

THE PUBLIC'S HEALTH

Newsletter for Medical Professionals in Los Angeles County

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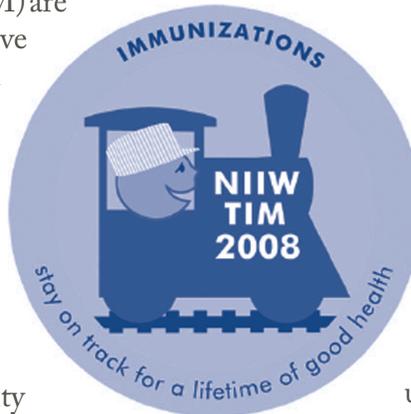
National Infant Immunization Week and Toddler Immunization Month

Staying on Track for a Lifetime of Good Health

National Infant Immunization Week (NIIW) and Toddler Immunization Month (TIM) are times to put the spotlight on the positive impact of immunizations for children under the age of two. Please join the Los Angeles County Immunization Program in celebrating NIIW between April 19 and 26, 2008 and TIM in May 2008.

Immunizations led to dramatic decreases in vaccine-preventable disease (VPD) morbidity and mortality throughout the 20th century and new vaccines continue to lead to significant declines in

the US and Los Angeles County (LAC).



Despite significant improvements in coverage levels, LAC infants remain at risk for serious vaccine-preventable illnesses. The recent San Diego measles outbreak underscores the continued threat of VPDs. Twelve children were infected as a result of contact with an unvaccinated child who contracted measles on a trip outside of the US. Three of the infected individuals were under twelve months of age and too young to have been vaccinated against measles.

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It's Tough Being Green!

Reptile-Associated Salmonellosis, 1997 to 2006

BACKGROUND

Salmonella causes up to 4 million infections each year in the US. While it generally causes self-limited illness, it may cause serious sequelae, including death.

Foodborne transmission accounts for more than 95% of U.S. salmonellosis outbreaks, with foods of animal origin the most common source and foodhandler contamination uncommon.

The main symptoms are diarrhea, abdominal cramps, fever, and malaise, occurring after an incubation of 16-48 hours (ranging 6 hours to 5 days) and lasting 3-4 days; cases may shed bacteria for 1-4 months after recovery.

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COUNTY OF LOS ANGELES
Public Health
313 North Figueroa Street, Room 806
Los Angeles, California 90012

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STUDY OVERVIEW

Reptile-associated salmonellosis (RAS) was first documented in the US in the 1970s¹. In Los Angeles County (LAC), reptile-associated salmonellosis has been monitored since 1992. To reduce transmission of *Salmonella* species from reptiles to humans, a better understanding of the types of reptiles, populations affected, and trends over time is needed. A study was done reviewing all RAS cases during the ten year period 1997-2006. The LAC Department of Public Health (LACDPH) received 990 reports of *Salmonella* infections from persons who had direct or indirect contact with reptiles (i.e. turtles, snakes, and lizards), representing 9% of all reported salmonellosis cases.

Cases were defined as persons residing in LAC with salmonellosis from 1997-2006 who had direct contact with a reptile or had indirect contact through persons or fomites while living or spending time in a place with a reptile in the 4 days prior to onset.

Salmonellosis is passively reported and each case is interviewed to obtain information on clinical illness, risk factors and demographics; these are then entered into an ACCESS database and analyzed. *Salmonella* cultures of pet reptiles' stool and environment are attempted. Risk factor information and demographics are analyzed.

State regulations require all *Salmonella* isolates to be submitted to the local Public Health Laboratory (PHL) where serotyping is performed. Stools, skin swabs or environmental swabs from reptiles associated with human cases were submitted for culture and serotyping when available.

