

A Very Crypto Christmas



SA Health



Government
of South Australia

SA Health

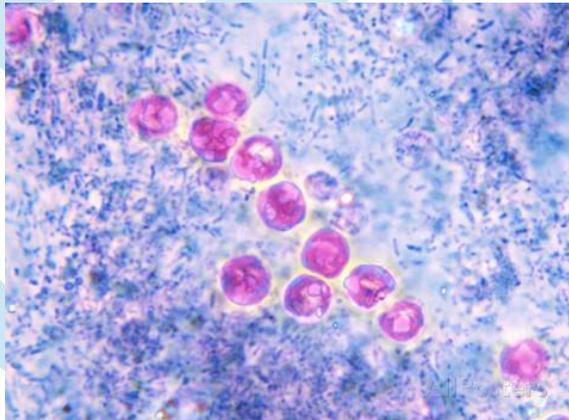


Overview

- > What is *Cryptosporidium*
- > Case notification process
- > Identification of an outbreak
- > Case study – Christmas
- > Education
- > What are we doing now

What is *Cryptosporidium*

- > *Cryptosporidium* is a parasite that is spread by ingesting faeces of infected people or animals
- > Often linked to
 - swimming in contaminated water
 - animal contact
 - childcare facilities
- > Symptoms include watery diarrhoea, fever, vomiting and loss of appetite
- > Incubation period is 1 -12 days (average 7 days)
- > People are infectious for several weeks after symptoms resolve



Source: Sept 2015 http://www.allposters.com/-sp/Cryptosporidium-Parvum-Protozoa-Oocysts-in-a-Human-Stool-Smear-Phase-Contrast-Posters_i6014355_.htm

What we do at Disease Surveillance

Collect data

Analyse data

- Monitor trends in diseases
- Identify changes in trends

Report

Act

- Initiate public health action where required to reduce morbidity and mortality in community
- Identify and control common sources of infection and transmission
- Prevent further cases and outbreaks
- Use information to drive policy development





South Australian Public Health Act 2011

Cryptosporidium is a notifiable disease

*Mandatory reporting **TO** CDCB*

- > Notification on diagnosis & suspicion
- > Notification by medical officers and laboratories

*Mandatory action **BY** CDCB*

- > Requirement to notify local government
- > Requirement to investigate and control disease (Public Health Action)



URGENT NOTIFICATION – Phone 1300 232 272 the Communicable Disease Control Branch (CDCB) 24 hours/7days

To notify Mycobacterial Disease:
USE THIS FORM and send via facsimile to (08) 8222 5398 **OR** notify SA Tuberculosis Service on telephone (08) 8222 5483 within 3 days of suspicion or confirmation of diagnosis

Forms will be sent to you to notify **HIV, Hepatitis B, C, D, Chlamydia trachomatis, Donovanosis, Gonorrhoea and Syphilis** upon a positive laboratory result
OR you may ring CDCB on 1300 232 272
DO NOT USE THIS FORM

FAX OR POST notification for all other diseases on this form to CDCB as soon as practicable and, in any event, within 3 days of suspecting or confirming a diagnosis of a notifiable disease. **Telephone 1300 232 272 or Facsimile (08) 8226 7187 or Post to CDCB Reply Paid 6, GPO Box 6, Rundle Mall Adelaide South Australia 5000**

A CASE DETAILS (Please print clearly and tick all applicable boxes)

Last name _____ Given name _____
 Name of parent/carer (if applicable) _____
 Residential address _____
 Postcode _____
 Telephone (M) _____ (H) _____
 Date of birth ____/____/____ Male Female
 Date of death (if applicable) ____/____/____

Is the person of Aboriginal or Torres Strait Islander origin?

For persons of both Aboriginal and Torres Strait Islander origin, mark both 'Yes' boxes
 Yes, Aboriginal No
 Yes, Torres Strait Islander

What is the person's occupation?

Commercial food handler Health care worker
 Child care worker Other Specify: _____

Has the person been hospitalised due to the notifiable disease?

Yes No Unknown

Is the person/caregiver aware of the diagnosis?

