

A Reason to Panic or Business as Usual? - Communicable Diseases in Aged Care Facilities



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Communicable Disease Prevention & Control

Communicable Disease Prevention & Control Unit



- Unit of the DHS Public Health Branch
- Centralised surveillance and control
 - monitoring incidence
 - outbreak detection and response
 - case management
 - research and evaluation
 - policy development and implementation
- Public advice and education

Communicable Disease Prevention & Control Unit



- Seven programs within CDP&CU
 - Enteric Diseases
 - General Diseases
 - Immunisation
 - TB
 - STI/BBV
 - Policy, Planning & Information
 - Epidemiology and surveillance
- Multidisciplinary team
 - Environmental health, public health physicians and nurses, epidemiologists, trainees, scientists

Legislation



- *Health Act 1958* – new Public Health and Wellbeing Bill currently before parliament.
- *Health (Infectious Diseases) Regulations 2001*
 - require medical practitioners and laboratories to notify certain communicable diseases
- *Health (Immunisation) Regulations 2001* – require school entry immunisation certificate

Notification process



- 64 notifiable diseases
 - Grouped by response required
 - Group A – notify by phone/fax on suspicion AND in writing
 - Group B – notify in writing (within 5 days of diagnosis)
 - Group C – de-identified notification (sexually transmissible infections)
 - Group D – HIV & AIDS (separate data collection)
- Notifications required from both doctors and labs
 - (also received from regional officers, schools, general public)
- Can be phoned, faxed, mailed or completed online
- Consistent nationally
- ~ 30,000 notified cases per year

Example: Notifiable enteric diseases



- **Group A Diseases**

- Typhoid & Paratyphoid
- Botulism
- Cholera
- HUS
- Food / Waterborne illness (2 or more cases)

- **Group B Diseases**

- Listeriosis
- Salmonellosis
- Shigellosis
- VTEC
- Campylobacteriosis
- Cryptosporidiosis
- Giardiasis
- Hepatitis A and E

Surveillance and response



- Powers under the *Health Act 1958* and *Health (Infectious Diseases) Regulations 2001*
 - to be notified of scheduled diseases
 - to request further case information
 - to investigate outbreaks
 - to order any action deemed necessary to control an outbreak to be taken (Chief Health Officer issues an order as the delegate of the Secretary of DHS)

Notification



- Required by doctors and laboratories
- Recommended from other facilities such as hospitals, nursing homes, hostels, SRS etc.
- How we actually find out.....
 - Direct notification
 - Council notification
 - Member of the public
 - Another facility
 - Media reports