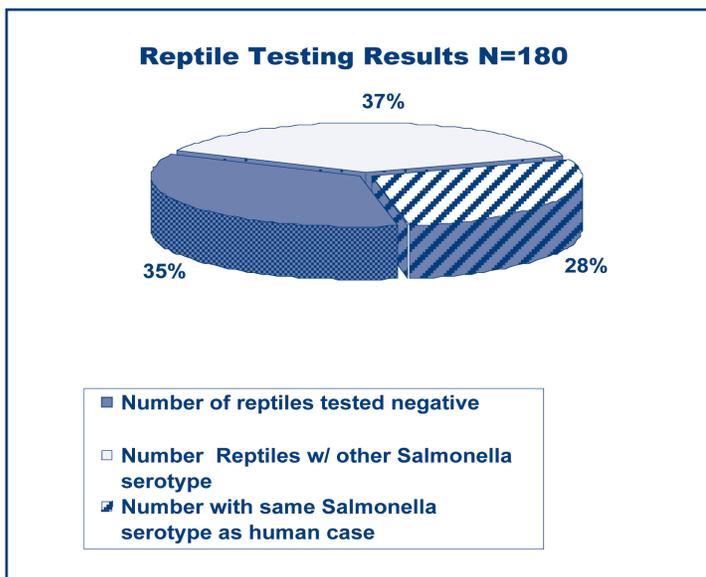
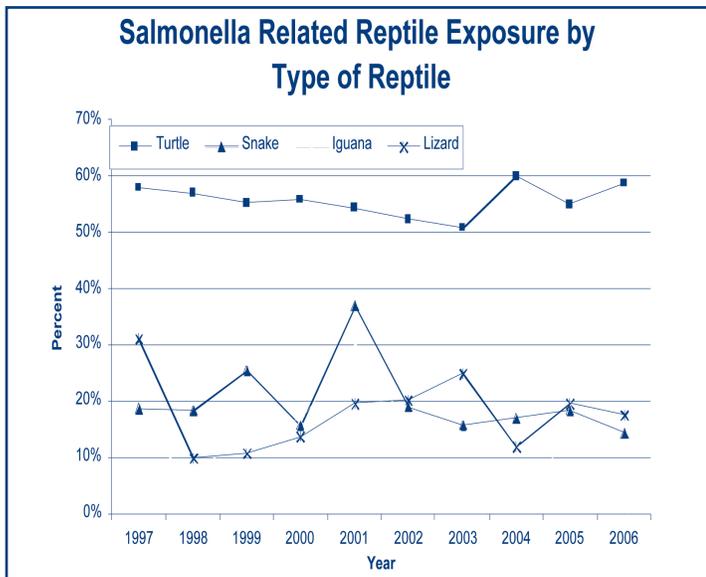
RESULTS

Overall, 990 or 10% of salmonellosis cases reported to LACDPH were reptile-associated. There was no statistically significant change in the annual incidence rate of RAS cases from 1997 to 2006 ($p=0.85$) (average 10.7 per 1,000,000: range 7.7-14.1). Turtles, mostly red-eared sliders (*Trachemys scripta elegans*), were the most commonly reported reptile (overall average 56% of cases annually, range 51-60%). Iguanas represented 30% of cases in 2001 but decreased to 1% of cases in 2006. Most RAS cases were Latino (46%) and White (37%) with the majority of cases occurring in children; 58.5% were under 10 years old. Many adults had RAS as well.

Reptile culture was obtained for 27% of RAS cases during 2000-2006; of 180 cultures, 65% were positive for *Salmonella* spp., though human and reptile isolates were the same serotype in only 28%.^{5,6} Other cases were deemed likely to be reptile associated due to the human case having a reptile-associated serotype and direct or indirect reptile contact.

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From 1998*-2006, 17.1% of persons with RAS were hospitalized, with an estimated total cost of \$199,568 per year, based on the USDA Foodborne Illness Cost Calculator: Salmonella⁸.

DISCUSSION

Nationally, 74,000 cases of RAS occur yearly, accounting for 6% of total salmonellosis cases. The rate of 10% in Los Angeles County is higher, possibly due to reptiles being more popular as pets than in other parts of the United States. *Salmonella*, often multiple serotypes, are present in up to 90% of reptiles, but may be shed intermittently, especially when the reptiles are stressed.

