

# Food Act Report

Year ending 30 June 2016



Government  
of South Australia

SA Health



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## Glossary of Terms

AHMAC – The Australian Health Ministers Advisory Council  
CDCB – Communicable Disease Control Branch  
COAG – Council of Australian Governments  
DASA – Dairy Authority of South Australia  
DAWR – Department of Agriculture and Water Resources  
DCIS – Department of Communities and Social Inclusion  
DHHS – Department of Health and Human Services Victoria  
EHA – Environmental Health Australia  
EHO – Environmental Health Officer  
FSRS – Food Safety Rating Scheme  
FCDB – Food and Controlled Drugs Branch  
FBRC – Food Business Risk Classification  
Food SIG – Food Special Interest Groups  
FSP – Food Safety Programs  
FRSC – Food Regulation Standing Committee  
FSMWG – Food Safety Management Working Group  
FSANZ – Food Standards Australia New Zealand  
HSR – Health Star Rating  
LGA – Local Government Association of SA  
MOU – Memorandum of Understanding  
ISFR – Implementation Subcommittee for Food Regulation  
SPWG – Strategic Planning Working Group  
'The Code' – Australia New Zealand Food Standards Code  
'The Forum' - Australia and New Zealand Ministerial Forum on Food Regulation  
PIRSA – Primary Industries and Regions SA

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# 1. South Australian Food Legislation

## The Food Act 2001

The objectives of the *Food Act 2001* are defined in Section 3 of the Act as:

- > Ensuring that food for sale is safe and suitable for human consumption.
- > Preventing misleading conduct in connection with the sale of food.
- > Providing for the application of the Food Standards Code.

The *Food Act 2001* closely follows the content and structure of national model food provisions, which provide for the consistent administration and enforcement of food legislation in Australia. This uniform approach to national food legislation was formalised by the Inter-Governmental Food Regulation Agreement 2002. Under the Agreement all states and territories have adopted the Australia New Zealand Food Standards Code (the Food Standards Code, 'the Code') through their Food Acts. While the Act contains important legal and administrative issues, such as defining offences and penalties, the Code details the specific requirements with which food businesses must comply.

## The Food Standards Code ('the Code')

The Code is a bi-national document that details labelling, composition and food safety laws that apply to foods and food handling business. It is set out in four chapters:

- > **Chapter 1 — General Food Standards:** General labelling and composition standards applying to all foods.
- > **Chapter 2 — Food Product Standards:** Standards applying to specific foods or categories of foods.
- > **Chapter 3 — Food Safety Standards (Australia only):** The Food Safety Standards include specific requirements for food businesses and food handlers if complied with, may assist efforts to ensure food does not become unsafe or unsuitable.
- > **Chapter 4 — Primary Production Standards (Australia only):** Primary Production and Processing Standards for seafood, meat, dairy, eggs, sprouts and wine.

Food Standards Australia New Zealand (FSANZ) recently reviewed the Code (Proposal P1025) to make the requirements clearer and to ensure it better meets the needs of stakeholders. The changes to Chapters 1 and 2 only took effect on 1 March 2016, with no transition period. Changes were made to Chapters 1 and 2, with the schedules attached to standards in those Chapters becoming stand-alone schedules. While the Code looks different there have been no substantive changes.

## Primary Industries Legislation

*The Primary Produce (Food Safety Schemes) Act 2004* is administered by Biosecurity SA (a branch of Primary Industries and Regions South Australia (PIRSA)) and the Dairy Authority of South Australia (DASA). The Act implements food safety requirements in the meat, poultry, dairy, seafood, sprouts, egg and citrus industries. This Act and the Food Safety Scheme regulations under this Act are recognised by (regulation under) the Food Act as they implement equivalent food safety requirements to those required by the Food Act.

South Australian food legislation forms part of a bi-national food regulatory system which is described on the following page.

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## 2. The Bi-National Food Regulation System

The food regulatory system is established by the Inter-Governmental Food Regulation Agreement 2002 between the State, Territory and Australian Governments. New Zealand's role and participation in the system is established by the Australia New Zealand Joint Food Standards Agreement between Australia and New Zealand, creating a joint food standards system.

The system consists of three major components:

1. Policy development by the Australia New Zealand Ministerial Forum on Food Regulation (the Forum), based on advice of the Food Regulation Standing Committee (FRSC).
2. Standards Development by Food Standards Australia New Zealand (FSANZ).
3. Administration of food legislation by States and Territories.

The 'Overarching Strategic Statement for the Food Regulatory System' which provides the strategic context for the bi-national food regulation system was endorsed by the Forum in 2008. The document articulates the scope and objectives of the system, the approach that will be taken to policy development, standard setting and implementation. The statement is available from the Food Regulation Secretariat website

[www.health.gov.au/internet/main/publishing.nsf/content/foodsecretariat-1](http://www.health.gov.au/internet/main/publishing.nsf/content/foodsecretariat-1)

### Policy Development

#### The Australia New Zealand Ministerial Forum on Food Regulation (the Forum)

The Forum is primarily responsible for the development of domestic food regulatory policy and the development of policy for setting of food standards. It has the capacity to adopt, amend or reject standards recommended by FSANZ and to request that these be reviewed.

The Forum comprises Health Ministers from most Australian states and territories and the Australian Government as well as other Ministers from related portfolios (Primary Industries, Consumer Affairs etc.) where these have been nominated by their jurisdictions. Currently all jurisdictions, except New South Wales (NSW) and New Zealand, have nominated a Health Minister as Lead Minister for voting purposes. NSW has nominated the Minister for Primary Industries and New Zealand has nominated the Minister for Food Safety as Lead Minister. Under the Food Regulation Agreement the Australian Government Health Minister chairs the Forum.

South Australia is represented by the Minister for Health and Minister for Agriculture, Food and Fisheries. The Minister for Health is the lead Minister.

Communiqués of Forum meetings can be found on the Food Regulation Secretariat website

<http://www.health.gov.au/internet/main/publishing.nsf/Content/foodsecretariat-communications.htm>

Some of the key food and nutrition initiatives of the Forum during 2015-2016 include:

- > **Health Star Rating System (front of pack labelling):** In June, 2014 Ministers formally released the finalised Health Star Rating System (HSR). The system provides an interpretive Star Rating (maximum five stars) that can be presented on the front of packaged foods to assist consumers to make healthier food choices. There is also an option of including nutrient information icons for energy, saturated fat, sodium, sugars and one positive nutrient such as calcium or fibre. The implementation of this voluntary labelling system is being supported and monitored by the Health Star Rating Advisory Committee for a period of five years. The Director of Public Health Services, SA Health, is Chair of this advisory committee and the department strongly supports this public health initiative. During the reporting period, a number of stakeholder workshops have been rolled out across the country to seek feedback on areas of concern relating to the effective implementation of the scheme. More information can be found at [www.healthstarrating.gov.au](http://www.healthstarrating.gov.au). A formal report of implementation progress (data collected in June, 2016) will be provided to the Forum and then publically released in early 2017. To date, the uptake by industry has far surpassed expectations and data collected independently by the Heart Foundation has indicated a high degree of uptake. At June, 2016 over 4000 products were displaying the health star rating logo, with many businesses committing to implement star ratings on their products during the five year implementation period. Early consumer research has indicated that most consumers recognise and understand how to use the logo, and there is evidence that this system is resulting in long term positive behavioural changes. The HSR system will be formally reviewed in June 2019.
- > **Low THC (delta 9-tetrahydrocannabinol) Hemp:** The Forum considered the review undertaken by FSANZ on an application to permit low THC hemp seeds as a food. The seeds used in these foods are from varieties of cannabis plants that have no psychoactive properties. At their meeting in January 2015, the Forum rejected the application based on concerns around law enforcement, roadside testing and marketing. During 2015-2016 further work has been undertaken to consider these issues in more detail. Results from this extra work are expected to be provided to Ministers in late 2016. When available, the data will be discussed by Ministers to determine whether low THC Hemp may be allowed to be added as a food in Australia.

## The Food Regulation Standing Committee (FRSC)

FRSC is responsible for coordinating policy advice to the Forum and ensuring a nationally consistent approach to the implementation and enforcement of food standards. It also advises the Forum on the initiation, review and development of FRSC activities.

Membership of FRSC reflects the membership of the Forum and comprises the heads of departments for which the Ministers represented on the Forum have portfolio responsibility, as well as the President of the Australian Local Government Association and FSANZ as observers. The Director of Food and Controlled Drugs Branch (FCDB) represents the department at FRSC.

### FRSC Working Groups

The department participated in the following FRSC working groups during 2015-2016. A number of these working groups were undertaken as joint working groups with the Implementation Sub Committee on Food Regulation (ISFR).

#### **FRSC/ISFR Food Safety Management Working Group (FSMWG)**

In 2011 the revised Ministerial *Policy Guideline on Food Safety Management for General Food Service and Closely Related Retail Sectors* (PG) was endorsed by Legislative and Governance Forum on Food Regulation (now the Ministerial Forum on Food Regulation) to provide guidance to ensure any additional regulatory interventions that may apply to the retail/food service sector are justified and implemented effectively, efficiently and consistently. The PG establishes policy principles to guide the process for determining and implementing appropriate risk management tools (between Food Safety Standards 3.2.2 and 3.2.3 and Food Safety Programs) for specified retail / food service sectors.

In February 2013, ISFR approved the formation of the FSMWG to implement the revised PG. The working group has representation from all jurisdictions and local government and was responsible for completing the phases of work in the development of a food safety management framework as identified in the 'Strategy for Implementation of the Ministerial Policy Guideline on Food Safety Management for General Food Service and Closely Related Retail Sectors'. The group held one face to face meeting during 2015-16 before it became a joint FRSC/ISFR working group.

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In September 2015 FRSC approved establishment of an ad-hoc joint FRSC-ISFR WG on food safety management. This joint working group would provide advice to ISFR and direction on key policy issues required to achieve nationally consistent implementation of the PG. The group held three face to face meetings during 2015-16.

The revised PG may be found at the Food Regulation Secretariat website at:

[http://www.health.gov.au/internet/main/publishing.nsf/Content/4DCF744789D1AF64CA257BF0001C9622/\\$File/FoodSafetyManagement%202011%20Policy%20Guideline%20Dec%202011.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/4DCF744789D1AF64CA257BF0001C9622/$File/FoodSafetyManagement%202011%20Policy%20Guideline%20Dec%202011.pdf)

#### ***FRSC / ISFR Working Group: Monitoring and Enforcement Strategy for Food Labelling***

This working group is tasked with developing a bi-national, risk based, consistent framework for monitoring and enforcement of food labelling, consistent with the recommendations of the Review of Food Labelling Law and Policy. The working group has considered existing and best practice policy and regulatory approaches to monitoring and enforcement of food labelling and in addition, existing coordination efforts between regulators to achieve a consistent approach to compliance and enforcement. Consultation with key stakeholder peak bodies was held in May 2015 on the findings and conclusions of the working group along with the draft Food Labelling Compliance and Enforcement Framework. The framework was endorsed by ISFR in August 2015 and FRSC in September 2015 and as such, this work is now complete. The working group held one face to face meeting during the reporting period.

#### ***FRSC Working Group: Strategic Planning (SPWG)***

This working group has responsibility for advising FRSC on annual priorities, documenting an annual work plan and liaising with the Implementation Sub Committee for Food Regulation (ISFR). In 2014-2015, the SPWG updated the FRSC Strategic Plan 2012-2017 and also developed new Terms of Reference for the working group.

In 2015-2016, the SPWG continued work to assist with the development of the Review of Strategic Directions for FRSC. This review identified the need to reshape the focus of the food regulation system to ensure that it is equipped to deal with future challenges. The FRSC Strategic Plan 2012–2017 defines the key outcomes to be delivered and the work programs that will be undertaken. These include food safety management and implementing the Forum Response to Labelling Logic, the final report of the Review of Food Labelling Law and Policy.

The plan is available on the Food Regulation Secretariat website

[www.health.gov.au/internet/main/publishing.nsf/Content/foodsecretariat-strategic-plan.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/foodsecretariat-strategic-plan.htm)

#### ***FRSC Working Group: Folate fortification of bread making flour***

In 2009 the Code was updated to mandate the addition of folic acid to certain bread making flours and replace salt with iodised salt. In 2011 the Forum requested that this initiative was reviewed to consider whether it has achieved its desired public health aim and whether mandatory initiatives, such as this, are an effective mechanism to be used to address other health concerns. The final stage of this review is due to ministers in late 2016.

#### ***FRSC Working Group: Health Star Rating (HSR) Dairy Alternative Beverages Working Group***

In July, 2015, a HSR Dairy Alternatives Working Group was set up by FRSC to consider issues with nut and seed based beverages classified under the Health Star Rating system as dairy beverages. The department was a member of this working group.

Under the HSR system, nut and seed beverages (e.g. almond milk) may be classified as dairy beverages if they meet minimum calcium requirements. This raises issues of discrepancy with the Australian Healthy Eating Guidelines. This work has since expanded to consider other dairy alternative beverages labelled as milk.

In addition the working group is considering the use of the term 'milk' on dairy alternative beverages and whether this is misleading to consumers.

In February, 2016, the Forum approved Application A1104 to permit the voluntary fortification of nut- and seed-based beverages similar to that currently permitted for legume- and cereal-based beverages.

The Working Group will report to FRSC in September and to the Forum in November, 2016.



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## Standards Development

### SA Health's Advice to FSANZ regarding Proposed Amendments to the Australia New Zealand Food Standards Code

The department provided comment to FSANZ on the development of Food Standards. A total of 5 applications and proposals were finalised during the 2015-2016 financial year, resulting in amendments to the Code, as set out below.

#### FINALISED PROJECTS

*Applications and proposals finalised from 1 July 2015–30 June 2016*

| Application or Proposal   | Brief Description   | Outcome   |
|---|---|---|
| A1109 – Glutaminase as a Processing Aid (Enzyme)                                  | To permit glutaminase derived from <i>Bacillus amyloliquefaciens</i> as a processing aid in the production of certain seasoning ingredients or foods used for seasoning as an alternative to the use of monosodium glutamate. | No review requested by Forum.<br>Gazetted 21/7/2016<br>(Amendment 164). |
| A1116 – Food derived from Herbicide-tolerant & Insect-protected Corn Line MZIR098 | To seek approval for food derived from a genetically modified corn line MZHIR098 that is tolerant to the herbicide glufosinate ammonium and protected against corn rootworm.  | No review requested by Forum.<br>Gazetted 21/7/2016<br>(Amendment 164). |
| A1118 – Food derived from Herbicide-tolerant Corn Line MON87419                   | To seek approval for food derived from genetically modified corn line MON87419 which is tolerant to dicamba and glufosinate herbicides.   | Notified to the Forum 28/6/2015. Response due 29/8/2016.                |
| A1120 – Agarose Ion Exchange Resin as a Processing Aid for Lactoferrin Production | To permit the use of agarose ion exchange resin as a processing aid in the production of high purity lactoferrin from bovine milk and milk-related products.  | No review requested by Forum.<br>Gazetted 21/7/2016<br>(Amendment 164). |
| P1041 – Removal of Country of Origin Labelling Requirements                       | To remove country of origin labelling requirements from the <i>Australia New Zealand Food Standards Code</i> as part of proposed new arrangements where the requirements will fall under Australian Consumer Law.             | Notified to the Forum 28/6/2015. Response due 29/8/2016.                |

More details on all applications and proposals can be found at the FSANZ website [www.foodstandards.gov.au](http://www.foodstandards.gov.au)

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## Administration of Food Legislation

States and territories have enacted Food Acts based on model food provisions as agreed under the Food Regulation Agreement 2002. Under the agreement, states and territories have adopted the Australia New Zealand Food Standards Code (the Code) through their Food Acts. The model for administration of Food Acts differs between jurisdictions with either state and territory governments taking sole responsibility or responsibility being shared between State Government and Local Government.

The Australian Government Department of Agriculture and Water Resources (DAWR) is responsible for the control of imported food which must also comply with the Code.

States and territories have traditionally regulated food safety in the domestic meat, dairy and seafood industries under Primary Industry Acts, administered by primary industry departments. In recent times there have been moves in some jurisdictions to integrate this legislation into single Primary Industry Acts or modified Food Acts, with corresponding changes in administration. DAWR has responsibility for food safety regulation of the export meat, dairy and shellfish industries. Some jurisdictions, in some industries, share enforcement responsibilities between DAWR and states/territories.

### Implementation Sub-committee for Food Regulation (ISFR)

ISFR was established as a sub-committee of the Food Regulation Standing Committee and is responsible for developing and overseeing a consistent approach across jurisdictions to the implementation and enforcement of food regulations and standards.

ISFR members are either heads of their agencies or operational experts at senior level with capacity to make and implement decisions about enforcement issues in their jurisdictions. The membership comprises up to two representatives from each state and territory and New Zealand; one representative from each of the Commonwealth Departments (Health, Agriculture, FSANZ) and one representative from the Australian Local Government Association. The department is represented by the Director of Food and Controlled Drugs Branch.

ISFR has a *'Strategy for consistent implementation and enforcement of food regulation in Australia'* endorsed by the Forum. The strategy is available at the Food Regulation Secretariat website [www.health.gov.au/internet/main/publishing.nsf/content/foodsecretariat-1](http://www.health.gov.au/internet/main/publishing.nsf/content/foodsecretariat-1)

The strategy is organised into three key work programs, Implementation, Monitoring/Surveillance and Evaluation, and National Response.

ISFR reports at each FRSC meeting on progress of its work.

The department contributes to the work of ISFR in a number of ways, including participation in working groups and in nationally co-ordinated surveys and incident responses.

#### ISFR Working Groups

In 2015-2016 the department participated in the following working groups that are part of the implementation work program.

##### ***ISFR Nutrition, Health and Related Claims Working Group***

This working group was set up by ISFR to provide guidance on the consistent implementation and enforcement of Standard 1.2.7., as well as providing a forum for industry consultation and feedback on material developed to assist industry comply with Standard 1.2.7. The working group completed its development work in March 2015. Development work for stage 3 identified long-term and ongoing activities which is the current task of the working group. The group held three face to face meetings and five teleconferences during the reporting period.

##### ***ISFR Food Medicine Interface Working Group***

This working group developed a Food-Medicine Interface Guidance Tool that can be used to work out whether particular products are likely to be therapeutic goods or not. It is designed to take the user through the relevant definitions in the Therapeutic Goods Act. The protocol was implemented during 2014 and reviewed in February 2016.

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### ***ISFR Local Government Working Group***

In February 2013, ISFR agreed to a change in direction in implementing a toolkit to aid consistency and interpretation of food regulatory issues for local government. It was agreed that rather than mandating generic national guideline documents, the working group would develop minimum agreed principles, models and frameworks to be used as the basis for developing consistent (not uniform) documents and a register of available resources for local government.

The working group continued to develop a consistent reporting framework and establish common tools for local government. The final document, Principles for Inspection of Food Business (2015), was endorsed by ISFR August 2015 and as such, this work is now complete.

### ***ISFR Review of Australia and New Zealand Food Regulation Enforcement Guideline Working Group***

This working group was set up by ISFR to review the Australia and New Zealand Food Regulation Enforcement Guideline and consider compliance guidance material also. Consultation on these materials will be undertaken with key industry stakeholders. The group held one face to face meeting during the reporting period.

