ACT Government Health

ACT Population Health Bulletin

Volume 3 Issue 2 May 2014

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Upcoming Events

10 June 2014 - Healthy Canberra Grants closes. Further information at www.health.act.gov.au/hpgrants

20 June 2014 - Health Promotion Innovation Fund closes - www.health.act.gov.au/hpgrants

20-25 July 2014 - AIDS 2014 - 20th International AIDS Conference - http://www.aids2014.org/

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Introduction

A message from the Chief Health Officer, Dr Paul Kelly

Food is essential for life and is also central to cultural expression and wellbeing. In recent years, celebrity chefs and competitive cooking shows vie for media space with fast food advertising and, paradoxically, weight loss programs. Eating outside of the home has become an increasing trend, with almost endless options in shopping malls, suburban shopping precincts, sporting venues, markets, service stations, festivals and at fundraising events. In the ACT, there are close to 3,000 registered food businesses. Food safety breaches increase the risk of foodborne illness which can lead to serious illness, hospitalisation, loss of productivity and even death.

Canberrans have an expectation that all food which is purchased in the ACT is safe to eat. ACT Health's Health Protection Service (HPS) develops policy, engages with industry, raises awareness, regulates, inspects, enforces the Food Act and responds to outbreaks of foodborne illness. Recognising the need for improved efficiency, effectiveness and regulatory transparency to both industry and the public, a number of legislative and operational reforms have taken place in the past three years. One highlight is the educative and highly effective approach taken with the National Multicultural Festival which has included a strong emphasis on clear and appropriate messaging and cross-cultural sensitivity. Quality improvement is a permanent process and the HPS continues to explore a range of options to achieve best practice in food safety regulation.

Even the best food safety system can fail and this can result in outbreaks of foodborne illness. In the ACT as elsewhere, the response to such events uses the combined skills of epidemiologists, clinicians, laboratory scientists and environmental health officers. The ACT is also linked into the national OzFoodNet which assists us in monitoring and responding to outbreaks.

As Chief Health Officer, I have faced a policy dilemma in relation to health messages about food: obesity prevention and food safety. On the one hand, we have a range of programs to encourage fresh, nutritious food in particular in child-focussed settings to prevent obesity. On the other hand, pre-packaged highly processed and often nutrient-poor foods are seen as "low risk" in relation to protection from foodborne illness. The excellent work done across the Population Health Division in recent months has gone a long way to resolving this problem and to reach a positive outcome for both protection and prevention.

Whilst most of our work in food safety is related to biological contaminants, the ACT has a particular toxicological concern due to the intermittent presence of the highly toxic *Amanita phalloides*, also known as the death cap mushroom. The public health message is worth repeating loudly and often – do not pick or eat wild mushrooms.

Thanks to all the contributors and to Rebecca Stones who was the guest editor for this Issue.

Dr Paul Kelly
Editor
May 2014

Acronymns

ACT	Australian Capital Territory
ACTGAL	ACT Government Analytical Laboratory
ART	Acute Response Team
CDC	Communicable Disease Control
DPP	Director of Public Prosecutions
EH	Enviromental Health
FSANZ	Food Standards Australia New Zealand
FSQA	Food Safety and Quality Assurance
HPS	Health Protection Service
HUS	Haemolytic Uraemic Syndrome
MSM	Men who have sex with Men
NA ACT	Nutrition Australia ACT
NCEPH	National Centre for Epidemiology and Population Health
NPAPH	National Partnership Agreement on Preventive Health
NSW	New South Wales
PaRS	Preparedness and Response Section
PHLN	Public Health Laboratory Network
PHO/s	Public Health Officer/s
SRS	Sport and Recreation Services
STEC	Shiga toxin-producing *E.coli*

Photograph: ACT Health Public Health Officers L-R: Sam Kelly, Keith Rogers, Gemma Parker, Lyndell Hudson, Jennifer Ruthenberg.

Resources and useful links

Links to Food Safety Information:

- **ACT Health Food Safety - http://www.health.act.gov.au/health-services/population-health/health-protection-service/food-safety/**
- **Food Standards Australia New Zealand - http://www.foodstandards.gov.au/Pages/default.aspx**
- **OzFoodNet - www.ozfoodnet.gov.au**
- **National Notifiable Diseases Surveillance System - http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-nndssintro.htm**

Links to healthy food and drink information:

- **Healthy Food at School and Fresh Tastes - http://health.act.gov.au/health-services/population-health/health-improvement/health-promotion/healthy-children-and-young-people/**
- **ACT Health Healthy Food and Drink Choices Policy - http://health.act.gov.au/health-services/population-health/health-improvement/**

Links to Food Hygiene Grading Systems:

- **Eat Safe – Brisbane: http://www.brisbane.qld.gov.au/community/community-safety/food-safety/how-eat-safe-brisbane-works**
- **Scores on Doors – NSW: http://www.foodauthority.nsw.gov.au/industry/scoresondoors/**
- **The Smiley Scheme – Copenhagen: http://www.findsmiley.dk/en-US/Forside.htm**
- **Food Hygiene Rating Schemes – United Kingdom: http://www.food.gov.uk/policy-advice/hygieneratings/**
- **Letter Grading for Restaurants – New York City: http://www.nyc.gov/html/doh/html/environmental/food-service-grading.shtml**
- **Food Hygiene Grades – Singapore: http://app2.nea.gov.sg/public-health/food-hygiene**
- **Grade Card System – San Diego: http://www.sdcounty.ca.gov/deh/fhd/ffis/intro.html#SanDiegoCountys-GradeCardSystem**
- **DineSafe – Toronto: http://www.toronto.ca/health/dinesafe/**
- **Food Facility Rating - Los Angeles County: http://publichealth.lacounty.gov/rating/**

Articles

Foodborne illness and high risk foods

Environmental Health Project Team and Food Systems & Quality Assurance Section, Population Health Division

Foodborne illness

Foodborne illness can be caused by biological, chemical or physical hazards present in food.[1] Epidemiological data suggests that biological hazards (i.e. bacteria, toxins produced by bacteria, and viruses) are the most common cause and result in the most severe forms of foodborne illnesses.[1]

Potentially hazardous and high risk foods

Some foods are more likely to be contaminated with microbiological pathogens and to support their growth.[1] These 'potentially hazardous' foods require strict temperature control to minimise pathogen growth or to prevent the formation of toxins.[2] Some potentially hazardous foods are considered 'high risk' due to their increased likelihood of harbouring pathogens and supporting their growth.[1]

Examples include:

- raw meat
- poultry
- fresh filled pasta
- meat pies
- fish
- milk
- frankfurts
- cooked rice
- oysters
- tofu
- salami
- lasagne

Photograph: by Robert Cochrane - FreeDigitalPhotos.net

Photograph: by Serge Bertasius Photography - FreeDigitalPhotos.net

Photograph: by zole4 - FreeDigitalPhotos.net

These foods pose a particularly high risk if they are not processed or cooked properly. Heating foods to high temperatures can destroy pathogens; this is known as a 'kill step'. Some ready-to-eat foods (e.g. pre-packaged salads, sandwiches, raw-egg mayonnaise, sushi, etc) can present a greater risk of foodborne illness due to the lack of a kill step involved in their preparation.[1]

Photograph: by rakratchada torsap - FreeDigitalPhotos.net

Temperature Control

It is particularly important that high risk foods be kept under appropriate temperature control. Specifically, cold foods should be kept at 5°C or less and hot foods at 60°C or more in order to minimise microbial growth.[2] Between 5°C and 60°C bacteria and viruses are likely to proliferate. Potentially hazardous foods kept in this temperature range for more than four hours may be unsafe and should be discarded.

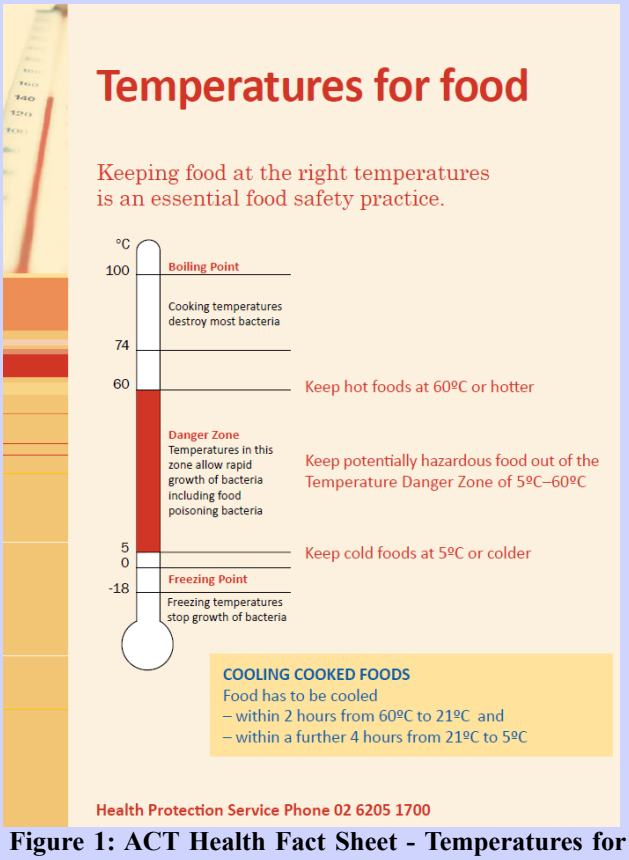

Figure 1: ACT Health Fact Sheet - Temperatures for Food. Health Protection Services

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Articles

Foodborne illness and high risk foods

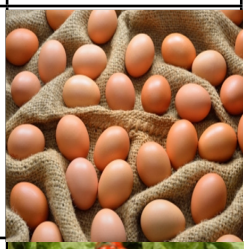
The following table briefly describes some of the most common causes of foodborne illness.

