

This supplementary material includes detailed results for all VOI analyses, including both the baseline and sensitivity analyses, discussed in the white paper.

Supplementary material is comprised of 10 tabs showing the following results. The tab names corresponds to the the section number in the white paper to which the VOI results pertain.

<b>Tab name</b>	<b>Content</b>
6.1.1. BRDM	Results of VOI analyses for baseline analysis for BRDM (9 BA scenarios)
6.1.2. TRDM	Results of VOI analyses for baseline analysis for TRDM (9 BA scenarios)
6.2.1. BRDM	Results of VOI sensitivity analysis exploring the effect of quality of exposure information for BRDM (81 SA scenarios)
6.2.1. TRDM	Results of VOI sensitivity analysis exploring the effect of quality of exposure information for TRDM (81 SA scenarios)
6.2.2. BRDM	Results of VOI sensitivity analysis exploring the effect of adverse health outcome and cost of control for BRDM (27 SA scenarios + 9 BA scenarios)
6.2.2. TRDM	Results of VOI sensitivity analysis exploring the effect of adverse health outcome and cost of control for TRDM (18 SA scenarios + 9 BA scenarios)
6.2.3. BRDM TRDM	Results of VOI sensitivity analysis exploring the effect of toxicity distribution for BRDM and TRDM (18 SA scenarios)
6.2.4. BRDM	Results of VOI sensitivity analysis exploring the effect of affected population size for BRDM (18 SA scenarios + 9 BA scenarios)
6.2.4. TRDM	Results of VOI sensitivity analysis exploring the effect of affected population size for TRDM (18 SA scenarios + 9 BA scenarios)
6.2.5. TRDM	Results of VOI sensitivity analysis exploring the effect of choice of TRL for TRDM (9 SA scenarios)
6.2.6. BRDM TRDM	Results of VOI sensitivity analysis exploring the effect of additional sources of uncertainty for BRDM and TRDM (18 SA scenarios)

\* BA = baseline analysis; SA = sensitivity analysis

### 6.1.1 BRDM

Analysis type: Baseline analysis

Decision-making paradigm: BRDM

Description: This table contains VOI analysis results for nine exposure scenarios considered in the baseline analysis.

NOTE: These results are also presented as Table 6-1.

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		52		78		88		100		100		100	
EV CI (\$M)	34,985		71,112		52,678		187,116		293,406		326,454		682,822		718,084		914,879	
EV PPI (\$M)	9,562		23,724		14,524		112,762		153,501		145,812		118,826		121,541		73,520	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	6,714	7,997	18,304	20,792	10,634	12,401	98,386	105,280	132,933	142,679	125,722	135,160	86,256	100,974	87,670	102,955	47,053	58,675
CoD (\$M)	286	4,570	780	11,882	453	7,087	6,052	85,092	12,157	168,585	12,399	171,653	64,708	876,092	70,331	951,815	99,596	1,342,144
EVDSI (\$M)	6,428	3,427	17,524	8,910	10,180	5,314	92,334	20,188	120,776	-25,907	113,323	-36,493	21,548	-775,117	17,339	-848,860	-52,543	-1,283,469
ENBS (\$M)	6,428	3,423	17,524	8,906	10,180	5,310	92,334	20,184	120,775	-25,911	113,322	-36,497	21,547	-775,121	17,339	-848,864	-52,544	-1,283,473
ROI	32,140	856	87,618	2,226	50,901	1,327	461,668	5,046	603,877	-6,478	566,612	-9,124	107,737	-193,780	86,693	-212,216	-262,718	-320,868

6.1.2 TRDM

**Analysis type:** Baseline analysis

**Decision-making paradigm:** TRDM

**Description:** This table contains VOI analysis results for nine exposure scenarios considered in the baseline analysis.

NOTE: These results are also presented as Table 6-3.

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
<b>EV CI (\$M)</b>	34,985		71,112		52,678		230,732		445,722		491,657		2,114,853		2,280,636		3,204,717	
<b>EVIPPI (\$M)</b>	169		13,847		16,765		169,559		322,652		342,378		1,443,267		1,566,202		2,085,909	
	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>	<b>ETAP</b>	<b>THHA</b>
<b>EVISI (\$M)</b>	10	43	4,294	7,490	7,805	11,584	143,120	161,570	296,667	314,381	332,269	339,030	1,389,375	1,425,135	1,544,647	1,560,703	2,067,267	2,077,867
<b>CoD (\$M)</b>	0.4	25	183	4,280	333	6,620	6,100	92,335	12,644	179,665	14,161	193,751	59,214	814,446	65,831	891,921	88,105	1,187,474
<b>EVDSI (\$M)</b>	9	19	4,111	3,209	7,473	4,964	137,020	69,235	284,023	134,716	318,108	145,279	1,330,161	610,689	1,478,816	668,782	1,979,162	890,394
<b>ENBS (\$M)</b>	9	15	4,111	3,205	7,472	4,960	137,020	69,231	284,023	134,712	318,108	145,275	1,330,161	610,685	1,478,816	668,778	1,979,162	890,390
<b>ROI</b>	44	4	20,556	801	37,362	1,240	685,100	17,308	1,420,115	33,678	1,590,540	36,319	6,650,803	152,671	7,394,078	167,194	9,895,810	222,597

# 6.2.1 BRDM

Analysis type: Sensitivity analysis - Effect of quality of exposure information  
 Decision-making paradigm: BRDM

Description: For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using further subpartitioned 3x3 exposure information. This analysis exhibits the effect of having more precise exposure information on VOI analysis.

