters and working with them on public health matters.

Working closely with Environmental Health colleagues at the City of Gold Coast Council was highly beneficial in that roles and responsibilities were aligned and Environmental Health Officers from both agencies could work closely together at venues.

## 7.2 Enhanced Surveillance

The syndromic surveillance system established during the Games remains in operation within the two public hospital emergency departments. Real time data can be accessed to monitor gastroenteritis illness before diagnoses are confirmed and support early engagement with community members to determine common food and water exposure that may require public health intervention. The syndromic surveillance system is an important addition to the traditional notification-based system for gastroenteritis illness surveillance.

The system will also be of benefit during large events that occur on the Gold Coast each year, including the Gold Coast 600 (V8 Supercars), Schoolies and the Gold Coast Marathon.

## 7.3 GeneXpert®

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In preparation for the Games, a GeneXpert® diagnostic system was purchased by the HHS. This system was used for the rapid detection of norovirus during the Games, reducing waiting times for tests. Faster access to positive results enabled a quicker response and implementation of controls to stop the spread of contagious conditions. Faster access to negative results supported prompt public health messaging and ability to provide quick reassurance about the absence of a highly infectious viral illness. The system remains in place and is used to undertake rapid surveillance testing for patients within the hospital and in the community.



Availability of real time PCR norovirus testing is critical in the detection and management of gastrointestinal disease outbreaks at major events. Acquisition and use of real time PCR testing equipment is vital in this setting.

## 7.4 Accreditation Access to the Village and Venues

Prior to the Games the decision was made to not provide Public Health staff with an all access pass to venues and the Village. Instead a Two-Part Pass (second part pass) was issued which required PH staff to meet GOLDOC staff at the venue Gate and to then be subsequently escorted around the venue or Games Village.

Under Queensland's public health legislation, Environmental Health Officers are authorised and have the power of entry to these venues. This was also an issue identified by the UK Health Protection Agency following the London Olympics within their summary of recommendations (ref Summary report of the Health Protection Agency's Games time's activities).

The second part pass proved inefficient and problematic to both agencies for many reasons including but not limited to:

- the limited number of upgrade passes provided to MED Functional Areas (FA) at venues;
- inadequate lead-in time provided by public health to arrange a suitable meeting time at the Gate between public health staff and MED FA staff to meet at the Gate;
- MED FA staff were busy dealing with medical emergencies or attending meetings at some venues resulting in significant delays for public health staff at the Gate;
- Being escorted around venue was an issue to both parties mostly from a time pressure perspective. This created frustration within both agencies;
- MED FA were not able to escort Public Health staff to all parts of a venue, so PH staff had to be 'handed over' to another functional area such as Cleaning, Catering and Waste or Venues resulting in further delays within venue;
- There was also an inconsistency in the provision of the upgrade pass at different venues and between different functional areas, and inconsistencies with access through security with "tools of the trade" such as "eskies".
- There was also issues with the lack of parking passes provided prior to the Games, especially for the officers at the Brisbane venues. There was increased difficulty in accessing the venues after lockdown, which did then lead to passes being arranged.

## 7.5 Early Public Health presence in the Polyclinic

The Polyclinic was functional for almost two weeks before the opening of the Games without the physical presence of a public health nurse (PHN). Communication issues were identified during this time; specifically, inconsistent reporting of presentations with public health implications to the GCPHU, poor completion of the gastro form to identify potential risks related to food, and irregular provision of a daily line listing for public health conditions.

While the GCPHU requested physical presence in the Polyclinic prior to its opening, this was not granted till a presentation of confirmed influenza in the village. A PHN was physically present in the Polyclinic from 4 April 2018, and provided the following services:

- Identification of presentations with public health implications;
- Immediate advice on the management of public health incidences, including infection control to mitigate further spread of infectious organisms;
- Follow-up of influenza like illness and gastroenteritis cases;



- Support to improve notification and reporting of public health incidences, to inform further communicable disease and environmental health investigation;
- Awareness of international and local disease outbreaks;
- Communication conduit between the GCPHU, Polyclinic, and other services.