Illness	Description	Common Food Vehicles*	
Campylobacteriosis	Campylobacteriosis is the most commonly notified gastrointestinal illness in Australia.[1] Symptoms include diarrhoea (often with blood or mucus), abdominal pain, fever, nausea, vomiting and/or fatigue.[1] Illness onset usually occurs 2-5 days post exposure, with symptoms typically lasting 3-6 days.[1,3]	Undercooked chicken or meat.[2]	
Cryptosporidiosis	Cryptosporidium is spread through faecal-oral transmission.[2] Symptoms of cryptosporidiosis include watery diarrhoea, abdominal cramps or pain, dehydration, nausea, vomiting and/or fever. Symptoms can take 1-12 days to develop after infection and may persist for several weeks.[2]	Water, undercooked or raw food.[2]	
Gastrointestinal illness due to *Bacillus cereus*	*Bacillus cereus* infection is often associated with starchy foods that have been improperly cooled following cooking.[5] The toxin produced by *B. cereus* is heat-stable, thus reheating contaminated food does not prevent illness.[5] Vomiting may begin 0.5-5 hours after consumption of contaminated food; diarrhoea usually does not occur until 8-16 hours post-consumption. Symptoms usually resolve within 24 hours.[5]	Rice, pasta, noodles, gravy.[5]	
Gastrointestinal illness due to Vibrio parahaemolyticus	Symptoms include acute watery diarrhoea often with abdominal cramping, nausea, vomiting, fever and chills.[7] Onset is usually within 24 hours of ingestion. Illness is usually self-limiting and lasts 3 days.[7]	Seafood that is raw, undercooked or contaminated after cooking. [7]	
Giardiasis	Giardia is spread through faecal-oral transmission.[2] Symptoms include diarrhoea, greasy stools that float, gas, abdominal cramps, nausea, vomiting. Onset can be 1-3 weeks post exposure, with symptoms lasting 1-2 weeks.[2]	Water, undercooked or raw food.[2]	
Listeriosis	Listeria monocytogenes infection may cause fever, headache, fatigue, muscle aches; vomiting, diarrhoea and miscarriage.[2] Onset can occur 3-70 days post exposure, with symptoms usually lasting 7-10 days.[2] Listeriosis poses a greater risk of severe illness for pregnant women, unborn babies, newborn babies and people with weakened immune systems.[2] While it is associated with a higher mortality rate than other foodborne illnesses, notified cases are rare.[1]	Soft cheeses, cold meats, unpasteurised dairy, pre-packaged salads and other ready-to-eat foods.[2]	
Norovirus and Rotavirus	Both of these highly contagious viruses can be spread directly from person-to-person and via food.[2,4] Symptoms of both include vomiting, diarrhoea, nausea, abdominal pain, muscle aches, headaches, tiredness and/or low grade fever.[2,4] Symptom onset for norovirus usually occurs 1-2 days post exposure; rotavirus is usually 1-3 days.[4]	Ready-to-eat foods touched by infected person.[2,4]	

* These foods have previously been the source of the listed pathogens; this does not mean that these foods are always contaminated or unsafe to consume. It should be noted that other foods may also be contaminated with the listed pathogens.

Photographs (in order of appearance): by James Barker - FreeDigitalPhotos.net; by amenic181 - FreeDigitalPhotos.net; by suphakit73 - FreeDigitalPhotos.net; by Dino De Luca - FreeDigitalPhotos.net; by zole4 - FreeDigitalPhotos.net; by Stuart Miles - FreeDigitalPhotos.net; by rakratchada torsap - FreeDigitalPhotos.net

Foodborne illness and high risk foods

Illness	Description	Common Food Vehicles*	
Salmonellosis	Salmonellosis is the second most commonly notified gastrointestinal illness in Australia.[1] Symptoms include diarrhoea, abdominal pain, fever, nausea, vomiting and/or headaches. Rarely, salmonellosis can cause more serious illness including septic arthritis, pneumonia and meningitis Onset is usually 12-36 hours after eating contaminated food, with symptoms lasting 4-7 days.[2]	Undercooked chicken or meat, raw egg dishes/mayonnaise, cross-contaminated fresh produce (sprouts, rockmelon).[2]	
Shiga toxin-producing *E.coli* (STEC) & Haemolytic Uraemic Syndrome (HUS)	STEC can be caused by person-to-person transmission or consumption of contaminated foods.[6] Symptoms of STEC include diarrhoea and/or abdominal pain. Around 5% of STEC cases may develop the serious condition known as HUS. HUS symptoms include decreased urine output, acute renal failure, seizures, bruising and lethargy.[6] Onset is 2-10 days; symptom duration is variable depending on severity. Notified cases of STEC and HUS are rare in Australia.[1]	Undercooked beef/mince, sprouts, water.[6]	

* These foods have previously been the source of the listed pathogens; this does not mean that these foods are always contaminated or unsafe to consume. It should be noted that other foods may also be contaminated with the listed pathogens.

Photographs (in order of appearance): by Suat Eman - FreeDigitalPhotos.net; by chayathonwong2000 - FreeDigitalPhotos.net

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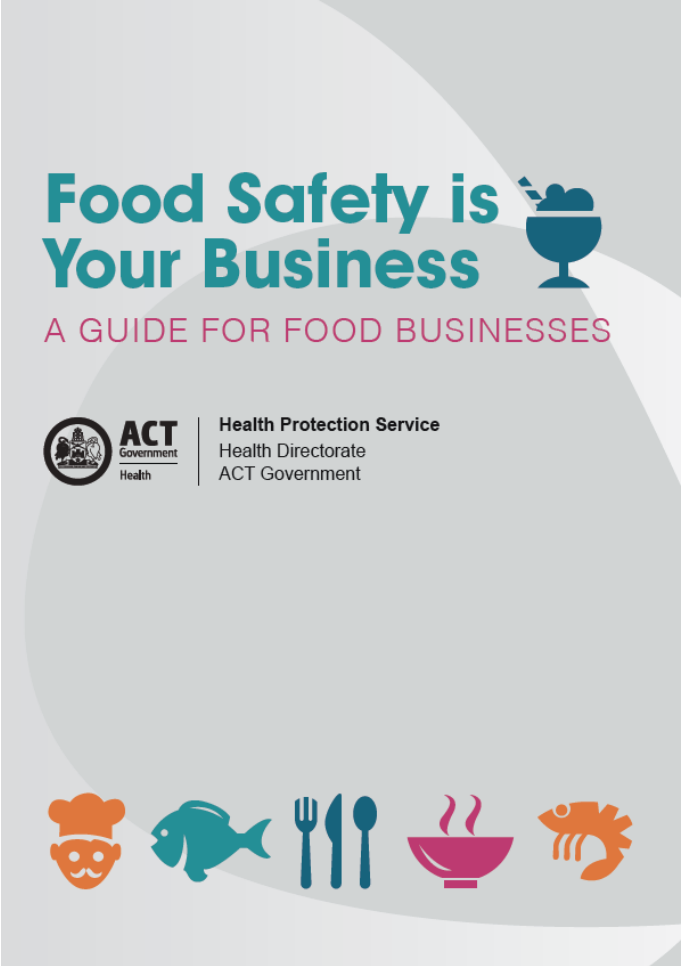

Figure 2: ACT health Food Safety is Your Business. Health Protection Services

Recent food regulatory changes in the ACT

Nicola Clark, Environmental Health, Population Health Division

Historically, ACT food businesses had a high level of compliance with food safety standards. In 2010, however, the Health Protection Service observed an increase in non-compliance with food legislation.

In response to this and other issues, the Health Protection Service investigated options to address its concerns. A need was also identified to offer more transparency in the food regulatory system.

This article discusses the legislative environment and the changes that have been implemented to address the identified issues and provide a more transparent regulatory system.

The legislative environment

ACT food businesses have historically had a high level of compliance with food safety standards. In 2010, the Health Protection Service (HPS), through routine inspectorial and surveillance activities, observed an increase in the number of prohibition orders and improvement notices issued to food businesses. The main non-compliances were food handling errors and conditions at premises that had the potential to result in the contamination of food. To address this increase in non compliances, the HPS began investigating options that would assist businesses to understand and meet their obligations to provide safe food and improve the transparency of the regulatory system.

The Food Act 2001, the Food Regulation 2002 and the Australia New Zealand Food Standards Code govern food safety in the ACT. These laws aim to ensure that food for sale is both safe and suitable for consumption. Monitoring and surveillance of food businesses is carried out by Public Health Officers who conduct regular inspections of food businesses to assess compliance with the law. The Food Act provides officers with a variety of options for regulatory intervention when a concern is identified at a food business. The spectrum of enforcement options includes:

- provision of advice or guidance;
- issuing an improvement notice;
- issuing a prohibition order; and
- prosecution.

Improvement notices and prohibition orders are administrative tools that enable the HPS to take action when a food safety issue is detected. The serving of a notice or order is preceded by a rigorous decision making process. Prohibition orders are only served where it is necessary to prevent or mitigate a serious danger to public health.

In addition to monitoring and surveillance activities, the HPS develops publications. Information on various food safety topics is provided through letters, information sheets, posters and pamphlets. These are sent to food business owners and made available on the ACT Health website. Information and advice is also available over the phone. Through these activities, the HPS works with industry to ensure a functioning regulatory system.

Increasing regulatory transparency

There has been considerable media attention focused on the food regulatory system since a freedom of information request in early 2011. ACT Health was publicly criticised that it had withheld details about food businesses that had an improvement notice or prohibition order served, when other jurisdictions disclosed this information. However, the information disclosed by other jurisdictions related to fines issued and paid by the alleged offenders. It was not strictly comparable as the ACT does not issue on-the-spot fines under the Food Act.