* Data for 1997 was incomplete for hospitalizations

Turtles are common in early childhood education settings, such as pre-schools and day care facilities, where young children may have contact with them². In infants and young children, *Salmonella* infection may result in invasive disease, thus they should have no contact with *Salmonella*-carrying reptiles. Other persons may transmit *Salmonella* bacteria to children on their hands, clothing or other fomites. Salmonellosis has also been transmitted by using the same sink for washing a contaminated reptile food dish and to bathe the infant or wash the infant's milk bottles. In 1975, federal and state laws were enacted to prevent salmonellosis from

REPTILE SAFETY TIPS

- Always wash hands thoroughly with soap and water after handling reptiles or their cages and equipment.
- Owners and potential purchasers of reptiles should be educated about the risk of acquiring salmonellosis from these animals.
- Persons at increased risk for infection, such as children less than 5 years old and immune compromised persons, should avoid both direct and indirect contact with reptiles.
- Reptiles are inappropriate pets for households with children less than 5 years old and immune compromised persons. If expecting a new child, remove pet reptiles from the home before the infant arrives and thoroughly clean the home.
- Reptiles should not be kept in child day care centers.

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small turtles, and recently the FDA has re-issued a warning to the public regarding the risk of salmonellosis from these pets^{3, 7}.

Families with limited resources and tight living quarters, but with no knowledge of RAS are likely to find the small turtles appealing as pets for children⁴. Recent local cases have tended to reside in apartments where small turtles may be considered affordable, easy pets for older children and their younger siblings who may put hands or even the turtle itself in their mouths. Despite the federal ban on the sale of small (shell length less than 4 inches or 10 cm) turtles, they are routinely sold in swap meets, street markets, and outdoor markets in LAC^{5, 6}.

CONCLUSIONS

The LAC incidence of RAS remains unchanged for 10 years, with turtles the most commonly reported reptile exposure. The majority of turtles are small red-eared sliders. Despite press releases, pamphlets and periodic sweeps of areas where reptiles are sold, turtles remain popular pets and many persons are not aware of the laws that govern their sale. Turtles are a source of preventable *Salmonella* infection. As a result of these findings, the Acute Communicable Disease Control (ACDC) Program and the Veterinary Public Health Program are working together to educate the public, particularly reptile owners, buyers and sellers regarding the risk of RAS. Health providers may ask pediatric, prenatal, and chronically ill patients if they have pet reptiles in the home or other places they frequent and if so, educate them about the reptile safety tips.

For more information about reptile-associated salmonellosis please refer to the following web sites and journals.

- Reptile-associated salmonellosis materials
<http://www.publichealth.lacounty.gov/acd/HealthEd.htm>
- Multistate Outbreak of Human Salmonella Infections Associated with Exposure to Turtles — United States, 2007-2008
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5703a3.htm>

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Roshan Reporter MD, MPH,

Curtis Croker, MPH,

Rita Bagby, PHN, MSN,

David Dassey, MD, MPH,

Laurene Mascola, MD, MPH

Acute Communicable Disease Control
Los Angeles County Public Health

Joan Sturgeon, MS,

Public Health Laboratory
Los Angeles County Public Health

National Infant Immunization Week...from page 1

Ongoing challenges to improving immunization rates include:

- Racial and ethnic disparities in immunization rates and vaccine preventable diseases
- Increasing exposure to vaccine-preventable diseases due to international travel
- A lack of parents' familiarity with vaccine-preventable diseases
- Misperceptions about immunizations, including concerns about safety and efficacy
- An increasingly complex immunization schedule
- Vaccine financing and delivery issues

In the face of these challenges, NIIW and TIM offer an opportunity for each of us to enhance our efforts to improve immunization systems and rates.

Whether you are a clinician, administrator, educator, or stakeholder, consider implementing one or more of the following simple strategies during NIIW, TIM, and throughout the year.

- **Provide simultaneous immunizations.**

The CDC's Advisory Committee on Immunization Practices and the American Academy of Pediatrics recommend simultaneous administration of all routine childhood vaccines when appropriate.

To download the "Recommended Immunization Schedule for Persons Aged 0–6 Years", visit www.cdc.gov/vaccines.

- **Adhere to true contraindications at all times.**

Visit: www.cdc.gov/vaccines/recs/vac-admin/contraindications-vacc.htm for a list of true contraindications.

- **Use client reminder and recall.**

Client reminder/recall has been proven to improve immunization rates for children and adults.