## 7.6 Field training for Master of Applied Epidemiology Scholars

The Gold Coast Commonwealth Games was an invaluable opportunity for MAE Scholars to gain experience dealing with public health threats during mass gathering events. Scholars came from across Australia and wide network of health and research institutions.

Scholars had the opportunity to assist with monitoring and analysing case data from the syndromic and sentinel surveillance systems, conduct follow-up investigations, undertake site visits, attend high-level stakeholder meetings, understand principles of risk management and public health considerations that need to be taken into account during mass gathering events. It provided a broader perspective of field epidemiology.

Increased surveillance requires an increased response capacity to verify and investigate signals and scholars assisted in temporarily filling the skilled resource base required. Working under the direct supervision of epidemiology, communicable disease and environmental health supervisors and mentors provided the opportunity to learn epidemiology and practical skills to become Australia's future epidemiologists and public health leaders.

"It was a very important milestone in my MAE placement. I gained extensive experience and a broad perspective on field work during mass gathering events. The thorough pre-planning, structured and clear roles and responsibilities facilitated a positive and supportive learning environment."

## 7.7 Legacy Documents

The Games allowed for various agencies to work together to develop guidelines and other documents that would be used by all beyond the Games and into the future. These included guidelines around sun safety, hand hygiene at mass gatherings, heat related illness, and agreement on roles and responsibilities where there is dual jurisdiction. Further details about and copies of legacy documents can be obtained from the Gold Coast Public Health Unit.

## 7.8 Networks & Communications

The Games provided an opportunity to reinforce old links and establish new ones. The planning phase of the Games created new links with Public Health England, the World Health Organisation, and with public health colleagues in Indonesia, who were engaged in the planning and delivery of the Jakarta Palembang 2018 Asian Games.

Mass gatherings are dynamic. Continuous change should be anticipated by imbedding adaptability in the workforce, and at all stages of planning and service delivery. Some key areas of change the GCPHU experienced in the lead up to and during the Games were;

- Contact details of key personnel such as managers and functional areas within the venues;
- Supplier details for the venues and caterers;



- Audit, data collection and reporting tools;
- Reporting lines and mechanisms;
- Informational needs; and
- Staff and organisational roles and responsibilities.

While early planning and collaborative risk analyses identified several risks that did eventuate during the Games, the way these risks presented was not always foreseeable. The Games were a timely reminder of how public health risks evolve, and the requirement for routine, clear communication to support collaborative planning and incident response. Good examples include daily internal communication to highlight key changes to staff, and where possible, education and training sessions to review new audit, data collection and reporting tools.



## List of Appendices

- 1. List of Working Groups and Committees
- 2. Stakeholders
- 3. Collaborative Documents developed for the Games

- 4. Testing & Exercising
   5. Gastro Illness Pamphlet
   6. Gastro Illness Questionnaire



## 1. List of Working Groups & Committees

- Medical Executive Steering Committee
- Medical Project Control Group
- GC2018 Public Health Games Coordination Working Group
- GC2018 Public Health Games Coordination Working Groups:
  - Communicable Disease Control, Health Surveillance and Public Health Incident Response
  - Environmental Health Hazards
  - Food Safety and Standards
  - Health Promotion
  - o Water Quality
- Gold Coast Public Health Unit Internal Project Group
- GC2018 City of Gold Coast and Gold Coast Public Health Unit Monthly Meeting
- GC2018 Gold Coast Public Health Unit & Scenic Rim Council Meeting
- GC2018 Gold Coast Public Health Unit & Cross Border Working group
- GCHHS GC2018 Health Readiness Working Group
- GCHHS GC2018 Risk Review Meeting
- Queensland Health Commonwealth Games Operating Committee
- GOLDOC Village PUP Cluster Meetings
- SEQ Water Stakeholders Meeting



## 2. Stakeholders

The stakeholders listed below are in alphabetical order:

