

school work or volunteer activities that may be affected by illness.

As with the avoided mortality valuation, the real wages used in the COI estimates were increased by a real income growth factor that varies by year, but is the equivalent of about 2.3% over the 20 year period. This approach of adjusting for real income growth was recommended by the SAB (USEPA 2000e) because the median real wage is expected to grow each year (by approximately 2.3%)—the median real wage is projected to be \$38,902 in 2008

and \$59,749 in 2027. Correspondingly, the real income growth factor of the COI estimates increases by the equivalent of 2.3% per year (except for medical costs, which are not directly tied to wages). This approach gives a total COI valuation in 2008 of \$268.92 for the traditional COI estimate and \$931.06 for the enhanced COI estimate; the valuation in 2027 is \$362.75 for the traditional COI estimate and \$1,429.99 for the enhanced COI estimate. There is no difference in the methodology for calculating the COI over this 20 year

period of implementation; the change in valuation is due to the underlying change in projected real wages.

Table VI–4 summarizes the annual cases of cryptosporidiosis illness and associated deaths avoided due to the LT2ESWTR proposal. The proposed rule, on average, is expected to reduce 256,000 to 1,019,000 illnesses and 37 to 141 deaths annually after full implementation (range based on the ICRSSL, ICRSSM, and Information Collection Rule data sets).

TABLE VI–4.—SUMMARY OF ANNUAL AVOIDED ILLNESS AND DEATHS

Data set	Annual illnesses avoided			Annual deaths avoided		
	Mean	90 percent confidence bound		Mean	90 percent confidence bound	
		Lower (5th %ile)	Upper (95th %ile)		Lower (5th %ile)	Upper (95th %ile)
Annual Total After Full Implementation						
ICR	1,018,915	169,358	2,331,467	141	25	308
ICRSSL	256,173	45,292	560,648	37	7	78
ICRSSM	498,363	84,724	1,177,415	70	13	157
Annual Average Over 25 years						
ICR	720,668	119,694	1,647,796	100	18	218
ICRSSL	181,387	32,179	396,845	26	5	55
ICRSSM	352,611	59,942	833,290	50	9	111

Source: The LT2ESWTR Economic Analysis (USEPA 2003a).

Tables VI–5a and VI–5b show the monetized present value of the benefit for reductions in endemic cryptosporidiosis estimated to result from the LT2ESWTR for the enhanced and traditional COI values, respectively. Estimates are given for the Information Collection Rule, ICRSSL, and ICRSSM occurrence data sets.

With the enhanced COI and a three percent discount rate, the annual present value of the mean benefit estimate ranges from \$374 million to \$1.4 billion, with a 90 percent

confidence bound of \$52 million to \$198 million at the lower 5th percentile and \$959 million to \$3.7 billion at the upper 95th percentile; at a seven percent discount rate, this estimate ranges from \$318 million to \$1.2 billion, with a 90 percent confidence bound of \$44 million to \$168 million at the lower 5th percentile and \$816 million to \$3.1 billion at the upper 95th percentile. With the traditional COI, the corresponding benefit estimate at a three percent discount rate ranges from \$253 million to \$967 million, with a 90

percent confidence bound of \$27 million to \$105 million at the lower 5th percentile and \$713 million to \$2.7 billion at the upper 95th percentile; for a seven percent discount rate, this estimate ranges from \$216 million to \$826 million, with a 90 percent confidence bound of \$23 million to \$89 million at the lower 5th percentile and \$610 million to \$2.3 billion at the upper 95th percentile. None of these values include the unquantified and non-monetized benefits discussed previously.

TABLE VI–5A.—SUMMARY OF QUANTIFIED BENEFITS—ENHANCED COI
[\$millions, 2000\$]

Data set	Value of benefits—Enhanced COI ¹		
	Mean	90 percent confidence bound	
		Lower (5th %ile)	Upper (95th %ile)
Annualized Value (at 3%, 25 Years)			
ICR	\$1,445	\$198	3,666
ICRSSL	374	52	959
ICRSSM	715	96	1,849
Annualized Value (at 7%, 25 Years)			
ICR	1,230	168	3,120