### **Implementation of ISFR guidelines and policies**

In addition to participating in ISFR working groups, The department supports the work of ISFR by implementing guidelines and policies agreed by ISFR.

New documents in 2015-2016 are:

Food Labelling Compliance and Enforcement Strategy (2015)

This high-level, bi-national Food Labelling Compliance and Enforcement Strategy (the Strategy) published in 2015 is one component of a Food Labelling Compliance and Enforcement Framework (the Framework).

Principles for Inspection of Food Business (2015)

This document has been developed by the Implementation Subcommittee for Food Regulation (ISFR) to provide authorised officers, including local government environmental health officers (EHOs), with principles to guide the inspection of food businesses. Inspection of food premises is an important activity to assess compliance with the Australia New Zealand Food Standards Code (the Code) and food act provisions.

Existing documents which continue to be used are listed on the Food Regulation Secretariat website

<http://www.health.gov.au/internet/main/publishing.nsf/Content/foodsecretariat-isc-publications.htm> and include:

Implementation of the National Food Safety Audit Policy and Regulatory Guideline

ISFR endorsed this Guideline in 2009 which was developed to provide guidance to food regulators on the consistent implementation of the National Food Safety Audit Policy (the Policy). The department has developed and maintains approval systems and auditor guidelines consistent with the requirements of the Policy and Regulatory Guideline.

Australia and New Zealand Enforcement Guideline (2009).

The department continues to use this Guideline as the basis for its risk based, graduated and proportionate approach to enforcement. As part of the FRSC / ISFR Working Group: Monitoring and Enforcement Strategy for Food Labelling work, Appendix 2 was updated in October 2015.

This document has also being used in the development of a SA state-wide enforcement policy with the aim of facilitating consistent enforcement across local councils in SA.

The national guideline is available from the Food Regulation Secretariat website.

<http://www.health.gov.au/internet/main/publishing.nsf/Content/foodsecretariat-enforcement-guideline.htm>

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## 3. South Australian Government Initiatives

### Food Safety Rating Scheme (FSRS)

In 2014-2015 the department initiated a pilot food safety rating scheme conducted by 11 councils.

The pilot demonstrated that the scheme:

- > allowed for a targeted approach to drive compliance with food safety legislation and in turn aims to improve food safety in South Australia,
- > helped increase food safety awareness for consumers,
- > raised inspection transparency to food businesses, and
- > provided another tool with which to improve consistency of inspections within and between councils across South Australia.

For these reasons, as well as the positive feedback provided by the pilot councils and the significant amount of data gathered during the first 9 months of the FSRS pilot, the department recommended to the Minister for Health that the voluntary scheme be rolled out state wide and supported for a period of 24 months.

A three phased approach to rolling out the full state wide voluntary scheme commenced on April 2016. All of the participating councils in the pilot study and 9 additional councils agreed to be part of the state wide voluntary scheme, with other Councils expressing interest to join at a later date.

Councils currently participating in the FSRS are:

- > Adelaide City Council
- > Adelaide Hills Council
- > City of Salisbury
- > City of Tea Tree Gully
- > City of Holdfast Bay
- > Mid Murray Council
- > District Council of Mount Barker
- > Rural City of Murray Bridge
- > City of Onkaparinga
- > The City of Charles Sturt
- > Town of Gawler Council
- > Kangaroo Island Council
- > Mitcham Council
- > Rural City of Murray Bridge
- > City of Playford
- > Port Adelaide Enfield Council
- > City of Unley
- > City of West Torrens

The department developed and delivered a training program which was designed to ensure the scheme was applied consistently across all participating councils. Environmental Health Officers (EHOs) in each council underwent training before commencing the state wide voluntary scheme.

Full details of the scheme and supporting documents are available on the SA Health website.

[www.sahealth.sa.gov.au/foodsafetyratingscheme](http://www.sahealth.sa.gov.au/foodsafetyratingscheme)

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## 4. Administration of the *Food Act 2001* in South Australia

In South Australia, the *Food Act 2001* (the Act) and the Australia New Zealand Food Standards Code (the Code) are administered jointly by the Department for Health and Ageing and Local Government.

### Responsibilities of the Department

The department is responsible for the following:

- > Oversight of administration of the Act.
- > Monitoring compliance with labelling, composition, microbiological and chemical requirements of the Code throughout SA.
- > The safety and suitability of food sold, and monitoring and enforcement of compliance with Food Safety Standards in unincorporated areas of the state (85% of the geographical area of SA).
- > Monitoring food safety related incidents and initiating appropriate responses
- > Audit of Primary Production and Processing (PPP) operations captured by the Act and businesses captured under Food Safety Standard 3.3.1 Food Safety Programs for Food Services to Vulnerable Persons.
- > Providing advice to local governments dealing with minor foodborne disease outbreaks in their areas and leading investigations and remediation of more significant outbreaks.
- > The exercise of emergency powers to remove, prevent or reduce the possibility of a serious health risk including initiation and coordination of food recalls.
- > Providing advice, support and assistance to local government.
- > Providing advice to food businesses and the public on food issues.
- > Advising the Minister on issues pertaining to the application of the Act and food issues generally.

### Food and Controlled Drugs Branch (FCDB)

FCDB is responsible for the day-to-day administration of the Act, as described above (except for the role of the Health Protection Operations as described below). More specifically, the branch prepares advice to senior department staff and the Minister for Health on food issues, development of legislation and proposed amendments to the Code. The branch monitors compliance with the Code and the results of surveys undertaken for this purpose are published on SA Health's web site.

FCDB conducts environmental investigations of major food poisoning outbreaks. This involves an immediate response to identify and stop the supply of suspected food, the collection of food and environmental samples, investigation of food handling procedures to determine the cause of an outbreak and follow-up enforcement actions.

FCDB participates in the development of state and national food regulatory policy and contributes to national programs which facilitate a consistent approach across jurisdictions to the implementation and enforcement of food regulations and standards. The branch also provides advice on significant issues and assistance to the food industry in the implementation of legislation.

### Communicable Diseases Control Branch (CDCB)

Under the *South Australian Public Health Act 2011* laboratories and medical officers are required to notify occurrences of foodborne disease to the department's CDCB. Monitoring and analysis of these reports by CDCB provides an alert for foodborne disease outbreaks in the community. CDCB also conduct follow-up interviews with affected persons, including an assessment of foods eaten during the days prior to the onset of the illness to aid detection of potential causes of a foodborne disease outbreak. The application of statistical tools can assist in identifying the likely food or business responsible for the outbreak.

## Health Protection Operations

Health Protection Operations staff authorised under the Act are qualified Environmental Health Officers (EHOs) with extensive regulatory experience in rural, remote and Aboriginal communities. Geographically, these areas are typically very distant and sometimes secluded. Health Protection Operations administer the Act in the 'Out-of-Council Areas' within South Australia ('unincorporated' and Aboriginal Lands; not serviced by a local council) and account for approximately 85% of the geographical area of the State. Health Protection Operations staff are responsible for the following functions:

- > Monitoring and enforcement of compliance with Food Safety Standards and safety and suitability of food.
- > Routine and follow up inspections of food businesses to ensure that the premises, equipment and food handling practices will result in the supply and sale of safe and suitable food.
- > Food safety audits of businesses providing food to vulnerable populations in remote areas.
- > Responding to complaints in relation to food businesses and investigating food poisoning and disease outbreaks.
- > Monitoring and taking action to ensure efficiency with which food is recalled for health and safety, and/or is removed from sale.
- > Receiving food business notifications for new businesses or change to business details.
- > Provision of food safety advice and delivery of educational programs and resources to food businesses, schools and communities.

Statistics about food businesses, staff and surveillance activities are provided below:

| Authorised Officers | Environmental Health Qualifications | Full-Time |
|---------------------|-------------------------------------|-----------|
|                     | 4                                   | 4         |

| Food Business and Surveillance Activity | Number  |
|---|---|
| Area of Operation                       | ~ 837,000 km <sup>2</sup> (≈ 85% of geographic area of the State) |
| Businesses                              | 143   |
| Routine Inspections                     | 127   |
| Follow-up Inspections                   | 12  |
| Food Safety Audits                      | 7   |
| Complaint Inspections                   | 4   |

| Enforcement Actions       |                   |                     |            |
|---------------------------|-------------------|---------------------|------------|
| Business Type             | Prohibition Order | Improvement Notices | Expiations |
| Hotel/Pub/Tavern          | 0                 | 3                   | 2          |
| Roadhouse/service station | 1                 | 3                   | 2          |
| Supermarket               | 0                 | 2                   | 0          |
| <b>Total</b>              | <b>1</b>          | <b>8</b>            | <b>4</b>   |

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## Roles and Responsibilities of Local Government

Food regulation in South Australia is a partnership between state and local government. The Memorandum of Understanding (MOU) between the Minister for Health and the Local Government Association of SA (LGA) for the exercise of functions under the Act establishes the roles and responsibilities of the department and local councils.

Local government is responsible for the following functions within its jurisdiction:

- > Safety and suitability of food sold, and monitoring and enforcement of compliance with Chapter 3 of the Australia New Zealand Food Standards Code within their council areas, including undertaking appropriate food premises inspections.
- > Managing minor foodborne disease outbreaks within council boundaries and assisting the department with investigations into any significant foodborne disease outbreaks within SA.
- > Monitoring and taking action as appropriate to ensure efficiency with which food is recalled for health and safety reasons, and/or is removed from sale within their council areas.
- > Receiving notifications from food businesses.

EHOs representing local councils are the front line for food safety in South Australia. EHOs routinely inspect food businesses to ensure that the premises, equipment and the standard of food handling will result in the supply of safe and suitable food. A key part of their role is the provision of advice and educational materials to food businesses. They also respond to complaints about food businesses and investigate food poisoning outbreaks independently, or with the assistance from officers of the department.

## Effective Administration

### SA Health – LGA Work Plan 2014-2016

The MOU between the Minister and the LGA includes an agreement to establish a joint work plan to continuously improve food safety and the effectiveness of the Act. A working group with representatives from the FCDB, LGA, local government and Environmental Health Australia (EHA) released a revised joint work plan in April, 2014. The department continues to lead and support the working group overseeing this work plan as well as the detailed work being undertaken within each of the work plan projects.

During 2015-2016 work progressed on the following six projects contained within the current work plan.

#### **Risk Classification and Inspection Frequency (SA Food Business Risk Classification System)**

Under Project 1 of the work plan, a state wide system for food business risk classification and inspection frequency has been developed based on the National Food Safety Risk Profiling Framework. This system was piloted in 2012-13 and implemented in 2013-14 with a two year transition period for local government to risk classify food businesses.

It is expected that after this time all food businesses will now be assigned classifications against the new system. In 2015-16 EHOs continued risk assessing food businesses against the new classifications during routine inspections.

This risk classification system is science based, reflecting risks inherent to the food, ingredients or processes applied and the potential for control of these risks by the food business. It also sets a frequency range for inspections for each risk classification with business performance determining the frequency of inspections in the range assigned by that risk.

Two training sessions were held in 2015-2016 as part of our ongoing commitment to ensure consistent implementation of the system. The focus of the training is to support EHOs to identify and classify inherent food risks within food business and ensure that the food processing and handling of higher risk products is adequate to produce safe food. Further training for new EHOs will be conducted as required.

The South Australian Food Business Risk Classification can be found at:

<http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/protecting+public+health/food+standards/priority+classification+of+food+businesses/priority+classification+of+food+businesses>

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### **Food Act Toolkit**

During 2014-2015 the SA Health Enforcement Framework was released to assist consistent interpretation, monitoring and enforcement of the Act. Further work is being conducted in conjunction with local government to provide guidance on the use of the various enforcement tools available to authorised officers.

### **Food Safety Rating Scheme (FSRS)**

An update on the FSRS project has been provided in section 3.

### **National Food Regulation Reform**

This project identifies any local government related work being undertaken at the national level. The work of the ISFR Local Government and Food Safety Management Working Groups were identified as relevant during the reporting period and regular updates were presented to the working group from members who represent the department on these ISFR working groups. Updates on these committees are outlined in section 2.

### **Review of Notification**

In 2015-2016 the department continued to work closely with the LGA to consider options to address concerns with the current food business notification system.

### **Audit and Inspection Fees**

The main objective of this project was to ensure audit and inspection fees charged by government are set at an appropriate level. As of 1 July, 2014, all fees were linked to the Consumer Price Index. During the 2015-2016 period the department commenced the legislative process to amend the maximum available charge for food inspections by local government. The department has worked closely with the LGA and liaising with business associations. It is expected that a proposed revised fee will be released for formal public consultation in late 2016.

### **Establishing Roles and Responsibilities with Biosecurity SA (a Branch of PIRSA)**

To maintain food safety through all stages from primary production to the consumer, the responsibilities and cooperative arrangements between SA Health, Biosecurity SA and Local Government are defined through Memoranda of Understanding (MOU) and Agreements.

The MOU between SA Health and PIRSA regarding regulatory responsibility in the primary industry sector was updated in 2015 to reflect recognised risks associated with unregulated produce.

1. MOU between SA Health and PIRSA: Food Safety Responsibilities for Regulated and Unregulated Primary Production in South Australia.
2. MOU between the Minister for Agriculture Food and Fisheries, Minister for Health and Local Government Association of SA: 'Regarding Management of Food Safety at Accredited Meat Processors in South Australia'.
3. SA Health – Biosecurity SA Overarching Agreement: Adminstrating the regulatory responsibilities for the national Primary Production and Processing Standards in South Australia.
4. SA Health – Biosecurity SA Agreement: Adminstrating the regulatory responsibility for Standard 4.2.1 – Primary Production and Processing Standard for Seafood in South Australia.
5. SA Health – Biosecurity SA Agreement: Adminstrating the regulatory responsibility for Standard 4.2.5 – Primary Production and Processing Standard for Egg and Egg Products in South Australia.



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## Food Special Interest Group of the SA Division of Environmental Health Australia

Environmental Health Australia (EHA) conducts bimonthly Food Special Interest Group (Food SIG) meetings for the purpose of providing professional development to EHOs relating to food safety and food legislation. The department has continued to maintain an association with the Food SIG and attended six meetings in 2015-2016.

The group consists of EHOs as members of EHA together with invited representatives from the department. The goal of the group is to draw on the depth of knowledge and to promote new ideas and thinking in relation to food safety monitoring, enforcement and assessment.

The Food SIG holds regular discussions on the interpretation of various components of the Food Safety Standards to encourage consistent monitoring and enforcement of legislation. Other major topics routinely discussed by the Food SIG during the reporting period include:

- > Promoting effective communication and improved understanding of roles between Commonwealth, state and local regulators.
- > Providing guidance or clarification to local government on the consistent interpretation of food standards in relation to practical field issues.
- > Providing updates on consistent interpretation and enforcement of mandatory food safety programs and audit requirements of Standard 3.3.1.
- > Providing food technology advice and information.
- > Promoting effective communication with the national food industry.
- > Development and support for smaller working parties to discuss concerns around technical matters.
- > Food bulletin and survey discussions.

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## 5. Activities of the Food and Controlled Drugs Branch

### Monitoring Compliance with the *Food Act 2001*

The FCDB conducts sampling surveys of various foods that are of public health concern, or to confirm compliance with the compositional and labelling requirements of the Code. A key performance indicator has been established to analyse 800 food samples per year. For the Year 2015-2016, a total of 2877 food samples were taken consisting of 206 routine survey samples, 2439 samples as part of foodborne illness investigations and a further 232 in relation to surveillance of compliance with the Code. The year's sample numbers were well above the key performance indicator number of 800 samples due to the extent of a major *Salmonella* Saintpaul food poisoning outbreak and several other food investigation outbreaks.

The surveys completed by the Branch in 2015–16 include:

- I. Bacterial Loads of Immersion Blenders
- II. Ready to Eat Salad Survey

Past and current surveys listed above can be found on the SA Health web site at

<http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/about+us/legislation/food+legislation/food+act+reports>

### South Australian Participation in National Food Surveys — the ISFR National Coordinated Survey Plan

The ISFR national coordinated survey plan consists of surveys which are selected to gather information on current national issues of food safety and compliance. The Food Surveillance Network consists of representatives from FSANZ, States and Territories.

### Phthalate Survey

The department participated in the collection of 189 food samples for Food Standards Australia New Zealand (FSANZ) as part of a screening study to assess food packaging chemicals in the Australian and New Zealand food supply. The aim of the survey was to collect information on the levels of phthalate and diisononyl phthalate in food. FSANZ acted as the lead agency and jurisdictions around Australia collected specially targeted foods. A report is expected early next year on the outcome of the study.

### Investigation of Food Safety Issues 2015-2016

Food safety related issues come to the attention of FCDB from a variety of sources including routine food surveys, complaints from members of the public, reports from the food industry itself, EHOs in local government, other regulatory agencies, or notification of illness from the CDCB). During the year 2015-2016, a number of significant issues were investigated and are summarised below.

The department collaborated with local councils on a total of 14 foodborne illness investigations after notification from CDCB. Details of some of the major outbreaks can be found in Section 6 of this report.

Investigations included onsite assessment of food handling practices in food businesses, sampling of food and environmental swabbing. The primary objective of these investigations is to remove any risk to public health, establish the cause of the outbreak, and ensure food businesses implement short and long term corrective action and to determine if an offence has been committed against the Food Act.

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## Salmonella Saintpaul Investigation

### Fresh Fruit and Vegetables

An increase in the number of *Salmonella* Saintpaul notifications was noted in December 2015. It was also noted that other jurisdictions, particularly NSW had noticed an increase of cases above the average in their state. This made this investigation a multi-jurisdictional outbreak and involved other jurisdictions.

The department conducted a number of investigation surveys of fresh vegetables which had been possibly implicated in these outbreaks. A total of 218 fruit and vegetable samples were purchased from 35 metropolitan retail outlets. These included major supermarkets, independent fruit and vegetable shops, and stalls in the Adelaide Central Market. Four additional samples were collected from private residences where people who had become ill implicated a particular vegetable. Samples were collected from retailers where people who had tested positive to *Salmonella* Saintpaul had purchased fruit and vegetables and consumed them in their homes. The type of produce sampled included tomatoes, cucumbers, carrots, onions and avocados. All samples tested negative for *Salmonella*.

### Mung Bean Sprouts

In April 2016 a sharp increase in *Salmonella* Saintpaul cases in South Australia identified mung bean sprouts as the most common food source in the outbreak. The department accompanied by PIRSA (who are the regulators of primary production of sprouts) initiated an investigation of two South Australian mung bean sprout producers. A total of 142 mung bean sprout and environmental samples were collected from the two producers at the beginning of the investigation and of those samples, one returned a positive result to *Salmonella* Saintpaul.

With the assistance of PIRSA raw bean seeds were sampled for testing to identify possible sources of supply. The department shared information regarding the seed suppliers and batch numbers with NSW Food Authority and Safe Food Queensland in an attempt to trace the origin of the mung bean seeds.

Local council EHOs assisted in the investigation by collecting different types of sprouted seed samples from retail outlets in their area. 11 Councils offered to collect samples as part of the investigation. Of the 321 food samples collected by local councils, two of five samples of bean sprouts returned positive results to *Salmonella*. Later typing confirmed it was *Salmonella* Saintpaul. Trace back to the source of the product revealed they were produced by one processor who also supplied mung bean sprouts to another processor. The second processor sold the product under a different brand name.

