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Arizona Review of Reported Binational Cases with Mexico

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Objective

This will provide an overview of the process by which Arizona and Sonora identify and share binational cases of public health importance.

Introduction

Reporting of binational cases has been enacted in Arizona systematically since 2007. Investigating binational cases and providing binational counterparts with timely information can help to enact interventions, as well as strengthens communication between binational, federal, and local health partners. This has allowed a better understanding of the burden of disease among binational/border populations. The process of systematically sharing these cases has allowed for appropriate and timely public health interventions to be implemented, crossing an international boundary in both states.

Methods

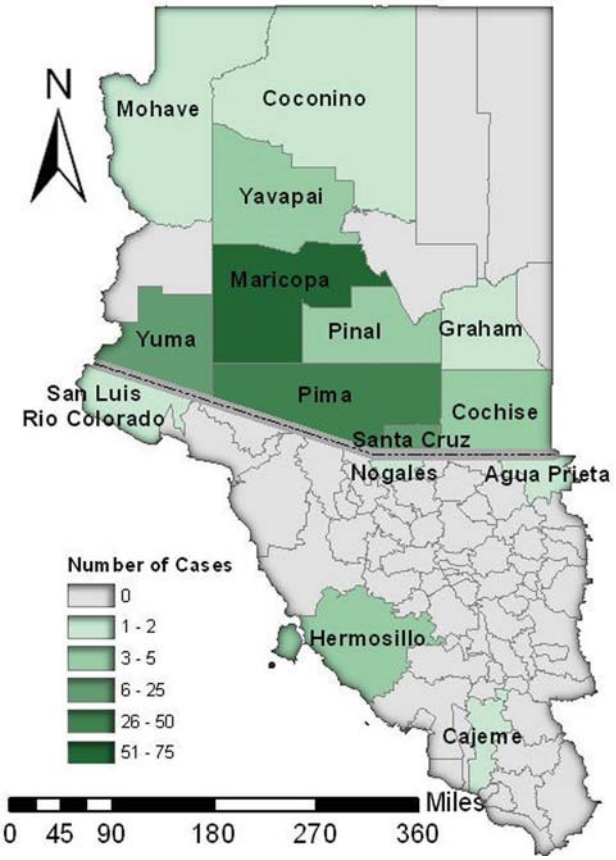
A binational (US-Mexico) case in Arizona is defined as any individual with a confirmed, probable, or suspect case of a reportable infectious disease, and who meets one of the following criteria: a Mexican resident; a contact of Mexico resident; had compatible travel to Mexico; or thought to have acquired the infection from a product of Mexico. In Arizona, notification of binational cases with Mexico has been managed in MEDSIS (Medical Electronic Disease Surveillance Intelligence System), which is an electronic health data management system used to conduct infectious disease surveillance and control, since 2007. The Border Infectious Disease Surveillance (BIDS) program relies on local health departments to identify binational cases, and also the BIDS program formulated search criteria for cases with Mexican residency and/or cases that have Mexico keywords in appropriate MEDSIS text fields. In Sonora, Mexico, public health professionals have secure access to MEDSIS which facilitates the exchange of case identification and management information for binational cases.

Results

The Arizona BIDS Program investigated and confirmed 170 cases meeting the binational case definition in 2012. Local health departments identified the majority of cases (59%). The remaining cases were found through a text-field search in MEDSIS using binationally correlated key words (40%), as well as notification by the Sonoran Health Department of a binational case (1%). The vast majority of binational cases had a foodborne/waterborne illness (63%). Among cases with a foodborne or waterborne illness, Campylobacteriosis (34%), Shigellosis (26%), and Salmonellosis (25%) were most commonly reported. The most common morbidity types among the remaining binational cases were hepatitis (19%), parasitic infections (5%), and febrile exanthems (4%). Five clusters of binational cases were identified including 2 Shigellosis clusters, 1 E. coli cluster, 1 Varicella cluster, and 1 Hepatitis A cluster. All information gathered from these binational cases was shared with the appropriate binational counterparts.

Conclusions

Gathering information on the proportion, distribution and burden of disease of binational cases in Arizona strengthens ties and increases communication with Mexican counterparts, and helps better identify trends in diseases and possible binational infectious disease outbreaks. Through collaborations between public health we can overcome barriers for monitoring infectious disease that crosses an international border.



Keywords

Binational; Surveillance; Border; Arizona; Sonora

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