Yes No

B DISEASE TO NOTIFY

- Anthrax ☒
- Australian Bat Lyssavirus ☒
- Barmah Forest virus > 60 TO 03 & 04
- Botulism ☒
- Brucellosis > 60 TO 03 & 04
- Campylobacteriosis > 60 TO 01, 03 & 04
- Chikungunya virus > 60 TO 03 & 04
- Cholera ☒
- Creutzfeldt-Jakob Disease Classical
- Creutzfeldt-Jakob Disease Variant
- Cryptosporidiosis > 60 TO 01
- Dengue > 60 TO 03 & 04
- Diphtheria ☒
- Food poisoning ☒
- Haemolytic Uraemic Syndrome ☒ /TTP
- Haemophilus influenzae (invasive) ☒
- Hepatitis A ☒
- Hepatitis E > 60 TO 01, 03 & 04
- Influenza > 60 TO 02
- Influenza, avian in humans ☒
- Influenza Pandemic ☒
- Japanese Encephalitis ☒
- Kunjin virus ☒

- Legionella longbeachae
- Legionella pneumophila ☒
- Legionella (Other)
- Specify: _____

- Leprosy > 60 TO 04
- Leptospirosis > 60 TO 04
- Listeriosis ☒
- Malaria > 60 TO 03 & 04
- Measles ☒
- Meningococcal disease (invasive) ☒
- Mumps > 60 TO 02
- Murray Valley Encephalitis ☒
- Mycobacterial disease ☒ Non TB
- Specify: _____

- Paratyphoid (S.Paratyphi) ☒
- Pertussis > 60 TO 02
- Cough ≥ 2 weeks
- Other
- Specify: _____
- Plague ☒

Date of onset of illness ____/____/____

- Pneumococcal disease (invasive) > 60 TO 02
- Poliomyelitis ☒
- Psittacosis (Ornithosis)
- Q Fever > 60 TO 02 & 04
- Rabies ☒
- Ross River virus > 60 TO 03 & 04
- Rotavirus > 60 TO 02
- Rubella > 60 TO 02
- Congenital Rubella Syndrome > 60 TO 02
- Salmonellosis > 60 TO 01, 03 & 04
- Severe Acute Respiratory Syndrome ☒
- Shiga Toxin producing E.coli (STEC) ☒
- Shigellosis > 60 TO 01, 03 & 04
- Smallpox ☒
- Tetanus > 60 TO 02
- Tuberculosis ☒
- Tularemia ☒
- Typhoid (S.Typhi) ☒
- Varicella virus – Chicken Pox > 60 TO 02
- Varicella virus – Shingles > 60 TO 02
- Viral Haemorrhagic Fever ☒
- Yellow Fever ☒
- Yersiniosis > 60 TO 01, 03 & 04

Q1 Has the case been exposed to swimming pools, a potentially unsafe food, raw milk, water, or food outlet? Yes No Unsure
Specify: _____

Q2 Vaccination status for disease notified? Yes No Unsure
Year/s vaccinated and type: _____

Q3 Has the case travelled recently? (SA/interstate/overseas) Yes No Unsure
Specify: _____

Q4 Geographic location where the infection was acquired?
Specify: _____

C CLINICAL COMMENTS (Include others ill)

D DOCTOR DETAILS (Stamp is acceptable)

Name _____
 Address _____
 Postcode _____
 Telephone _____ (M) _____
 Signature _____ Date ____/____/____

Laboratory Positive pathology results received from:
 RAH/IMVS (SA Path) WCH (SA Path) FMC (SA Path) LMH (SA Path)
 Clinpath Healthscope Abbotts APP Other: _____