Following the media reports, the community made clear its interest in more transparency around food safety regulatory action. This gave greater impetus to the work being undertaken by the HPS to improve compliance.

The HPS developed policy proposals based on three objectives:

1. The food safety skills and knowledge in food businesses across the ACT should be strengthened to ensure that food served is safe.
2. The incidence of foodborne illnesses attributed to food handling errors should be reduced.
3. Consumers' access to information regarding food safety should be increased, particularly with respect to information about compliance with food laws by individual food businesses.

FOOD STANDARDS Australia New Zealand
Te Mana Kounga Kai – Ahitereiria me Aotearoa

Recent food regulatory changes in the ACT *(continued)*

Increasing regulatory transparency *(continued)*

The final policy proposals included:

- a requirement for every registered food business to have a trained food safety supervisor;
- a requirement that names of food businesses convicted of an offence against the Food Act be placed on a public register;
- a requirement that a food business that has received a prohibition order display a closure notice visible to the public;
- a requirement for food businesses to display their food business registration; and
- the exploration of options for a food business hygiene grading system (often called 'scores on doors').

A public consultation paper on these proposals was released in August 2011. Registered food businesses, industry, public health and community groups were also invited to consultation sessions on the proposals. Following consultation, the Government proceeded with the proposals for a food safety supervisor scheme, a register of food offences, and the display of registration certificates and closure notices.

The Food Amendment Bill 2011 was introduced into the Legislative Assembly on 8 December 2011. It was debated by the Assembly in February 2012 and passed unanimously. The provisions, except for food safety supervisors, came into effect on 2 March 2013. The requirement for all food businesses registered in the ACT to appoint a food safety supervisor commenced on 1 September 2013.

From policy proposal to implementation

Closure notices

The first prohibition order that resulted in the display of a closure notice occurred on 9 March 2012. It was at this time that the general public first saw the red notices that are placed at businesses closed by a prohibition order. There was significant media interest associated with the first notices and subsequent notices have also attracted media attention, demonstrating the efficacy of this transparency measure.


ACT Government Health

The Health Directorate has ordered these premises to be

CLOSED

The business has been closed under a prohibition order for breaches of the *Food Act 2001*.

The business may not trade from these premises because of serious food safety breaches and the risk to public health.

[Business Name]

[Business Location]

[Suburb]

As of
DD MONTH 2014

Public Health Officer

Penalties exist for interference with this notice, including removal or tampering.

For more information, please contact the Health Protection Service on (02) 6205 1700.

This notice is authorised by section 84A, *Food Act 2001* and remains the property of the ACT Government Health Directorate.

Figure 3: ACT Health Prohibition Order Notice. Health Protection Service

The protection of the public's health is the HPS's highest priority. It is thought that the introduction of the transparency measures has had its intended effect; that is, the general public has a much greater ability to be informed of food safety issues than ever before.

Food safety supervisors

Food safety supervisor schemes were identified as a means of strengthening food safety skills and knowledge at food businesses. The purpose of food safety supervisors is to have a person employed at a food business who is trained to recognise, prevent and alleviate food safety hazards. As such schemes were already operating in Queensland, New South Wales and Victoria, the ACT used these schemes as a basis for researching and, ultimately, developing an ACT scheme.

The implementation of the food safety supervisor scheme has, like many new initiatives, encountered some initial issues. For instance, some charitable organisations that sell food for fundraising purposes raised concerns about the burden associated with appointing a food safety supervisor. In response on 21 November 2013, it was announced that certain charity organisations were exempt from the requirement to register and have a food safety supervisor.

Supporting resources for industry

New publications were developed to assist food businesses to improve their food safety skills and knowledge, and compliance with food safety standards. These publications, Food Safety is Your Business and Market Stall Guidelines, and other key food safety posters were translated into the 11 most common languages other than English used in ACT food businesses. Work on developing other resources and initiatives continues so that the HPS and the community can continue to improve the food regulatory environment.

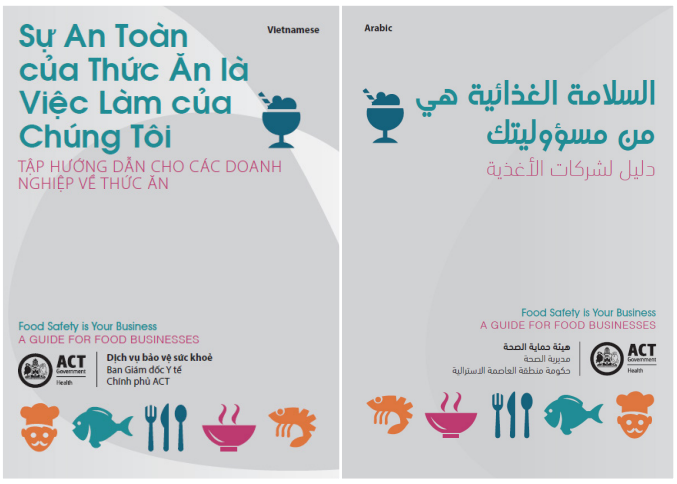

Figure 4: ACT Health Food Safety Guide (Arabic and Vietnamese). Health Protection Services

Case Study

National Multicultural Festival

Lyndell Hudson, Environmental Health, Population Health Division

Background

The National Multicultural Festival is an annual summer event in Canberra that provides community groups and organisations an opportunity to showcase their food, culture and history. The festival has changed significantly from its humble beginnings as a one day event in the 1980s. There has been a dramatic growth in the size and complexity of the event's operation and infrastructure. For instance the 2014 festival featured more than 80 national and international cultures, including more than 300 food stalls and seven stages for performances.[1]

Photograph: VisitCanberra

The festival is deemed a high risk event due to the potential food safety issues that arise from its inherent combination of risk factors. These include the festival's three-day length, long trading hours, high customer volumes, large quantities of food and often hot weather. The temporary nature of the stalls also provides food safety challenges for both food handlers and the regulator, the Health Protection Service (HPS). There are limited food storage facilities, no overnight power, temporary hand washing facilities within each stall and minimal food preparation areas. Maintaining safe temperature control of both cold and hot food is difficult for stallholders and a concern for the HPS. This is especially so in hot weather, with many stallholders relying on eskies with ice to maintain food below the required 5°C. In addition, the festival's food is provided to the public by volunteers and community organisations that often have little or no experience in food safety or cooking for large scale events.

Industry, stakeholder and community engagement is essential to reduce food safety risks, improve food safety knowledge and build relationships with stakeholders. Each year, the HPS works closely with the Office of Multicultural Affairs and festival stakeholders such as the Office of Regulatory Services, the festival's electrical contractor, volunteers and stallholders to improve food safety knowledge and provide safe food.

The following case study provides an overview of how the HPS works with festival stakeholders to achieve food safety compliance, increase food safety knowledge and minimise the likelihood of foodborne illness outbreaks.

Provision of information

In the lead up to the festival, the HPS collaborates with the Office of Multicultural Affairs to provide food safety and handling information and guidance on stall set up and requirements. Food safety information is presented to stallholders at information sessions by a Public Health Officer (PHO). Over time, the information for stallholders has evolved from verbal advice to a slide show presentation of basic food safety requirements accompanied by a handout of written information. Continuous improvement of the information provided has led to the inclusion of photographs and physical examples of correct stall set up, correct hand washing facilities, examples of food storage options and temperature control. The use of visual examples has been of great assistance in overcoming language barriers.

Each year the presentation is improved to meet the needs of stallholders and address areas of non-compliance identified at the previous year's festival. For instance, high levels of non-compliance during the 2012 festival indicated that the written information provided to stallholders was not audience appropriate. Based on this, the food safety information provided for the 2013 festival was simplified. An evaluation of this approach showed a correlative decrease in non-compliances.

At the 2014 information session, stallholders were provided with:

- a food business notification form (all food business in the ACT must notify the HPS of their operation);
- fact sheets (Recommended Food Safety Training, Food Handling and Food Safety and Stall Set Up); and
- a checklist to help them with preparation and running of the stall.

The information included a recommendation that food handlers working at the festival complete Environmental Health Australia's free online I'M ALERT food safety training.[2]

Figure 5: ACT Health Fact Sheets - Storing food in the fridge and 2 Hour 4 Hour Guide. Health Protection Service

Case Study

National Multicultural Festival *(continued)*

Provision of information *(continued)*

Stallholders were encouraged to use the check list as a guide to important food safety requirements that would be checked during an inspection. By ensuring compliance with the checklist, stallholders could reduce the risk of issues being identified during an inspection, thereby minimising food service disruption. The HPS received positive feedback from the stallholders and PHOs about the information provided. PHOs reported shorter inspection times than in previous years due to fewer non-compliances; this is considered to be associated with improvements in information available to stallholders.

In 2013, the South Pacific Islander community requested the HPS provide a tailored stallholder information session for their community that covered food safety and the kava exemption (special legal arrangements allowed cultural use of kava at the festival). PHOs provided this session and answered questions from the community about requirements and addressed any concerns raised. This information session was continued in 2014.

Photograph: Population Health Division file photograph

2014 Multicultural Festival

More than 250,000 people are estimated to have attended the 7-9 February 2014 festival.[1] A team of nine PHOs and two team leaders from the HPS conducted over 215 inspections across the three day event. PHOs checked food safety, temperature control, hygiene and food preparation at stalls selling potentially hazardous food. Non-compliances that could not be rectified during an inspection were followed up by a team leader. A team leader also provided support to PHOs when a large number of non-compliances were identified and food had to be discarded. A daily risk assessment was completed by a team leader to determine which stalls should be inspected based on the food type, preparation and ability to maintain temperature control. Stalls selling lower risk foods such as liquorice, fudge and snow cones were not inspected.