Gastrointestinal illness

Gastro: What to notify

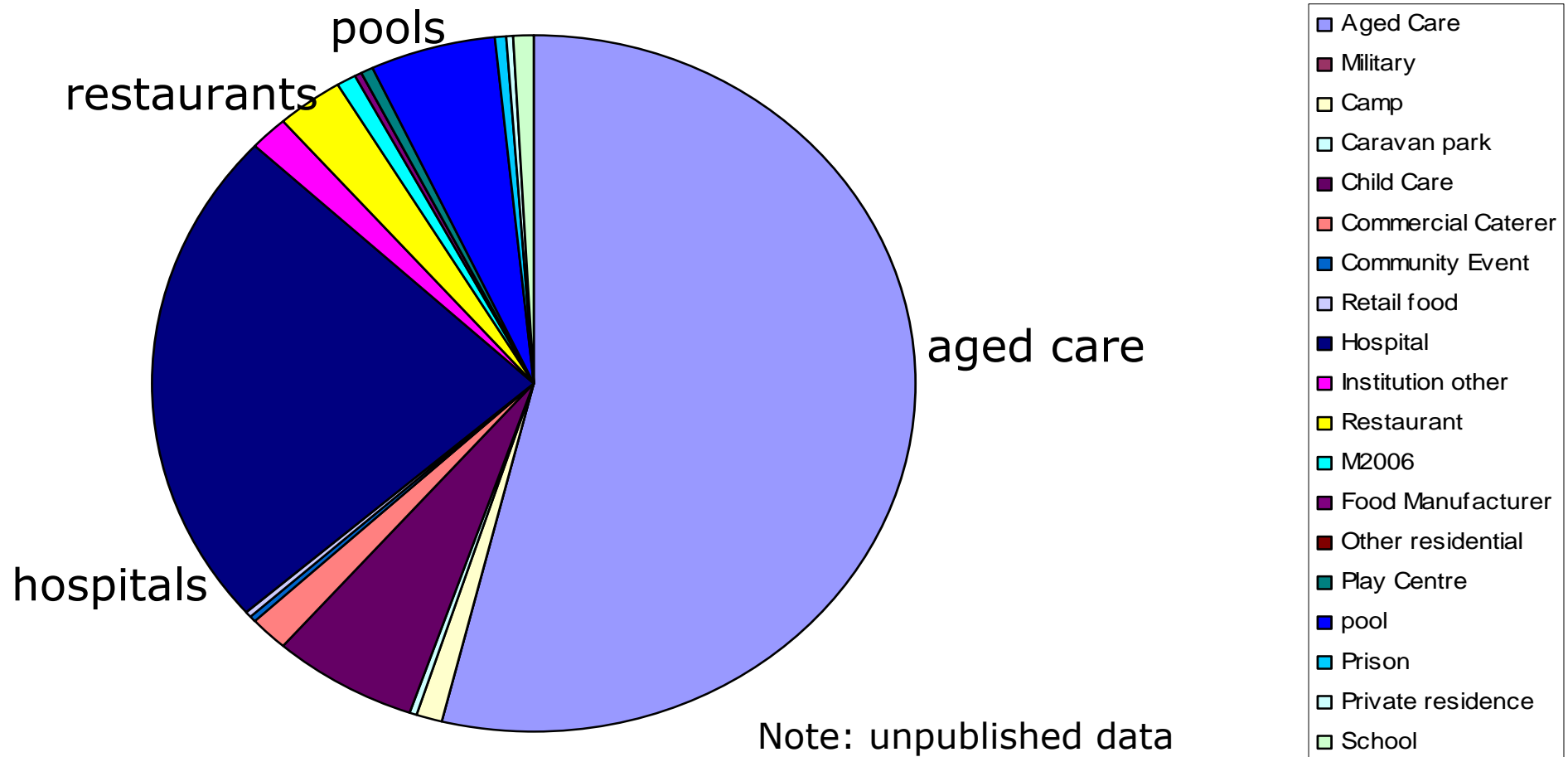


- 2 or more cases of vomiting/and or diarrhoea amongst residents/patients and/or staff (that cannot be explained by medication or other medical conditions) within 24 hours in a setting that makes epidemiological sense