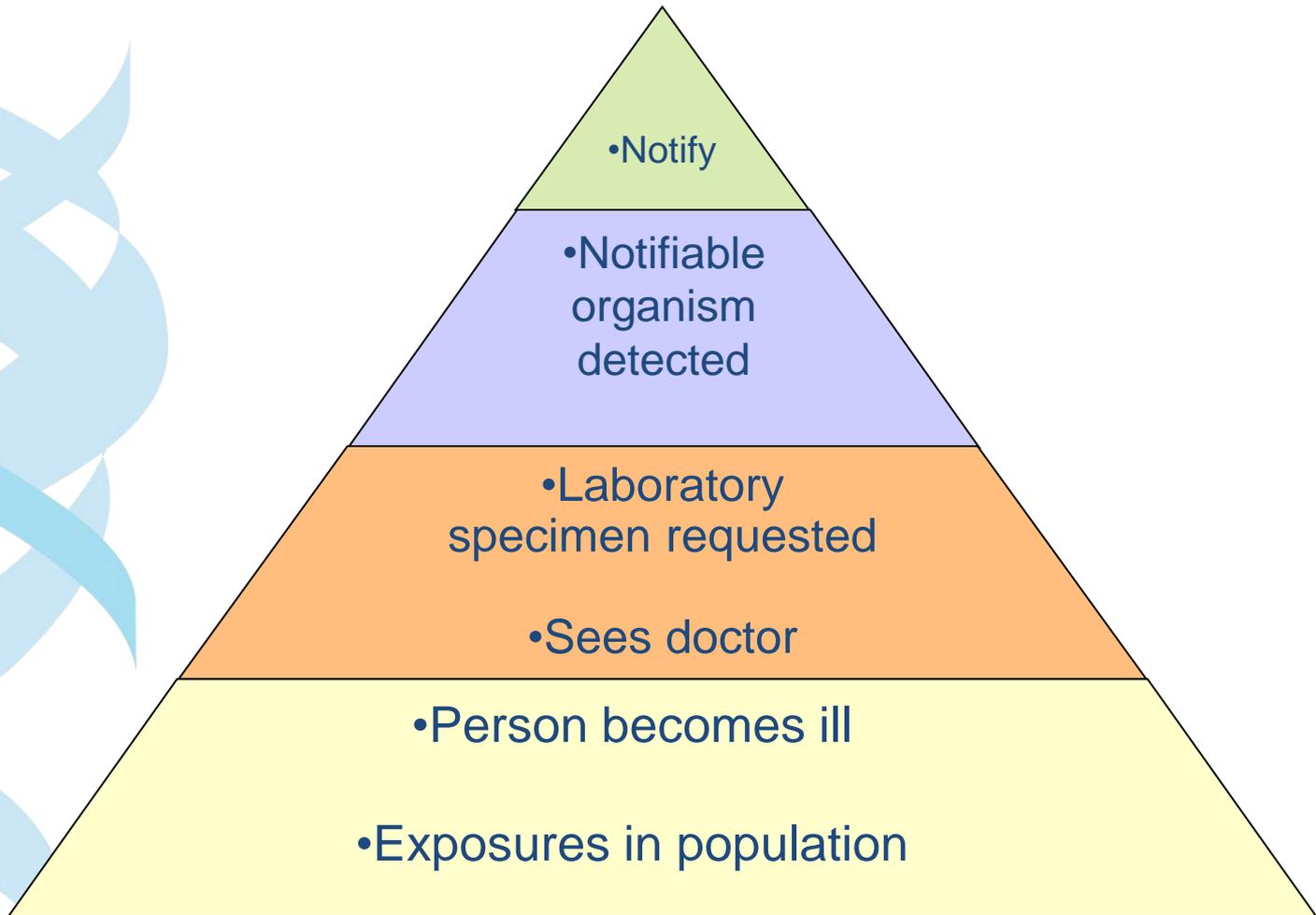
! Please inform the person/caregiver you have notified SA Health

