



Healthcare Worker Vaccine Preventable Disease Fact Sheet

VACCINE	Efficacy	Annual case counts		Hospitalization		Mortality	Other Comments
		US	RI	US Estimate	RI Estimate	RI Estimate	
Hepatitis B	90% after 3 dose series in healthy adults <40yrs	Acute: 1748 in last 12 mo. Chronic 800,000 To 1.4 million	Acute 5 yr median 11 cases. Chronic 3500 (estimate)	700 cases (acute) Chronic No data	Acute: No data Chronic No data	No data (Vital Records notes 18 deaths from Hep B in 2001)	Bloodborne pathogen with a large pool of chronic cases in health care system. Consequences are cirrhosis, liver cancer, liver failure, death
MMR	99% effective after 2 doses	222 measles cases in 2011. 214 Mumps cases in 2011	1 measles in 2011 5 Mumps in 2011	40% of measles cases (estimate 88 in 2011)	0-measles 1-mumps	0-measles 0-mumps	Airborne and droplet transmission. Hospital and community outbreak responses are common and very costly. Measles and mumps can have serious consequences in adults and children.
Varicella	80% effective after 2 doses	9397 cases in 2011	42 cases in 2011	No data	2	No deaths	Airborne transmission. Transmission in health care settings common and consume resources to control.

VACCINE	Efficacy	Annual cases		Hospitalization		Mortality	Other Comments
		US	RI	US Estimate	RI Estimate	RI Estimate	
Dtap	66 to 78% effective with immunity waning over several years. Benefit of milder illness with lower transmission persists.	10,876 in 2011. 27,726 in 2012 (through Sept 10)	62 in 2011. 80 in 2012 (through Sept 10th)	50% of children under 1 yr will be hospitalized	No hospitalizations in 2011, 1 hospitalization in 2012	1% of hospitalized infants die. No deaths in RI in 2011 or 2012	Droplet transmission. National resurgence in progress in multiple states. Transmission in health care settings common and consume resources to control. 2 community wide outbreaks in RI in 2012.
Influenza	50% to 70 % Varies by subset. When breakthrough illness occurs it is attenuated and prevents hospitalization and death.	Attack rates vary with season at 2-10% of healthy adults and may be as high as 30% of the population	Attack rates vary with season at 2-10% for healthy adults and may be as high as 30% of the population. At peak season 3 to 5% of outpatient visits are for flu like illness.	>200,000	332 in the 2010-2011 flu season. 443 during the 2009-10 H1N1 pandemic	294 deaths recorded in vital records report in 2001. 300 to 400 deaths is the estimated seasonal average.	Droplet transmission. Seasonal outbreaks in health care settings common and consume resources. 28 long term care outbreaks noted in the 2010-2011 season.

Source Documents:

Immunization of HCW (ACIP Recommendations) http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6007a1.htm?s_cid=rr6007a1_w

Morbidity and Mortality Tables Sept 2012 - <http://www.cdc.gov/mmwr/PDF/wk/mm6136md.pdf>

Measles 2011 - http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6020a7.htm?s_cid=mm6020a7_w

RI Influenza Report - <http://health.ri.gov/surveillance/2011/Influenza.pdf>

2012-13 Influenza vaccine Recommendations (ACIP) - <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a3.htm>

RI Vital Records Report - <http://health.ri.gov/publications/annualreports/2001-2001VitalRecords.pdf>

RI data source: Department of Health- Division of Infectious Disease and Epidemiology