Staff from the department and PIRSA visited the producer to investigate and assess the suitability of the premises for sprout production and possible source of the contamination. Following a detailed inspection, the department served an emergency order on one company to cease production of mung bean sprouts and instigate a national recall of their entire product and the other company to recall their mung bean products. The order also required the processor to carry out improvements to the infrastructure of their production area and undergo food handling training for all staff.

After improvements were made to the production area and the necessary food handling training had been provided to the factory staff a trial production run was approved. This production run would require environmental sampling, spent irrigation water, product testing and end of shelf life sampling to be carried out before the emergency order could be lifted. All product produced during the trial period was to be discarded. All products tested during the trial run returned negative results to *Salmonella*.

As the regulator PIRSA monitored the return to production program following the lifting of the emergency order. The return to production plan required the regular testing of spent irrigation water samples and regular batches of end product to be analysed on a regular basis for three months. This return to work was overseen by PIRSA.

During the investigation the number of samples collected totalled 2439 which included water, seed, sprouts and environmental swabs. A large number of these samples were from batches tested during the return to work program. The company has now returned to full production.

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## Salmonella Typhimurium phage type 9 Outbreak

A foodborne illness outbreak occurred in a private hospital in July 2015 with ultimately 16 people suffering Salmonellosis over a two month period. An extensive and complex investigation lead by the Council with the assistance of the department was undertaken. The investigation outcomes identified that inadequate cleaning and sanitising processes associated with mechanical equipment used for food processing may have contributed to the outbreak. As a result of the investigation the department issued a Food and Controlled Drugs Branch Bulletin – Cleaning and Sanitising of Mechanical Equipment to Vulnerable Population Food businesses/Food Handlers to public hospitals and vulnerable population groups including hospitals, aged care, child care and delivered meals organisations.

## Investigation into Behaviour of Salmonella in Foods Containing Raw Eggs

The department in partnership with Adelaide University Roseworthy Campus has been involved in the investigation of the survival of *Salmonella* Typhimurium in commercially prepared raw egg products such as aioli. This is an extension of research work reported in the 2014-15 Food Act Annual Report.

The number of reported cases of egg-related salmonellosis has increased in Australia over the past decade. Food items containing raw or lightly cooked egg products are frequently implicated during outbreaks of *Salmonella*. Egg based sauces such as mayonnaise and aioli are often identified as the source of *Salmonella* during outbreaks.

In Australia, *Salmonella* Typhimurium has been the predominant serotype identified during outbreaks of egg or egg product related salmonellosis. Aioli which in recent years has increased in popularity within the culinary industry has frequently been implicated as a vehicle for transmission of *Salmonella* Typhimurium. In this study, aioli was prepared under controlled laboratory conditions and inoculated with *Salmonella* Typhimurium under controlled conditions. The aim was to characterise the behaviour of *Salmonella* Typhimurium in raw egg based sauces and to determine whether over time, the bacteria remained viable.

Historically storage temperature and pH were identified as critical parameters for preventing bacterial growth and transmission. More recent work has demonstrated, however, that under stress, *Salmonella* can enter a non-culturable state, or viable but non-culturable (VBNC) state.

In this study, the effect of pH, temperature and acidifying agents on *Salmonella* culturability from experimentally contaminated aioli were examined. The use of yolk only, whole egg or yolk/whole egg preparations were also examined. Results indicated that *Salmonella* isolated from aioli preparations remained viable over time under various conditions currently thought to control *Salmonella*.

Previous studies of *Salmonella* in raw egg foods assumed that once bacteria could no longer be cultured they were no longer viable. Using vital fluorescent dyes, it was established that *Salmonella* Typhimurium under all conditions remained viable over the course of the experiment. Neither pH nor temperature had an effect on viability. Furthermore, at all time points and conditions examined, motile bacteria were observed. While these tests were not quantitative, they are among the first to demonstrate that the bacteria are viable within aioli. Under stressful conditions, many bacterial species, including *Salmonella*, can enter a metabolic state known as viable but non-culturable.

## Post Investigation Review

FCDB and CDCB regularly conduct post incident debriefs to review the effectiveness of policies and procedures. As a result a number of related projects on foodborne disease outbreaks were established. The projects were intended to establish and formalise roles and responsibilities and to improve communication.

The protocols were completed in early 2016 and presented to the Chief Public Health Officer/Chief Medical Officer and the SA Public Health Council for endorsement in March 2016. This endorsement established communication mechanisms, roles and responsibilities in relation to managing foodborne disease outbreaks.

## Food Recalls

Food recalls conducted by a state or territory agency are nationally coordinated by FSANZ. The food business undertaking a recall is responsible for ensuring that the recall is carried out as soon as an issue is identified. Standard 3.2.2 requires a food business that engages in the wholesale supply, manufacture or importation of food, to have a system in place to ensure the recall of unsafe food. There are two levels of recall, a trade and consumer recall. A trade level recall is conducted when the food has not been available for direct purchase by the public, such as food sold to wholesalers and caterers. A consumer level recall is conducted when the food has been available for retail sale. This usually includes advertisements in newspapers informing consumers of the recall. The department informs EHOs state wide of the recall and requests that they check food businesses in their local council area to ensure food businesses are complying with the recall.

FSANZ acted as coordinator for 98 food recalls during the 2015-2016 financial year. This consisted of 16 trade level recalls, where the company has only provided product to distribution centres, wholesalers and food services. As the product has not been released in retail stores and could easily be retrieved a consumer level recall was not required. In one instance as there was a possibility a small amount of product may have been distributed one of the recalls was a combined trade and consumer recall.

A further 81 recalls were consumer level recalls, where it was necessary to recover product from retail outlets and/or consumers. In total South Australia was affected by 34 recalls where recalled product had been distributed in this state.

**Table 1 Type, reason and the states involved in each of the recalls**

| Type of Recall            | Reason for Recall       | SA Not Affected | National | SA & Other States Affected | SA Only |
|---------------------------|-------------------------|-----------------|----------|----------------------------|---------|
| Consumer                  | 81 Undeclared allergens | 50              |          |                            |         |
| Trade                     | 16 Micro contamination  | 20              |          |                            |         |
| Consumer/Trade (combined) | 1 Biotoxin              | 17              | 64       | 15                         | 19      |
|                           | Foreign matter          | 5               |          |                            |         |
| <b>Total</b>              | <b>98</b> Others        | 5               |          |                            |         |
|                           | Labelling               | 1               |          |                            |         |

# Two South Australian businesses initiated consumer level recalls during the reporting period.

## Food and Controlled Drugs Branch (FCDB) Enforcement Actions

FCDB is responsible for food industry compliance with Chapters 1 & 2 of the Code and also becomes involved with compliance matters associated with Chapters 3 & 4 in the course of audits, surveys, complaints and investigation of illness. This framework outlines SA Health's approach to enforcement and provides authorised officers with guidance about the manner in which enforcement activities are to be undertaken.

<http://www.sahealth.sa.gov.au/wps/wcm/connect/a30883004c711f298dcbddbb1e972ca/FINAL+Branded+Enforcement+Framework+23+April++2015.pdf?MOD=AJPERES&CACHEID=a30883004c711f298dcbddbb1e972ca&CACHE=NONE>

Local Government is responsible for the conduct of routine food business inspections to verify compliance with chapter 3 of the Code (see Section 7).

Where FCDB identifies noncompliance issues in food businesses, corrective actions are addressed through a graduated and proportionate response. Where warning letters are issued or reduced frequency of audit applied; once effective corrective action is confirmed no further enforcement action is undertaken. Should non-compliance remain unresolved, enforcement action can be escalated.

**Table 2 Enforcement Activities**

| Letters of Warning | Expiations Issued | Improvement Notices | Emergency Orders | Prosecutions |
|--------------------|-------------------|---------------------|------------------|--------------|
| 8                  | 0                 | 0                   | 2                | 0            |

## Activities Undertaken

**Table 3 Nature of Activities**

| Category                            | Number      |
|-------------------------------------|-------------|
| Alleged Food Poisoning              | 49          |
| Contamination                       | 95          |
| General Enquiries                   | 300         |
| Incidents                           | 24          |
| Labelling                           | 202         |
| CDCB Referrals                      | 369         |
| New Business Information            | 61          |
| Food Recall                         | 2           |
| Food - Resources Required - General | 167         |
| Food - Standard 3.2.2               | 124         |
| Food - Standard 3.2.3               | 20          |
| <b>Total</b>                        | <b>1413</b> |

## Allocation of Activities

Table 3 has been extracted from records to quantify the nature of communication received by Food Standards Surveillance (FSS).

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## Food Safety Management

### Food Safety Programs (FSPs)

Food safety programs have been mandated nationally for businesses providing food to vulnerable populations in hospitals, aged care facilities, childcare centres, and via delivered meals organisations such as Meals on Wheels.

National Food Safety Standard 3.3.1 (audited mandatory food safety programs for food services to vulnerable persons) became enforceable in South Australia in October 2008. The department has continued to liaise with industry, local government and food safety auditors to develop monitoring and review systems, to ensure effective management of the audit process in SA food businesses to whom this standard applies.

In 2015–16 the department has continued to conduct food safety audits of public hospitals, Department for Communities and Social Inclusion (DCSI) businesses such as Disability Services and Domiciliary Care and not-for-profit delivered meals organisations including Meals on Wheels referred to in Table 4. These facilities are audited at the frequency determined by the performance of individual sites, in line with the priority classification for these businesses.

**Table 4**

| Risk Classification                                   | No of Businesses | Routine Audits |
|---|------------------|----------------|
| Public hospitals                                      | 72               | 78             |
| Not for profit delivered meals organisations          | 46               | 47             |
| Aged care / childcare audited in regional areas/ DCSI | 13               | 11             |

### Food Safety Program Information Sessions

To continue to support the consistent interpretation and enforcement of Standard 3.3.1 the department has conducted information sessions and presentations for stakeholders on the progress and common outcomes of food safety program auditing. In particular:

- > The Institute of Hospitality in Health Care, City Seminar – Glenelg.
- > Flinders University Nutrition & Dietetics Students
- > Country Health and Southern Adelaide; Local Health Networks
- > Adelaide Community Healthcare Alliance Incorporated (ACHA)

### Auditor Training for the Department and Local Government Officers

The annual the department Auditor Forum was held on the 16 October 2015 to assist with improving consistency of interpretation and professional development for the auditor workforce.

The department continues to facilitate the Lead Auditor in Food Safety Management Systems training sessions. No training sessions were held in 2015-16; however one has been scheduled early in the 2016-17 year.

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## Food Presentations

FCDB provided food safety, food legislation and SA Food Business Risk Classification presentations to interested groups and organisations including;

- > Environmental Health Australia Food Special Interest Group (SIG).
- > SA Environmental Health Association Conference – Eggs and *Salmonella* Presentation
- > Environmental Health Australia Public Health Manager's Forum.
- > Department of Premier and Cabinet, Seafood Regulation in SA.
- > Food Standards Australia New Zealand (FSANZ), Department of Health and Human Services Victoria (DHHS) and SA Environmental Health Officers on SA Food Business Risk Classification
- > Flinders University Nutrition and Dietetic students on food law in general, the process involved in development of food standards and health claims.
- > Adelaide University medical students incorporating an overview of food regulatory system, the causes and investigation of foodborne illness outbreaks and food safety tips.
- > Executive Director of the Australian Chicken Meat Federation on the outcomes of chicken meat survey.
- > Representation from private hospitals, public hospitals and aged care on current food safety issues (including stab mixers).
- > SA Public Health Council on CDCB/FCDB Incident Response Relationship Protocol

## Food Safety Week

Food Safety Week is a national event organised by the Food Safety Information Council (FSIC), Australia's leading disseminator of consumer targeted food safety information.

The theme of this year's message was "Did You Know – Busting the Food Safety Myths". To help promote Food Safety Week in council areas, the department provided promotional material to metropolitan and country councils to assist those councils who planned information booths, or provide information sessions to interested community groups in their council areas. The promotional material included banner pens, plastic tongs, plastic cutting mats, water bottles and wet wipes. These products all displayed a food safety message about preparation of food and food safety in general. Activities undertaken by individual councils are detailed in Section 7.

The FCDB Food Safety Fundamentals DVD was used to promote safe food handling and preparation practices to the food industry and general public. The Food Safety video by Adam Liaw is available at the following web link: <http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/health+topics/health+conditions+prevention+and+treatment/food+safety/keeping+your+food+safe/preventing+food+poisoning+at+home>



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## Communication and Consultation

To facilitate communication and consultation with stakeholders, the department adopted a number of different mechanisms this year:

### Food Regulation Inter-Departmental Committee

The SA Government Food Regulation Interdepartmental Committee (IDC) was established in October 2005 to facilitate improved communication and consultation between relevant government organisations regarding food regulation matters. The South Australian government departments represented are:

- > Department for Health and Ageing (Chair, secretariat).
- > Department of Premier and Cabinet.
- > Department of Primary Industries and Regions South Australia (PIRSA).
- > Attorney General's Department.

The Terms of Reference are:

- > Consider food regulation, policy and industry compliance issues.
- > Actively share information that may be relevant or of interest to South Australian Government agencies in relation to food regulation and policy.
- > Consider issues referred to it by Government or Ministers.
- > Advise the Minister for Health and other relevant Ministers on food regulation and policy issues.
- > Contribute to the formulation of a 'whole of SA government' position as required.

### SA Meat Food Safety Advisory Committee

The Department continues to participate as a member of the Committee under the *Primary Produce (Food Safety Schemes) (Meat Food Safety Advisory Committee) Regulations 2005*. The committee considers issues pertinent to management of the *Primary Produce (Food Safety Schemes) (Meat Industry) Regulations 2006* (regulations) under the *Primary Produce (Food Safety Scheme) Act 2004*.

The role of the Committee is to provide advice to the Minister for Agriculture, Food & Fisheries on the administration of the regulations, and on matters relating to meat food safety in South Australia. The Committee met once during 2015-2016.

The *Primary Produce (Food Safety Schemes) (Meat Food Safety Advisory Committee) Regulations 2005* were amended to enable a restructured committee. The membership was reduced from 17 to 12 members effective from 31 March 2016.

The department continues to be represented on the Committee.

### Food Trucks in SA

In December 2015 the State Government presented a discussion paper for public consultation regarding food trucks in South Australia. A position paper was subsequently formed proposing a number of initiatives to help food trucks operate on a simpler, more strategic and better organised basis. One of these initiatives was a 'passport' system designed to streamline food safety regulation by introducing a portable transferable system for the recognition of food premises inspections. The department and local government are now working closely with the Department of Premier and Cabinet to develop this passport system. Further progress with this project will be reported in the 2016-2017 Food Act Report.

### Other

FCDB provides briefings as required for South Australian members of:

- > The Council of Australian Governments (COAG) working groups and sub- committees.
- > COAG Health Council.
- > The Australian Health Ministers Advisory Council (AHMAC) and principal committees.
- > The National Health and Medical Research Council.

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## 6. Foodborne Disease Investigations in South Australia, 2015-2016

Epidemiological investigations into foodborne disease outbreaks within South Australia (SA) are coordinated by the Disease Surveillance and Investigation Section (DSIS) and OzFoodNet staff who are based within the Communicable Disease Control Branch (CDCB) of SA Health. OzFoodNet is a national network that conducts enhanced foodborne disease surveillance.

OzFoodNet and other CDCB staff work in collaboration with a range of stakeholders when investigating outbreaks. SA Pathology conducts microbiological testing and molecular typing of isolates from humans and food and environmental samples. Local government EHOs and the FCDB provide food technology and environmental investigation expertise and perform environmental and food premises investigations. Biosecurity SA staff assist with trace back investigations and implement control measures with primary producers where appropriate.

CDCB staff conduct interviews with cases to obtain food histories when clusters of suspected foodborne disease are detected. This information is used to identify frequently consumed food items that can sometimes lead to further investigations. When further investigations are required, it is often in the form of analytical studies that aim to demonstrate a statistical association between illness and the consumption of a particular food item, eating at a particular premise, or an environmental exposure. When a food and/or premise are suspected on epidemiological grounds, laboratory evidence (e.g. microbiological testing of food and environmental samples) can support the observed epidemiological associations.

Often, the specific food vehicle or source of an outbreak is difficult to identify. An implicated food item may no longer be available or suitable for microbiological testing, making it impossible to provide laboratory evidence for the source of an outbreak. Cases may also have difficulty in remembering foods consumed or premises visited if an appreciable time has passed between the exposure and the interview.

During the period of 1 July 2015 through to 30 June 2016, The department investigated fourteen outbreaks of gastrointestinal illness that were known or suspected to be foodborne and for which a common source was identified. Six of these outbreaks were associated with restaurants, four outbreaks were associated with take away outlets, and one outbreak each was associated with an institution and a hospital. Additionally, there were two outbreaks with spread across multiple states and territories where a contaminated fresh produce item was distributed in the community.

In addition to the previously mentioned outbreaks, fourteen clusters of potentially foodborne illness for which no common source could be identified were also investigated during this timeframe. Ten of these clusters were caused by *Salmonella*, three by Shiga toxin producing *Escherichia coli* (STEC) and one by *Shigella*. Hypothesis generating interviews were conducted with the majority of cases. Clusters or outbreaks that were suspected to be person-to-person or animal-to-person have not been included in this summary. All investigation data are subject to change, as this is the nature of clusters and outbreaks.

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## Outbreak Investigations

A summary of outbreaks investigated from 1 July 2015 to 30 June 2016 and their settings are presented in Table 1

*An outbreak is defined as an event where two or more people experience a similar illness after eating a common meal or food and epidemiological evidence indicates the meal or food as the source of the illness.*

### Outbreak No. 1: *Salmonella* Typhimurium phage type 9 – Hospital

A report was received from a hospital about two people who had tested positive for *Salmonella*. An investigation was commenced. A total of 36 people were reported unwell who had consumed food from the hospital, with 16 testing positive for *Salmonella* Typhimurium phage type 9 (STm9) with a multiple locus variable-number tandem repeat analysis (MLVA) of 03-24-12-10-523, and two people were positive for *Aeromonas*. A range of food and environmental samples were collected. Imported frozen fish samples were positive for *Salmonella* Matopeni and *Salmonella* Weltevreden were unrelated to the outbreak strain. Uncooked, crumbed fish were positive for STm9 03-24-12-10-523 and internal components from a stab mixer were also positive for STm9 03-24-12-10-523. Further details relating to action taken and the result of an environmental investigation of this outbreak are contained in section 5 of this report.

### Outbreak No. 2: *Salmonella* Typhimurium phage type 9 – Take away

A medical notification for a *Salmonella* infection was received that indicated others were unwell following a work function. Further investigations found that there were six cases with gastroenteritis within the same workplace, including the *Salmonella* positive case. Interviews with the cases indicated that four of them had also eaten food at the same take away shop in a food court. All STm9 cases were being interviewed as part of a case-control study into the risk factors for sporadic infection. Through these interviews a further unrelated case was identified who ate at the same take away shop. In total, there were five cases related to eating egg-based crepes from the take away shop, with two confirmed cases of STm9. Environmental investigations at the premises did not identify any major issues.

### Outbreak No. 3: *Salmonella* Typhimurium phage type 9 – Restaurant

Two cases of *Salmonella* Typhimurium phage type 9 (STm9, MLVA 03-15-06-12-550) were identified who had eaten at a café in Adelaide before becoming unwell with onsets of illness on 21st and 22nd September 2015. Both cases reported eating eggs at the café. A male chef was also linked (onset 21st September 2015), making three confirmed cases in this outbreak (two consumers and one chef). The chef reported eating food at the café while working. The food vehicle responsible for the outbreak remains unknown.