PHOs and team leaders wore high visibility Public Health vests both to reassure the public that food safety was being monitored and to allow stallholders to easily identify inspectors. An evaluation of the 2013 festival identified that PHOs should be present later into the festival's first night due to high crowd numbers and increased trade. This approach was trialled during the 2014 festival and was found to improve PHOs ability to mitigate food safety risks and ensure all stalls were inspected. The extended hours also enabled PHOs to inform stallholders that the electricity was not provided after midnight and all food requiring temperature control had to be removed overnight.

During the festival, PHOs oversaw six incidents of voluntary disposal of food; no food had to be seized. This was a reduction from twelve voluntary disposals of food and one food seizure in 2013. There were multiple hygiene breaches detected for inadequate hand washing facilities and stalls not having an appropriate food thermometer or temperature control. These were rectified during the inspection or followed up within an agreed timeframe by a team leader. There have been no confirmed foodborne illness cases at either the 2013 or 2014 festivals.

Future Directions

Each year, the PHOs and team leaders participate in a debrief session to identify areas of non-compliance, food safety concerns, areas of improvement from previous festivals and possible improvements and education for the following year. This enables community engagement and collaboration with stakeholders to improve and increase food safety knowledge and understanding. Outcomes from the debrief are also used to improve the written information given to stallholders.

In preparation for the 2015 festival, the fact sheets and checklist are being translated into 12 languages to reduce the potential for language barriers to interfere with the understanding of food safety requirements. In preparation for a further likely increase in crowd numbers at the 2015 festival, additional late night shifts for PHOs are also planned.

References

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Effects of publication of food business inspection results

Vojkan Stefanovic, Food Systems and Quality Assurance Section, Population Health Division

Food hygiene grading system impacts

Various food hygiene grading systems are used worldwide to communicate to the public the information acquired through food business inspections.

There has been much debate about the effectiveness of such systems. Evaluation studies found increased compliance with existing food safety standards, an associated decline in food-borne illness cases, and increased revenue for establishments that comply with, or exceed, these standards.

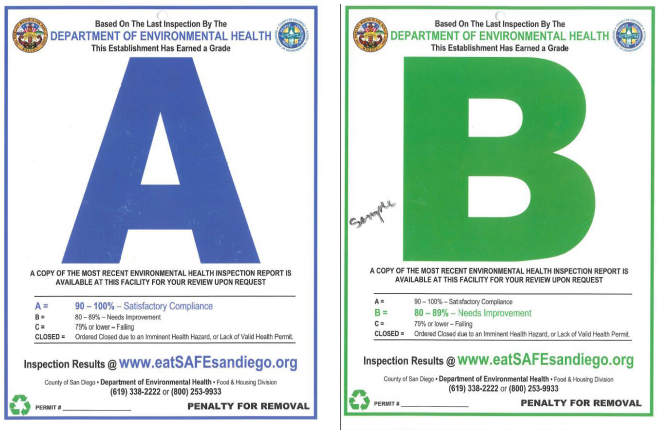
In addition, most studies suggest that displaying inspection results in food service establishments results in improved food hygiene awareness and increased consumer confidence.

It appears that the provision of information to the public about food businesses increases media and community awareness of food safety issues and creates a powerful incentive for businesses to improve their food hygiene performance.

An introduction to food hygiene grading systems

Internationally and in Australia, there are a number of food hygiene grading systems used to communicate to the public the information acquired through food business inspections. The purpose of these systems is to deliver useful consumer information while providing an incentive for food businesses to comply with food regulations.

Figure 6: Grade Cards displayed at food establishments in San Diego County



A food hygiene grading system requires businesses to display a food safety grade that is visible to the public. Disclosure of the results of the most recent food hygiene inspection and consequent grade is usually done at the food establishment and on the relevant authority's website. In addition, a number of regulatory authorities require a copy of the most recent inspection report to be provided on request at the establishment. Some of these systems are mandatory, while others operate on an opt-in basis with various degrees of obligation applying once a business decides to opt-in.

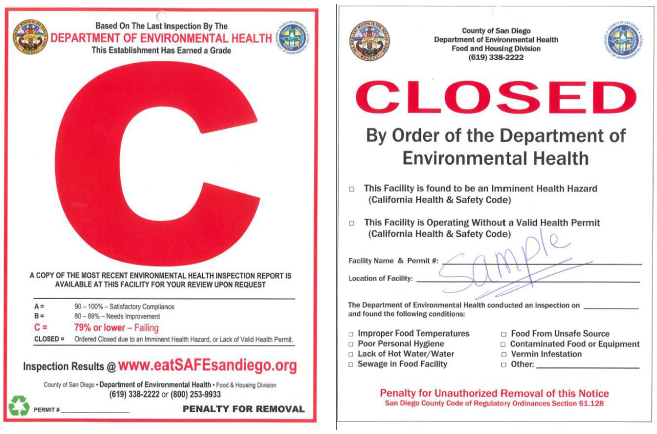
Mandatory Systems

San Diego, Los Angeles, New York City and Singapore have implemented mandatory letter hygiene grading systems (e.g. A, B and C are used, with A being the best grade). In addition, a colour coding is used in the background and this varies from city to city. Toronto has implemented a system that requires both publication of web-based comprehensive inspection reports and the display of summary details on the premises through the use of coloured cards, based on a 'traffic light system'. The Danish system utilises four emoticons that range from a happy face, for well performing establishments, to a sad face, for poorly performing food businesses.

Opt-in Systems

All of the grading systems in Australia operate on a voluntary basis and there is no obligation on businesses to display their food hygiene grade. For instance, the NSW Food Authority has developed the Scores on Doors system which has been adopted by 27 of the 152 NSW councils.[1] The NSW system uses a star grading, with five stars given for 'excellent' hygiene; businesses with less than a three star standard are not issued a grade certificate. Some NSW councils also publish a list of participating businesses online, in some cases with their star grades.

Brisbane City Council operates a five star grading system called Eat Safe in which all inspected businesses are given a grade that they may chose to display at the premises and online.[2] Internationally, London has a voluntary numerical system with numbers from 1 to 5, where 5 represents 'very good'.



Effects of food hygiene grade displays

There has been much debate about the effectiveness of the food business grading systems implemented overseas and in some Australian jurisdictions. Evaluation studies carried out in Canada and the United States of America found increased compliance with existing food safety standards, a decline in the number of cases of foodborne illnesses, as well as increased revenue for establishments that comply with, or exceed, these standards.[3-8] In addition, these studies suggest that displaying inspection results in food service establishments leads to improved food hygiene awareness and increases consumers' confidence that businesses serve safe food.

Effects of publication of food business inspection results *(continued)*

Improvements in food safety

International studies suggest that the introduction of a hygiene grading system can improve compliance with food safety standards. In Denmark, Toronto, New York City and Los Angeles, compliance rates (the percentage of food businesses that complied with food safety requirements) increased significantly. For example, Toronto Public Health reported that the level of compliance with food safety requirements increased from an estimated 50% in 2000 (before the introduction of the food hygiene grading system) to over 90% in 2010.[9]

The New York City Department of Health conducted evaluations at 6, 12 and 18 months after implementing their food hygiene grading system. The evaluation found that major food safety non-compliances decreased after 18 months of implementing the grading system. The evaluation also found that the percentage of restaurants earning A grades on their initial inspections had steadily risen from 27% after 6 months to 41% after 18 months of implementing the system.[3]

The Danish Veterinary and Food Administration has reported that an increase of 23.7% in 'happy smiley' face symbols demonstrates that the grading system has helped increase food safety in Denmark.[10]

A 2003 study of the food hygiene grading system in Los Angeles[4] found that the grade cards are associated with:

- an increase in restaurant health inspection scores;
- consumer demand becoming sensitive to changes in restaurants' hygiene quality; and
- a reduction in the number of foodborne illness hospitalisations.

Result		Explanation
1	☺	No remarks
2	☺	Enjoining order
3	😐	Injunction or prohibitory order
4	☹	Administrative penalties, reported to the police or approval withdrawn
Poorest result determines the smiley		
Elite	☺	No remarks on the latest 4 reports and within the latest 12 months

Figure 7: Danish Veterinary and Food Administration's Smiley Scheme ratings

Reduction in foodborne illness

There is no definitive evidence that existing food hygiene grading systems cause a reduction in cases of foodborne illness. This is due to the inherent impossibility of establishing such causal relationships. However, current studies suggest that it is reasonable to assert that the introduction of a food hygiene grading system may be associated with a reduction in the incidence of foodborne illnesses.

For example, in 2005 it was found that the foodborne illness-related hospitalisation rate in Los Angeles County decreased for three consecutive years (an average of 13.1% annually) after the grade card system was introduced.[4]

Following the first 12 months of having a food hygiene grading system in place New York City reported Salmonella cases decreased by 175 cases (a 14% reduction from the previous year).[3]

In 2007, an association was found between Toronto's food hygiene grading system and the specific incidence of retail-acquired foodborne illness.[6] The study results show that certain diseases, such as Campylobacter infection, decreased significantly following the implementation of the food hygiene grading system in Toronto. The study also found that the decrease in operator non-compliance with food safety standards correlated with a decrease in retail-acquired foodborne illness.

A 2002 evaluation of the food hygiene grading system in Toronto found that it had led to significant food safety improvements. According to the 2009 Toronto Public Health Staff Report[11], the incidence of sporadic cases of foodborne illness declined in Toronto in the five year period between 2003 and 2007. This coincided with increased food safety compliance following the introduction of the grading system. The 2013 update shows that the incidence of sporadic cases of foodborne illness decreased in the previous ten years, with about 1,750 cases reported each year (a reduction of 30% since 2002).[12]

Photograph: VisitCanberra

Effects of publication of food business inspection results *(continued)*

Increase in revenue for businesses with higher grades

Jin and Leslie's 2003 study on the effects of an increase in product quality information to consumers examined the restaurant hygiene grade cards in Los Angeles. They found that impact on revenue varies according to the grade and is positive for A and B-grade restaurants.[5] They also found that restaurants that received an A grade had an increase in revenue of 5.7% relative to their revenue before the introduction of grade cards. For restaurants that received a B grade, revenue increased by 0.7%. For a C grade, revenue decreased by 1%.[6] The study also found that before the grade cards were introduced, changes in a restaurant's hygiene quality had no impact on restaurant revenue.