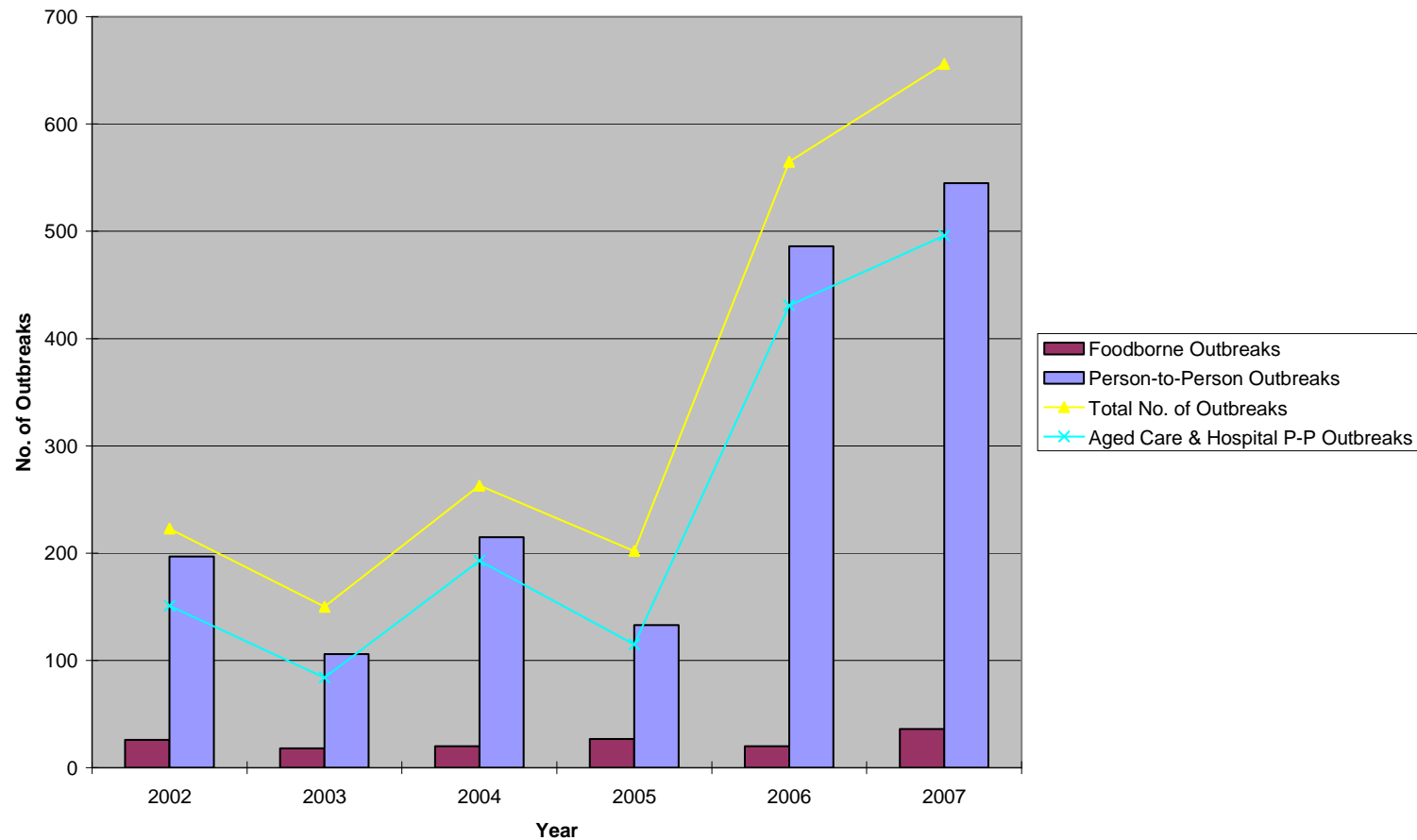
Outbreak settings (2006)