### Outbreak No. 4: *Salmonella* Typhimurium phage type 135 – Take away

An increase in notifications for *Salmonella* Typhimurium phage type 135 (STm 135) was noted in October 2015. All cases notified since 1 October 2015 were interviewed and six cases were linked to a kebab restaurant in metropolitan Adelaide. Cases consumed a variety of different foods with no specific common food item identified. The outbreak information was referred to local environmental health officers for investigation.

### Outbreak No. 5: *Salmonella* Saintpaul – Community

An increase in *Salmonella* Saintpaul notifications was observed in December 2015. Concurrent increases were also observed in other jurisdictions, leading to a multi-jurisdictional outbreak investigation. This report only focusses on the SA aspects of the investigation. As of 11 August 2016, a total of 287 notifications of *Salmonella* Saintpaul have been received since 1 December 2015. A case-case study was conducted with 62 *Salmonella* Saintpaul cases and 124 'controls' (people notified with *Campylobacter* or *Salmonella* Typhimurium) included. The results from the univariate analysis showed multiple food items with a statistically significant elevated odds ratios, including mung bean sprouts with an odds ratio of 14.7 (95% CI= 5.57-38.53). The preliminary multivariate analysis indicated that the odds of a case consuming mung bean sprouts were 15.3 times higher than for controls (95% CI= 5.1-45.8). Samples of mung bean sprouts collected from retail grocers and an environmental swab from a mung bean sprout producer tested positive for *Salmonella* Saintpaul. Whole genome sequencing results supported the investigation findings showing that the genetic sequences in humans and the food samples were highly related. (A recall of mung bean sprouts from the producer was issued. The department continues to monitor the situation, and the numbers cited above are likely to change as the investigation is still open at the time of writing). Further details relating to action taken and the result of an environmental investigation are contained in Section 5 of this report.

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## Outbreak No. 6: *Salmonella* Typhimurium phage type 135a – Restaurant

On the 28th January, a medical notification for a *Salmonella* case was received which indicated that four out of five people in a family were unwell with gastroenteritis after consuming milk shakes from a café. On the 29th January, a call was received from an interstate resident indicating that three out of four people were unwell with gastroenteritis after eating food from the same café while attending a national sport event. An investigation was launched. A total of 31 people with gastroenteritis, including 26 people who tested positive for *Salmonella*, were identified across three jurisdictions who had consumed food from the café. Twenty-three cases were residents of SA, with 19 confirmed as *Salmonella* Typhimurium phage type 135a (STm 135a) and an MLVA profile 03-14-10-10-523. Eight cases were interstate residents; seven cases tested positive for *Salmonella* Typhimurium, with six cases having an MLVA profile of 03-14-10-10-523 and one case having a related MLVA profile of 03-14-10-11-523. An environmental investigation at the premise identified that the ice-cream was made with raw eggs. The ice-cream was served in milk shakes, and as a topping for various desserts.

## Outbreak No. 7: *Salmonella* Anatum – Community

An increase in *Salmonella* Anatum notifications was observed in February 2016. Concurrent increases were also observed in other jurisdictions and two different types of bagged lettuce had tested positive for *Salmonella* Anatum interstate. A recall was undertaken and a multi-jurisdictional outbreak investigation commenced. This report only focusses on the SA aspects of the investigation. Thirty three cases of *Salmonella* Anatum were reported to CDCB, with 28 cases linked to the outbreak by whole genome sequencing. Thirteen of these cases identified eating the bagged lettuce listed from the recalled product. Three of the cases were hospitalised due to their *Salmonella* infection.

## Outbreak No. 8: *Salmonella* Typhimurium phage type 9 – Restaurant

An increase in notifications for *Salmonella* Typhimurium phage type 9 was noted on 10<sup>th</sup> February 2016. All cases with dates of onset since 25th January were interviewed and three cases with onset dates between 25th and 30th January were linked to a café in metropolitan Adelaide, one of whom (onset date 30th January) worked as a food-handler at the café. One of the cases was hospitalised. The three cases consumed a range of egg based dishes at the café. All three cases had the same MLVA profile: 03-15-07-12-550. The outbreak information was referred to local council environmental health officers for investigation.

## Outbreak No. 9: *Salmonella* Typhimurium phage type 9 – Take away

An increase in notifications for *Salmonella* Typhimurium phage type 9 was noted in February 2016. All cases with dates of onset since 25th January were interviewed and ten cases with onset dates between 1st and 10th February were linked to a takeaway outlet in metropolitan Adelaide. One of the cases was hospitalised. The ten cases consumed a variety of Vietnamese rolls which were made with raw egg butter which was made on site. All ten cases had the same MLVA profile: 03-25-12-11-523. Two samples of egg butter from this outlet were submitted to the laboratory, *Salmonella* was not detected in either sample.

## Outbreak No. 10: *Salmonella* subsp 1 ser 4, 12:i:- – Take away

There was an increase in *Salmonella* subsp 1 ser 4, 12:i:- with nine notifications received within a four week period. Seven cases were interviewed and, from the interviews, three cases were linked to a take away outlet in metropolitan Adelaide. All three cases had consumed Vietnamese rolls or salad which included a number of common ingredients. The premise was inspected by the local council environmental health officer, a number of food samples were submitted to the laboratory, but no *Salmonella* was detected in the food samples. Two of the three cases were reported as the same MLVA profile; 04-14-10-00-490 with the MLVA typing for the third case pending. The food vehicle responsible for the infection was not determined.

## Outbreak No. 11: *Salmonella* Typhimurium phage type 44 – Restaurant

On the 23rd February 2016, the CDCB received a *Salmonella* medical notification that mentioned the person ate at café A. On the 24th February, the CDCB was notified of two suspected food poisoning cases who had consumed food from the same café. An investigation was commenced and, in total, 13 cases of *Salmonella* Typhimurium phage type 44 (STm 44) and two cases of suspected food poisoning were linked to the café. Dates of onset ranged from 25<sup>th</sup> January to 25th February. All 13 cases of STm 44 that were linked to eating at the café had the same MLVA pattern;

03-10-09-10-523. Ten of the cases identified eating eggs on toast, three cases identified eating pancakes and one case each identified eating a breakfast donut and a chicken salad. Environmental inspections were conducted at the café and poor food handling practices were identified. Samples taken at the café tested negative for *Salmonella*.

### Outbreak No. 12: *Salmonella* Typhimurium phage type 108 – Institution

Three cases of *Salmonella* Typhimurium phage-type 108 (STm 108) with a MLVA 03-09-09-14-523 occurred in male residents of the same correctional facility. Two of the cases had the same onset date and the third case had an onset date ten days later. All three cases shared a house within the facility and prepared their own food, including raw egg milkshakes. An inspection of the facility was conducted by the local council environmental health officer. No further cases were reported from the facility.

### Outbreak No. 13: *Salmonella* Typhimurium phage type 9 – Restaurant

Three persons with *Salmonella* Typhimurium phage-type 9 infection and onset dates between 20<sup>th</sup> and 27<sup>th</sup> March 2016, who were interviewed as 'controls' in the case-case study for an outbreak of *Salmonella* Saintpaul infection, reported eating at the same restaurant within a seven day period. Five additional cases of STm9 infection with onset dates between 19<sup>th</sup> and 31<sup>st</sup> March were interviewed, but no further cases reported eating at the restaurant. The restaurant was inspected by the local council environmental health officer. Environmental samples tested negative for *Salmonella*. The MLVA typing results for the three cases associated with the restaurant were MLVA 03-24-13-10-523 and 05-14-15-12-490 with one result pending.

### Outbreak No. 14: *Salmonella* Typhimurium phage type 135 – Take away

On 11<sup>th</sup> May, CDCB received notifications for four confirmed cases of *Salmonella*. All four cases identified eating Vietnamese rolls from a takeaway shop in metropolitan Adelaide. The isolates were subsequently typed as *Salmonella* Typhimurium 135 with a MLVA profile 03-12-09-11-523. A total of 34 cases were linked to food prepared by the takeaway shop with 31 cases reporting that they had consumed various Vietnamese rolls. Twenty-five cases purchased food directly from the takeaway shop, seven cases purchased food through a secondary venue that was supplied by the takeaway shop and, there were two secondary cases. Twenty-six cases had the same MLVA profile, 03-12-09-11-523, with MLVA typing results pending for eight cases. An environmental investigation of the premise identified that raw egg was being used in the butter spread for the rolls. However, food samples tested negative for *Salmonella*.

**Table 1: Summary of foodborne disease investigations in South Australia during the period 1 July 2015 to 30 June 2016**

| No. | Month and Year | Organism                        | Location    | No. ill | No. laboratory confirmed | Evidence |
|-----|----------------|---------------------------------|-------------|---------|--------------------------|----------|
| 1   | July 2015      | STm 9                           | Hospital    | 36      | 16                       | M        |
| 2   | July 2015      | STm 9                           | Take away   | 5       | 2                        | D        |
| 3   | Oct 2015       | STm 9                           | Restaurant  | 3       | 3                        | D        |
| 4   | Oct 2015       | STm 135                         | Take away   | 6       | 6                        | D        |
| 5   | Dec 2015       | <i>Salmonella</i> Saintpaul     | Community   | 287     | 287                      | S, M     |
| 6   | Jan 2016       | STm 135a                        | Restaurant  | 31      | 26                       | D        |
| 7   | Feb 2016       | <i>Salmonella</i> Anatum        | Community   | 28      | 28                       | M        |
| 8   | Feb 2016       | STm 9                           | Restaurant  | 3       | 3                        | D        |
| 9   | Feb 2016       | STm 9                           | Restaurant  | 10      | 10                       | D        |
| 10  | Feb 2016       | <i>S. subsp</i> 1 ser 4, 12:i:- | Take away   | 3       | 3                        | D        |
| 11  | Feb 2016       | STm 44                          | Restaurant  | 15      | 13                       | D        |
| 12  | Apr 2016       | STm 108                         | Institution | 3       | 3                        | D        |
| 13  | Apr 2016       | STm 9                           | Restaurant  | 3       | 3                        | D        |
| 14  | May 2016       | STm 135                         | Take away   | 32      | 32                       | D        |

D – Descriptive; M – Microbiological; S – Statistical STm – *Salmonella* Typhimurium

## Cluster Investigations

A summary of clusters investigated from 1 July 2015 to 30 June 2016 are listed in Table 2.

A cluster is defined as an increase in a specific infection in terms of time, person or place, where the source and mode of transmission remains unknown.

**Table 2: Summary of cluster investigations in South Australia during the period 1 July 2015 to 30 June 2016**

| No. | Month and Year | Organism             | Location  | No. ill | Evidence |
|-----|----------------|----------------------|-----------|---------|----------|
| 1   | Sep 2015       | STm 108              | Community | 4       | D        |
| 2   | Oct 2015       | STEC O26             | Community | 5       | D        |
| 3   | Nov 2015       | STm 44               | Community | 18      | D        |
| 4   | Dec 2015       | STm 12A              | Community | 16      | D        |
| 5   | Jan 2016       | <i>Shigella</i>      | Community | 11      | D        |
| 6   | Jan 2016       | <i>S. Hessarek</i>   | Community | 6       | D        |
| 7   | Jan 2016       | <i>S. Orientalis</i> | Community | 3       | D        |
| 8   | Feb 2016       | <i>S. Infantis</i>   | Community | 6       | D        |
| 9   | Feb 2016       | STm 35               | Community | 4       | D        |
| 10  | Mar 2016       | STEC O26             | Community | 3       | D        |
| 11  | Apr 2016       | STEC O157            | Community | 11      | D        |
| 12  | May 2016       | STm 135              | Community | 26      | D        |
| 13  | May 2016       | STm 8                | Community | 4       | D        |
| 14  | Jun 2016       | <i>S. Infantis</i>   | Community | 10      | D        |

D – Descriptive; M – Microbiological; S – Statistical

STm – *Salmonella* Typhimurium; STEC – Shiga toxin producing *Escherichia coli*.

## 7. Local Government Activities Under *The Food Act 2001*

Under the *Food Act 2001* (the Act) it is a mandatory requirement for local government to provide the department with information on the performance and functions by each agency. For the purpose of this Annual Report, a request for information was circulated to all councils. Councils are empowered under Parts 4 and 5 of the Act to ensure that hygienic standards are maintained in relation to the manufacture, transportation, storage and handling of food for sale under Chapter 3 of the Australia and New Zealand Food Standards Code. They are also responsible for taking measures to prevent the sale of unfit food and to investigate complaints related to the sale of unfit food. EHOs are authorised under the Act to issue orders and notices and take enforcement action for breaches.

### Authorised Officers

All EHOs must be authorised under Division 3, Section 94 of the Act to be able to enforce the Act. EHOs must have the necessary skills and knowledge to effectively perform their food related responsibilities to gain authorisation.

**Table 1 Authorised Officers' details**

| Authorised Officers<br>(Currently working in local government) | Full-Time | Part-Time |
|--|-----------|-----------|
|  | 115       | 47*       |

\* Numbers may be duplicated where EHOs are employed in more than one council

### Inspections

To gain a better understanding of how inspections are organised and undertaken by local government, it is necessary to establish the number and make up of food businesses across South Australia. The following tables establish how many food businesses exist and the proportion of businesses by food safety risk categories. These figures have been combined with the number of inspections conducted by local government to ensure that planning and inspection frequencies are appropriate and maintained.

This year the department continued implementation of the Food Business Risk Classification System (FBRC) based on the national food safety risk profiling framework that allocates food businesses into risk classifications, based on their likelihood of contributing to foodborne disease and potential magnitude of that contribution.

The FBRC allows council resources for monitoring and enforcement to be aligned with the inherent food safety risk of the business, taking into account the performance of the business. Refer to Table 2. During this year councils commenced transition from the former system using low, medium and high risk groups to the new FBRC (Refer to, "Risk Classification and Inspection Frequencies, Section 4). Where businesses were still classified using the old system, details have been reported as not risk classified.

**Table 2 Food Business Risk Classification**

| Inspections                 | Food Safety Risk Classification |      |      |      |                     | Total |
|-----------------------------|---------------------------------|------|------|------|---------------------|-------|
|                             | P1                              | P2   | P3   | P4   | Not Risk Classified |       |
| Number of Businesses        | 5625                            | 4490 | 2229 | 1556 | 1273                | 15173 |
| Inspections Conducted       | 4657                            | 3149 | 1351 | 193  | 156                 | 9506  |
| Follow-up Inspections       | 2490                            | 947  | 211  | 18   | 10                  | 3676  |
| Inspections from Complaints | 458                             | 187  | 35   | 5    | 0                   | 685   |

## Inspection Fees

The *Food Regulations 2002*, Part 4 Section 11 makes provision for enforcement agencies to impose an inspection fee. Following is a summary identifying the policy of Councils regarding imposing an inspection fee.

**Table 3 No of Councils Charging Inspection Fees**

| Council Inspection Fees | No. of Councils |
|-------------------------|-----------------|
| Charging Fees           | 34              |
| Not Charging Fees       | 30              |

## Audits

Since 5 October 2008 businesses captured under Food Safety Standard 3.3.1 (Food Safety Programs for Food Services to Vulnerable Persons) have required regulatory food safety audits.

In 2015-2016 local government food safety auditors have continued to conduct food safety audits of aged care, child care and private hospitals at a frequency determined by the performance of individual sites, in line with the priority classification for these businesses.

**Table 4 Local Government Audit of Aged Care, Child Care and Private Hospitals**

|                               | Aged Care |        | Child Care |       | Private Hospitals |      | Others |      | TOTAL |
|-------------------------------|-----------|--------|------------|-------|-------------------|------|--------|------|-------|
| Number of Captured Businesses | 259       |        | 267        |       | 23                |      | 1      |      | 550   |
| Number of Audits              | 271       | 104.6% | 258        | 96.6% | 23                | 100% | 1      | 100% | 553   |

\*Businesses may receive > one audit per annum

The table below identifies the policy of councils regarding the charging of a fee for audits.

**Table 5 No of Councils Charging Audit Fees**

| Council Audit Fees*                | No. of Councils |
|------------------------------------|-----------------|
| No of councils carrying out audits | 26              |
| No of councils charging audit fee  | 23              |

\* Not all councils conduct audits and as a result do not charge for audit services.



## Complaints

Consumer enquiries and reports of illness, non-compliant businesses or food, constitute an important source of information. In addition, they provide: opportunities for the public to interact with EHOs first hand, a 'shop window' for food safety and give EHOs the opportunity to promote food safety. All complaints are logged and generally risk classified to ensure that the most serious cases are dealt with as a priority. Table 6 has classified complaints/reports into a list of most likely sources, in addition to reporting on whether the complaint and investigation was found to be valid or verified by an authorised officer.

**Table 6 Breakdown of Activities by Category**

| Type                              | Complaints/Reports | Verified   |
|-----------------------------------|--------------------|------------|
| Foreign Matter in Food            | 109                | 41         |
| Micro Contamination               | 65                 | 11         |
| Chemical Contamination or Residue | 6                  | 2          |
| Alleged Food Poisoning            | 238                | 29         |
| Confirmed Food Poisoning          | 4                  | 3          |
| Unclean Premises                  | 150                | 64         |
| Personal Hygiene or Food Handling | 209                | 50         |
| Pest Infestation                  | 84                 | 39         |
| Refuse Storage                    | 101                | 65         |
| Labelling Issues                  | 29                 | 13         |
| Others                            | 209                | 60         |
| <b>TOTAL</b>                      | <b>1204</b>        | <b>377</b> |

## Enforcement Actions

The *Food Act 2001* makes provision for authorised officers to apply enforcement actions to improve food safety outcomes for the public. Enforcement actions may take the form of written warnings, improvement notices, prohibition orders, expiations or prosecutions. These actions are applied using a graduated and proportionate response.

Table 7 addresses enforcement actions relating to inspections conducted under the former risk classification system detailing enforcement actions applied to those businesses requiring enforcement action.

Tables 8 to 11 addresses enforcement actions relating to inspections conducted in food industry sectors defined in the Food Business Risk Classification. Written warnings making up the largest single action applied, progressing to improvement notices and expiations as food businesses fail to respond or issues became more serious.

Table 12 remain collective totals from all inspections conducted under Food Safety Programs.