Scenario	Baseline Scenario 1	
ORE	0	
EVI (CI) (\$M)	34,285	
EVIPPI (\$M)	9,562	
ETAP	ETAP	Bioassay
EVIS (SM)	6,714	7,997
CoD (\$M)	286	4,570
EVDS (SM)	6,428	7,427
ENBS (\$M)	6,428	3,423
ROI	32,140	856

Scenario	Baseline Scenario 2	
ORE	0	
EVI (CI) (\$M)	71,117	
EVIPPI (\$M)	23,724	
ETAP	ETAP	THHA
EVIS (SM)	18,304	20,792
CoD (\$M)	780	11,882
EVDS (SM)	17,524	8,910
ENBS (\$M)	17,524	8,906
ROI	87,638	2,226

Scenario	Baseline Scenario 3	
ORE	0	
EVI (CI) (\$M)	52,678	
EVIPPI (\$M)	14,524	
ETAP	ETAP	THHA
EVIS (SM)	10,634	12,403
CoD (\$M)	451	9,282
EVDS (SM)	10,180	5,314
ENBS (\$M)	10,180	5,310
ROI	50,901	1,377

Scenario	Baseline Scenario 4	
ORE	52	
EVI (CI) (\$M)	187,110	
EVIPPI (\$M)	113,782	
ETAP	ETAP	THHA
EVIS (SM)	98,386	105,280
CoD (\$M)	6,052	85,092
EVDS (SM)	92,334	20,188
ENBS (\$M)	92,334	19,184
ROI	461,668	5,045

Scenario	Baseline Scenario 5	
ORE	78	
EVI (CI) (\$M)	293,406	
EVIPPI (\$M)	153,501	
ETAP	ETAP	THHA
EVIS (SM)	132,933	141,624
CoD (\$M)	12,157	168,585
EVDS (SM)	120,776	-25,907
ENBS (\$M)	120,775	-25,911
ROI	603,877	-6,478

Scenario	Baseline Scenario 6	
ORE	89	
EVI (CI) (\$M)	323,434	
EVIPPI (\$M)	145,812	
ETAP	ETAP	THHA
EVIS (SM)	125,722	135,160
CoD (\$M)	12,399	174,634
EVDS (SM)	113,323	-38,491
ENBS (\$M)	113,322	-38,491
ROI	566,612	-9,124

Scenario	Baseline Scenario 7	
ORE	100	
EVI (CI) (\$M)	682,822	
EVIPPI (\$M)	118,820	
ETAP	ETAP	THHA
EVIS (SM)	85,256	100,974
CoD (\$M)	64,708	876,092
EVDS (SM)	21,548	-775,117
ENBS (\$M)	21,547	-775,117
ROI	107,737	-193,780

Scenario	Baseline Scenario 8	
ORE	100	
EVI (CI) (\$M)	718,084	
EVIPPI (\$M)	121,541	
ETAP	ETAP	THHA
EVIS (SM)	87,670	109,955
CoD (\$M)	70,331	931,815
EVDS (SM)	17,339	-848,862
ENBS (\$M)	17,339	-848,862
ROI	86,693	-212,216

Scenario	Baseline Scenario 9	
ORE	100	
EVI (CI) (\$M)	914,829	
EVIPPI (\$M)	117,520	
ETAP	ETAP	THHA
EVIS (SM)	126,586	140,855
CoD (\$M)	99,596	1,342,144
EVDS (SM)	26,983	-1,284,969
ENBS (\$M)	-52,444	-1,283,473
ROI	262,718	-320,860

Scenario	Low						Medium						High							
	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20
ORE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EVI (CI) (\$M)	189	745	860	921	982	1,043	1,104	1,165	1,226	1,287	1,348	1,409	1,470	1,531	1,592	1,653	1,714	1,775	1,836	1,897
EVIPPI (\$M)	16	47	81	115	149	183	217	251	285	319	353	387	421	455	489	523	557	591	625	659
ETAP	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVIS (SM)	5	9	16	28	41	7	220	293	179	243	321	430	5,693	6,538	5,498	6,877	9,456	10,853		
CoD (\$M)	0.2	5	0.7	16	0.2	4	3	210	126	8	139	14	246	241	3,748	234	3,644	403	6,203	
EVDS (SM)	5	4	4	16	12	4	3	210	126	172	104	307	184	5,492	2,410	5,264	4,281	9,263	4,651	
ENBS (\$M)	5	-0	15	8	3	-1	-1	210	122	171	100	307	180	5,450	2,806	5,264	2,729	9,053	4,647	
ROI	23	-0.0	77	2	17	-0.3	1,051	30	857	25	1,535	45	27,249	702	25,319	682	45,263	1,162		

Scenario	Low			Medium			High			Low			Medium			High				
	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
ORE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EVI (CI) (\$M)	3,265	1,197	7,033	8,175	12,555	16,178	23,524	30,870	38,216	45,562	52,908	60,254	67,600	74,946	82,292	89,638	96,984	104,330	111,676	119,022
EVIPPI (\$M)	225	394	811	1,139	1,467	1,795	2,123	2,451	2,779	3,107	3,435	3,763	4,091	4,419	4,747	5,075	5,403	5,731	6,059	6,387
ETAP	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVIS (SM)	146	218	87	130	412	578	2,069	3,184	3,868	4,263	5,113	26,504	29,338	30,247	33,352	24,217	26,591			
CoD (\$M)	6	125	4	74	48	330	88	1,458	136	2,209	182	2,922	1,130	16,766	1,289	19,062	1,032	15,402		
EVDS (SM)	140	93	83	56	394	247	1,981	1,092	3,048	1,657	4,081	2,191	25,374	12,572	28,957	14,290	23,185	11,549		
ENBS (\$M)	140	89	83	54	394	243	1,981	1,089	3,048	1,653	4,081	2,187	25,374	12,568	28,957	14,286	23,185	11,545		
ROI	7,200	22	415	13	1,971	61	9,093	272	15,240	413	20,404	547	126,870	3,142	144,786	3,571	115,263	2,888		

Scenario	Low			Medium			High			Low			Medium			High				
	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20
ORE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EVI (CI) (\$M)	1,799	1,830	7,418	6,775	6,522	23,574	63,130	44,182	123,912											
EVIPPI (\$M)	150	202	777	2,001	1,816	6,557	18,945	13,582	56,806											
ETAP	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVIS (SM)	61	95	87	133	392	551	1,223	1,565	1,092	1,408	4,477	5,411	23,107	25,822	14,249	16,248	47,403	51,799		
CoD (\$M)	3	54	4	78	76	17	115	52	12	47	705	286	451	2,170	1,410	2,170	31,617			
EVDS (SM)	58	41	83	57	376	236	1,171	671	1,046	604	4,286	2,123	11,065	13,642	6,963	45,233	20,182			
ENBS (\$M)	58	37	83	53	375	232	1,170	667	1,046	600	4,286	2,123	11,061	13,642	6,959	45,232	20,178			
ROI	289	9	416	13	1,875	58	5,852	167	5,228	150	21,429	579	110,612	2,765	68,208	1,740	226,162	5,045		