CONFIDENTIAL

www.sahealth.gov.au

Revised April 2012

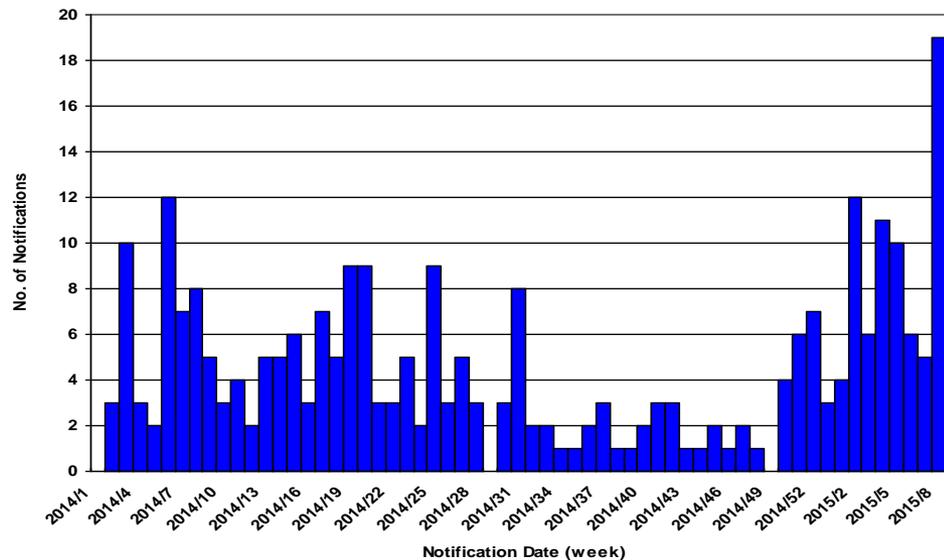
Notifications: tip of the iceberg



Detecting an outbreak

- > Changes in surveillance data trends
 - Increase in cases
 - Unusual clusters (person, place, time)
- > Reports from people ill
 - Linked to venues e.g. child care, petting zoos, swimming pools

Cryptosporidiosis notifications
1 Jan 2014 - Feb 2015, SA





Case Study – Christmas

- > 17 Dec 2014, 7 cases observed with residential address in the Southern metro
- > Interviewed patients
- > Referred to Health Protection Programs

- > Initially one pool implicated
- > Did not take long before it was widespread
- > Eventually, 22 pools implicated, one up to 8 times



Case Study – Christmas - enviro

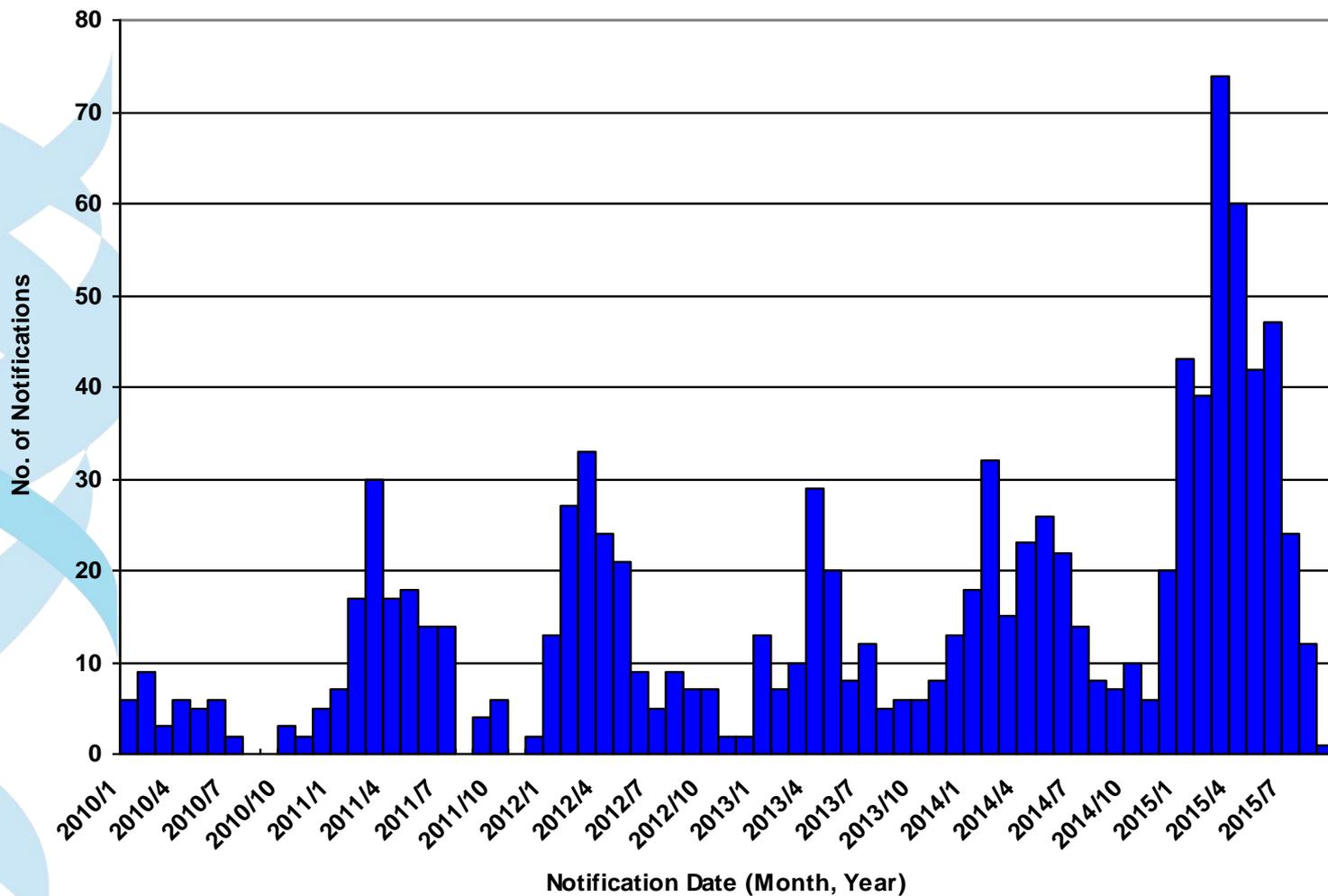
- > Resources were invested early to prevent further cases
- > 5 cases, swam at pool early December
 - Decontamination 18/12/14
 - Good decision, a further 5 cases notified
- > Infectious swimmer in pool 30/12/14
 - Had initially swam early December
 - Decontamination 1/1/15
- > Infectious swimmer in pool 21/1/15
 - Decontamination 23/1/15
 - Good decision, a further 3 cases notified