Outbreaks by setting

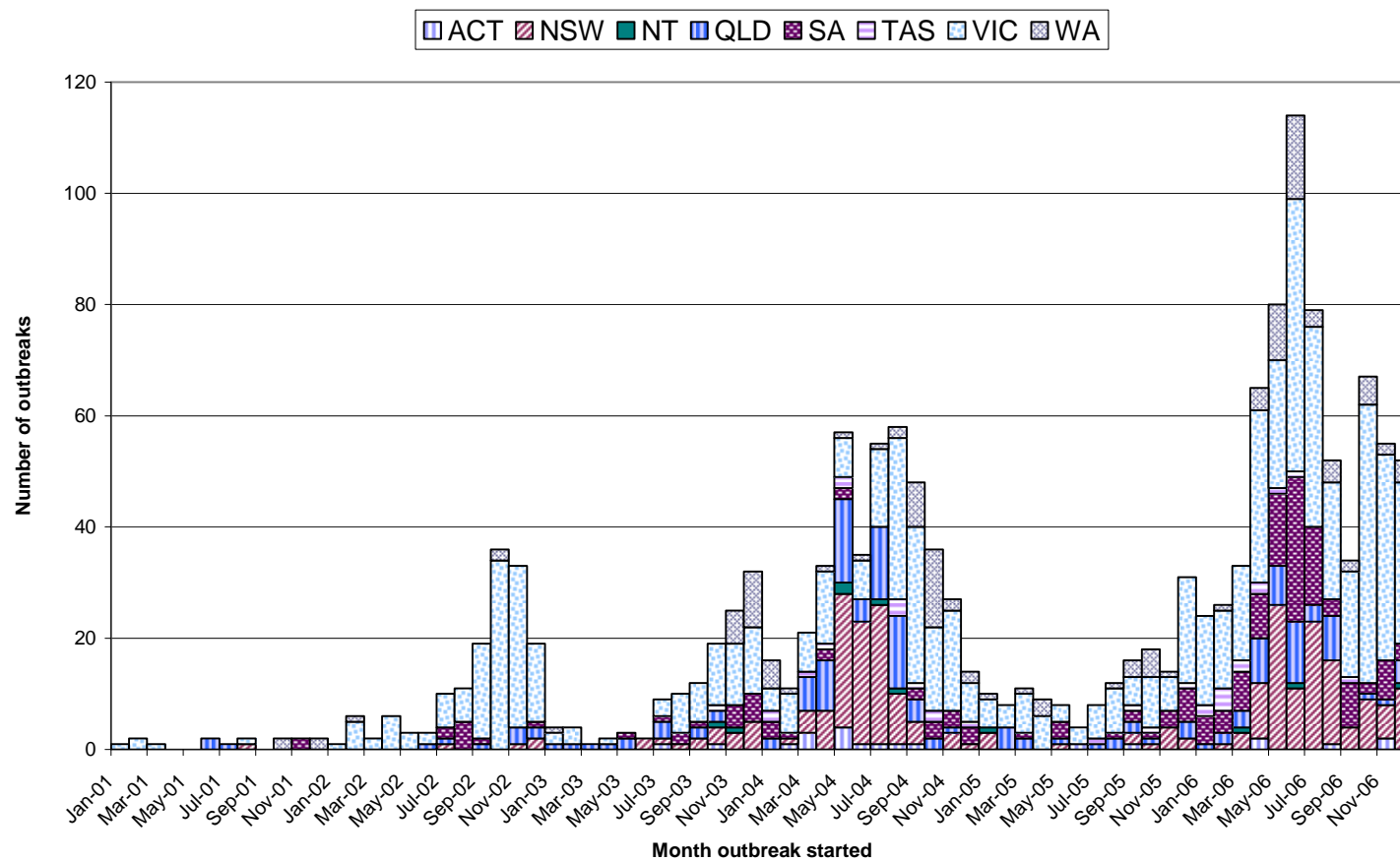


Gastroenteritis Outbreaks by Type, Victoria, 2002-2007



Note: unpublished data

Norovirus outbreaks by State or Territory, 2001-2006, Australia (OzFoodNet)



Note: unpublished data

Is notification important?



- A viral gastro outbreak in 2002 closed the emergency department of a major hospital for several weeks and affected >15 wards
- One nursing home outbreak had 22 cases in residents. Illness was found to be due to food served at the facility. Coronial enquiries due to deaths
- A campylobacter outbreak in a nursing home resulted in 3 staff being hospitalised and a workcover case being mounted against the facility
- A salmonella outbreak in a hospital affected 15 young children and was believed to have been spread person-to-person by health care staff

Why do we investigate?