Scenario	Low			Medium			High			Low			Medium			High				
	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	4-16	4-17	4-18	4-19	4-20
ORE	5	12	7	45	45	45	49	73	71											
EVI (CI) (\$M)	67,491	79,793	70,445	162,291	161,471	175,367	267,885	274,158	258,732											
EVIPPI (\$M)	41,705	51,717	45,764	102,379	102,379	109,188	151,538	151,538	147,946											
ETAP	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVIS (SM)	37,301	40,396	44,442	47,956	39,146	42,341	90,366	96,497	89,758	95,869	96,178	102,713	132,386	141,609	134,383	143,805	129,778	138,744		
CoD (\$M)	1,508	23,202	1,945	28,090	1,684	24,412	5,186	73,045	5,130	72,282	5,772	81,132	11,300	156,792	11,807	163,710	10,633	147,700		
EVDS (SM)	35,202	37,198	42,496	19,866	37,461	17,929	85,180	23,452	86,628	23,387	90,406	21,581	121,080	-15,181	122,776	-19,406	118,645	-9,456		
ENBS (\$M)	35,202	37,198	42,496	19,866	37,461	17,929	85,180	23,448	86,398	23,448	90,406	21,577	121,080	-15,181	122,776	-19,410	118,645	-9,460		
ROI	178,510	4,298	212,481	4,965	187,306	4,481	425,898	5,862	423,138	5,806	452,029	5,394	605,430	-1,787	612,880	-4,977	593,224			

# 6.2.1 TRDM

Analysis type: Sensitivity analysis - Effect of quality of exposure information

Decision-making paradigm: TRDM

Description: For each of the nine exposure scenarios considered in the baseline analysis, VOl analysis was performed using further subdivided 3x3 exposure information. This analysis exhibits the effect of having more precise exposure information on VOl analysis. For individual analysis, NA indicates scenario where prior information is sufficient in deriving a regulatory decision and therefore no toxicity testing is required.

Scenario	Baseline Scenario 1	
	ETAP	THHA
EV   CI (\$M)	34,985	
EVIPPI (\$M)	58	
EVI (S)	10	43
EVSI (\$M)	0.4	25
EVDSI (\$M)	9	19
ENBS (\$M)	9	15
ROI	44	4

Scenario	Baseline Scenario 2	
	ETAP	THHA
EV   CI (\$M)	71,112	
EVIPPI (\$M)	13,847	
EVI (S)	4,294	7,490
EVSI (\$M)	383	4,280
EVDSI (\$M)	4,111	3,209
ENBS (\$M)	4,111	3,205
ROI	20,556	801

Scenario	Baseline Scenario 3	
	ETAP	THHA
EV   CI (\$M)	52,678	
EVIPPI (\$M)	16,765	
EVI (S)	7,805	11,584
EVSI (\$M)	335	6,620
EVDSI (\$M)	7,412	4,964
ENBS (\$M)	7,412	4,560
ROI	37,362	1,450

Scenario	Baseline Scenario 4	
	ETAP	THHA
EV   CI (\$M)	230,732	
EVIPPI (\$M)	169,559	
EVI (S)	143,120	161,570
EVSI (\$M)	6,100	92,335
EVDSI (\$M)	137,020	69,235
ENBS (\$M)	137,020	69,231
ROI	685,100	17,308

Scenario	Baseline Scenario 5	
	ETAP	THHA
EV   CI (\$M)	445,722	
EVIPPI (\$M)	322,652	
EVI (S)	296,667	314,381
EVSI (\$M)	12,644	179,665
EVDSI (\$M)	284,023	134,716
ENBS (\$M)	284,023	134,712
ROI	1,420,115	33,678

Scenario	Baseline Scenario 6	
	ETAP	THHA
EV   CI (\$M)	491,657	
EVIPPI (\$M)	342,378	
EVI (S)	332,269	339,090
EVSI (\$M)	34,161	193,311
EVDSI (\$M)	318,108	145,279
ENBS (\$M)	318,108	145,275
ROI	1,590,540	36,319

Scenario	Baseline Scenario 7	
	ETAP	THHA
EV   CI (\$M)	2,114,853	
EVIPPI (\$M)	1,443,267	
EVI (S)	1,389,375	1,425,135
EVSI (\$M)	59,214	814,446
EVDSI (\$M)	1,330,161	610,689
ENBS (\$M)	1,330,161	610,685
ROI	6,650,803	152,671

Scenario	Baseline Scenario 8	
	ETAP	THHA
EV   CI (\$M)	2,280,636	
EVIPPI (\$M)	1,464,202	
EVI (S)	1,544,647	1,560,703
EVSI (\$M)	65,831	891,921
EVDSI (\$M)	1,478,816	668,782
ENBS (\$M)	1,478,816	668,778
ROI	7,394,078	167,124

Scenario	Baseline Scenario 9	
	ETAP	THHA
EV   CI (\$M)	3,204,717	
EVIPPI (\$M)	2,085,909	
EVI (S)	2,067,267	2,077,867
EVSI (\$M)	88,105	1,187,474
EVDSI (\$M)	1,979,162	890,394
ENBS (\$M)	1,979,162	890,390
ROI	9,895,810	222,597

Scenario	Low			Medium			High			
	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	
EV   CI (\$M)	NA	NA	NA	NA	NA	1,730	13,158	13,595	25,495	
EVIPPI (\$M)	NA	NA	NA	NA	NA	1,203	9,829	10,224	18,569	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	NA	NA	NA	NA	NA	528	942	6,448	8,533	7,577
EVDSI (\$M)	NA	NA	NA	NA	NA	27	538	275	4,877	323
ENBS (\$M)	NA	NA	NA	NA	NA	601	404	6,173	3,657	7,254
ROI	NA	NA	NA	NA	NA	601	400	6,173	3,653	7,254