- 13SICK
- 13HEALTH
- Bond University
- Caterers:
  - o Delaware North Catering;
  - Gold Coast Convention & Exhibition Centre Catering;
  - Nep Host Broadcast;
  - O'Brien's Catering Group;
  - Piquant Catering;
  - Preston Campbell Foundation;
  - Zen Catering
- Cancer Council
- City of Gold Coast:
  - Health, Regulatory & Lifeguard Services;
  - Parks & Recreational Services;
  - Service Sustainability;
  - o System Control
- Department of Agriculture & Water Resources
- Department of Natural Resources, Mines & Energy
- Department of Sport & Recreation
   Queensland
- Gold Coast Commonwealth Games
   Corporation (GOLDOC)
- Gold Coast University Hospital Service
  - Cancer, Access & Support Services
  - Disaster & Emergency Management Unit;
  - Emergency Department;
  - Major Events and
  - Commonwealth Games UnitOperations;
  - Communication and Engagement;
  - Facilities Management;
  - Strategy & Service Planning;
- Gold Coast Hospital & Health Board
- Gold Coast Primary Health Network
- Gold Coast Private Hospital
- Griffith University
- John Flynn Private Hospital
- Local Councils:
  - Brisbane City Council;

- Cairns Regional Council;
- Scenic Rim Regional Council;
- Townsville City Council;
- Tweed Shire Council
- Heart Foundation
- Healthy Waterways
- Medicines Regulation and Quality Queensland
- Mid-North Coast & Northern NSW Local Health District
- New South Wales Food Authority
- Pharmacy Guild of Australia
- Pindara Private Hospital
- Precise Environmental
- Public Health England
- Public Health Units:
  - Cairns;
  - Metro North;
  - Metro South;
  - Sunshine Coast
  - Townsville;
  - West Morton
- Queensland Airports Limited (Gold Coast Airport)
- Queensland Ambulance Service
- Queensland Cancer Council
- Queensland Health Branches:
  - Aeromedical Retrieval and Disaster Management Branch;
  - Chief Health Officers Branch;
  - Communicable Diseases Branch;
  - Health Protection Branch;
  - Integrated Communications Branch;
  - o Preventative Health Branch
- Queensland Health Forensic & Scientific Services
- Queensland Minister for Health
- Queensland Police Service
- Queensland Urban Utilities
- Robina Hospital
- Safe Food Production Queensland
- SEQ Water



- Sentinel General Practices: o Australia Fair Medical Centre
  - Beenleigh Family Practice
  - Coolangatta Medical Centre
  - Doctors@Pacific Fair
  - o Gold Coast GP Super Clinic
  - Haan Health Medical Centre Broadbeach
  - Haan Health Medical Centre Upper Coomera
  - Harbourtown Medical Centre
  - Harmony Health Medical Centre
  - o Highlands Health Centre
  - o Highlands After hours clinic
  - Hinterland Medical Centre

- Mermaid Beach Medical Centre
- o Parkwood Family Practice
- Parkwood After Hours Clinic
- Robina Town Centre Medical Centre
- Robina Town Medical Centre at Ezy T
- Surfer's Paradise Day & Night Medical Centre
- The Pines Family Practice
- SGS Australia Pty Ltd
- Splashdown
- Workplace Health & Safety Queensland



## 3. Collaborative Documents Developed for the Games

GOLDOC Documents (including):

- Chef de Mission Manual
- Medical and Pharmacy Handbook
- Food Borne Illness Policy
- Smoking at Venues & Village Policy
- Infection control
- Public Health Outbreak Contingency Plan
- Emergency Cleaning & Training
- Gastro Outbreak in the Village
- Food Borne Illness Reporting procedure
- Food Complaint Form
- Food Borne Illness Report Form
- Potable Water Quality Management Plan
- Health promotion
- Hand hygiene at Mass Gatherings
- Infection Control Management Plan
- Factsheets (including):
  - Accommodation provider factsheets
  - o Infection control
  - Cleaning up body spills
  - o Disease information (whooping cough, influenza, Lyssavirus etc.)
  - Smoking compliance
  - Food Safety
  - Drinking water quality
- Information on norovirus and how to prevent the spread