Toronto Public Health reported in their 2002 evaluation of the food hygiene grading system that 26% of surveyed food businesses reported an actual increase in business.[7] The evaluation report concluded that the program was not detrimental from a business standpoint in the first year of implementation and showed positive results for a substantial number of operators.

Photograph: VisitCanberra

Reputational incentives

Implementation of food hygiene grading systems has been associated with reputational incentives. A 2009 study found that chain-affiliation provides reputational incentives and that franchised restaurants tend to exploit incentives concerning chain-affiliation.[13] After the introduction of a food hygiene grading system, franchise restaurants showed significant improvements in food hygiene performance. This was because their reputation was based on their own performance and not on that of their parent companies.[13]

Increase in consumer confidence and food hygiene awareness

Providing information that allows consumers to make informed choices is a matter of consumer rights. Evaluation studies of food hygiene grading systems have shown that disclosure of information about performance of food businesses increases consumers' confidence in, and awareness of business food hygiene.

Surveys conducted in Toronto[8] and Denmark[10] reported continual increases in consumer confidence following the implementation of food hygiene grading systems. The majority of consumers thought that their food hygiene grading systems were probably the best known public schemes and that they should be maintained. Consumers in Toronto indicated that displayed food hygiene grading cards were their primary source of food safety information regarding food businesses.[9]

Research has also shown that consumer demand became sensitive to changes in restaurants' hygiene quality after the implementation of the food hygiene grading system in Los Angeles.[5]

Conclusion

From a policy development perspective, the most important outcomes of the implementation of a food hygiene grading system are: increased compliance with existing food safety standards; a decline in the number of reported foodborne illness cases; and increased revenue for establishments that comply with, or exceed, food safety standards. In addition, most studies suggest that displaying inspection outcomes in food service establishments results in improved food hygiene awareness and increased consumer confidence.

Providing information to the public about food businesses increases media and community awareness of food safety issues and provides a powerful incentive for businesses to improve their food hygiene performance.

It seems that higher performing businesses gain market share through the display of their high ratings. Consequently, the requirement for businesses with lower ratings to display is a strong inducement for them to improve their food safety practices.[14]

Effects of publication of food business inspection results *(continued)*

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Figure 8: ACT Health Fact Sheet - Safe food handling. Health Protection Services

Management of foodborne disease outbreaks

Lucas Mills, Chris Kelly, and Andrew Stedman, Health Protection Service, Population Health Division

The Health Protection Service is responsible for the investigation and management of food safety issues within the ACT. This article gives a brief overview of the management of outbreaks related to food premises.

In the context of an investigation, a foodborne disease outbreak is defined as two or more cases of gastrointestinal illness associated with a common food source.

An outbreak investigation may begin after a number of cases of illness are linked to a common source. The investigation seeks to identify the cause of illness and to introduce public health measures to prevent further disease.

The management of foodborne outbreaks is an essential public health measure to prevent further cases of foodborne illness and has an important role in maintaining a healthy community. In the ACT, the public health response to an outbreak is conducted in accordance with the Public Health Act 1997 and the Food Act 2001. The Health Protection Service (HPS) is responsible for managing the response to public health events and for ensuring that food sold in the ACT is safe to eat.

The main components of an effective outbreak response include a series of inter-related laboratory, epidemiological and environmental health investigations. The investigation and response will generally involve the following steps:

- the clinical treatment and testing of outbreak cases;
- an epidemiological investigation to identify the source and scope of the outbreak;
- the inspection of the premises, including a review of food handling practices;
- the collection and laboratory testing of food and environmental samples;
- the implementation of control and prevention measures to limit the impact of the outbreak;
- effective risk communication with the community and media; and
- if the outbreak source is identified, consideration of whether a prosecution should be pursued.

Notification of an outbreak

An outbreak may be identified in a number of ways:

- the Communicable Disease Control (CDC) section may identify clusters of disease as part of routine surveillance and data assessment of notifiable diseases in the ACT;
- the HPS may be notified of a suspected outbreak by a general practitioner or emergency department doctor treating a number of patients with similar symptoms; or
- members of the public may make a complaint about a food business.

The infectious agent may be suspected or identified through clinical diagnosis and laboratory testing associated with the notification. Available information is reviewed to assess the public health implications of a potential foodborne outbreak.

Investigation and response

Once an outbreak has been identified, a multi-disciplinary Acute Response Team (ART) is established, drawing on personnel from across the HPS to investigate and identify the source of the outbreak and to implement public health control measures. Areas of HPS that may be involved in managing the outbreak response include:

- CDC;
- Environmental Health (EH);
- the ACT Government Analytical Laboratory (ACTGAL); and
- the Preparedness and Response Section (PaRS).

The ACT OzFoodNet epidemiologist coordinates epidemiological investigations into foodborne disease outbreaks in the ACT and collaborates with OzFoodNet (the national foodborne disease surveillance network), particularly in outbreaks that cross ACT borders. See page 16 for more infomation on OzFoodNet.

The epidemiological investigation involves contacting cases and interviewing them to provide details about when they first experienced symptoms and a detailed history of any food consumed in the days prior to their illness. These interviews may implicate a food business or common food source that requires further investigation.

Food samples and environmental swabs of food preparation areas taken from the food business as part of the environmental investigation are tested by ACTGAL at the HPS facility in Holder. Results from the laboratory investigation may further support findings from the epidemiological investigation if there is evidence of environmental contamination with the same pathogen.

Photograph: Population Health Division file photograph

Management of foodborne disease outbreaks *(continued)*

Investigation and response *(continued)*

The sudden spike in outbreak related presentations at ACT hospital emergency departments associated with a large scale outbreak can place a significant strain on the health sector. If the size of the outbreak is likely to challenge the capacity of an ACT hospital, the Chief Health Officer can activate the Health Emergency Plan to manage the health sector response. Activation of the plan facilitates enhanced communication and a centralised reporting structure.

Communication with the public is an important aspect of the response; this can be facilitated through a media release or a public health alert being issued on the ACT Health website to describe the situation, identify those at risk and provide information to those affected.

Prevention measures

Public Health Officers (PHOs) from EH conduct routine food business inspections, routine food sampling and investigate complaints against food businesses. PHOs also audit food safety programs at certain higher risk food businesses (e.g. businesses that provide food to vulnerable populations such as the elderly or young children). In carrying out these duties, PHOs may identify potential sources of foodborne illness.

Photograph: by Witthaya Phonsawat - FreeDigitalPhotos.net

PHOs can undertake a range of enforcement measures available under the Food Act and the Public Health Act to address issues identified during an inspection. Actions that may be taken to prevent the further spread of disease include directing a food business to address identified issues or issuing a prohibition order under the Food Act, effectively closing the premises to the public. Where an offence is alleged to have occurred, the alleged perpetrator may be prosecuted.

The decision to prosecute

During an outbreak investigation, the primary focus of the HPS is protecting public health by ensuring the outbreak is contained and the source identified. The information gathered by PHOs while investigating an outbreak may, incidentally, later be used as evidence in a subsequent prosecution. As such, while public health is the foremost consideration of the investigation, consideration must also be given to the need to meet evidentiary standards.

Following the investigation of the outbreak source (and generally after the conclusion of an outbreak), a recommendation is made to the Director of the HPS as to whether grounds exist for prosecution. In deciding whether to pursue a prosecution, the Director may consider the available evidence, proposed charges, the specific circumstances of the alleged breach and any previous breaches.

Photograph: by Salvatore Vuono - FreeDigitalPhotos.net

Where a decision is made to pursue a prosecution, a brief is provided to the Director of Public Prosecutions (DPP). The DPP works with the HPS to determine the merits of the case based on the available evidence. The DPP makes the final decision on whether to prosecute and in doing so determines which, if any, charges will be pursued.

Conclusion of the response

Once control measures have been implemented, the HPS continues to monitor the situation and maintain disease surveillance. When no further cases can be linked to the source of the outbreak the acute phase of the investigation is finished. A number of post outbreak activities are routinely undertaken within the HPS to enhance evidence-based practice and ensure continual organisational improvement in the management of foodborne outbreaks.

OzFoodNet: A national system to enhance foodborne disease surveillance

Rebecca Hundy, Communicable Disease Control, Population Health Division

Overview

Since its establishment in 2000, Australia's federal and state and territory health authorities have worked collaboratively as members of the national OzFoodNet network to provide better understanding of the causes and incidence of foodborne disease in the community. In doing so, OzFoodNet has enhanced surveillance and provided an evidence base for policy formulation.

This article summarises the general workings of OzFoodNet and also provides details of its role in the ACT.

A national collaboration

OzFoodNet is a national network of epidemiologists and organisations with an interest in foodborne disease. Established and funded by the Commonwealth Department of Health (formerly the Department of Health and Ageing, DoHA) in 2000, the network has been successfully conducting surveillance and investigating foodborne disease outbreaks across Australia for the past 14 years. Several reports describing the OzFoodNet network and its successes have been published.[1,2]

The aim of OzFoodNet is to provide a population based systemic surveillance system to enhance the investigation and understanding of foodborne diseases, to describe more effectively their epidemiology and to identify ways to minimise foodborne illness in Australia.[3]

OzFoodNet was established due to a recognised lack of comprehensive data on the incidence and causes of foodborne illness. Previously large foodborne disease outbreaks in Australia, such as an outbreak of Shiga-toxin producing *Escherichia Coli* (STEC) in 1995 associated with contaminated mettwurst sausage,[4] highlighted the need for the development of new national food safety guidelines. However the lack of good quality data on foodborne diseases hindered their development and it was on this basis that the OzFoodNet network was piloted in a local area in NSW in 1999.