Table 7. Number of Enforcement Actions by Food Industry Sector

| Business type      | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition orders issued | No. of expiations issued |
|--------------------|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|
| Aged care          | 86               | 9                          |   |                                |                                   |                                  |                          |
| Bakery             | 195              | 64                         | 4   | 8                              | 11                                |                                  | 3                        |
| B&B/motel          | 108              | 27                         |   | 9                              |                                   |                                  |                          |
| Café               | 279              | 115                        | 4   | 14                             | 11                                |                                  |                          |
| Canteen            | 194              | 58                         | 1   | 1                              |                                   |                                  |                          |
| Caterer            | 77               | 17                         |   |                                |                                   |                                  |                          |
| Charitable         | 279              | 36                         |   |                                |                                   |                                  |                          |
| Child care         | 93               | 17                         |   |                                |                                   |                                  |                          |
| Club               | 311              | 69                         |   | 10                             | 1                                 |                                  |                          |
| Deli               | 85               | 48                         |   | 8                              | 3                                 |                                  |                          |
| Delivered meals    | 14               | 3                          |   |                                |                                   |                                  |                          |
| Distributor        | 51               | 15                         |   | 3                              |                                   |                                  |                          |
| Farm gate sales    | 6                |                            |   |                                |                                   |                                  |                          |
| Fishmonger/seafood | 35               | 7                          | 1   | 1                              |                                   |                                  |                          |
| Fruit and veg      | 59               | 15                         |   | 4                              | 3                                 |                                  | 1                        |
| Function centre    | 29               | 5                          |   |                                | 1                                 | 1                                |                          |
| Hospital           | 15               | 4                          |   |                                |                                   |                                  |                          |
| Hotel/pub tavern   | 133              | 61                         | 3   | 19                             | 8                                 |                                  | 3                        |
| Liquor store       | 63               | 5                          |   |                                |                                   |                                  |                          |
| Manufacturer       | 121              | 24                         |   |                                |                                   |                                  |                          |
| Mobile food van    | 96               | 33                         |   | 2                              |                                   |                                  |                          |
| Restaurant         | 197              | 80                         | 5   | 10                             | 14                                |                                  | 2                        |
| Service station    | 104              | 37                         |   | 12                             |                                   |                                  |                          |
| Snack bar/kiosk    | 58               | 22                         | 1   |                                | 1                                 |                                  |                          |
| Stall              | 543              | 71                         |   |                                |                                   |                                  |                          |
| Supermarket        | 171              | 83                         | 3   | 10                             | 3                                 | 1                                | 1                        |
| Takeaway           | 383              | 157                        | 2   | 32                             | 19                                | 1                                | 1                        |
| Temporary business | 90               | 10                         |   |                                |                                   |                                  |                          |
| Other              | 277              | 32                         |   | 16                             | 8                                 | 1                                | 4                        |
| <b>Total</b>       | <b>4152</b>      | <b>1124</b>                | <b>24</b>                                     | <b>159</b>                     | <b>83</b>                         | <b>4</b>                         | <b>15</b>                |

# blank cells indicate no offences requiring enforcement action

**Table 8 Number of Enforcement Actions by Retail Sector**

| Retailer   | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition Orders issued | No. of Expiations issued | No. of Prosecutions |
|--|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|---------------------|
| Alcoholic beverages packaged                     | 147              | 13                         |   |                                |                                   |                                  |                          |                     |
| Bakery products                                  | 37               | 27                         | 1   | 1                              | 1                                 |                                  |                          |                     |
| Bakery products, perishable fillings             | 97               | 74                         | 11  | 6                              | 5                                 |                                  | 2                        |                     |
| Continental type delicatessen food               | 50               | 34                         | 1   | 1                              | 1                                 |                                  |                          |                     |
| High risk food, perishable                       | 546              | 431                        | 24  | 19                             | 14                                |                                  | 6                        | 1                   |
| Low risk packaged food                           | 604              | 82                         |   |                                | 1                                 |                                  |                          |                     |
| Medium risk food, perishable                     | 376              | 208                        | 12  | 9                              |                                   |                                  |                          |                     |
| Raw meat & poultry                               | 40               | 25                         |   |                                |                                   |                                  |                          |                     |
| Seafood (excludes processing of bivalve mollusc) | 25               | 13                         | 3   | 1                              | 2                                 |                                  |                          |                     |
| *Other Retailers – P1                            | 117              | 101                        | 81  | 79                             | 16                                |                                  | 2                        |                     |
| *Other Retailers – P2                            | 86               | 71                         | 45  | 44                             | 3                                 |                                  |                          |                     |
| *Other Retailers – P3                            | 64               | 34                         | 16  | 16                             |                                   |                                  |                          |                     |
| *Other Retailers – P4                            | 20               | 9                          | 2   | 1                              | 1                                 |                                  |                          |                     |
| <b>Total</b>                                     | <b>2209</b>      | <b>1122</b>                | <b>196</b>                                    | <b>177</b>                     | <b>44</b>                         | <b>0</b>                         | <b>10</b>                | <b>1</b>            |

\*Others may include the businesses which has not been officially classified or council unable to retrieve the data based on above classification.

# blank cells indicate business types not requiring enforcement action

**Table 9 Number of Enforcement Actions by Food Service Sector**

| Food Service   | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition Orders issued | No. of Expiations issued | No. of Prosecutions |
|--|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|---------------------|
| Catering offsite activity  | 106              | 66                         | 1   | 3                              |                                   |                                  |                          |                     |
| Catering onsite  | 369              | 244                        | 13  | 39                             | 10                                |                                  |                          |                     |
| Medium risk foods perishable                                     | 437              | 228                        | 4   | 13                             | 1                                 |                                  |                          |                     |
| Restaurants and takeaway ready to eat food - prepared in advance | 2659             | 2008                       | 226   | 304                            | 175                               | 6                                | 43                       |                     |
| Restaurants and take away food ready to eat food - express order | 1271             | 953                        | 52  | 55                             | 22                                | 1                                | 7                        | 1                   |
| Restaurants and takeaway ready to eat food - no raw preparation  | 500              | 363                        | 16  | 5                              | 10                                |                                  | 1                        |                     |
| Bakery products, perishable fillings processing                  | 5                | 4                          |   | 1                              |                                   |                                  |                          |                     |
| *Other Food Service – P1   | 42               | 6                          |   |                                |                                   |                                  |                          |                     |
| *Other Food Service – P2   | 68               | 2                          |   |                                |                                   |                                  |                          |                     |
| *Other Food Service – P3   | 22               | 1                          |   |                                |                                   |                                  |                          |                     |
| *Other Food Service – P4   | 65               | 6                          |   |                                |                                   |                                  |                          |                     |
| <b>Total</b>   | <b>5544</b>      | <b>3881</b>                | <b>312</b>                                    | <b>420</b>                     | <b>218</b>                        | <b>7</b>                         | <b>51</b>                | <b>1</b>            |

\*Others may include the businesses which has not been officially classified or council unable to retrieve the data based on above classification.

# blank cells indicate no offences requiring enforcement action

Table 10 Number of Enforcement Actions by Processor / Manufacturer Sector

| Processor / Manufacturer                                    | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition Orders issued | No. of Expiations issued | No. of Prosecutions |
|---|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|---------------------|
| Bakery products<br>Perishable fillings processing           | 113              | 85                         | 10  | 18                             | 14                                |                                  | 1                        |                     |
| Baby Food processing  | 1                | 1                          |   |                                |                                   |                                  |                          |                     |
| Beverage processing   | 55               | 15                         |   |                                |                                   |                                  |                          |                     |
| Canned food processing                                      | 9                | 7                          |   |                                |                                   |                                  |                          |                     |
| Canned food processing very small producer & high acid food | 22               | 7                          |   |                                |                                   |                                  |                          |                     |
| Chocolate processing  | 2                |                            |   |                                |                                   |                                  |                          |                     |
| Chocolate processing small producer                         | 19               | 8                          | 2   | 2                              |                                   |                                  |                          |                     |
| Cereal processing   | 229              | 99                         | 1   |                                | 1                                 |                                  |                          |                     |
| Confectionary processing                                    | 48               | 24                         |   |                                |                                   |                                  |                          |                     |
| Cook-Chill food Short shelf-life processing                 | 9                | 6                          |   |                                |                                   |                                  |                          |                     |
| Cook-chill food extended shelf life processing;             | 6                | 3                          |   |                                |                                   |                                  |                          |                     |
| Cook-frozen food processing                                 | 8                | 6                          | 1   |                                | 2                                 | 1                                | 1                        |                     |
| Dairy processing (not including soft cheese)                | 16               | 8                          |   |                                |                                   |                                  |                          |                     |
| Dairy processing - Soft cheese processing                   | 2                | 1                          |   |                                |                                   |                                  |                          |                     |
| Egg Processing  | 9                | 2                          |   |                                |                                   |                                  |                          |                     |

Table 10 Number of Enforcement Actions by Processor / Manufacturer Sector (cont.)

| Processor / Manufacturer   | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition Orders issued | No. of Expiations issued | No. of Prosecutions |
|--|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|---------------------|
| Fruit and Vegetables processing                                    | 10               | 7                          | 1   | 1                              |                                   |                                  |                          |                     |
| Fruit and vegetable processing frozen                              | 1                | 1                          |   |                                |                                   |                                  |                          |                     |
| Fruit juice, Pasteurisation processing, Shelf stable processing    | 3                | 1                          |   |                                |                                   |                                  |                          |                     |
| Fruit and vegetable processing Frozen Blanch /Small producer       | 11               | 3                          | 2   | 1                              | 3                                 | 0                                | 1                        | 0                   |
| Meat Processing, Abattoir/ Boning Room                             | 3                |                            |   |                                |                                   |                                  |                          |                     |
| Meat Processing, Fermented meat Processing, Small Goods Processing | 4                | 2                          |   |                                |                                   |                                  |                          |                     |
| Oils and fats processing   | 16               | 5                          |   |                                |                                   |                                  |                          |                     |
| Peanut Butter processing Small Producer                            | 1                | 0                          |   |                                |                                   |                                  |                          |                     |
| Poultry processing   | 1                | 1                          |   |                                |                                   |                                  |                          |                     |
| Prepared not ready to eat food processing                          | 7                | 2                          |   |                                |                                   |                                  |                          |                     |
| Prepared ready to eat food processing                              | 64               | 30                         | 3   | 1                              | 7                                 |                                  |                          |                     |
| Seafood processing   | 16               | 11                         |   | 1                              |                                   |                                  |                          |                     |
| Seafood processing RTE and shelf stable                            | 3                | 3                          |   |                                |                                   |                                  |                          |                     |

Table 10 Number of Enforcement Actions by Processor / Manufacturer Sector (cont.)

| Processor / Manufacturer                         | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition Orders issued | No. of Expiations issued | No. of Prosecutions |
|--|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|---------------------|
| Seafood processing -Mollusc processing           | 5                | 1                          |   |                                |                                   |                                  |                          |                     |
| Spices and dried herbs processing                | 4                | 2                          |   |                                |                                   |                                  |                          |                     |
| Spices and dried herbs processing small producer | 16               | 5                          |   |                                |                                   |                                  |                          |                     |
| Sushi processing                                 | 15               | 14                         | 3   |                                | 4                                 |                                  | 2                        |                     |
| Vegetables in oil processing                     | 7                | 2                          |   |                                |                                   |                                  |                          |                     |
| *Other Processor/ Manufacturers- P1              | 2                |                            |   |                                |                                   |                                  |                          |                     |
| *Other Processor/ Manufacturers- P2              | 2                | 2                          |   |                                |                                   |                                  |                          |                     |
| *Other Processor/ Manufacturers- P3              | 3                |                            |   |                                |                                   |                                  |                          |                     |
| <b>Total</b>                                     | <b>742</b>       | <b>364</b>                 | <b>23</b>                                     | <b>24</b>                      | <b>31</b>                         | <b>1</b>                         | <b>5</b>                 | <b>0</b>            |

\*Others may include the businesses which has not been officially classified or council unable to retrieve the data based on above classification.

# blank cells indicate no offences requiring enforcement action

Table 11 Number of Enforcement Actions by Food Transport Sector

| Processor / Manufacturer  | Total Businesses | No of Businesses Inspected | No of Businesses requiring enforcement action | No. of written warnings issued | No. of improvement notices issued | No. of prohibition Orders issued | No. of Expiations issued | No. of Prosecutions |
|---|------------------|----------------------------|---|--------------------------------|-----------------------------------|----------------------------------|--------------------------|---------------------|
| Bulk milk collection distributor                                | 1                | 1                          |   |                                |                                   |                                  |                          |                     |
| Dairy produce distributor                                       | 11               | 3                          |   |                                |                                   |                                  |                          |                     |
| Dry goods and beverages distributor                             | 33               | 1                          |   |                                |                                   |                                  |                          |                     |
| Frozen food distributor   | 8                | 0                          |   |                                |                                   |                                  |                          |                     |
| Fruit and vegetables distributor                                | 8                | 2                          |   |                                |                                   |                                  |                          |                     |
| Perishable ready to eat, packaged, medium risk food distributor | 16               | 6                          |   |                                |                                   |                                  |                          |                     |
| Perishable, ready to eat, packaged, high risk food distributor  | 17               | 8                          |   |                                |                                   |                                  |                          |                     |
| Processed meat distributor                                      | 9                | 1                          |   |                                |                                   |                                  |                          |                     |
| Seafood distributor   | 5                | 2                          |   |                                |                                   |                                  |                          |                     |
| <b>Total</b>  | <b>108</b>       | <b>24</b>                  | <b>0</b>                                      | <b>0</b>                       | <b>0</b>                          | <b>0</b>                         | <b>0</b>                 | <b>0</b>            |

# blank cells indicate no offences requiring enforcement action

Table 12. Enforcement Actions by Number - Referenced to Standard 3.2.1 (Food Safety Program (FSP))

| Reason for enforcement activity                            | Written warnings | Improvement notices | Prohibition orders | Expiations | Prosecutions |
|--|------------------|---------------------|--------------------|------------|--------------|
| FSP not prepared, implemented, maintained and monitored    |                  | 4                   |                    |            |              |
| FSP not audited at the frequency determined by the auditor |                  |                     |                    |            |              |
| FSP not revised so as to comply with the regulations       |                  | 1                   |                    |            |              |
| FSP audit report not retained by business for four years   |                  |                     |                    |            |              |
| <b>Total</b>   | <b>0</b>         | <b>5</b>            | <b>0</b>           | <b>0</b>   | <b>0</b>     |

# blank cells indicate no offences requiring enforcement action



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## Prosecution Register

The department publishes on its website details of businesses or individuals that have been found guilty by a Court of a breach of the *Food Act 2001*. This website is intended to provide information to the community regarding successful Food Act prosecutions, the most serious action available, undertaken by local councils and the department. Since the last reporting period three additional businesses has been added to the prosecution register and two business removed as the period of notification has expired. This information can be viewed on "The Food Act Prosecutions Register" on the SA Health website:

<http://www.sahealth.sa.gov.au/wps/wcm/connect/Public+Content/SA+Health+Internet/About+us/Legislation/Food+legislation/Food+prosecution+register>

Note: Three other successful prosecutions were undertaken in 2015-2016, one each for the District Council of Mount Barker, City of Marion and SA Health. As per the SA Health protocol their listing will only be placed on the prosecution website after the Magistrates Court of South Australia remarks are received.

## Highlights of other Local Government activities

Local government undertakes additional food safety activities in support of their statutory roles. These programs include food safety training courses, food compliance surveys, presentations to food handlers and primary school students, and special activities for National Food Safety Week.

### Adelaide City Council

In 2014/15 a new software record management system was adopted for use by Adelaide City Council's (Council's) Environmental Health Officers (EHOs). During 2015/16 mobile technology was adopted. Enhancements to the system by updating the Health Manager program and improving its functionality, to align with new reporting requirements have been developed, tested and have become the norm to enable Council's EHOs to use this technology to record inspection results. Thus reducing administrative burden on EHOs, ensuring business can obtain real-time reporting (with the option of direct email) whilst also enabling increased presence with our customers. The work undertaken has been beneficial to all Councils who utilise Health Manager within South Australia.

EHOs attempt to provide proactive information regarding the *Food Act 2001*, Food Safety Standards on a daily basis using a number of means, including presentations, comments on Development Applications, meet with prospective food operators and the-like. During 2015/16 Council's EHOs provided comments on 71 Development Applications for new or change-in use of food businesses. In this process EHOs assess and provide feedback on proposed plans in regards to the *Food Act 2001*, in particular to Food Safety Standard 3.2.3. Where concerns are observed on the plans, direct correspondence is made with the applicant. EHOs attended 92 meetings via Enterprise Adelaide, to provide individuals with information regarding food safety and their potential food safety responsibilities. Having the ability to review proposed plans and liaise directly with an applicant and those considering a future in the food business sector provides a mechanism to provide food safety information to prospective food business operators.

### Alexandrina Council

Council continues to utilise the TAFE SA food safety training. This project continues to be supported by officers as it provides accredited training to food handlers within the community. Over the past financial year Council, in conjunction with TAFE SA, have conducted four very well attended training sessions. The sessions have been fully funded through grant funding sourced by TAFE SA. Providing this training free of charge has seen a significant increase in the number of volunteers undertaking the course. In addition to coordinating training sessions within our Council area Alexandrina EHOs worked with neighbouring Councils to review the TAFE SA course and in particular update the subject matter. The resulting presentation is a more targeted, up to date and relevant training session for food handlers.

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## Barossa Council

In this reporting period, Council has reviewed its methodology for assisting food handlers to comply with the National Food Safety Standard 3.2.2, (which requires food handlers or their supervisors to have “appropriate food handling skills and knowledge”).

Since 2011 Council has facilitated a proactive, synergistic, food handler training partnership with TAFE SA Regional to provide recognised food safety training to local food handlers (and business owners) in the Barossa region.

From 1 July 2016, Council is now promoting a cost effective, nationally recognised, accredited food safety training sessions to local food handlers and business owners, in conjunction with online ‘I’m Alert Food Safety’.

This on line system allows for consistent training throughout the entire food industry. It enables food handlers to complete training in their own time and at a location of their choosing and at no cost to the trainee thereby reducing costs for the food business and improving productivity. This training option assists Council in achieving voluntary compliance amongst food businesses and helps raise the standard of hygiene awareness

This reporting period shows a 6.45% reduction in routine food premises inspections (over 7 year average). This is considered to be largely due to the additional complexity involved in food premises inspections to assess food handling processes against the new SA Food Business Risk Classification criteria.

2015/16 also saw a 21% increase (over previous year) in follow up inspections. It is considered this is due to the broader inspection criteria (mentioned above) resulting in the increased detection of non-conformities. 2015/16 has seen a 22% reduction of food related complaints (compared to the seven year average) and a 66% reduction since 2014/15.

This Council also invests time into assisting prospective new food businesses, home based food businesses, markets and events to support the local food and wine culture. This time investment is also considered helpful in reducing local food related complaints.

## City of Charles Sturt

In the 2015-2016 reporting period, 48 food businesses were awarded with Deliciously Safe (full compliance with the requirements of the Food Safety Standards). The City of Charles Sturt promotes these compliant businesses by hosting a section on Council’s website to recognise their achievement.

The council was also involved in the working group for the State wide implementation of the Food Safety Rating Scheme. Consultation with Council’s elected members was undertaken and a motion was passed to commence participation in the Scheme in the 2016/17 year.

The delivery of food safety education information to food businesses continued throughout this reporting year with the ‘Food News’ newsletter distributed bi-annually. Food News provides interesting articles and information to assist food businesses to meet the requirement of the Food Act.

### Clare & Gilbert Valleys Council

In partnership with TAFE SA, Council hosted an evening session in food safety training. Clare and Gilbert Valleys Council subsidised the accredited food safety training to make it affordable to community organisations. The three hour course explains the intent of the Food Act, Regulations & Food Standards Code as well as reminding the participants of their legal responsibilities and giving an easy to understand presentation on basic food science. Input from the Environmental Health Officer was available when legal clarification was needed.

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## Coorong District Council

Promoting food hygiene principles to food handlers is an ongoing service as many food businesses have a high turnover of staff. To help keep this message current and in the minds of the businesses and the community the EHO organises Food Handling and Safety Training Courses for the food businesses and community organisations located within the district. The courses were presented by TAFE SA Kadina with 56 community organisations, food businesses and hospital and aged care food handlers attending the courses and being awarded their certificates.