Scenario	Low			Medium			High			
	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	
EV   CI (\$M)	3,265	1,197	7,033	8,175	12,555	16,178	62,300	70,794	60,998	
EVIPPI (\$M)	68	663	375	6,116	9,349	12,051	46,099	52,229	44,929	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	5	19	257	441	48	136	5,102	5,794	8,196	
EVDSI (\$M)	0.2	11	11	252	21	78	227	3,311	349	
ENBS (\$M)	4	8	246	189	46	58	4,885	2,483	7,847	
ROI	4	4	246	185	46	54	4,885	2,479	7,847	

Scenario	Low			Medium			High			
	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	
EV   CI (\$M)	1,759	1,830	7,418	6,775	6,522	23,574	63,130	44,187	127,437	
EVIPPI (\$M)	286	783	3,361	5,043	4,863	16,816	45,945	32,343	90,338	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	48	121	274	470	1,804	2,513	4,395	4,824	4,355	
EVDSI (\$M)	2	69	122	269	77	146	2,757	1,885	2,687	
ENBS (\$M)	46	52	363	201	1,721	2,067	4,169	2,067	4,169	
ROI	229	12	1,309	49	8,634	208	21,040	516	20,845	

Scenario	Low			Medium			High			
	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	
EV   CI (\$M)	67,694	80,990	70,820	193,610	192,083	214,620	399,834	416,817	378,937	
EVIPPI (\$M)	50,910	60,865	53,498	145,131	143,918	167,917	298,023	308,265	280,616	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	41,587	48,208	50,638	58,022	45,884	51,182	135,627	147,856	134,365	
EVDSI (\$M)	1,772	27,550	2,158	33,159	1,956	29,250	5,780	80,936	6,450	
ENBS (\$M)	39,814	20,658	48,480	24,863	43,929	21,932	129,846	61,216	128,639	
ROI	190,072	5,163	242,400	6,215	219,642	5,482	649,230	35,303	643,192	

Scenario	Low			Medium			High			
	5-1	5-2	5-3	5-4	5-5	5-6	5-7	5-8	5-9	
EV   CI (\$M)	137,037	139,647	129,575	405,640	481,771	471,681	669,402	695,325	720,959	
EVIPPI (\$M)	102,170	104,143	96,378	299,106	353,684	346,024	487,977	506,019	523,569	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	92,589	99,359	95,220	101,612	86,797	93,455	291,530	297,538	346,749	
EVDSI (\$M)	3,946	56,782	4,058	58,070	3,699	53,408	12,425	170,039	14,778	
ENBS (\$M)	88,643	42,576	91,162	43,542	83,098	40,047	279,105	127,499	331,971	
ROI	443,214	10,643	455,807	10,885	415,490	10,011	1,395,524	31,874	1,659,855	

Scenario	Low			Medium			High			
	6-1	6-2	6-3	6-4	6-5	6-6	6-7	6-8	6-9	
EV   CI (\$M)	110,939	169,205	259,843	273,094	442,745	467,254	688,486	879,650	NA	
EVIPPI (\$M)	81,842	123,123	184,370	199,059	315,122	328,434	493,039	617,092	NA	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	78,919	81,033	122,098	122,841	183,588	184,140	195,783	198,247	314,371	
EVDSI (\$M)	3,363	46,309	5,201	70,303	7,821	105,224	8,241	113,286	13,398	
ENBS (\$M)	75,555	34,724	116,894	52,639	175,763	78,907	187,439	84,948	300,973	
ROI	377,775	6,880	584,469	13,159	878,816	19,726	937,195	21,237	1,504,863	

Scenario	Low			Medium			High			
	7-1	7-2	7-3	7-4	7-5	7-6	7-7	7-8	7-9	
EV   CI (\$M)	994,943	1,023,147	1,021,178	1,427,034	1,447,126	1,434,456	5,118,487	2,736,704	4,614,726	
EVIPPI (\$M)	717,748	736,956	735,198	1,016,817	1,030,117	1,020,968	2,989,104	1,853,607	2,810,369	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	708,916	716,049	729,984	735,219	728,077	733,911	1,009,885	1,015,722	1,024,001	
EVDSI (\$M)	30,213	409,213	31,111	420,454	31,030	419,421	43,040	580,471	43,642	
ENBS (\$M)	678,703	306,837	698,873	315,366	697,047	314,481	866,845	435,260	880,359	
ROI	3,393,512	76,708	3,494,363	78,815	3,485,233	78,622	4,834,223	108,812	4,901,795	

Scenario	Low			Medium			High			
	8-1	8-2	8-3	8-4	8-5	8-6	8-7	8-8	8-9	
EV   CI (\$M)	1,067,230	1,154,479	1,168,365	1,824,992	1,859,439	1,915,790	5,541,179	3,252,386	3,064,479	
EVIPPI (\$M)	766,375	815,600	816,096	1,016,352	1,016,908	1,016,908	2,941,409	1,809,127	2,095,442	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	759,710	765,363	820,689	825,379	830,442	834,646	1,278,915	1,283,409	1,305,874	
EVDSI (\$M)	32,378	437,395	34,977	471,693	35,393	476,989	54,506	73,451	55,493	
ENBS (\$M)	727,332	327,968	785,712	353,686	795,049	357,657	1,224,409	549,958	1,246,588	
ROI	727,331	327,964	785,711	353,682	795,049	357,653	1,224,408	549,954	1,246,587	

Scenario	Low			Medium			High			
	9-1	9-2	9-3	9-4	9-5	9-6	9-7	9-8	9-9	
EV   CI (\$M)	1,219,168	NA	NA	2,107,055	2,338,388	NA	NA	NA	NA	
EVIPPI (\$M)	867,721	NA	NA	1,469,394	1,607,507	NA	NA	NA	NA	
EVI (S)	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVSI (\$M)	862,960	866,								

## 6.2.2 BRDM

**Analysis type:** Sensitivity analysis - Effect of adverse health outcome and cost of control

**Decision-making paradigm:** BRDM

**Description:** For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using alternative annualized health cost (AHC) or annualized maximum control cost (ACC<sub>max</sub>). This analysis exhibits the effect of assessing VOI for various adverse health effects and cost of control.