#### GCHHS

- Gastro pamphlet
- Screen savers
- posters

**GCPHU** Internal Documents

 Work Instruction responding to Tobacco Complaints during the Commonwealth Games

Joint Council Documents

- Food Safety Guideline for the GC2018 Commonwealth Games
- Joint working arrangements with City of Gold Coast
- Roles & responsibilities

#### Agency Documents

**Gold Coast Health** 

**Building a healthier community** 

• Information into the QPS "Showbag"



41

## 4. Testing & Exercises

Below is a list of exercises that GCPHU participated prior to the Games:

Exercise Name	Date	Lead Agency
White Scoop	August 2017	GOLDOC
C3 Exercise Starting Block	September 2017	GOLDOC
C3 Exercise Breakpoint	December 2017	GOLDOC
C3 Exercise Sentinel	February 2018	GOLDOC
Coolangatta Beachfront Venue Discussion Exercise	November 2017	GOLDOC
Games Family Hotel Venue Discussion Exercise	November 2017	GOLDOC
Metro South Desktop Exercise	November 2017	Metro South PHU
GCPHU Desktop Exercise	December 2017	GCPHU

Queensland Government



#### 5. Gastro Illness Pamphlet

# Do you have vomiting or diarrhoea?

You may be part of a community **outbreak** of gastroenteritis

By completing a short survey, your information could help us detect and prevent further spread of gastroenteritis (gastro) illness in the community.

Visit the website below or scan the QR code to complete the survey.

www.goldcoast.health.qld.gov.au/GastroSurvey





Gold Coast Health information www.goldcoast.health.qld.gov.au We would like your assistance in answering some questions about your illness, and the places you have eaten and been swimming in before becoming ill. This survey is confidential and should only take **five minutes to complete**.

#### Gastro illness can be spread by food, water or person to person

The time from contact with germs and the development of symptoms is usually about 1 - 3 days. Your doctor will advise you if you need any treatment. It is very important to drink plenty of fluids to avoid dehydration.

#### Stop the spread of gastro

- Stay at home if you're sick with vomiting or diarrhoea, and for 48 hours after symptoms stop
- Wash your hands thoroughly with soap and water, especially before eating and handling food.

#### Other important information

Information collected is kept confidential in accordance with the *Public Health Act 2005*, and stored securely by Queensland Health. Only authorised officers from Queensland Health will monitor the information to identify potential trends and causes of gastro illness in the community.

For further information, please contact: Gold Coast Public Health Unit t: 07 5667 3200 e: GCPHUCDC@health.qld.gov.au

Gold Coast Health information www.goldcoast.health.qld.gov.au





## 6. Gastro Illness Questionnaire

Gastro Illness Questionnaire	
1 2 D Exit Surv	ey
Patient details	
First name     Surname       Age (years)     Gender       Phone number	
Where did you seek treatment or advice for this gastro illness? (tick all that apply)	
<ul> <li>13 Health</li> <li>General practice/family doctor</li> <li>Pharmacy</li> <li>Public Emergency Department</li> <li>Private Emergency Department</li> <li>Other (please specify)</li> </ul>	
Did you experience any of the following symptoms? (tick all that apply) Nausea/Vomiting Diarrhoea Stomach cramps Blood in stools	
What was your first symptom?	
Select -	
Date of first symptom (dd/mm/yyyy) *required field Are you still ill?	
Ves No ODon't know	