Providing food safety information to the general community is an integral part of the Environmental Health Officers role and as such reinforcing best practice principles to the wider community makes them aware of proper food hygiene. Council participated in several community events, the Coonalpyn Show, Tintinara Wool Auction and Produce Market, Meningie Fun Family Food Fair event where Council displayed information covering:- Food Safety, Food Business Notification and Temporary Food Premises.

## Eastern Health Authority (EHA)

EHA introduced the use of hand held electronic tablets during routine food and follow-up inspections with access to Open Office electronic database 'Health Manager'. Food inspection reports are automatically generated from the tablets and sent electronically to the food businesses. The introduction of the tablets allows for consistent and improved quality reports to be provided, along with inspection and administration efficiencies and improved reporting capabilities. Efficiencies include automatically saving inspection reports into EHA's records management database, and non-conformances can be automatically populated into letter and notice template. During 2016-17 EHA will continue to expand the tablets functionality.

## Town of Gawler

In 2015-2016 the Town of Gawler continued to promote the I'm Alert food handler training package and has now reached 5000 users. The council has also adopted the "Food Risk Rating Scheme" food inspection program.

## City of Holdfast Bay

The City of Holdfast Bay continued to provide an online food safety training platform, which has been used by 2597 people to date. In addition, this year we have explored new ways to communicate the food safety message via new and alternative platforms. Council ran cooking classes for the local community, which provided council with the opportunity to offer practical food safety advice. The program was very successful with participants. In addition, Council was able to take advantage of a digital variable message sign to promote handwashing to the general community and visitors to Glenelg. Council estimates this was viewed by thousands of people.

## District Council Karoonda East Murray

The council held food handling and information sessions with community groups and service clubs in their area. The Environmental Health Officer also attended the Karoonda Farm Fair and provided information.

## District Council of Kingston, District Council of Robe and Wattle Range District Council

Kingston, Robe and Wattle Range Councils continue to work in partnership with TAFE SA in delivering food safety training. The venue alternates between Kingston and Robe Councils. This year Kingston hosted the training, and again as funding was still available, the free course attracted many participants. The Council Chamber was at its full capacity, there were 48 attendees. Many who attended came from community/charitable groups.

These councils continue to promote and provide an alternative method of training to food businesses, by making this in-house training program available for purchase. There are currently some food businesses undertaking this Program, endeavouring to become Food Safe accredited.

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## District Council of Mallala

"I'm Alert" Food Safety program is available on Councils website and promoted where businesses do not have a trained operator resulting in increased education. During the Pinery Fires and a 24 hour power blackout, councils EHO inspected major food premises regarding the storage of food and the prevention of food borne disease.

## City of Marion

The City of Marion Environmental Health officers have provided many educational sessions regarding safe food to a wide range of audiences and groups, including schools students, staff and volunteers of school canteens, community groups, volunteers, staff of nursing homes; and to participants of adult community education courses through the City of Marion's Neighborhood and Community Centres. The council hosted several university students from Flinders University who undertook work experience or student work placement as part of their studies. Many of these students are interested in pursuing a career in environmental health and therefore this training is seen as invaluable for the profession. The council also has educational information on its website regarding food safety and also has an educational banner regarding food safety that is periodically displayed for public viewing at the council's main Administration building.

## Mid Murray Council

Mid Murray Council subsidised the TAFE SA accredited Food Safety Short course which was offered in four regional towns. The courses were well attended and designed to enhance the knowledge of food handlers in their legal requirements and other essential food safety matters. A quarterly newsletter is distributed to all food businesses on our inspection register to ensure that they are kept informed and up to date on all food safety matters.

The council supports these important initiatives to address the needs of local food businesses and food handlers from community groups. Council also provides free online food safety training through the 'I'm Alert Food Safety' program which can be easily accessed via a link on Council's website. The interactive, logical and easy learning format can assist food handlers to develop the skills and knowledge required to ensure food safety and to comply with their obligations under the Food Standards Code.

## City of Mitcham

An initiative of the 2015-16 Environmental Health Efficiency and Effectiveness Improvement Plan was the development and implementation of an Environmental Health Enforcement Policy. The intent was to outline the principles of effective enforcement, assist staff and assure external stakeholders that the team's approach is consistent, fair and proportionate in each instance.

'How to' advice, enforcement examples, templates and flow charts help staff with the practical application of enforcement theory.

A lack of understanding about the role of sanitising in the cleaning process and correct use of chemical sanitiser lead to the creation of a new fact sheet. The handout is written in simple language and tick boxes enable the business to self-evaluate their cleaning and sanitising practices.

During 2015-16, 87 food handlers attended a food safety training session presented by Council's Environmental Health Officers. Six sessions were offered during the morning, afternoon or evening to cater for the different needs of different businesses. The training is available at no cost to businesses operating within the Council area and attendees receive a certificate of attendance and comprehensive workbook.

In response to feedback received, the length of the program was extended and content reviewed.

Mitcham's Food Safety Newsletter provides the opportunity for Council to communicate regularly with food businesses during the course of the year. Four editions were distributed to all food businesses during 2015-16 and contained information about:

1. Issues of current concern – cleaning and sanitising of mechanical equipment, *Salmonella* and eggs
2. Initiatives – dates and times of upcoming food safety training sessions, Food Safety Week
3. Food safety topics – pest control, preventative maintenance, 2hr/4hr rule, power failures, cooling and much more
4. Media reports – food poisoning outbreaks, court action.

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## District Council of Mount Barker

Council facilitated a Food Safety Training session in conjunction with TAFE SA. The session was held on October 27 2015 with 30 participants attending. Council also opted to continue to participate in the Food Safety Rating Scheme following on from positive outcomes from the pilot that has demonstrated potential elevation in industry food safety standards and benefits to SA consumers.

## City of Mount Gambier

The City of Mount Gambier continued their partnership with TAFE SA to provide accredited food safety training courses locally to assist education opportunities and compliance levels for food businesses. A total of 140 individuals completed the 3.5 hour short course to gain a statement of attainment in hygienic practices for food safety. High participation contributed to Council hosting its first subsidised food safety training course for volunteers in March 2016. The session was attended by 92 volunteers, representing 38 charities, clubs and service clubs in the region.

Another food safety training option promoted by Council is the "I'm Alert" online food safety training developed by Environmental Health Australia. Council continued membership in 2015-16 to allow residents free access to the online training, it was utilised by 371 individuals.

## District Council of Mount Remarkable and District Council of Peterborough

To assist food businesses in more remote areas Council offer for sale digital food thermometers for use by food businesses throughout the area. These temperature measuring devices meet the requirements of the Food Standards Code. The service continues to be well received by food business operators.

Council continue to provide temperature validation tabs (accurate to within +/- 1 degree Centigrade). These thermal temp-tabs are distributed to selected food businesses. Temp-tabs may assist food businesses to conduct thermal operational checks on equipment such as dishwashers and equipment used for laundering services associated with food preparation and food service. For example this may be associated with laundering of, protective clothing, dish-clothes and cotton food service drying towels. Or to assist in validation of other thermal pasteurisation steps being undertaken in connection with the business operation. Food operators continue to provide positive feedback for Councils' assistance in risk mitigation thorough providing Temp-Tabs to monitor measurable outcomes. Food Safety Information Sessions are run by Council's Environmental Health Practitioner for those operators who have had little or no food safety knowledge training. The sessions are also attended by food handlers who have not kept up with current food safety requirements and advancements. Since its inception in 2009, feedback from attendees supports continuation of the program particularly in remote regional areas.

## Rural City of Murray Bridge

The Rural City of Murray Bridge continues to be proactive with food safety education and has facilitated three TAFE SA accredited food safety short courses for food handlers. The courses were well attended with a total of 65 people completing the training during 2015-2016.

Council's Environmental Health Officers continue to encourage Clubs and Community groups who handle food to update their food handling skills and knowledge. A frequently asked question style information session was held on request of the Murray Bridge Croquet Club where members could discuss food safety matters specifically pertaining to their clubs operations. Feedback was positive with comments suggesting an increased level of confidence was attained.

SA Health's Food Safety Rating Scheme has been adopted by Council after a successful pilot trial period. One of Councils Environmental Health Officers provides input as a member of the Food Safety Rating Scheme Working Group which aims to refine and promote the scheme to all SA Councils.

The Rural City of Murray Bridge supports these important initiatives to address the needs of local businesses and community groups and improve the level of food safety awareness in the region.

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## City of Onkaparinga

The council conducted 10 food safety information sessions with 176 food handlers attending. The online training package 'I'm Alert' was accessed by 872 food handlers. The council has participated in the Food Safety Rating Scheme trail by the department and continues to take part in the scheme.

## City of Playford

The City of Playford developed an intensive and interactive food safety training program. The training program was developed with great success. There were six training sessions held during 2015-2016. As an alternative the City of Playford offered the "I'm Alert" online training course for food businesses.

## City of Port Lincoln

Protein swabbing has again been undertaken on some food business sites as an educational measure. The activity has been well received as some businesses like confirmation that their cleaning schedule is adequate. The use of the protein swab gives an in the field reading that the food surfaces are clean. A food safety Q&A like forum is regularly run and is designed to encourage year round improvement and discussion, rather than waiting for food premises inspections to clarify compliance expectations.

## Port Pirie Regional Council

The council continues to foster its association with the Kadina TAFE SA by encouraging interested parties to attend the Food Safety Short Course.

## City of Salisbury

Council has designed and implement mobile inspection systems that allow all food inspection assessments and audits to be completed on a mobile tablet device. The project has been well received by businesses, who can receive their inspection reports in real time via email. In addition food safety information can be emailed directly to the business proprietors at the time of the inspection. The data collected during the inspection process will be able to be extracted and analysed to provide better food safety statistics regarding the performance and compliance of each business.

The City of Salisbury published an edition of 'Salisbury Food' in December 2015 as part of our initiatives to educate food businesses. The publication was distributed to all food businesses in the Council area. The publication covered a range of food safety topics including SA Health Food Safety Rating Scheme, cleaning and sanitising of mechanical equipment, protecting food from contamination, temperature control and food safety news.

City of Salisbury participated in the SA Health Food Safety Rating Scheme. A total 429 rating assessment were completed for eligible businesses.

## Southern Mallee District Council

Council held food handling information sessions which are held annually with the local community clubs/ organisations and businesses. Councils Environmental Health Officer attended the Pinnaroo Show, Pinnaroo Spud Feast and Lameroo Music Muster and provided food safety advice.

## District Council of Tatiara

Food safety training was offered throughout the district during the past 12 months. Over 35 food handlers completed the training package. The training package is aimed at increasing individual skill sets and contributing to the overall safe handling of food within the district.

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## Wakefield Regional Council

The council in conjunction with TAFE SA partner up every 6 months to provide free food safety training sessions to all food businesses and community groups. Two Food Safety Training sessions were held during 2015/16. Following the training, the food handlers are issued with a certificate. At the most recent food safety training session a total of 31 food handlers attended

## City of West Torrens

The City of West Torrens continued to provide informal training sessions and presentations on hygienic food handling practices and food safety to community groups, organisations and other interested businesses. The sessions are focused on improving the skills and knowledge on food handling to the attendees. The I'm Alert food safety training program continues to be provided on Council's web site. The program is promoted to businesses and individuals during inspections, audit and presentations to community groups. More than 1000 individuals have undertaken the training on Council's web site.

## City of Whyalla

Food Business Newsletters have been devised and sent to food businesses on at least a six monthly basis since 2010, these newsletters contain information on common non-compliance issues, updates on legislation changes and/or clarification on legislative requirements and other hints and tips for best practice to ensure full compliance with requirements. Business owners use these newsletters as a training tool for staff and continue to provide positive feedback as to their relevance.

Whyalla Council continued to partner with TAFE SA Regional to offer food safety training courses to food handlers within Whyalla. Two sessions were offered during the reporting period and both were fully subsidised by Council recognising that Whyalla is in a tough economic position and food safety training is an important education activity. Participant evaluations indicate that the training is found to be extremely useful and informative. Many indicated that they find having the EHO in attendance and the explanation provided on the role to be invaluable.

Whyalla Council held night markets at the foreshore during the summer months a food safety and hygiene information pack was devised specifically for food vendors participating at these events. Inspections were conducted at the events to ensure that vendors were complying with requirements.

A volunteer training pack was devised for the football clubs which included a simple overview of the food hygiene requirements (Key Food Safety Messages for Volunteers) which is to be read by the volunteer prior to any food handling occurring at the club, the food handler is to then sign off stating that they have read and understood the information provided and that they will conduct their activities in a manner that ensures that food is safe and suitable. This training pack will be rolled out to other sporting groups with volunteers.

## Activities Undertaken By Councils During Food Safety Week

### Adelaide City Council

As a part of Food Safety Week 2015 Council's EHOs held three food safety sessions with this year's theme in mind. The presentations were conducted at the City Library and North Adelaide Community Centre. The sessions were promoted via digital screens located at various locations, Twitter and Facebook. The events attracted residents and visitors to the City Library, as well as educating a cultural cooking group that utilise North Adelaide Community Centre. Further requests were received to conduct further information sessions on food safety as a result.

### Alexandrina Council

The theme for Food Safety Week for 2015 was "Did you know?". The Alexandrina Council Environmental Health team again promoted food safety week through the use of information booths at the Goolwa Library, daily myth busting and games with Council staff and a morning tea. Council Environmental Health Officers developed information sheets to accompany the promotional material provided by SA Health. Information sheets and brochures were available at the information booth and the promotion material provided by the department was handed out to community members in the library where officers discussed topical food safety information with them one on one.



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## City of Charles Sturt

National Food Safety Week was promoted in the quarter, with this year's theme focussing on 'busting the food safety myths'. An interactive display was established in Council's Civic Library, staffed at various intervals throughout the week by Council's Environmental Health officers. A variety of food safety information and promotional material was provided to our residents to increase their awareness of food safety.

## Eastern Health Authority (EHA)

In supporting Food Safety Week, EHA set up an information stand at the Prospect Farmers Markets. EHOs prepared a quiz about myths and facts on food safety. Visitors at the market were quizzed and in return they were provided with food safety information and promotional material. Officers also approached food stalls and spent some time answering questions and promoting safe food practices. The Food Safety Week initiative was well received by visitors and stall holders. The visitors were interactive seeking advice and clarification of food safety practices within their own home.

## Town of Gawler

Food Safety Week involved a media promotion in conjunction with Light Regional Council with food safety promotional material and two very successful public displays which were attended by Environmental Health Officers.

## Light Regional Council

During food safety week the Light Regional Council with the Town of Gawler undertook display stands in the main street of Gawler and Kapunda (a health officer from each council participated). The information stands were very popular and a very good reaction received from the general public. Food safety information in-line with Food Safety Week theme was promoted, as well as general food safety questions answered.

## City of Marion

As part of Food Safety Week the City of Marion set up a display stand at the Cove Civic Centre to educate the community about food safety. Pamphlets and brochures were available along with merchandise that was provided by SA Health. The display was well received by members of the public who were very interested in food safety issues.

## Mid Murray Council

For Food Safety Week displays were set up in each of councils three office foyers promoting the 'Busting Food Safety Myths' theme. Free trinkets and factsheets were available to the public.

## City of Mitcham

In the theme of Food Safety Week 2015 'Did you know?' a poster was created addressing four food safety issues - cooling, handwashing, sanitising and illness. The issues were selected for the reason that EHOs regularly found them to be misunderstood and, as a result, food handling practices were inadequate. Additionally, the four issues pose a high risk to food safety. A short statement described the 'myth' and a brief explanation was given of the 'truth'.

The poster was distributed to food service businesses during Food Safety Week and accompanied the December edition of Mitcham's Food Safety Newsletter that is posted to all food businesses operating in the council area.

## District Council of Mount Barker

Council's Environmental Health Officers ran a stall at the local shopping centre for Food Safety Week promoting the theme 'Did you know?' Busting the food safety myths'. EHOs provided education, advice and promotional material to members of the public.

## City of Mount Gambier

To raise awareness of food safety at home within the community Council participated in Food Safety Week in November 2016. Important food safety messages were promoted for this week using the local newspaper, various radio interviews and information on Council's website. A large display was also set up in the Mount Gambier Library with multiple resources for residents to take home. The library has an average of 7,000 visitors per week.



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## Rural City of Murray Bridge

Food Safety Week was supported by council with Environmental Health Officers manning a stand at the Murray Bridge Marketplace. Trinkets and food safety information was given to shoppers with an emphasis on promoting the 2016 theme of 'Busting Food Safety Myths'.

## City of Playford

To celebrate the 2015 Australian Food Safety Week, EHOs held interactive information sessions at multiple Community Centres throughout the Playford area, where they discussed the themed food safety messages and handed out the food safety goodie bags from SA Health. Community members were able to ask EHOs anything food safety related, which dispelled many food safety myths and increased the public's overall understanding of food safety in the home.

## City of Port Lincoln

Food Safety Week involved static displays, online promotion of food safety principles, and distribution of educational materials to kindergartens.

## City of Salisbury

Food Safety display was established at Len Beadell Library in Salisbury for 1 week. The display was interactive with a food safety quiz and relevant posters promoting the theme. Food safety merchandise received from the department was distributed to the community from the library.

## Wakefield Regional Council

During Food Safety week the Environmental Health Officer created a 'Holiday Season Food Safety Tips' fact sheet that was placed into food information bags made up from using the promotional material provided by SA Health. The EHO visited each town over two days where the food information bags were given out to the community. Visiting each town allowed members of the community and public the opportunity to ask questions and discuss food safety. A food safety display was also provided in the council chamber.

## City of West Torrens

The City of West Torrens participated in Food Safety Week. The theme for 2015 was "did you know" with a focus on busting the food safety myths. The Environmental Health Team set up a stall in the Council library during food safety week promoting the theme. Environmental Health Officers were present at the stall on numerous occasions, specifically coinciding with the baby and toddler activity sessions. The department promotional merchandise was offered at the stalls when Environmental Health Officers were present. The City of West Torrens developed a myth busting food safety fact sheet which was discussed at the stall and promotional merchandise was also provided.

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## 8. Biosecurity SA Activities Under The *Food Act 2001*

Biosecurity SA is a division of the Department of Primary Industries and Regions SA (PIRSA).

The *Primary Produce (Food Safety Schemes) (Meat Industry) Regulations 2006* require retail butcher shops to hold accreditation that minimises regulatory burden and duplication. In practice to avoid duplication, retail butcher shops that sell food (other than meat) and conduct activities regulated under the *Food Act 2001*, they are inspected by Biosecurity SA officers. There are a number of officers that have been appointed authorised officers under the *Food Act 2001*.

During 2015-2016, 1031 audits were conducted By Biosecurity SA officers on retail butchers shops, where a component of audits addressed other retail activities regulated under the *Food Act 2001*.

During the audits conducted under the *Primary Produce (Food Safety Schemes) (Meat Industry) Regulations 2006* at retail butcher shops, 51 Corrective Action Requests (CARs) were issued which related to their food safety program, hygiene or construction and required follow up visits.

## Appendix I

### Food Safety Survey Report Bacterial Loads of Immersion Blenders

June 2016

Author: Jamie Woodward, Scientific Officer

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## A survey to measure bacterial loads of immersion blenders used in commercial settings.