**AHC = \$1K, ACC<sub>max</sub> = \$21.3B**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		0		0		0		40		45		64	
EV CI (\$M)	3,499		7,111		5,268		23,073		44,572		49,166		195,699		207,335		278,438	
EVIPPI (\$M)	66		200		87		8,953		17,404		12,895		89,158		97,338		116,733	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	19	36	70	118	27	48	5,899	7,248	12,331	14,599	8,827	10,632	73,452	80,629	80,484	88,181	98,967	107,114
CoD (\$M)	0.8	20	3	68	1	27	251	4,142	526	8,343	376	6,076	3,803	55,100	4,314	62,240	6,009	85,236
EVDSI (\$M)	18	15	67	51	25	21	5,648	3,106	11,805	6,256	8,450	4,556	69,649	25,529	76,171	25,941	92,957	21,878
ENBS (\$M)	18	11	67	47	25	17	5,648	3,102	11,805	6,252	8,450	4,552	69,648	25,525	76,170	25,937	92,957	21,874
ROI	91	3	336	12	126	4	28,238	775	59,026	1,563	42,251	1,138	348,242	6,381	380,852	6,484	464,786	5,469

**AHC = \$10K, ACC<sub>max</sub> = \$21.3B (baseline analysis)**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		52		78		88		100		100		100	
EV CI (\$M)	34,985		71,112		52,678		187,116		293,406		326,454		682,822		718,084		914,879	
EVIPPI (\$M)	9,562		23,724		14,524		112,762		153,501		145,812		118,826		121,541		73,520	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	6,714	7,997	18,304	20,792	10,634	12,401	98,386	105,280	132,933	142,679	125,722	135,160	86,256	100,974	87,670	102,955	47,053	58,675
CoD (\$M)	286	4,570	780	11,882	453	7,087	6,052	85,092	12,157	168,585	12,399	171,653	64,708	876,092	70,331	951,815	99,596	1,342,144
EVDSI (\$M)	6,428	3,427	17,524	8,910	10,180	5,314	92,334	20,188	120,776	-25,907	113,323	-36,493	21,548	-775,117	17,339	-848,860	-52,543	-1,283,469
ENBS (\$M)	6,428	3,423	17,524	8,906	10,180	5,310	92,334	20,184	120,775	-25,911	113,322	-36,497	21,547	-775,121	17,339	-848,864	-52,544	-1,283,473
ROI	32,140	856	87,618	2,226	50,901	1,327	461,668	5,046	603,877	-6,478	566,612	-9,124	107,737	-193,780	86,693	-212,216	-262,718	-320,868

**AHC = \$110K, ACC<sub>max</sub> = \$21.3B**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	73		99		96		99		100		100		100		100		100	
EV CI (\$M)	277,980		398,741		353,637		770,169		1,276,011		1,383,928		5,184,813		5,573,011		7,736,840	
EVIPPI (\$M)	132,101		136,566		140,829		178,823		149,560		93,937		72,890		77,205		30,834	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	115,456	123,352	115,013	125,132	121,585	130,653	146,956	162,278	111,813	129,370	63,766	77,355	38,540	52,959	40,903	56,150	12,914	19,962
CoD (\$M)	9,475	131,560	21,246	290,668	14,806	203,719	81,609	1,103,062	159,341	2,146,674	174,229	2,344,038	772,133	10,361,925	833,410	11,184,072	1,173,214	15,735,890
EVDSI (\$M)	105,981	-8,208	93,767	-165,537	106,779	-73,066	65,347	-940,783	-47,529	-2,017,304	-110,463	-2,266,683	-733,593	-10,308,966	-792,508	-11,127,923	-1,160,300	-15,715,928
ENBS (\$M)	105,981	-8,212	93,767	-165,541	106,778	-73,070	65,347	-940,787	-47,529	-2,017,308	-110,463	-2,266,687	-733,593	-10,308,970	-792,508	-11,127,927	-1,160,301	-15,715,932
ROI	529,904	-2,053	468,834	-41,385	533,892	-18,267	326,735	-235,197	-237,645	-504,327	-552,317	-566,672	-3,667,967	-2,577,242	-3,962,539	-2,781,982	-5,801,503	-3,928,983

**AHC = \$10K, ACC<sub>max</sub> = \$578M**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	100		100		100		100		100		100		100		100		100	
EV CI (\$M)	13,264		20,961		17,037		54,930		100,705		110,484		456,018		491,309		688,020	
EVIPPI (\$M)	3,345		2,458		2,553		4,115		3,213		1,629		1,350		1,461		450	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	2,721	3,014	1,796	2,099	1,929	2,217	3,100	3,580	2,130	2,620	924	1,227	589	892	643	969	146	257
CoD (\$M)	1,042	14,135	2,214	29,860	1,601	21,635	7,625	102,515	14,795	198,670	16,285	218,536	70,723	948,512	76,287	1,023,131	107,265	1,438,406
EVDSI (\$M)	1,679	-11,122	-418	-27,761	328	-19,418	-4,525	-98,934	-12,665	-196,050	-15,360	-217,309	-70,134	-947,620	-75,644	-1,022,161	-107,119	-1,438,149
ENBS (\$M)	1,679	-11,126	-418	-27,765	328	-19,422	-4,525	-98,938	-12,665	-196,054	-15,361	-217,313	-70,134	-947,624	-75,644	-1,022,165	-107,119	-1,438,153
ROI	8,395	-2,781	-2,091	-6,941	1,639	-4,856	-22,627	-24,735	-63,327	-49,013	-76,803	-54,328	-350,670	-236,906	-378,221	-255,541	-535,596	-359,538

## 6.2.2 TRDM

**Analysis type:** Sensitivity analysis - Effect of adverse health outcome and cost of control

**Decision-making paradigm:** TRDM

**Description:** For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using alternative annualized health cost (AHC) or annualized maximum control cost (ACC<sub>max</sub>).