Did you know that you can auto-generate reminder/recall postcards using the LINK Immunization Registry (Los Angeles-Orange Immunization Network)? To learn about the LINK Registry, visit www.immunizelink.org or call 213-351-7800.

- **Use provider prompts to reduce missed opportunities to vaccinate.**

Studies reveal that provider reminders improve immunization rates. Use chart stickers, your electronic health record system, and/or the LINK Registry to remind providers about which shots patients are due to receive.

- **Stay Healthy, Avoid Missing Work, and Protect Your Patients. Get Up-To-Date With Your Own Vaccinations!**

Adopt Proven Strategies for Improving Immunization Systems and Rates

Visit www.thecommunityguide.org for a systematic review of the effectiveness of interventions designed to improve immunization coverage levels for children, adolescents, and adults.

Stay up-to-date on Immunization Issues including the Latest Research about Vaccines and Autism

- Join the Immunization Coalition of Los Angeles County (ICLAC) quarterly meeting on April 16, 2008 at 10 am at the California Endowment's Center for Healthy Communities.

The meeting features a presentation titled "Autism and Vaccinations: The Science Behind the Controversy" by Robert Schechter, M.D., M.S.c. of the California Department of Public Health, Immunization Branch.

ICLAC meets quarterly. If you'd like to attend regular meetings or participate in ICLAC activities, contact Wendy Berger, M.P.H. at 213-351-7800 or wberger@ph.lacounty.gov.

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Educate Parents and

- Offer a brief parent class on immunizations.
- Post immunization posters throughout your clinic, especially in exam rooms and immunization stations.
- Distribute the NIIW Coloring Sheet found at www.immunizeca.org.
- Play a reminder about immunizations on your telephone hold-system and show immunization videos in your waiting area.
- Contact the LAC Immunization Program at 213-351-7800 to learn about available immunization trainings and educational materials.

Resources

To learn more about NIIW or TIM and to download immunization resources to support your efforts throughout the year, visit the following websites:

- The California Immunization Coalition: www.immunizeca.org
- The Centers for Disease Control and Prevention: www.cdc.gov/vaccines/events/niiw
- The Los Angeles County Department of Public Health Immunization Program: www.lapublichealth.org/ip
- The Guide to Community Preventive Services: www.thecommunityguide.org
- The Los Angeles-Orange Immunization Network (LINK): www.immunizelink.org

Julie Heinzerling, MPH

Public Policy and Advocacy Specialist
Los Angeles county Public Health

Why do People Have Pets?

Today there are millions of companion animals in Los Angeles County. Most households in the US have at least one pet. A logical question is, why?

Some of us can remember growing up on a farm where the dog was viewed as a servant to the head of the household. Cats and dogs were working animals and certainly of no importance to an individual's health or well-being. The cat's job was to catch rodents and the dog's job was to assist with outside chores. Kids and elderly may have viewed the cat and dog differently.

Benefits of Pets

It has become evident to the scientific world that pets benefit their owners physically, psychologically and socially. The terms "pet therapy" and "pet facilitated therapy" are now widely employed to describe the increasing use of companion animals by health professionals. Even homeless men and women often contrive to maintain pets whose affection and companionship are highly important to them.

During the past 30 years, health professions have

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come to recognize the health benefits of pets and are reporting this in numerous publications (Table 1). Much of the research linking pets with specific benefits has focused on dogs, but when studies are done with other animals, similar results are obtained.

Table 1 Some health improvements detected in pet owners.

Some Health Advantages of Having Pets

- Most children view their pets as special friends and important members of their family. Preschool through first-grade children view their pets as playmates and protectors. During the third through fifth grades, pets are seen as a confidant and source of emotional support.
- Adolescents with no siblings living at home rated their pets as more important than did others; so did those with sole responsibility for care of the pet.
- Owners may benefit from the establishment of structured routines for the feeding, exercising and nurturing required in animal care.
- A study of Australian cat owners found the owners were psychologically healthier than non-pet owners.
- People upon receiving a friendly dog underwent an improvement in self-esteem and were less afraid of being the victims of crime. Owners also reported considerably more physical exercise in the form of dog walking.
- The presence of a companion animal will lower a person's blood pressure. Pet ownership can help a person who has had a heart attack to live longer.
- Within six months of receiving a service dog, people with disabilities needed about 70% fewer hours of home aide. Service dogs help disabled people make friends and gain an enhanced feeling of well-being and independence.
- Pets can be a focus of conversation, and pets may serve to buffer and normalize the sense of isolation that often accompanies aging.
- Pets help the elderly ward off loneliness. Dogs were identified as offering the qualities of companionship, emotional bond, usefulness, loyalty and the quality of needing no negotiation.