### Aims & Scope of the Investigation

The purpose of this survey was to determine the level of contamination (internally & externally) on handheld immersion blenders (stab mixers) used in commercial settings such as hotels, aged care facilities and hospitals.

6 different brands of immersion blenders were sampled.

All Enviro Swabs and Steriswabs were analysed for *Salmonella* spp. and total plate count respectively.

### Background to the survey

Recent outbreaks in a South Australian Private Hospital (ABC News, 2015) and Brisbane Convention Centre (Courier Mail, 2015) has highlighted an emerging issue that some mechanical equipment may not be designed or serviced appropriately to enable effective cleaning and sanitising. This type of equipment can look clean externally, however internal areas may become contaminated. In both outbreaks identified above, investigators identified that an inability to effectively clean and sanitise the stab mixers was the ultimate cause of the food becoming contaminated.

The outcome of these investigations has highlighted that there may be a lack of understanding by food businesses of how to dismantle, then effectively clean and sanitise mechanical equipment such as hand held immersion blenders and/or stab mixers.

### Standards

The *Food Act 2001* requires food businesses not to sell food that is unsafe or unsuitable for human consumption. The Food Standards Code makes further reference to require equipment such as hand held immersion blenders to be able to be easily and effectively cleaned and sanitised if there is likelihood that they will cause food contamination. They must also be unable to absorb grease, food particles and water if there is likelihood that they will cause food contamination. Food Standards Code, 3.2.3 Clause 12 (3).

### What equipment was tested?

During the sampling period a total of five Enviro Swabs and one enumeration swab per hand held immersion blender were collected, aiming to capture as much surface area of the hand held immersion blenders (internally & externally) to get a representation of the bacterial load of each piece of equipment.

The following areas were sampled;

- > Bell Housing (internal & external).
- > Blade Component's.
- > Shaft Couplings (internal & external).
- > Internal component's (washers, O-rings, grommets).

### What did we test for?

All samples were sent to the SA Pathology Food and Environmental Laboratory in Adelaide for analysis. Samples were analysed for *Salmonella* spp. and Total Bacterial Count (TBC).

All Enviro Swabs samples and Steriswab samples were placed directly into an esky with ice bricks to control the temperature of the samples, and then stored in vehicle refrigerators at or below 5°C until delivery to SA Pathology in Adelaide on the same day as sample collection.

### Test Method

*Salmonella*: TECRA AOAC 998.09

1. 225ml of buffered peptone water is added to immerse the sponge end of the swab.
2. The swab is then incubated at 30°C for 24 hours.
3. Pipette 0.1mL of the incubated broth into 10mL Rappaports-Vassiliadis (RV) broth and incubate at 41.5°C for 24 hours
4. Perform the ELISA, a green colour change in the ELISA well indicates a presumptive positive reaction for *Salmonella*.

5. The corresponding RV broth is then streaked onto XLD and Chromogenic *Salmonella* agar and incubated at 37°C for 24 hours.
6. After incubation, typical colonies are checked for biochemical reactions using the Microbact 12E system, this stage confirms *Salmonella* species.

If required the *Salmonella* cultures are then sent to the Australian *Salmonella* Reference Centre for phage typing tests to be conducted.

## Discussion of results

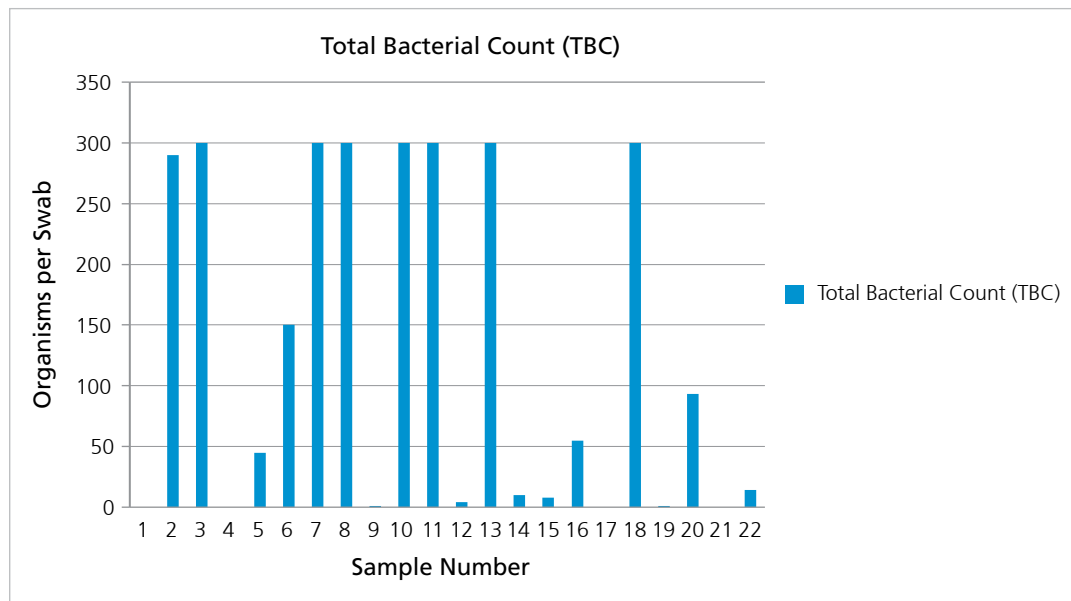
This survey aimed at capturing as many different brands and sizes of stab mixers currently available and being used within industry to assess the effect of design, construction, maintenance as well as effective cleaning and sanitising.

Each stab mixer was sampled six times, this consisted of five Enviro Swabs and one Steriswab for each stab mixer unit. As swabbing was performed the unit was systematically disassembled to prevent cross contamination and assure each swab identified a different internal or external component of the stab mixer.

A total of 125 Enviro Swab samples were obtained from 25 different types/brands of stab mixers, these were submitted to SA Pathology for *Salmonella* testing. All 125 Enviro Swab samples submitted returned a 'not detected' result.

In parallel an additional 22 Steriswabs were obtained from 22 different types/brands of Stab mixers, these were also submitted to SA Pathology for analysis to assess TBC. The results varied from zero to 300 colony forming units per swab (Table 1), the mean was 126 organisms per swab.

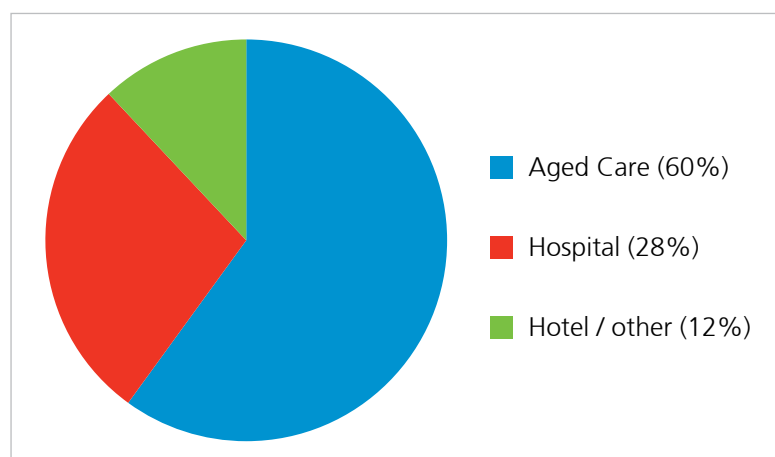
**Table 1. Summary of Total Bacterial Count (TBC) results for 2015-16.**



Caution must be taken when interpreting the elevated Steriswab results as the steriswabs and testing method does not distinguish between pathogenic and non-pathogenic bacteria, however these results do indicate that stab mixers can provide an environment for bacteria to harbour and potentially multiply which subsequently could be introduced to food when the unit is immersed into liquids, puree's, custards, gravies and the like during stages of food preparation. The lack of further control steps such as temperature control or re-heating may easily result in rapid multiplication of pathogens in a nutrient rich environment.

The types of facilities where testing was conducted included Aged Care (60%), Hospitals (28%) and Hotels/other (12%), (refer to Figure 1) with the main usage for the stab mixer being to puree vegetables and soups, with occasional use to mix desserts such as puddings. Only one organisation (hotel) indicated that they use the stab mixer to mix raw egg aioli.

Figure 1. Summary data for the types of food establishments' stab mixers sampled from for 2015-16.



### Follow-up activities

While no positive detections for *Salmonella* spp. occurred throughout the period of the survey, the department has advised the food industry that mechanical equipment such as hand held stab mixers must be designed to facilitate effective cleaning and sanitising in order to comply the Food Standards Code. The department will continue to encourage food businesses to use equipment that can be easily dismantled.

The department in collaboration with industry will continue to educate food businesses on how to effectively clean and sanitise mechanical equipment such as hand held immersion blenders.

### Conclusion

A total of 125 Enviro Swabs were taken from 25 Stab mixers to detect the presence of *Salmonella* Spp, all 125 samples returned a "Not Detected" result for the presence of *Salmonella* spp. A total of 22 Steriswabs were taken to assess bacterial loads on components of the stab mixers with the mean being 126 colony forming units per swab.

In light of associations between stab mixers and foodborne illness outbreaks that have been attributed to cross contamination from stab mixers, the design, maintenance and cleaning and sanitisation of food processing equipment remains vitally important.

While the survey did not identify contamination on stab mixers surveyed, it remains unclear how effectively this issue is being managed by food businesses in light of recent food borne illness investigations. The result could be attributed to recent publicity, a concerted effort from council EHOs and distribution of education material aimed at identifying dismantling, cleaning and sanitising procedures of stab mixers used by the food industry. At the same time, manufacturers of stab mixers have also proactively addressed this emerging issue with education around dismantling and maintenance of these units. These initiatives appear to have had a positive impact on the use stab mixers.

### Acknowledgements

Hospitality Catering Hardware Pty Ltd

Mr Tim Hawkins, State Sales Representative, SA.

### References

ABC News - September 2015, Dirty food mixer responsible for salmonella outbreak at Burnside Hospital, SA Health issue warning, [online], <http://www.abc.net.au/news/2015-09-28/salmonella-outbreak-blamed-on-stab-mixer/6809610>, last accessed 5<sup>th</sup> July 2016.

The Courier-Mail – November 2015, Brisbane Convention Centre food poisoning caused by salmonella on stick blender, <http://www.couriermail.com.au/news/queensland/brisbane-convention-centre-food-poisoning-caused-by-salmonella-on-stick-blender/news-story/6160fc60acdb45431bff35d2dfe487f9> , last accessed 5th July 2016.

## Appendix II

Microbiological Integrity of Ready to Eat (RTE) Salads

June 2016

Author: Surinder Singh Aietan, Scientific Officer

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## A survey to measure microbiological integrity of ready to eat salads being sold in South Australian food businesses

### Aims & Scope of the Investigation

The purpose of this survey was to assess the microbiological integrity of unpackaged ready to eat (RTE) salads to determine whether:

- > salads are safe and suitable for sale and consumption within their expected shelf life
- > the storage and handling practices at retail stores are appropriate to keep the salads safe at salad bars
- > there is a potential for cross contamination through the serving utensils or surrounding environment

Various types of salad samples were collected from different supermarkets, multi-site salad chains and individual food service stores within Adelaide metropolitan and surrounding suburbs.

### Background of the Survey

Growing consumer awareness and trends towards healthier diets has increased the availability of foods such as coleslaw, potato salads, pasta salads, chicken caesar and other salad types. The epidemiological evidence nationally and internationally suggests that fresh produce (vegetables, herbs etc.) can be potential vehicles for transmission of microorganisms known to cause human disease. Since the majority of these salads contains fresh produce as main ingredients, these products are considered high risk foods and in the right conditions, have the ability to support the growth of harmful microorganism (pathogens). Pathogens can be present in the growing and processing environment. Care should be taken in the selection of raw materials (cut fresh produce, meat, eggs, dressings, herbs etc.) and during processing (cutting, dicing, mixing etc.) to reduce the amount of pathogens entering the business environment. After processing, salads require controlled conditions of storage and handling to avoid cross contamination and minimise the growth of pathogens.

Microbiological assessment provides information of the food safety practices being applied in business preparing and selling these salad products.

### Microbiological References

- > The Australia New Zealand Food Standards Code (the Code), Standard 1.6.1- Microbiological criteria for *Listeria monocytogenes* (*L.monocytogenes*) in ready-to-eat (RTE) Foods.
- > Food Standard Australia New Zealand (FSANZ) guidelines for microbiological examination of ready-to-eat foods.
- > FSANZ document -Guidance on the application of microbiological criteria for *Listeria monocytogenes* in RTE food.

### What was done?

A total of 59 samples of unpackaged RTE salads were taken from 20 different retail outlets including supermarkets, multi-site food businesses and individual food stores in Adelaide and surrounding suburbs. Samples were collected from December 2015 to March 2016 and include salads which are packaged by either staff in assisted service display units or by customer themselves in self served display areas. Information on the methods of preparation, suppliers, storage temperature and handling practices was obtained by observation and enquiry using a predesigned template.

All samples were analysed within their stated shelf life by SA Pathology, Food and Environmental Laboratory for the following parameters:

1. pH Value
  2. Water Activity
- Pathogens
1. *Salmonella*
  2. *Listeria monocytogenes* (*L. monocytogenes* or *L.mono*)
  3. *Bacillus cereus*
  4. Coagulase-positive *Staphylococci*
  5. *Clostridium perfringens*
  6. Thermophilic *Campylobacter*
- Hygiene indicators
1. *Escherichia coli* (*E. coli*)



All salads tested in this survey fall into a large category of ready-to-eat foods for which there are no microbiological standards in the Australian New Zealand Food Standards Code (the Code) except for *L.monocytogenes*. The FSANZ guidelines for microbiological examination of ready-to-eat foods were used to assess the microbiological results in this survey. (Table A.)

There are four categories of microbiological quality specified in the guidelines

- > **Satisfactory** – Results indicate good microbiological quality.
- > **Marginal** – Results are borderline in that they are within limits of acceptable microbiological quality but may indicate possible hygiene problems in the preparation of the food.
- > **Unsatisfactory** – Results are out of acceptable microbiological quality and are indicative of poor hygiene or food handling practices.
- > **Potentially Hazardous** – The levels in this range may cause food borne illness and immediate remedial action should be initiated.

**Table A. Guidelines levels for determining the microbiological quality of ready-to-eat foods**

Satisfactory = S; Marginal = M; Unsatisfactory = US; Potentially Hazardous = PH  
Microbiological Quality- Colony Forming Unit (CFU) per gram

| Test                               | Microbiological results |                                  |                                  |  |
|------------------------------------|-------------------------|----------------------------------|----------------------------------|--|
|                                    | S                       | M                                | US                               | PH                                       |
| <b>Indicators</b>                  |                         |                                  |                                  |  |
| <i>Escherichia coli</i>            | <3                      | 3-100                            | Greater than or equal to 100     | **                                       |
| <b>Pathogens</b>                   |                         |                                  |                                  |  |
| <i>Bacillus cereus</i>             | <10 <sup>2</sup>        | 10 <sup>2</sup> –10 <sup>3</sup> | 10 <sup>3</sup> –10 <sup>4</sup> | Greater than or equal to 10 <sup>4</sup> |
| <i>Salmonella spp</i>              | Not detected in 25g     | -                                | -                                | detected                                 |
| <i>Coagulase +ve Staphylococci</i> | <10 <sup>2</sup>        | 10 <sup>2</sup> –10 <sup>3</sup> | 10 <sup>3</sup> –10 <sup>4</sup> | Greater than or equal to 10 <sup>4</sup> |
| <i>Clostridium perfringens</i>     | <10 <sup>2</sup>        | 10 <sup>2</sup> –10 <sup>3</sup> | 10 <sup>3</sup> –10 <sup>4</sup> | Greater than or equal to 10 <sup>4</sup> |
| <i>Campylobacter spp.</i>          | Not detected in 25g     | -                                | -                                | detected                                 |

\*\* Pathogenic strains of *E.coli* should be absent

Since July 2014, Standard 1.6.1 Microbiological Limits in foods has included the criteria for *L. monocytogenes* when assessing RTE foods and is based on whether the food can support its growth or not.

| Criteria  | Specification        |
|---|----------------------|
| RTE foods in which growth of <i>L. monocytogenes</i> will not occur | less than 100cfu/g   |
| RTE foods in which growth of <i>L. monocytogenes</i> will occur     | not detected in 25g. |

Where insufficient, inadequate or no information exists to demonstrate that growth of *L.mono* will not occur, then RTE food is considered to support the growth therefore limit of 'Not Detected' will apply

### Testing Methods:

|                                    |   |                                |
|------------------------------------|---|--------------------------------|
| pH                                 | : | IMVS Method FH19               |
| Water Activity                     | : | IMVS Method FH17               |
| <i>Listeria monocytogenes</i>      | : | TECRA AOAC 998.09.             |
| <i>E. coli</i>                     | : | AS 5013.15-2006                |
| <i>Clostridium perfringens</i>     | : | AS 5013.16-2006                |
| Thermophilic <i>Campylobacter</i>  | : | AS 5013.6-2004                 |
| <i>Bacillus cereus</i>             | : | CCFRA Method 3.7.1-2007        |
| <i>Salmonella spp.</i>             | : | TECRA AOAC 995.22              |
| Coagulase +ve <i>Staphylococci</i> | : | AOAC 2003.07, 2003.08, 2003.11 |

### Summary of Results:

During 2015-16, a survey was undertaken to determine the microbiological integrity of ready-to-eat salads. A total of 20 different food retail premises were visited and 59 samples were collected for analysis. Results Summary: Table B. & Table C.

Using FSANZ Guidelines specifications:

All 59 samples were negative for *Salmonella* and *Campylobacter*. The levels of *Coagulase positive Staphylococci* and *Clostridium perfringens* were within satisfactory limits.

54 samples (91.5%) results were classified as satisfactory.

Four samples (6.8%) were categorised as marginal, two (3.4%) of them had elevated *Bacillus cereus* levels and other two (3.4%) have high *E. coli* levels.

One sample (1.7%) was classified as potentially hazardous due to high levels of *E. coli* (MPN 460 cfu/g). Further analysis of this sample indicated *E. coli* species identified as non-pathogenic in nature.

Using Standard 1.6.1 of the Code:

One sample (1.7%) out of 59 samples analysed, was positive for *L. monocytogenes* therefore noncompliant to the regulatory limits of the Code.