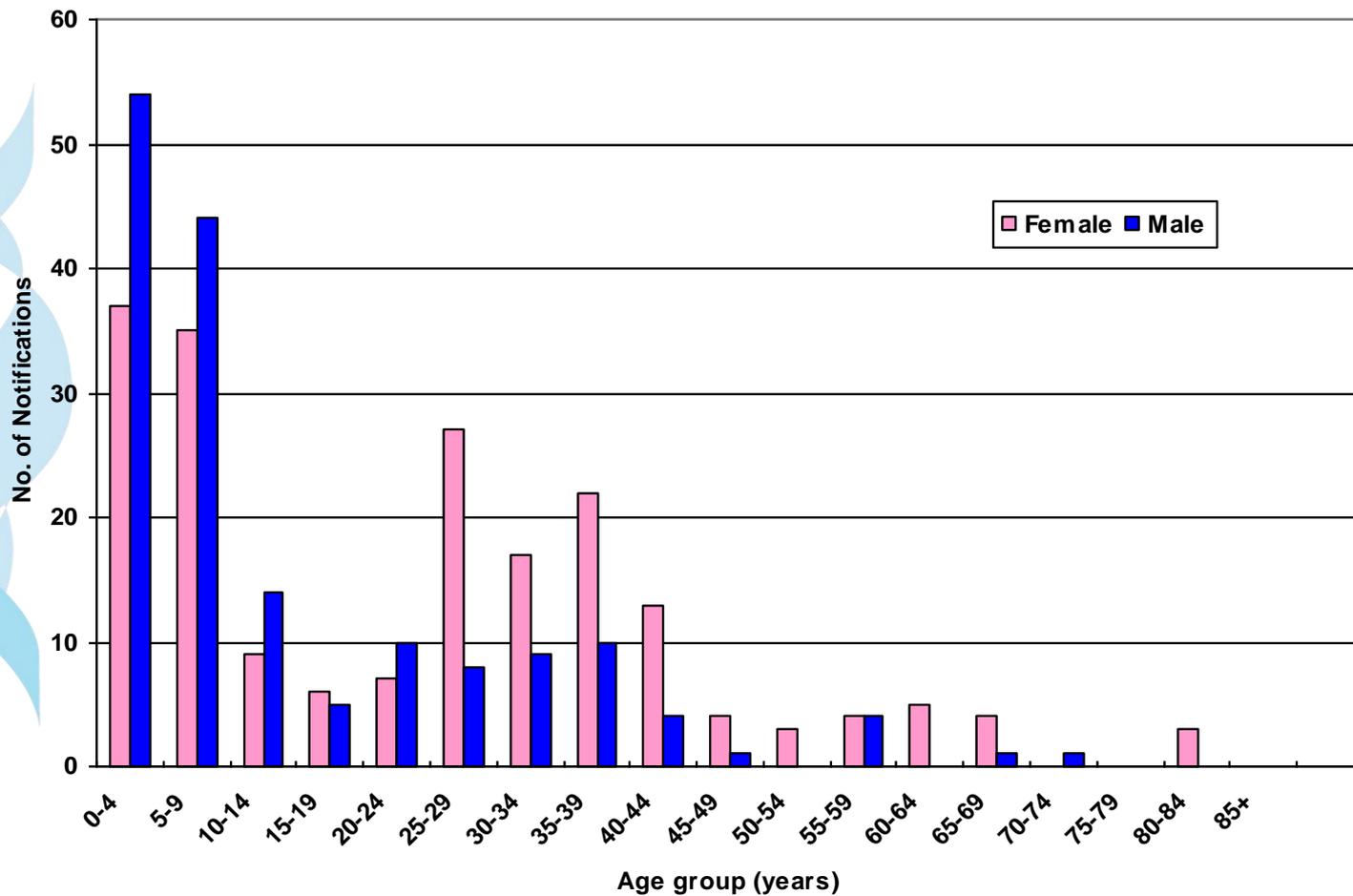
Outbreak summary

- > Between 1 Dec 2014 and 1 Sep 2015:
 - 361 cases
 - The majority were female (54.3%)
- > Case spread across SA
 - 45.4% southern, 16.1% northern, 9.4% eastern Adelaide, 8.3% western Adelaide, 5.8% the Barossa region and the remainder from across country SA
- > Swimming pools were directly implicated by 39.3% cases.
- > Travel was the likely source of infection for 19.4% of cases.

Cryptosporidiosis notifications, 1 Jan 2010- 4 Sept 2015, SA



Cryptosporidiosis notifications, by age and sex, 1 Dec 2014 - 1 Sept 2015, SA



Education

> We listened



STOP!

Before you jump in make sure you've gone through the Healthy Swimmer's checklist:

HEALTH: Stay out of the water if you have diarrhoea and NO swimming for 14 days after having a Cryptosporidium infection.

POOL WATER: Don't swallow it!

SHOWER AND TOILET: Use them before you get in the pool.

WASH YOUR HANDS: Before you get in the pool, and especially after you've been to the toilet or changed a nappy.

BABIES AND SMALL CHILDREN: Tight fitting water proof pants or swimming nappies must be worn in the pool and changed regularly in the change room.

For more information contact your local council or the SA Department of Health.

Government of South Australia
Department of Health



**KEEP THE POOL CLEAN,
SWIMMERS**

Help keep our public pools clean

 Got **DIARRHOEA?**
Don't swim

Stay out of the pool for another **TWO WEEKS**



For more information visit
www.sahealth.sa.gov.au/ProtectingPublicHealth

© Department for Health and Ageing, Government of South Australia.
All rights reserved. 161, 160/13 Printed February 2016.

GOVERNMENT OF SOUTH AUSTRALIA
SA Health

Education

> We tried something new



**KEEP THE POOL CLEAN,
SWIMMERS**