- Prevent further transmission of illness
- Provide information which can be used to control outbreak
- Prevent similar occurrences in the future
- Help identify populations at risk for a disease
- Learn more about the disease including the impact of control measures

Roles



- DHS (CDP&CU and Region)
 - Coordinate response
 - May assist onsite
 - Review findings
- Council
 - Onsite attendance to review cleaning, hygiene, food preparation, & collect samples/specimens
 - Provide advice
 - Respond to identified issues

Guidelines



Guidelines for the Investigation of Gastrointestinal Illness “Guidance for Institutions”

www.health.vic.gov.au/ideas/

* Under review

Outbreak Management



- Precautionary principle
 - All outbreaks investigated for possible food or water source as well as person-to-person transmission
 - Control measures based on assumption of most infectious agent and person-to-person transmission

Hand hygiene



- Effective hand hygiene is the most important measure in preventing the spread of infection
- Alcohol wipes or antibacterial gels/rubs may be used
 - less effective against viruses and spores
- In outbreaks - thorough hand washing with soap and running water is essential
 - includes nursing, allied health & medical staff, food handlers, patients/residents, visitors etc

Isolation and exclusion



- Isolation of cases - individuals and groups
- Restrict transfer of cases
- Closure of the ward(s)
- Visitor movements
- Cease group activities
- Remove possible transmission pathways – such as fruit bowls and sandwich platters

Isolation and exclusion - staff



- Standard precautions
- Minimise movement between areas
- Considerations for agency staff
- Staff exclusion for 48 hours after symptoms cease

What we find



- Viral outbreaks are most common
- Person-to-person transmission most common type of transmission in institutions
- Food-borne outbreaks can be easily overlooked
- Nursing staff usually adequately briefed – other staff not always
- Staff exclusion is often where outbreak control falls down
- Identification of the source of an outbreak of illness is not always straight forward
- Almost every outbreak will be unique in some way, requiring a degree of flexibility when recognising and investigating outbreaks

Food borne outbreaks in nursing homes / institutions



- Increase over last couple of years
- Can be difficult to recognise food-borne outbreaks in institutions
- Predominantly associated with *Clostridium perfringens*
 - Preparing food ahead of service
 - Inadequate cooling and reheating
 - Inadequate hot holding/cold storage of meals
 - Use of gravies and soups / vitamised meals
 - Holding over of leftover meals
 - Inadequate equipment cleaning
- Other bacterial pathogens uncommon, eg salmonella

Common Issues - reinfection



- Infection control of paramount importance
- People may become ill several times in the one outbreak
- “Second wave” may occur if environmental cleaning not adequate



Respiratory Illness

Respiratory illness



- Key interventions for influenza outbreak control
 - Annual influenza vaccination of residents and staff
 - Keep line list of vaccinated residents and staff
 - Pneumococcal vaccination of residents
 - Outbreak recognition and management – report ≥ 3 new cases of respiratory disease within 72 hours
 - Institute appropriate infection control practices
 - Antiviral medication recommended for treatment and for prophylaxis of staff and residents
 - Have procedures in place for timely collection of appropriate specimens
 - Have procedures in place, endorsed by visiting GPs, for antiviral use.

Vaccination programs



- The best way to prevent influenza is by immunisation
- The Australian Government funds free influenza immunisation to those at highest risk of complications of influenza
 - all Australians 65 years old and over (81% uptake in 2006)
 - Indigenous Australians aged 50 years and over, and
 - Indigenous Australians aged 15 to 49 years with medical risk factors
- The Victorian Government funds free influenza immunisation to:
 - hospital inpatients and outpatients (at high risk for complications of influenza)
 - health care workers in public sector facilities (41% uptake in 2006)
- Pneumococcal vaccine is funded for Australians 65 years and over (2 doses only, 5 years apart)



Pandemic Influenza

Australian Health Management Plan for Pandemic Influenza 2006



- Outlines what the health sector, key stakeholder groups, organisations, the community and individuals can do to prepare for a pandemic.
- Two technical Annexes:
 - Interim Infection Control Guidelines for Pandemic Influenza in Healthcare and Community Settings
 - Interim National Pandemic Influenza Clinical Guidelines