Source: Delta Society <http://www.deltasociety.org/>

Pets Assist with Weight Loss

Obesity is an expanding public health problem in developed countries and has reached near epidemic proportions in the United States. Pets are also becoming fatter. It is estimated that one in 10 adults and one in five urban schoolchildren are now officially overweight in China.

The human-companion animal bond and the role of pets in providing social support was the framework for studying the effectiveness of people and pets exercising together within a weight loss program.¹ Program completion rates at one year were 61% for the people and pets group and 58% for the people only group. Two-thirds of total physical activity in the people and pet group was spent with the dogs. The study concluded that consideration of social support for weight loss of family members, friends, and coworkers should be extended to include pets.

Conclusion

The reasons we have companion animals have changed over the decades. In the past, the majority of companion animals were clearly seen as working animals. Today, animals still serve in extremely important roles as working animals (seeing eye dogs, law enforcement) but also have taken their place in the mainstream as companion animals. The health benefits of companion animals continue to be explored and expanded. Companion animal ownership has great benefits to the individual.

C. Patrick Ryan, D.V.M., M.P.H.

Veterinary Public Health and Rabies Control, Disease Control Programs
Los Angeles County Public Health Department

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Physician Registry

Become a Member of the Health Alert Network

The Los Angeles County Department of Public Health urges all local physicians to register with the Health Alert Network (HAN). By joining, you will receive periodic email updates alerting you to the latest significant local public health information including emerging threats such as pandemic influenza. Membership is free. All physician information remains private and will not be distributed or used for commercial purposes.

Registration can be completed online at www.lahealthalert.org or by calling (323) 890-8377.

Be aware of public health emergencies! Enroll now!

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THE PUBLIC'S HEALTH

Newsletter for Medical Professionals in Los Angeles County



COUNTY OF LOS ANGELES

Public Health

313 North Figueroa Street, Room 806
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Selected Reportable Diseases (Cases)¹ — NOV 2007

Disease	THIS PERIOD NOV 2007	SAME PERIOD LAST YEAR NOV 2006	YEAR TO DATE – NOV		YEAR END TOTALS		
			2007	2006	2006	2005	2004
AIDS ¹	166	151	1,396	1,222	1,390	1,521	2,211
Amebiasis	10	7	117	80	94	114	114
Campylobacteriosis	44	58	816	725	774	725	884
Chlamydial Infections	3,023	3,106	38,134	36,823	39,882	38,862	38,464
Encephalitis	3	5	58	45	45	57	133
Gonorrhea	785	811	9,041	9,663	10,430	10,494	9,696
Hepatitis Type A	3	2	74	346	365	480	321
Hepatitis Type B, acute	5	6	52	58	62	57	72
Hepatitis Type C, acute	0	0	5	4	4	3	5
Measles	0	0	0	1	1	0	1
Meningitis, viral/aseptic	28	29	381	349	369	515	807
Meningococcal Infect.	0	5	23	44	46	37	28
Mumps	0	0	4	7	10	10	5
NGU	No longer reportable				758	1,101	1,470
Pertussis	1	4	61	138	149	438	156
Rubella	0	0	0	0	0	1	0
Salmonellosis	83	90	1,068	1,135	1,216	1,085	1,205
Shigellosis	24	36	460	499	521	710	625
Syphilis (prim. and sec.)	34	66	731	720	789	644	470
Syphilis early latent	27	96	665	694	758	570	395
Tuberculosis	58	86	609	655	885	906	930
Typhoid fever, Acute	3	0	16	18	17	12	13

1. Case totals are provisional and may vary following periodic updates of the database.