44

## **Gastro Illness Questionnaire**

aten three days prior to your il ources of your gastro illness.	from the last meal you ate. It is important to remember all food llness (including the day of your illness) as they are all possible
onsider bakeries, cates or resta ublic events (sporting, music, ga nd theme parks.	aurants, hotels or clubs, private functions (wedding, birthday), ala), service stations, temporary food stalls (market, van, truck)
ring the 3 days prior to your illness,	, did you consume any food that was not prepared at home?
Consider all food consumed for b	preakfast, lunch, dinner, and all snacks.
$\mathbb D$ No - continue to next question	$\odot$ Yes - please provide food venue details below
ood venue name & suburb (up	to 10)
Vere there others who attended any	y of the above places with you who also become ill with similar symptoms?—
Vere there others who attended any	y of the above places with you who also become ill with similar symptoms?-
Vere there others who attended any Don't know ONo	y of the above places with you who also become ill with similar symptoms? © Yes - how many?
Vere there others who attended any Don't know O No n the past week (7 days), did you sw heme park or natural waterway, e.g	y of the above places with you who also become ill with similar symptoms? © Yes - how many? vim in a swimming pool, p. river, damn, lake, creek? Swimming venue (up to 3)

Please provide further information or feedback related to your illness in the space below

You may be contacted by the Gold Coast Public Health Unit if further information is required. Please tick the box if you do not wish to be contacted.

I do not wish to be contacted



## Author acknowledgements

Main Report:	Deena Seesaengnom & Anne Cowdry
Planning:	Anne Cowdry, Fiona Vosti, Deena Seesaengnom, Tracy Bladen, Helen Clifford
Games Time Operations:	Anne Cowdry, Deena Seesaengnom, Brigitta Osterberger
Key Highlights:	Ian Hunter, Cushla Coffey, Kelley Meder, Paula Seal, Tracy Bladen, Fiona Vosti, Deena Seesaengnom, Anne Cowdry, Kaitlyn Vette, Patiyan Andersson
Games Time Working Debrief:	Belinda Clark
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Summary of Key Learnings:	Belinda Clark, Anne Cowdry, Deena Seesaengnom, Kaitlyn Vette, Patiyan Andersson



## The Gold Coast Public Health Unit Team

**Gold Coast Health** 

Building a healthier community

The following table shows the staff from the Gold Coast Public Health Unit who helped contribute to the public health planning and implementation of the Commonwealth Games. There were also many, many others who assisted the Unit during the Games that have not been listed by name - Thank you all!

Sharon Jurd	Service Director Co-Chair GC2018 Public Health Commonwealth Games	Dr Satyamurthy Anuradha	Public Health Medical Officer
Dr Belinda Clark	Registrar	Dr Paul Van Buynder	Public Health Medical Officer
Tracy Bladen	Public Health Nurse	Fiona Vosti	Public Health Nurse
Rachael Young	Public Health Nurse	Terry Collier	Public Health Nurse
Dieter Jurgeneit	Team Leader Environmental Heath	Terry Moore	Team Leader Environmental Heath
Amanda Robinson	Environmental Health Officer	David Finnigan	Senior Environmental Health Officer
Sarah Mitchell	Environmental Health Officer	Robbie Lord	Environmental Health Officer
Sheryl Hurst	Senior Environmental Health Officer	James Chin	Senior Environmental Health Officer
Gavin Bowman	Environmental Health Officer	Vincent Dingjan	Senior Environmental Health Officer
lan Hunter	Advanced Epidemiologist	Kiwa Kara	Senior Public Health Support Officer
Christobel Mak	Public Health Data Officer	Jacqueline Pittaway	Public Health Data Officer
Chris Mohr	Public Health Nurse	Gail Andrews	Environmental Health Officer
Alysse Regan	Environmental Health Officer	Matthew Zimmerman	Public Health Support Officer
Dawn Brook	Environmental Health Officer	Helen Clifford	Senior Health Promotion Officer
Anne Cowdry	Environmental Health Officer	Deena Seesaengnom	Senior Epidemiologist
Lisa Mundy	Environmental Health Officer	Gaby Bachmann	Senior Public Health Support Officer
Edmund Pullen	Environmental Health Officer	Simon White	Business Support Officer
Brigitta Osterberger	Master of Applied Epidemiology Scholar	Cushla Coffey	Master of Applied Epidemiology Scholar
Kelley Meder	Master of Applied Epidemiology Scholar	Kaitlyn Vette	Master of Applied Epidemiology Scholar
Patiyan Andersson	Master of Applied Epidemiology Scholar		



47