OzFoodNet includes one or more epidemiologists based in each state and territory health department, and overseen by co-ordinating staff from the Commonwealth Department of Health. It also includes representation from other national organisations including Food Standards Australia New Zealand (FSANZ), Australian Government Department of Agriculture, the Public Health Laboratory Network (PHLN), and the National Centre for Epidemiology and Population Health (NCEPH).

The success of OzFoodNet is largely underpinned by regular and timely communications among network members which includes face-to-face meetings three times per year, monthly teleconferences, and e-mail list servers. Regular data collection, analysis and reporting has also enabled the network to achieve its objectives by regularly summarising disease outbreaks and disease activity, including fortnightly cluster reports provided by each jurisdiction, and quarterly and annual reporting. This has resulted in the ready availability of high quality and reliable foodborne disease incidence data in Australia.

OzFoodNet in the ACT

The ACT has participated in OzFoodNet since its inception in 2000. The ACT OzFoodNet site sits within the Communicable Disease Control (CDC) section of the Health Protection Service (HPS), and currently employs one epidemiologist. The OzFoodNet epidemiologist works within the Disease Surveillance Unit which is responsible for the coordination of the ACT Notifiable Diseases Surveillance Program. The OzFoodNet site utilises passive surveillance data collected under this program, which includes 17 potential foodborne or enteric pathogens.

Over the past several years, the ACT OzFoodNet site has investigated numerous foodborne disease outbreaks, and contributed to the increasing body of knowledge of the epidemiology of foodborne diseases in both the ACT and nationally.[5-9] The OzFoodNet site has also investigated and reported on several environmental sources of enteric pathogens, such as salmonellosis associated with contact with an infected lizard, and a *Campylobacter* outbreak associated with contact with a puppy. [10,11]

Photograph: by tiverylucky - FreeDigitalPhotos

More information about the OzFoodNet network can be found at: http://www.ozfoodnet.gov.au/.

OzFoodNet: A national system to enhance foodborne disease surveillance *(continued)*

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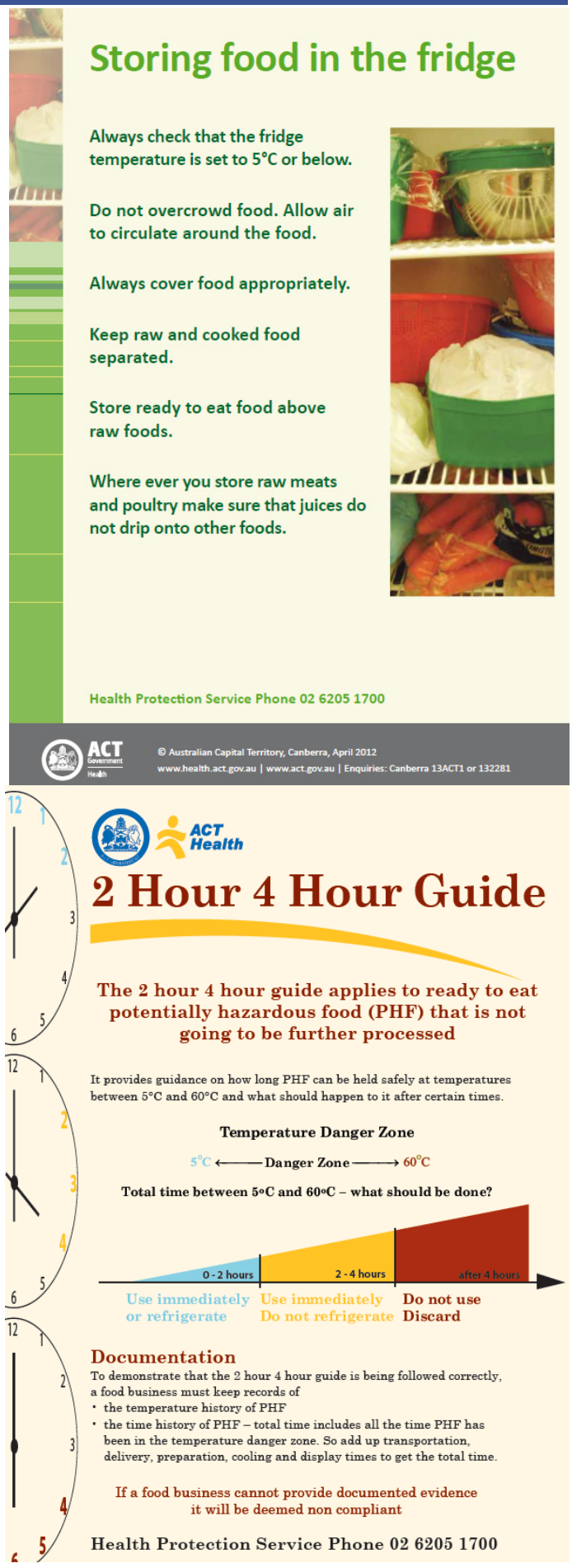

Figure 9: ACT Health Fact Sheets - Storing food in the fridge and 2 Hour 4 Hour Guide. Health Protection Service

Promoting healthier food and food safety in child focused settings

Yvonne Poels, Health Promotion and Rebecca Stones, Food Systems and Quality Assurance, Population Health Division

Promoting healthier food and food safety

Two public health issues that are potentially on a collision course are the efforts to increase people's consumption of nutritious foods and those that aim to ensure food safety. Rising rates of overweight and obesity and the associated costs are compelling governments to consider various public health interventions.

One such area of intervention includes strategies aimed at increasing people's consumption of healthier food options, such as fresh fruit, vegetables and minimally processed foods. However, foods that are desirable for nutrition and obesity control tend to be more hazardous in terms of food safety because they include, for example, non-fried, dairy, egg and uncooked products.

This article focuses on current efforts to balance these competing public health priorities and considers two initiatives being delivered through Health Promotion in partnership with other government, non-government and business partners. These have been largely funded under the National Partnership Agreement for Preventive Health's (NPAPH) Healthy Children's Initiative. The impact of the recent budget announcement of the cessation of the NPAPH from 1 July 2014 is currently being examined.

A growing issue

It is well known that rates of overweight and obesity in the ACT (and nationally) are rising. Recent figures show that 63% of ACT adults are now overweight or obese[1] (an increase from 23% in 1995[2]) and 26.3% of children aged 5-17 years are overweight or obese.[1] The increasing prevalence of overweight and obesity correlates with increases in various chronic diseases. This impacts people's quality and length of life, places financial and volume pressures on healthcare systems and negatively impacts on workforce participation.[3] As a result, in recent years both the federal and ACT governments have made significant investments in initiatives that aim to address the rising rates of preventable chronic diseases.[4,5]

Photograph: by Clare Bloomfield - FreeDigitalPhotos.net

Government investment in improved nutrition and lifestyle choices

The ACT Government invested in a range of prevention measures under the Healthy Futures budget initiative of 2009/10 – 2011/12. This included initiatives that aimed to increase consumption of healthier food options and stimulated the development of programs that targeted children as a precursor to increased investment by the Australian government.

In November 2008, the Council of Australian Governments agreed to the National Partnership Agreement on Preventive Health (NPAPH). The NPAPH established performance benchmarks and indicators in relation to weight, serves of fruit and vegetables, physical activity and smoking. The ACT Healthy Children's Initiative Implementation Plan details how the ACT is addressing these benchmarks and indicators (except those related to smoking).

On 14 October 2013, the ACT Chief Minister, Katy Gallagher MLA launched Towards Zero Growth – Healthy Weight Action Plan. The Action Plan details a cross government commitment to halt rising rates of overweight and obesity. In recognition that overweight and obesity is a 'wicked problem' with multiple drivers, ACT Government Directorates have developed actions in areas including the food environment, schools, workplaces, urban planning and social inclusion.

Balancing competing public health priorities

The development of new health promotion programs that encourage the consumption of fresh, nutritious foods in child-focused settings (e.g. schools and sporting canteens) has required careful consideration of possible food safety concerns.

Although all foods have the potential to be contaminated and thereby cause foodborne illness, some foods may pose a greater risk from a food safety perspective. For instance, foods that do not undergo a pathogen kill step such as cooking or pasteurising are more likely to harbor the bacteria and viruses that cause foodborne illness. That is, fresh and minimally processed foods (such as raw egg dishes, salads, sandwiches, sushi and cut fruit) may pose a greater food safety risk.[6] The question is where to draw the line between the immediate risk of acute foodborne illness and the long-term risk of developing chronic conditions such as obesity and diabetes.

Photograph: by sritangphoto - FreeDigitalPhotos.net

Promoting healthier food and food safety in child focused settings *(continued)*

Balancing competing public health priorities *(continued)*

The ACT is in the unique position of having government health promotion programs and food safety regulation functions sitting at the same level within the ACT Government, under the same division of ACT Health. The potential for conflicting public health messaging has necessitated coordination between these key government stakeholders in the ACT food sector. However, this has also provided an opportunity for the ACT to foster collaborative working relationships between areas that tend to inherently approach the same issues from disparate perspectives.

The following case examples from Fresh Tastes: healthy food at school and Healthy Food@Sport illustrate how promoting consumption of healthy food and drinks and promoting food safety has happened in practice. This has occurred through a willingness to address both priorities, and has been aided by staff from Health Promotion and Health Protection Services working collaboratively to align the work goals of both areas.