Victorian Influenza Pandemic Plan



- Covers response activities including
 - Surveillance
 - Public health (contact tracing, isolation, quarantine)
 - Clinical Care
 - Community support
 - Vaccine/antiviral policy and distribution
 - Recovery arrangements
 - Laboratory – diagnostic testing
 - Business continuity
 - Communication

www.health.vic.gov.au/ideas/regulations/vic_influenza.htm

Possible scenario



- In Victoria, if attack rate 30%, could result in
 - 2,265 – 10,145 deaths
 - 6,236 – 24,323 hospitalisations
 - 602,229 – 713,513 outpatient visits
- Figures based on 6-8 week period
- Victoria's current healthcare and community support system would be under enormous stress

Victoria's approach to pandemic response



Preparedness

- The readiness of arrangements to ensure that Victoria is well prepared

Containment

- Delaying transmission for as long as possible by border control measures, widespread adoption of good hygiene and infection control practices, isolation of cases, quarantine of contacts and use of antiviral medication

Maintenance

- Community transmission is established, containment is no longer feasible. Pre-exposure prophylaxis for priority groups while minimising community transmission

Antivirals during a pandemic



- Treatment
 - Persons meeting the case definition, provided they are commenced within 48hrs of onset
- Post exposure prophylaxis
 - Close contacts of confirmed cases
 - Eg contact within a metre or spent more than 15 minutes in a confined space
- Pre exposure prophylaxis
 - Those at frequent risk of high exposure or high risk occupation

(As per Interim National Pandemic Influenza Clinical Guidelines – June 2006)

Influenza Streams



- Patients will present to all hospitals and health services
- Protocols to identify patients with suspected Pandemic Influenza
- Process
 - Separating
 - Triage
 - Admission
- Influenza areas/ clinics/ wards
- Infection control measures – patients and staff

Designated hospitals



- Victoria has 16 “designated hospitals”
 - The Alfred
 - Austin Hospital
 - Ballarat Health Services, Base Hospital
 - Bendigo Health, Bendigo Hospital Campus
 - Box Hill Hospital
 - Frankston Hospital
 - Geelong Hospital
 - Shepparton hospital
 - Latrobe Regional Hospital
 - Monash Medical Centre, Clayton Campus
 - Northeast Health Wangaratta
 - The Northern Hospital
 - The Royal Children’s Hospital
 - The Royal Melbourne Hospital
 - St. Vincent’s Hospital
 - Western Health, Western Hospital

Aged care annexe



- An approved provider's paramount responsibilities during an influenza pandemic are to:
 - minimise the risk of infection to both care recipients and staff;
 - ensure there is a sound surveillance program in place, and
 - ensure continuity of care that meets the needs of care recipients.
- In a pandemic, residents who would normally require hospital care may be forced to remain in the facility

Planning needs



- To plan ahead for an influenza pandemic you should:
 - Develop or review infection control and outbreak plans
 - Develop or review business continuity plans
 - Become familiar with Government pandemic plans, including state and territory or local pandemic plans

Intersection with primary care



- Ensure that general practitioners and allied health service providers involved in the care of residents are consulted
- Aged care services may consider nominating one member of staff under these protocols to coordinate communication and care activities
- The RACGP “Medical care of older persons in residential aged care facilities (the Silver Book)”, may assist the development of appropriate protocols for pandemic outbreaks

References



- State and Commonwealth information that may be of assistance are available at the following websites:
 - Infectious Diseases Epidemiology & Surveillance website at www.health.vic.gov.au/ideas, which includes *The Blue Book – Guidelines for the control of infectious diseases*
 - links to relevant information for the public at www.betterhealth.vic.gov.au
 - *Infection control guidelines for the prevention of transmission of infectious diseases in the health care setting* at www.aodgp.gov.au/internet/wcms/publishing.nsf/content/icg-guidelines-index.htm