This analysis exhibits the effect of assessing VOI for various adverse health effects and cost of control.

**AHC = \$1K, ACC<sub>max</sub> = 23.1B**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	3,499		7,111		5,268		23,073		44,572		49,166		211,485		228,064		320,472	
EVIPPI (\$M)	17		1,385		1,677		16,956		32,265		34,238		144,327		156,620		208,591	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	1.0	4	429	749	781	1,158	14,312	16,157	29,667	31,438	33,227	33,903	138,937	142,513	154,465	156,070	206,727	207,787
CoD (\$M)	<0.1	2	18	428	33	662	610	9,234	1,264	17,966	1,416	19,375	5,921	81,445	6,583	89,192	8,810	118,747
EVDSI (\$M)	0.9	2	411	321	747	496	13,702	6,924	28,402	13,472	31,811	14,528	133,016	61,069	147,882	66,878	197,916	89,039
ENBS (\$M)	0.7	-2	411	317	747	492	13,702	6,920	28,402	13,468	31,811	14,524	133,016	61,065	147,881	66,874	197,916	89,035
ROI	4	-1	2,055	79	3,735	123	68,509	1,730	142,011	3,367	159,053	3,631	665,079	15,266	739,407	16,719	989,580	22,259

**AHC = \$10K, ACC<sub>max</sub> = 23.1B (baseline analysis)**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	34,985		71,112		52,678		230,732		445,722		491,657		2,114,853		2,280,636		3,204,717	
EVIPPI (\$M)	169		13,847		16,765		169,559		322,652		342,378		1,443,267		1,566,202		2,085,909	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	10	43	4,294	7,490	7,805	11,584	143,120	161,570	296,667	314,381	332,269	339,030	1,389,375	1,425,135	1,544,647	1,560,703	2,067,267	2,077,867
CoD (\$M)	0.4	25	183	4,280	333	6,620	6,100	92,335	12,644	179,665	14,161	193,751	59,214	814,446	65,831	891,921	88,105	1,187,474
EVDSI (\$M)	9	19	4,111	3,209	7,473	4,964	137,020	69,235	284,023	134,716	318,108	145,279	1,330,161	610,689	1,478,816	668,782	1,979,162	890,394
ENBS (\$M)	9	15	4,111	3,205	7,472	4,960	137,020	69,231	284,023	134,712	318,108	145,275	1,330,161	610,685	1,478,816	668,778	1,979,162	890,390
ROI	44	4	20,556	801	37,362	1,240	685,100	17,308	1,420,115	33,678	1,590,540	36,319	6,650,803	152,671	7,394,078	167,194	9,895,810	222,597

**AHC = \$110K, ACC<sub>max</sub> = 23.1B**

H <sub>exp</sub>	Low						Medium						High					
	Low		Medium		High		Low		Medium		High		Low		Medium		High	
σ <sub>exp</sub>	1		2		3		4		5		6		7		8		9	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	384,835		782,228		579,455		2,538,052		4,902,938		5,408,222		23,263,380		25,086,999		35,251,887	
EVIPPI (\$M)	1,855		152,314		184,418		1,865,152		3,549,171		3,766,156		15,875,937		17,228,218		22,944,997	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	104	475	47,239	82,388	85,858	127,425	1,574,318	1,777,274	3,263,335	3,458,191	3,654,961	3,729,325	15,283,120	15,676,483	16,991,118	17,167,730	22,739,939	22,856,542
CoD (\$M)	4	272	2,013	47,084	3,659	72,822	67,096	1,015,688	139,080	1,976,310	155,771	2,131,260	651,351	8,958,901	724,145	9,811,129	969,154	13,062,209
EVDSI (\$M)	100	204	45,225	35,304	82,199	54,603	1,507,222	761,585	3,124,255	1,481,881	3,499,190	1,598,066	14,631,769	6,717,582	16,266,974	7,356,601	21,770,785	9,794,333
ENBS (\$M)	100	200	45,225	35,300	82,198	54,599	1,507,222	761,581	3,124,255	1,481,877	3,499,190	1,598,062	14,631,769	6,717,578	16,266,974	7,356,597	21,770,785	9,794,329
ROI	499	50	226,126	8,825	410,992	13,650	7,536,108	190,395	15,621,276	370,469	17,495,950	399,515	73,158,843	1,679,395	81,334,868	1,839,149	108,853,925	2,448,582

## 6.2.3 BRDM and TRDM

Analysis type: Sensitivity analysis - Effect of toxicity distribution

Decision-making paradigm: BRDM and TRDM

Description: For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using prior uncertainty distribution for chemical toxicity using carcinogenic potency data from Krewski et al. (1993b).

NOTE: These results are also presented as Table 6-6.

### A. VOI analysis results for BRDM

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	27		61		48		86		98		100		100		100		100	
EV CI (\$M)	129,428		237,817		194,581		358,152		571,988		676,562		2,329,041		2,480,039		3,806,154	
EVIPPI (\$M)	65,811		115,673		93,430		175,447		179,633		135,545		113,315		118,104		59,348	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	56,481	60,904	100,899	107,906	80,973	86,872	156,186	165,718	151,832	165,240	107,059	120,387	74,143	91,643	77,441	95,645	32,127	43,662
CoD (\$M)	2,726	39,078	6,964	97,380	4,711	66,546	22,903	312,555	51,142	693,430	64,659	874,636	323,617	4,349,442	347,554	4,670,818	554,596	7,443,281
EVDSI (\$M)	53,755	21,827	93,936	10,526	76,261	20,327	133,283	-146,837	100,691	-528,190	42,401	-754,249	-249,474	-4,257,799	-270,113	-4,575,173	-522,469	-7,399,619
ENBS (\$M)	53,755	21,823	93,936	10,522	76,261	20,323	133,283	-146,841	100,691	-528,194	42,400	-754,253	-249,474	-4,257,803	-270,113	-4,575,177	-522,469	-7,399,623
ROI	268,774	5,456	469,678	2,631	381,306	5,081	666,416	-36,710	503,453	-132,048	212,002	-188,563	-1,247,370	-1,064,451	-1,350,566	-1,143,794	-2,612,345	-1,849,906