**Table B. Assessment of results based on the specification provided in Standard 1.6.1 of the Code**

| Microbiological Test          | Specification       | Total samples tested | No. of samples compliant | No. of samples non-compliant |
|-------------------------------|---------------------|----------------------|--------------------------|------------------------------|
| <i>Listeria monocytogenes</i> | Not Detected in 25g | 59                   | 58 (98.3%)               | 1 (1.7%)                     |
| <i>Listeria monocytogenes</i> | < 100 *cfu/g        | 59                   | 59 (100%)                | 0                            |

\*cfu = colony forming unit

**Table C. Assessment of results using FSANZ Guidelines for Microbiological Examination**

| Microbiological Test                    | No. of Samples | Microbiological Quality (% age) |          |                |                       |
|---|----------------|---------------------------------|----------|----------------|-----------------------|
|   |                | Satisfactory                    | Marginal | Unsatisfactory | Potentially Hazardous |
| <i>Escherichia coli</i>                 | 59             | 56 (94.9%)                      | 2 (3.4%) | -              | 1 (1.7%)              |
| <i>Bacillus cereus</i>                  | 59             | 57 (96.6%)                      | 2 (3.4%) | -              | -                     |
| <i>Salmonella</i>                       | 59             | 59 (100%)                       | -        | -              | -                     |
| <i>Coagulase-positive Staphylococci</i> | 59             | 59 (100%)                       | -        | -              | -                     |
| <i>Campylobacter spp.</i>               | 59             | 59 (100%)                       | -        | -              | -                     |
| <i>Clostridium perfringens</i>          | 59             | 59 (100%)                       | -        | -              | -                     |
| <b>Overall</b>                          | 59             | 54 (91.5%)                      | 4 (6.8%) | -              | 1 (1.7%)              |

## Detailed Discussion of individual Test

### pH and Water Activity of RTE Salads:

pH is a measure of acidity or alkalinity of the food. A pH value is the number from 1 to 14, with 7 as the neutral point; values below 7 indicate acidity and value above 7 indicate alkalinity.

Water activity or aw refers to unbound or available water i.e. water in food which is not bound to food molecules and can support the growth of bacteria, yeasts and moulds (fungi). The water activity scale extends from 0 (bone dry or no available water) to 1.0 (pure water).

pH value and water activity (aw) can be used to predict the growth of pathogens in ready to eat foods. Food can be made safe by lowering the water activity and lowering the pH value. To extend the shelf life of a RTE food, acidity level (pH) or the level of water activity (aw) or a suitable combination of the two can be used.

As per Standard 1.6.1 the growth of *L. monocytogenes* will not occur in a ready-to-eat food if

- (a) the food has a pH less than 4.4 regardless of water activity; or
- (b) the food has a water activity less than 0.92 regardless of pH; or
- (c) the food has a pH less than 5.0 in combination with a water activity of less than 0.94; or

Out of 59 salad samples analysed, 25 (42.37%) of them had pH below 4.4 which do not support the growth of *L. monocytogenes*, remaining 34 (57.62%) samples have pH ranging from 4.4 to 7. None of the samples had water activity below 0.98 which indicate that water activity cannot be used as an effective control measure in production of safe ready to eat salads due to the moist nature of the ingredients. However pH values can be managed by addition of organic acids or vinegar to keep the salads safe during prolonged storage.

Table D.

| pH Range       | pH Range of RTE Salads |       |       |       |       |         | Total |
|----------------|------------------------|-------|-------|-------|-------|---------|-------|
|                | Below 4.4              | 4.4-5 | 5-5.5 | 5.5-6 | 6-6.5 | 6.5-7.0 |       |
| No. of Samples | 25                     | 25    | 4     | 1     | 3     | 1       | 59    |

Water activity of salads in combination with pH values can be a control point for *L. monocytogenes* but this criteria will not apply to this survey samples because all samples had water activity 0.98 and above (Table E). Water activity at this level cannot control the growth of *L. monocytogenes* irrespective of pH values.

Table E.

| Water Activity | Water Activity range of RTE salads samples |      |    | Total |
|----------------|--|------|----|-------|
|                | 0.98                                       | 0.99 | 1  |       |
| No. of Samples | 6  | 32   | 21 | 59    |

## Listeria monocytogenes (*L. monocytogenes*)

Listeria is an environmental microorganism found in soils and processing environment. Horticultural products can become contaminated at the time of harvest or contaminated during preparation, processing or packaging. Its incubation period can be up to 70 days making it hard to identify the source later.

*L. monocytogenes* is the only recognised pathogenic form of Listeria. Its infection can affect people differently. Healthy people may develop few or no symptoms. However for immune compromised people it can be life threatening. People who are at particular risk of infection include: pregnant women, the elderly, new born and immunocompromised.

All the samples were analysed for

- > presence /absence of *L. monocytogenes* in 25g – Detection method
- > the number of Listeria cfu counts per g - Enumeration method

For the scope of this survey, The department had a position that if retailer or manufacturer cannot establish whether their product supports the growth of Listeria or not, the specifications “not detected in 25g” will apply.

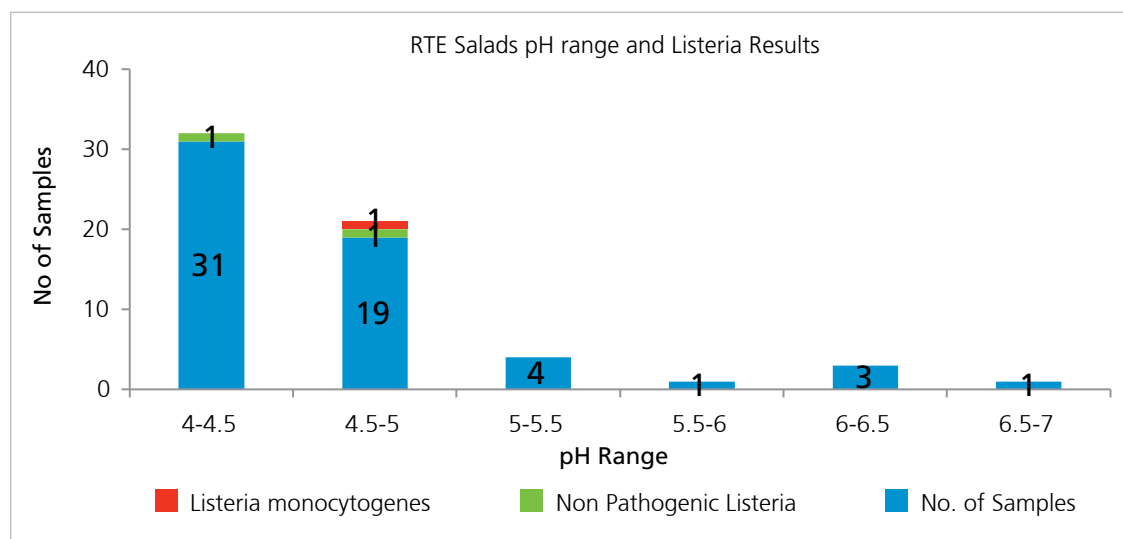
Out of 59 samples tested, 58 samples (98.30%) were complaint to the regulatory limits of *L.monocytogenes*, only one sample (1.7%) detected positive for *L. monocytogenes* (See Fig1.). It was present on the premium Greek salad sample purchased from a supermarket deli section. Two other samples (Gourmet quinoa tabouleh and Falafel & lentil tabouleh) were positive for *Listeria seeligeri* which is a non-pathogenic form of listeria spp. and not associated with human illness (Table F. & Fig.1)

The premium Greek salad sample was compared against the specifications of *L. monocytogenes* ‘not detected in 25g’ because retailer and supplier were unable to establish whether their product support the Listeria growth or not. Two additional non-pathogenic form of listeria were found in the samples which were processed at the same manufacturing site as the Greek salad. This may indicate that the processing environment has suitable conditions for Listeria spp.

Table F. Salads with positive Listeria

| Product Name              | pH   | aw   | Listeria (Specs: ND in 25gm)  |
|---------------------------|------|------|-------------------------------|
| Premium Greek Salad       | 4.72 | 0.98 | <i>Listeria monocytogenes</i> |
| Falafel & Lentil Tabouleh | 4.57 | 0.99 | <i>Listeria seeligeri</i>     |
| Gourmet Quinoa Tabouleh   | 4.27 | 1    | <i>Listeria seeligeri</i>     |

Figure1. *Listeria* presence and pH



## Follow-up Activities

### *L. monocytogenes*

An investigation was initiated as soon as the test results for the failed sample were received to SA Health. Recall of the non-compliant batch of the salad was not possible due to short shelf life of the product. The product shelf life was already expired by the time the results were made available to SA Health. The supermarket and its supplier were notified of the results.

As a precaution all the batches of Greek salads available with the supermarket store were withdrawn voluntarily by the supermarket. The manufacturer stopped the production of the premium Greek salad while the investigation was undertaken. Onsite inspections, product sampling and environment swabs were taken at the supermarket store and processing site.

The investigation revealed that raw cherry tomatoes used in the Greek salads may have been the potential source of *L. monocytogenes* and they required more rigorous cleaning and sanitation process to detach the fine farm soil particles at the top end of the tomatoes. Processing steps were critically reviewed. The manufacturers introduced additional chlorine wash step for tomatoes and enhanced supervision at the receipt of the fresh produce to prevent any contamination introduced in the processing environment from fresh produce.

Support material and advice were provided to the business regarding Listeria control and the staff members were retrained on good food handling practices. The supermarket revised the target pH for their fresh salads as pH<4.4 so that their product does not support the growth of *L.monocytogenes*.

Additional samples were collected. No further samples tested positive for *L.monocytogenes*.

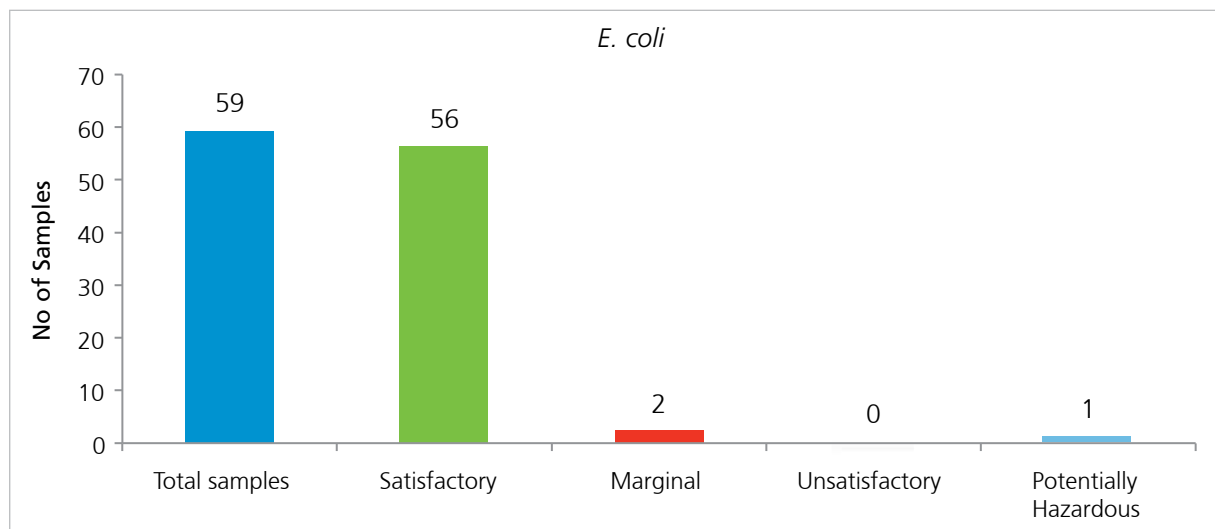
### *E. coli*

*E. coli* is an indicator organism and its presence in RTE salads indicates contamination which could be introduced at any stage from farm soil, harvesting practices, unhygienic processing and poor handling and storage or using contaminated water at the site.

As per FSANZ Guidelines for Microbiological Examination of Ready to Eat Foods, the satisfactory counts of *E.coli* for ready to eat foods are “<3cfu/g” and count levels between 3cfu/g to 100cfu/g are considered marginal. Generally a level exceeding 100 per gram indicate unacceptable level of contamination which may introduce pathogens in the product therefore The department requested further typing to identify if the *E.coli* strains are pathogenic or not.

Out of 59 samples tested for *E.coli*, 3 (6.18%) samples were above the satisfactory limits of *E.coli* (Fig2). Two of them had marginal levels of 3.6 cfu/g & 43 cfu/g while the third sample was 460 cfu/g. These three samples were further tested to identify the species all samples had non-pathogenic forms of *E.coli*.

Figure 2: RTE Salad compliance for *E.coli*



### Follow-up activity

In November and December 2015, three samples presented high counts of *E. coli* (See Table G). During the same time period a sample was failed for *L. monocytogenes* as specified in Table F.

All these products have one common supplier /manufacturer therefore they were investigated together.

**Table G. Salad sample with high *E. coli* Count**

| Product Name     | pH   | a <sub>w</sub> | <i>E. coli</i> Levels<br>(For specs refer Table 1.) |
|------------------|------|----------------|---|
| Classic Coleslaw | 4.15 | 0.99           | *MPN 3.6  |
| Classic Coleslaw | 4.18 | 0.99           | *MPN 43   |
| Wild Rice Salad  | 4.43 | 0.99           | *MPN 460  |

\*MPN = Most Probable number

Recall of these products was not possible due to their short shelf life. Products were already sold and consumed by the time results were made available to SA Health.

An investigation was initiated as soon as test results of these products were received by SA Health. Site visits were conducted of the retail businesses and the manufacturing site. Resampling results of the product and environment swabs were satisfactory. Support material and advice were provided to the business regarding hygienic handling of high risk foods. No further samples presented high levels of *E. coli*.

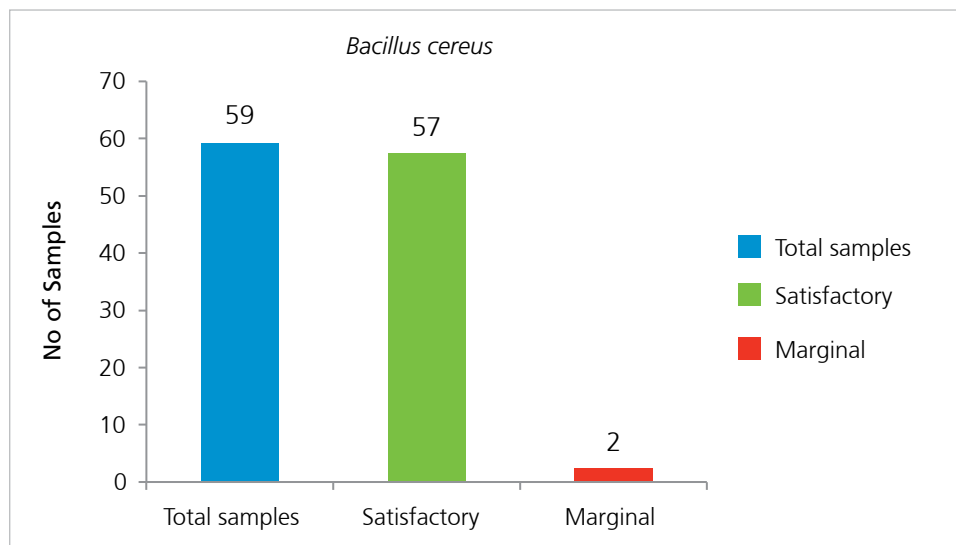
### *Bacillus cereus*

*Bacillus cereus* is a spore forming pathogen that causes food poisoning when cooked rice dishes, cereal based products like pasta and noodles, or vegetable dishes incorporating spices which are not cooled correctly.

Out of 59 samples tested, *Bacillus cereus* counts for two (3.38%) salad samples were marginal with maximum levels of 200 cfu/g (Fig 3). Levels in this range indicate possible hygiene problems in the preparation of food or temperature control issues.

The temperature of both non-compliant salad samples at the time of sample collection was below 5 oC and there was no evidence of temperature abuse at store level at the time of sample collection.

**Figure 3: RTE Salad compliance for *Bacillus cereus***



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### Follow-up activities

The retail store and manufacturing site were inspected. Investigation at the manufacturing site found poor cooling practices of the rice after cooking which can lead to high *Bacillus* counts during storage.

The manufacturing staff were advised to use shallow containers for rice cooling after cooking. They were made aware of cooling requirements as of Standard 3.2.2 clause 7 (3) of the Code as specified below.

A food business must, when cooling cooked potentially hazardous food, cool the food:

- (a) within two hours — from 60°C to 21°C; and
- (b) within a further four hours — from 21°C to 5°C,

Once the corrective actions were instigated, samples were collected at different stages of the salad production. All samples results were compliant to the satisfactory levels of <100 cfu per g.

### *Salmonella*

*Salmonella* is found in eggs, raw milk, meat or poultry. Fruit and vegetables may also be contaminated, from manure based fertilizer, irrigation water, pest in field, dirty harvest equipment, unclean transport containers, dust and people.

*Salmonella* not detected in all the 59 samples.

### Coagulase positive *Staphylococci*

*Staphylococcus* is commonly found on the body of healthy humans, including nasal passages, but also on the hands (especially in infected cuts and sores), scalp and ears. The contamination of food by the *Staphylococcus toxin* is usually a sign that food has been contaminated by poor hygienic handling during preparation and has further been temperature abused to give the organism an opportunity to grow and produce its toxin.

All 59 samples tested were within satisfactory limits of Coagulase positive *Staphylococci*.

### *Campylobacter*

*Campylobacter* is commonly found in the intestinal tracts of animals and birds, including poultry and may be spread via cross contamination. Undercooked poultry products can be a source of *Campylobacter* contamination. *Campylobacter* does not grow in food but it can easily cross contaminate ready to eat foods like salads through contaminated work areas, equipment, utensils or infected staff. Chef knives, cutting boards, unwashed hands after handling raw chicken or meat can lead to cross contamination.

*Campylobacter* not detected in all 59 samples tested.

### *Clostridium perfringens*

*Clostridium perfringens* is widely distributed in the environment. Spores of the organism persist in soil, sediments and areas subject to human or animal faecal contamination. It is commonly found in ready to eat foods with plant origin because spores of *clostridium perfringens* are normally present in the soil where plants are grown.

All 59 samples tested were within satisfactory limits of *Clostridium perfringens*.

### Observations

The display and preparation areas of assisted service salad bars, and self-service salad bars that were visited were sighted to be visibly clean. All self-service bars visited during sampling were regularly supervised or inspected by staff during the site visit. Of the 20 businesses visited only one was found to be not following correct cleaning and sanitation procedure for serving spoons and staff were not adequately trained on food handling procedures. This issue was raised with the store manager. Staff were retrained on the correct cleaning and sanitising procedures. Local council were informed and they carried out a further inspection of the store to review staff skills and knowledge and food handling practices being applied in the store and found them to be satisfactory.

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## Conclusion:

Overall microbiological results from RTE salads sampled from retail outlets in Adelaide and surrounding suburbs were found to be acceptable. One sample was non-compliant with the regulatory limits for *L. monocytogenes* and was investigated with site visits, resampling and education to the business in regards to cleaning and sanitising of equipment and environment, no further sample failed.

The *Bacillus cereus* counts in two samples were found to be at marginal levels. The root cause of the high counts was identified in the investigation and necessary corrective actions were undertaken by the business to resolve the issue. The resampled products did not detect high levels of *Bacillus cereus* in any sample tested after the implementation of corrective actions.

High *E. coli* levels may be from fresh produce, or it can be an indicator of hygiene or process control issues. Actions taken by the manufacturer were found to be satisfactory.

There have been no significant incidents of reported cases of food poisoning in South Australia in this reporting period which has been directly related to the consumption of these ready to eat salads. However with the growing trend of pre-made or fresh salads, it is expected that more new business will enter the field. Therefore it is recommended to continue monitoring such businesses and their food processing and handling practices. The education to businesses is also recommended for continuous improvement in hygienic practices during handling of these foods.

## References:

- > Food Standards Australia and New Zealand (FSANZ), Food Standard Code 1.6.1
- > South Australian *Food Act 2001*
- > FSANZ Guidelines for microbiological examination of ready-to-eat foods
- > FSANZ document -Guidance on the Application of Microbiological Criteria for *Listeria monocytogenes* in RTE Food





For more information

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