Surveillance reports



- Victorian Infectious Diseases Bulletin (quarterly)
- Annual report
- Daily reports by: disease; last 4 weeks; year-to-date; annual total; annual rate
 - Victorian summary
 - Region, Local Government Area
 - Divisions of General Practice
 - Indigenous status
- See <http://www.health.vic.gov.au/ideas/surveillance>

Reports

- <http://www.health.vic.gov.au/ideas>

State Government of Victoria, Australia, Department of Human Services
 Victorian Government Health Information
 Victoria The Place To Be

infectious diseases
 epidemiology & surveillance

Search Health home > IDEAS home > Surveillance > Daily surveillance reports

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 Diseases
 Blue book
 Guidelines
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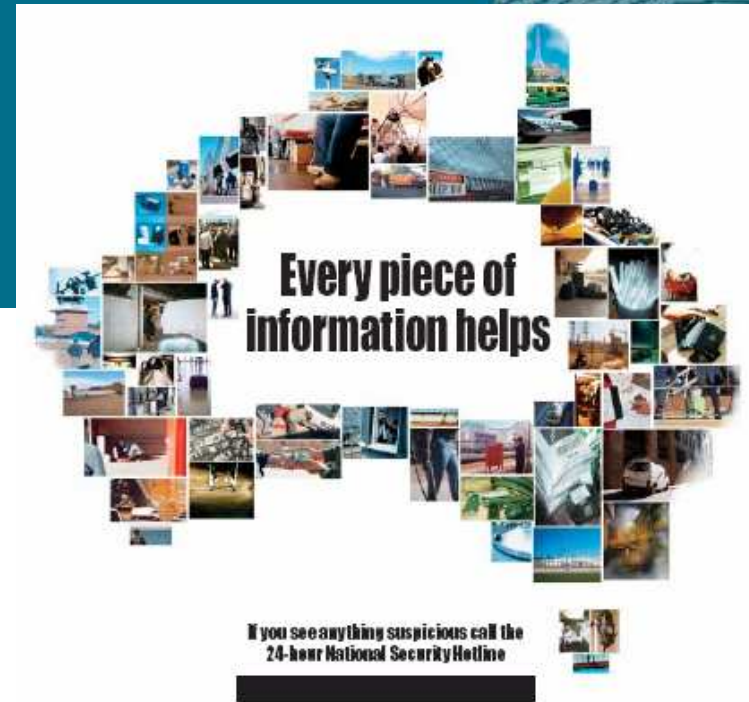
Introduction
 Many hundreds of infectious diseases h...
 most nations. Changes in lifestyle have...
 diseases. Constant vigilance is required...
 conquered, and to identify new disease...

In Victoria, the Department of Human S...
 to prevent the spread of infection. Noti...
 the fundamental component of the surv...
 suspicion in the absence of laboratory d...
 more detailed information. Note - the C...

Notifications of Infectious Diseases
 Victorian Summary—1 January to 30 September 2003

Disease Type	current week*	previous weeks*			1 Jan - 2 Oct			total 2002	total 2001
		-1	-2	-3	2003	2002	2001		
Blood Borne Diseases									
Hepatitis B - Acute	3	1	1	3	107	154	144	196	197
Hepatitis B - Chronic/Unknown	36	27	21	44	1233	1365	1450	1762	1907
Hepatitis C - Newly acquired	2	2	3	5	91	75	77	109	93
Hepatitis C - Prevalent/Unknown	62	80	58	97	2773	3154	3689	4060	4900
Hepatitis D	0	1	0	2	10	6	3	9	7
Enteric Diseases									
Botulism	0	0	0	0	0	0	1	0	1
Campylobacter infection	73	131	66	104	4066	3518	3923	4941	5467
Cholera	0	0	0	0	0	0	1	1	1
Cryptosporidiosis	2	8	3	9	180	234	363	284	445

Any Questions?



Communicable Disease Prevention & Control Unit

Phone: 9096 5354 or
1300 651 160 (24 hours)

www.health.vic.gov.au/ideas