Photograph: by Naypong - FreeDigitalPhotos.net

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Photograph: ACT Health file photograph

Case Study

Students learn about food safety with Fresh Tastes

Joon-Li Choo and Nicole Coyles, Health Promotion, Population Health Division

Fresh Tastes: healthy food at school is a program that supports ACT primary schools, preschools and early childhood schools to have a culture of healthy food and drinks. Schools play an important role in teaching students about healthy lifestyles and can also help students access healthy food and drink choices during the school day. Fresh Tastes is designed to give students the opportunity to learn about good nutrition and take that knowledge home to their families.

The ACT Chief Minister and Minister for Health, Katy Gallagher MLA recently launched Fresh Tastes. She noted the program was one of many initiatives the ACT Government is delivering under the Towards Zero Growth: Healthy Weight Action Plan to curb rates of overweight and obesity in the Canberra community. Currently, 22 schools are participating in the program with more schools being recruited each term.

Photograph: ACT Health file photograph

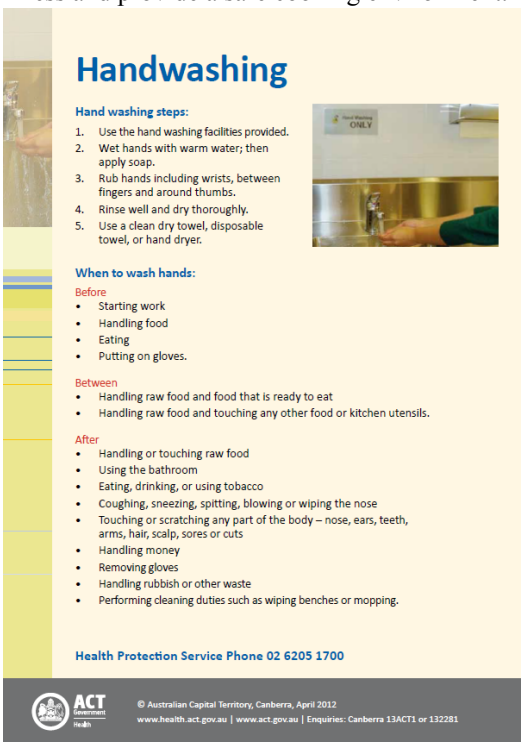
Fresh Tastes cooking action area

Schools that get involved in Fresh Tastes are supported to give students hands-on, fun and practical cooking experiences using fresh produce. Evidence shows that children who learn how to cook are more likely to grow up to be healthy adults because they have a better knowledge of cooking techniques, preparing food and exploring new tastes.[1-3] Students of all ages and abilities can find cooking an engaging, stimulating and inclusive activity.[1,2] Cooking can support many different aspects of the curriculum and can teach children to make wise food choices that positively affect their health and wellbeing. Cooking is also a way to involve parents in the school community and can have a positive impact on the family.[1,2]

Food safety in Fresh Tastes

Food safety is incorporated as a key component of cooking activities delivered under Fresh Tastes. This ensures children understand the importance of preparing food in a safe and hygienic environment, and learn appropriate food safety habits from a young age. Below are examples of how food safety messages and practices are embedded into Fresh Tastes activities.

Local business and Fresh Tastes partner, Kids Pantry, supports schools by building the capacity of teachers to deliver cooking activities in the classroom. Kids Pantry educates teachers and students about correct hand washing techniques, and safe food handling and kitchen practices to reduce foodborne illness and provide a safe cooking environment.



Handwashing

Hand washing steps:

1. Use the hand washing facilities provided.
2. Wet hands with warm water; then apply soap.
3. Rub hands including wrists, between fingers and around thumbs.
4. Rinse well and dry thoroughly.
5. Use a clean dry towel, disposable towel, or hand dryer.

When to wash hands:

Before
- Starting work
- Handling food
- Eating
- Putting on gloves.

Between
- Handling raw food and food that is ready to eat
- Handling raw food and touching any other food or kitchen utensils.

After
- Handling or touching raw food
- Using the bathroom
- Eating, drinking, or using tobacco
- Coughing, sneezing, spitting, blowing or wiping the nose
- Touching or scratching any part of the body – nose, ears, teeth, arms, hair, scalp, sores or cuts
- Handling money
- Removing gloves
- Handling rubbish or other waste
- Performing cleaning duties such as wiping benches or mopping.

Health Protection Service Phone 02 6205 1700

www.health.act.gov.au | www.act.gov.au | Enquiries: Canberra 13ACT1 or 132281

Figure 10: ACT Health Fact Sheets - Handwashing. Health Protection Service

Schools that deliver cooking activities through Fresh Tastes are encouraged to use the free food safety resources available from the ACT Health Protection Service. They are also encouraged to complete the free online I'M ALERT food safety training established by Environmental Health Australia to get a basic understanding of safe food handling practices.

The University of Newcastle has recently trained a small group of representatives from five ACT primary schools to deliver an after-school cooking club called Back to Basics. Back to Basics is another cooking activity offered to Fresh Tastes schools. At each Back to Basics session, participating students are taught to prepare fruit and vegetable based meals which they eat with their parent or carer. The facilitators' training included a safe food handling component and schools were provided with local food safety resources from the ACT Health Protection Service.

Case Study

Students learn about food safety with Fresh Tastes *(continued)*

Fresh Tastes Food for Sale Action Area

Canteen Fresh ACT is a component of Fresh Tastes delivered by Nutrition Australia ACT that supports school canteens to sell healthy food and drinks. Canteen Fresh ACT services include canteen menu reviews, access to a canteen advisory service and subsidised training on how to apply the National Healthy School Canteen Guidelines traffic light system. Canteen Fresh ACT services are available free of charge to all ACT schools.

All ACT registered food businesses, including school canteens, are required to have at least one food safety supervisor (that is, a person who has undergone appropriate training to allow them to supervise and give direction on safe food handling). To complement the Canteen Fresh ACT services, Nutrition Australia ACT runs an accredited food safety supervisor course. The course was developed specifically for staff working in school canteens and is promoted through their established school canteen network.

To date, 68 school canteen managers have completed the fee-paying course through Nutrition Australia ACT. Canteen managers who attend the course receive a nationally recognised Statement of Attainment in safe food handling practices and hygienic practices for food safety.

More information on the Fresh Tastes program is available at www.health.act.gov.au/freshtastes, or email freshtastes@act.gov.au or telephone 02 6205 1452.

Photograph: ACT health file photograph

References

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3. Bray J, Burrows T, Collins CE, Morgan PJ: Evaluation of a theory-based, after-school cooking club for children and their families living in a socio-economically disadvantaged community [Poster]. The University of Newcastle, School of Health Sciences, 2011.

Case Study

Healthy Food@Sport Project

Grant Voysey, Sport and Recreation Services and Ingrid Coote, Health Promotion, Population Health Division

Background

The Healthy Food@Sport project is a co-ordinated response to the rising levels of obesity in the community. It focuses on supporting canteens run by community sports clubs/organisations to increase healthy food choices available to children and young people, and to promote water as the drink of choice.

Healthy Food@Sport is a partnership between Sport and Recreation Services (SRS), ACT Health and Nutrition Australia ACT (NA ACT). Healthy Food@Sport was funded fthrough the Council of Australian Governments' National Partnership Agreement on Preventive Health (NPAPH).

Roll out of the project during 2012-14

The project expanded during the second and third years (2012-14) of implementation. In addition to the ten pilot phase clubs/organisations, the following seven groups joined the project during this period: These were:

- Weston Creek Little Athletics Centre;
- Dickson Aquatic Centre ;
- Canberra Olympic Pool;
- Manuka Pool;
- Cricket ACT;
- Softball ACT; and
- Lakeside Leisure Centre.

Pilot phase

During the first year of the project (2011-12), SRS and NA ACT worked closely with ten sporting clubs/organisations to increase the range of healthier food and drinks options available to their junior participants and spectators. The clubs/organisations involved were:

- Woden Valley Junior Soccer Club;
- Weston Creek Wildcats Junior AFL Club;
- Tuggeranong United Junior Football Club;
- Gungahlin Little Athletics Centre;
- South Canberra Netball Association;
- Basketball ACT;
- Kids Football Club;
- Netball ACT;
- Touch Football ACT; and
- Weston Creek Junior Soccer Club.

Sporting clubs/organisations engaged in the project received the following assistance and support from the project team:

- canteen assessment, menu audit and reports;
- consumer surveys and report;
- information and resource manual, monthly newsletters and fact sheets;
- on-going support and advice to assist with menu planning, recipes, promotion and marketing, and details of pre-package suppliers of healthy food and drink choices; and
- incentive items including an A-frame menu board and 19 litre water storage container.

Changes occurring to canteen menus

The Healthy Food@Sport project team conducted follow-up menu audits of nine pilot phase sporting clubs/organisations (one declined to participate in the evaluation) during 2013 to assess the level of change occurring at these sites. Positive changes occurred, including:

- the proportion of green and amber foods provided increased by 5.8% and 8.7% respectively, with a reduction by 14.5% of red foods; and
- an 8.9% increase in the proportion of green drinks with a 7.9% reduction in the proportion of red drinks on offer.

In 2014, the project team is continuing to work with the 17 clubs/organisations to build on the changes that have occurred to date.

Examples of the healthier food and drink items that are now being featured on the menus include: fresh fruit; pre-packaged healthy wraps and sandwiches; long life flavoured reduced fat milk (375mls or less); un-iced pre-packaged mini muffins/scones/banana bread, pre-packaged and fresh popcorn, 100% fruit juice (250mls or less); low fat sausages; lean cuts of bacon; white high fibre and wholemeal breads/rolls; and low or reduced fat yogurts and ice blocks.

Photograph: by joephotostudio - FreeDigitalPhotos.Net

Case Study

Healthy Food@Sport Project

Development of health promotion policies

Sporting clubs/organisations commencing their second and third years in Healthy Food@Sport are able to access incentive items to the value of $500 (consisting of cooking or refrigeration equipment). To qualify, they must develop a health promotion policy that aims to change the culture of club canteens and that helps to build sustainability into the project.