### B. VOI analysis results for TRDM

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	136,902		300,309		224,151		739,349		1,620,126		2,086,632		9,848,148		10,557,494		16,786,910	
EVIPPI (\$M)	197		33,898		47,358		544,970		1,187,233		1,472,328		6,927,750		7,514,320		11,375,204	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	5	40	6,635	15,225	15,213	28,372	407,476	490,654	993,316	1,125,531	1,360,403	1,429,075	6,388,708	6,733,440	7,266,192	7,430,082	11,062,021	11,256,852
CoD (\$M)	0.2	23	283	8,701	648	16,214	17,366	280,402	42,334	643,226	57,979	816,697	272,280	3,848,071	309,678	4,246,193	471,452	6,433,141
EVDSI (\$M)	5	17	6,352	6,524	14,564	12,158	390,109	210,252	950,982	482,305	1,302,424	612,378	6,116,428	2,885,369	6,956,514	3,183,889	10,590,569	4,823,711
ENBS (\$M)	5	13	6,352	6,520	14,564	12,154	390,109	210,248	950,982	482,301	1,302,424	612,374	6,116,427	2,885,365	6,956,513	3,183,885	10,590,569	4,823,707
ROI	25	3	31,761	1,630	72,820	3,038	1,950,546	52,562	4,754,909	120,575	6,512,120	153,093	30,582,137	721,341	34,782,567	795,971	52,952,843	1,205,927



## 6.2.4 BRDM

Analysis type: Sensitivity analysis - Effect of affected population size

Decision-making paradigm: BRDM

Description: For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using reduced population size.

### Population size N = 330M (baseline analysis)

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		52		78		88		100		100		100	
EV CI (\$M)	34,985		71,112		52,678		187,116		293,406		326,454		682,822		718,084		914,879	
EVIPPI (\$M)	9,562		23,724		14,524		112,762		153,501		145,812		118,826		121,541		73,520	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	6,714	7,997	18,304	20,792	10,634	12,401	98,386	105,280	132,933	142,679	125,722	135,160	86,256	100,974	87,670	102,955	47,053	58,675
CoD (\$M)	286	4,570	780	11,882	453	7,087	6,052	85,092	12,157	168,585	12,399	171,653	64,708	876,092	70,331	951,815	99,596	1,342,144
EVDSI (\$M)	6,428	3,427	17,524	8,910	10,180	5,314	92,334	20,188	120,776	-25,907	113,323	-36,493	21,548	-775,117	17,339	-848,860	-52,543	-1,283,469
ENBS (\$M)	6,428	3,423	17,524	8,906	10,180	5,310	92,334	20,184	120,775	-25,911	113,322	-36,497	21,547	-775,121	17,339	-848,864	-52,544	-1,283,473
ROI	32,140	856	87,618	2,226	50,901	1,327	461,668	5,046	603,877	-6,478	566,612	-9,124	107,737	-193,780	86,693	-212,216	-262,718	-320,868

### Population size N = 165M

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		22		49		51		100		100		100	
EV CI (\$M)	17,493		35,556		26,339		110,444		189,429		212,937		457,457		475,088		573,771	
EVIPPI (\$M)	2,891		7,566		4,305		66,439		106,406		102,009		133,950		135,913		91,069	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	1,713	2,221	5,055	6,170	2,672	3,384	56,345	61,126	91,213	98,371	87,223	94,152	105,044	118,264	105,801	119,556	64,808	76,603
CoD (\$M)	73	1,269	215	3,526	114	1,934	2,611	37,745	5,312	75,323	5,119	72,604	30,047	410,461	32,861	448,495	46,599	631,602
EVDSI (\$M)	1,640	952	4,840	2,644	2,558	1,450	53,734	23,380	85,901	23,047	82,104	21,549	74,997	-292,196	72,940	-328,938	18,209	-554,998
ENBS (\$M)	1,639	948	4,840	2,640	2,558	1,446	53,734	23,376	85,901	23,043	82,103	21,545	74,997	-292,200	72,940	-328,942	18,209	-555,002
ROI	8,197	237	24,198	660	12,790	362	268,671	5,844	429,503	5,761	410,517	5,386	374,983	-73,050	364,701	-82,236	91,043	-138,751

### Population size N = 33M

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		0		0		0		40		45		64	
EV CI (\$M)	3,499		7,111		5,268		23,073		44,572		49,166		195,699		207,335		278,438	
EVIPPI (\$M)	66		200		87		8,953		17,404		12,895		89,158		97,338		116,733	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	19	36	70	118	27	48	5,899	7,248	12,331	14,599	8,827	10,632	73,452	80,629	80,484	88,181	98,967	107,114
CoD (\$M)	0.8	20	3	68	1.1	27	251	4,142	526	8,343	376	6,076	3,803	55,100	4,314	62,240	6,009	85,236
EVDSI (\$M)	18	15	67	51	25	21	5,648	3,106	11,805	6,256	8,450	4,556	69,649	25,529	76,171	25,941	92,957	21,878
ENBS (\$M)	18	11	67	47	25	17	5,648	3,102	11,805	6,252	8,450	4,552	69,648	25,525	76,170	25,937	92,957	21,874
ROI	91	3	336	12	126	4	28,238	775	59,026	1,563	42,251	1,138	348,242	6,381	380,852	6,484	464,786	5,469

## 6.2.4 TRDM

Analysis type: Sensitivity analysis - Effect of affected population size

Decision-making paradigm: TRDM

Description: For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using reduced population size.