Public pools need to be clean to be safe. If we are sick,
we can spread those germs through the water

- DON'T** get in the pool if you've got **DIARRHOEA**
- DON'T** get in the pool for **2 weeks** after having **DIARRHOEA**
- Change nappies in nappy change areas, **NOT POOLSIDE**
- Try **NOT** to get **POOL WATER** in your mouth
- PUT** babies and toddlers in **PROPER** swimming nappies
- SHOWER** and **WASH** with soap before you **SWIM**
- CHLORINE** kills most germs, but some germs can stay alive for **DAYS**

For more information visit www.sahealth.sa.gov.au

Government of South Australia
SA Health



Education

> We cast a wide net

Germ warfare erupts

Crypto cases on the rise, and it's bugging health experts



Media Release
SA Health
29 January 2015

DON'T GET SICK SWIMMING THIS YEAR

South Australians are being reminded to maintain good personal hygiene following a surge in water-related gastroenteritis.



Public swimming pools and spa pools

Keep the pool clean, swimmers. Help keep our public pools clean and safe



Cryptosporidium infection - symptoms, treatment and prevention

Help prevent the spread of gastro causing germs in your home



Infection Alert | 9 News Adelaide



Media Release
SA Health
Sunday, 23 August 2015

WINTER DIARRHOEA WARNING

SA Health is reminding South Australians to maintain good personal hygiene following an increase in Cryptosporidiosis cases this winter.

SA Health

What are we doing now

- > Continue to monitor data to find trends
- > Building our resources – pool targeted vs community/household targeted
- > Commenced a review of the regulatory framework
- > Look at new innovative ways to undertake the epidemiological investigation





Government of South Australia

SA Health