In the future the project plans to develop an online presence to simplify the process for sporting clubs/ organisations to increase their range of healthy options.

Food safety

To help ensure the safety of food sold in the ACT, all food businesses must comply with the *Food Act 2001*, the Food Regulation 2002 and the Australia New Zealand Food Standards Code. The Healthy Food@Sport team has worked with sporting clubs/organisations to increase understanding of, and compliance with, these requirements. Under ACT food legislation, most sporting clubs/organisations with canteens are required to register as a food business and to appoint a trained Food Safety Supervisor. Consultation with sporting clubs has highlighted the importance of appropriate food preparation facilities in terms of clubs being able to comply with the food safety standards. There are a number of amendments to ACT food legislation currently being considered that would support sporting clubs to safely provide healthy, fresh food.

Please contact Grant Voysey, Senior Project Officer – Healthy Food@Sport Project on (02) 6207 1696 or email grant.voysey@act.gov.au for additional information.

Photograph: Population Health Division file photograph

Case study – Netball ACT

Netball ACT recently received a $500 incentive from Healthy Food@Sport following the development and implementation of a health promotion policy. The club put the money towards the purchase of a counter top display fridge.

Netball ACT is now prominently displaying several of their healthier options every week. The canteen manager advised that since they purchased the new fridge the healthier options are "walking out the door".

Netball ACT rotates the following range of healthier options through the fridge: bottled water; reduced fat milks; milk-based 'liquid breakfasts'; 250ml 100% fruit juice; low fat cheese and crackers; packaged fruit cups; fresh fruit – bananas, apples, oranges; low fat yoghurt; and wraps/sandwiches.

Photograph: Netball ACT fridge. Population Health file photograph

Area Highlight

Environmental Health

Environmental Health (EH) is a section of the Health Protection Service (HPS) that works to protect and promote the good health of the ACT community through the fostering of safe and healthy environments. EH is comprised of inspectors and policy officers who collaborate to provide information, monitoring and enforcement in relation to a wide range of public health activities. The inspectors (pictured) are skilled Public Health Officers who undertake important public health activities in relation to:

- **food businesses;**
- **public swimming pools and spas;**
- **boarding houses; and**
- **cooling towers.**

The policy officers support EH's regulatory functions.

Environmental Health Operations Team
Back row (L-R) Byron Roberts, Nicholas Daines, Keith Rogers, Andrew Stedman, Andrew Kaye, Tory Christensen.
Front row (L-R) Lyndell Hudson, Gemma Parker, Jennifer Ruthenberg, Sam Kelly, Adrienne Carswell.
Absent: Jonathan Chen, Brian Jones, Terry Ireland, Melissa Langhorne

Food Systems and Quality Assurance

The Food Systems and Quality Assurance (FSQA) section of the HPS explores and develops innovative approaches to food regulation that may be applied in the ACT in collaboration with EH and other stakeholders. FSQA also undertakes quality assurance work with respect to food safety. Staff in the FSQA section have varying experience and qualifications in such areas as project management, business systems analysis, policy development and implementation, environmental health and general sciences.

Food Systems and Quality Assurance Team
(L-R): Nick Dhall, Rebecca Stones, Vojkan Stefanovic, Claire O'Brien

If you wish to contact Environmental Health or Food Systems and Quality Assurance Section you can email us at hps@act.gov.au or call (02) 6205 1700

Notifiable Disease Report

Number of notifications of selected notifiable conditions received in the Australian Capital Territory between 1 January and 31 March 2014.

	Number of notifications Q1 2014	5 year average Q1 (2009-2013)	Total number of notifications 2013	5 year average annual total (2009-2013)
VACCINE PREVENTABLE CONDITIONS				
INFLUENZA A	42	15.0	349	487.8
INFLUENZA B	6	2.6	219	85.2
MEASLES *	1	0.6	1	4.8
PERTUSSIS *	44	131.6	227	509.6
PNEUMOCOCCAL DISEASE (INVASIVE)	3	5.2	14	24.2
GASTROINTESTINAL DISEASES				
CAMPYLOBACTERIOSIS	113	139.6	348	468.8
CRYPTOSPORIDIOSIS	22	21.6	39	37.8
GIARDIA	32	36.6	122	108.4
HEPATITIS A *	2	1.2	4	3.8
HEPATITIS E	0	0.6	1	1.2
LISTERIOSIS	0	0.4	1	1.2
SALMONELLOSIS	58	80.0	279	223.4
SHIGELLOSIS	8	3.0	10	8
STEC/VTEC	0	0.2	3	2.6
TYPHOID	0	0.8	5	2.4
YERSINIOSIS	1	1.0	2	3.4
SEXUALLY TRANSMITTED INFECTIONS				
CHLAMYDIA	283	315.4	1269	1184.4
GONOCOCCAL INFECTION	49	25.2	114	89
VECTORBORNE & ARBOVIRUS				
DENGUE FEVER	4	4.6	9	15.8
MALARIA	2	3.4	13	9.8
RESPIRATORY CONDITIONS				
TUBERCULOSIS #	10	3.4	16	17.6

All Diseases except Tuberculosis are reported by onset date or closest known test date. Tuberculosis is reported by notification date.

* This condition includes cases that meet the probable and confirmed case definitions. Both probable and confirmed cases are nationally notifiable.

For the relevant year, Q1 refers to 1 January to 31 March, Q2 refers to 1 April to 30 June, Q3 refers to 1 July to 30 September, Q4 refers to 1 October to 31 December.

N.B. Data reported are the number of notifications received by ACT Health. Data are provisional and subject to change.

The number of notifications received for all notifiable diseases in the ACT is available at http://www9.health.gov.au/cda/source/cda-index.cfm

HIV data are reported annually by the Kirby Institute: http://www.kirby.unsw.edu.au/surveillance/Annual-Surveillance-Reports

Notifiable Disease Report

Influenza notifications

The total number of influenza notifications (n=48) received in the ACT in the first quarter of 2014, was similar to that observed in the first quarter of 2013 (n=45). This represents a four-fold increase in the average number of notifications (n=12) received in the first quarter of the five preceding years (2008-2012). Of the 48 notifications received in the ACT, 40% (n=17) were in 30-49 year age group.

There were 42 notifications of influenza A received in the ACT in the first quarter of 2014. Of those subtyped (n=7) the predominant strain was the influenza A (H1N1) pdm09 strain (57%).

Seasonal influenza vaccination is recommended for anyone aged over 6 months, and is funded for certain at risk groups. The influenza vaccine for the 2014 southern hemisphere influenza season contains three influenza virus strains, including influenza A (H1N1) pdm09, influenza A (H3N2) and an influenza B strain, that are most likely to be circulating this influenza season.

Pertussis

The number of Pertussis notifications (n= 44) received this quarter reflects a continuing downward trend in notifications of this disease. On average, over the last five years, the ACT has received 131.6 notifications in the first quarter of each year. Only 20% (n=9) of infections occurred in children in the 0-9 years old age range during the first quarter of 2014. Under the National Immunisation Program pertussis vaccination is recommended for infants at 6-8 weeks of age, followed by doses at 4 and 6 months and a booster dose at 3½ to 4 years of age. A further booster dose is given in high school through the school immunisation program in the ACT.

Shigellosis

Shigellosis is a diarrhoeal disease caused by infection with Shigella bacteria. Shigellosis is passed from person to person by the faecal-oral route, by direct or indirect contact with faecal matter. The ACT has received an annual average of eight shigellosis notifications during the previous five years (2009-2013). There were eight cases of shigellosis notified in the first quarter of 2014. Men who have sex with Men (MSM) are known to be at greater risk of infection with Shigella. This type of transmission may be responsible for the increased rates of infection, with sexual contact between men identified as the likely source of infection in several of the recent cases in the ACT.

Gonococcal Infections

Gonorrhoea is a sexually transmitted infection for which notifications have been increasing in the ACT and nationally in recent years. In the first quarter of 2014, there were 49 cases of gonorrhoea notified in the ACT, compared with an average of 25.2 notifications in the previous 5 years and a 25% increase compared with the 39 notifications reported in the same quarter, 2013. In 2014, 90% (n=44) of notifications have been in men, and the median age of all cases was 29 years.

Vectorborne & Arbovirus

Four cases of dengue fever and two cases of malaria were notified this quarter. All these cases acquired their infections overseas. The number of notifications of these diseases is similar to previous years.

Tuberculosis

There were 10 cases of tuberculosis notified in the ACT this quarter. The overall incidence of tuberculosis in Australia is low and immunisation is not routinely recommended for the general population. Most cases in Australia occur in persons born overseas.

Hot topics

Death Cap Mushrooms

The Death Cap mushroom (*Amanita phalloides*) is a deadly poisonous fungus. They often grow near established oak trees, and are found when there is warm, wet weather. In Canberra this usually occurs in autumn.

It can be extremely difficult for even experienced collectors to distinguish Death Cap mushroom from an edible mushroom. People should not pick or eat wild mushrooms, and should talk to their families, friends and neighbours about the dangers of death cap mushrooms. Cooking Death Cap mushrooms does not make them safe.

Anyone who suspects that they might have eaten Death Cap mushrooms should seek urgent medical attention at a hospital emergency department.

Symptoms of Death Cap mushroom poisoning generally occurs 6-24 hours or more after ingestion of mushrooms and include stomach pains, nausea, vomiting and diarrhoea. Liver failure and death may occur.

Information on Death Cap Mushrooms is available on the ACT Health Website http://www.health.act.gov.au/publications/fact-sheets/death-cap-mushrooms.

Wild mushrooms growing in public areas can be reported to Canberra Connect on 13 22 81.