### Population size N = 330M (baseline analysis)

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	34,985		71,112		52,678		230,732		445,722		491,657		2,114,853		2,280,636		3,204,717	
EVIPPI (\$M)	169		13,847		16,765		169,559		322,652		342,378		1,443,267		1,566,202		2,085,909	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	10	43	4,294	7,490	7,805	11,584	143,120	161,570	296,667	314,381	332,269	339,030	1,389,375	1,425,135	1,544,647	1,560,703	2,067,267	2,077,867
CoD (\$M)	0.4	25	183	4,280	333	6,620	6,100	92,335	12,644	179,665	14,161	193,751	59,214	814,446	65,831	891,921	88,105	1,187,474
EVDSI (\$M)	9	19	4,111	3,209	7,473	4,964	137,020	69,235	284,023	134,716	318,108	145,279	1,330,161	610,689	1,478,816	668,782	1,979,162	890,394
ENBS (\$M)	9	15	4,111	3,205	7,472	4,960	137,020	69,231	284,023	134,712	318,108	145,275	1,330,161	610,685	1,478,816	668,778	1,979,162	890,390
ROI	44	4	20,556	801	37,362	1,240	685,100	17,308	1,420,115	33,678	1,590,540	36,319	6,650,803	152,671	7,394,078	167,194	9,895,810	222,597

### Population size N = 165M

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	17,493		35,556		26,339		115,366		222,861		245,828		1,057,426		1,140,318		1,602,358	
EVIPPI (\$M)	84		6,923		8,383		84,780		161,326		171,189		721,634		783,101		1,042,954	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	5	22	2,147	3,745	3,903	5,792	71,560	80,785	148,333	157,191	166,135	169,515	694,687	712,567	772,324	780,351	1,033,634	1,038,934
CoD (\$M)	0.2	12	92	2,140	166	3,310	3,050	46,168	6,322	89,832	7,080	96,875	29,607	407,223	32,916	445,960	44,052	593,737
EVDSI (\$M)	5	9	2,056	1,605	3,736	2,482	68,510	34,618	142,012	67,358	159,054	72,639	665,080	305,345	739,408	334,391	989,581	445,197
ENBS (\$M)	4	5	2,056	1,601	3,736	2,478	68,510	34,614	142,011	67,354	159,054	72,635	665,080	305,341	739,408	334,387	989,581	445,193
ROI	22	1.3	10,278	400	18,680	619	342,549	8,653	710,057	16,839	795,270	18,159	3,325,401	76,335	3,697,038	83,597	4,947,905	111,298

### Population size N = 33M

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	3,499		7,111		5,268		23,073		44,572		49,166		211,485		228,064		320,472	
EVIPPI (\$M)	17		1,385		1,677		16,956		32,265		34,238		144,327		156,620		208,591	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	1.0	4	429	749	781	1,158	14,312	16,157	29,667	31,438	33,227	33,903	138,937	142,513	154,465	156,070	206,727	207,787
CoD (\$M)	<0.1	2	18	428	33	662	610	9,234	1,264	17,966	1,416	19,375	5,921	81,445	6,583	89,192	8,810	118,747
EVDSI (\$M)	0.9	2	411	321	747	496	13,702	6,924	28,402	13,472	31,811	14,528	133,016	61,069	147,882	66,878	197,916	89,039
ENBS (\$M)	0.7	-2	411	317	747	492	13,702	6,920	28,402	13,468	31,811	14,524	133,016	61,065	147,881	66,874	197,916	89,035
ROI	4	-0.5	2,055	79	3,735	123	68,509	1,730	142,011	3,367	159,053	3,631	665,079	15,266	739,407	16,719	989,580	22,259

## 6.2.5 TRDM

**Analysis type:** Sensitivity analysis - Effect of choice of TRL

**Decision-making paradigm:** TRDM

**Description:** This table contains VOI analysis results for nine exposure scenarios considered in the baseline analysis with TRL set to  $10^{-4}$  (rather than  $10^{-6}$ ).

NOTE: These results are also presented as Table 6-8.

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
EV   CI (\$M)	NA		71,112		52,678		230,732		445,722		491,657		2,114,853		2,280,636		3,204,717	
EVIPPI (\$M)	NA		1,812		2,894		156,207		303,734		317,014		1,382,228		1,544,887		2,034,839	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	NA	NA	207	612	498	1,205	85,218	125,193	199,339	255,108	251,940	287,502	1,114,028	1,267,152	1,358,616	1,477,423	1,839,611	1,945,477
CoD (\$M)	NA	NA	9	350	21	689	3,632	71,546	8,496	145,791	10,737	164,304	47,479	724,160	57,903	844,327	78,402	1,111,814
EVDSI (\$M)	NA	NA	198	262	477	516	81,586	53,647	190,843	109,317	241,203	123,199	1,066,550	542,991	1,300,713	633,095	1,761,209	833,663
ENBS (\$M)	NA	NA	198	262	477	516	81,586	53,646	190,843	109,317	241,203	123,198	1,066,550	542,991	1,300,713	633,095	1,761,209	833,663
ROI	NA	NA	991	65	2,385	129	407,931	13,412	954,215	27,329	1,206,013	30,800	5,332,748	135,748	6,503,564	158,274	8,806,044	208,416

## 6.2.6 BRDM and TRDM

**Analysis type:** Sensitivity analysis - Effect of possible additional sources of uncertainty

**Decision-making paradigm:** BRDM and TRDM

**Description:** For each of the nine exposure scenarios considered in the baseline analysis, VOI analysis was performed using sample variability of ETAP including the discordance measure between ETAP and traditional THHA.

NOTE: These results are also presented as Table 6-9.

### A. VOI analysis results for BRDM

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
ORE	0		0		0		52		78		88		100		100		100	
EV CI (\$M)	34,985		71,112		52,678		187,116		293,406		326,454		682,822		718,084		914,879	
EVIPPI (\$M)	9,562		23,724		14,524		112,762		153,501		145,812		118,826		121,541		73,520	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	4,361	7,997	13,441	20,792	7,300	12,401	83,318	105,280	112,144	142,679	105,930	135,160	58,798	100,974	59,298	102,955	27,173	58,675
CoD (\$M)	186	4,570	573	11,882	311	7,087	5,410	85,092	11,271	168,585	11,555	171,653	63,538	876,092	69,122	951,815	98,749	1,342,144
EVDSI (\$M)	4,175	3,427	12,869	8,910	6,988	5,314	77,908	20,188	100,873	-25,907	94,374	-36,493	-4,740	-775,117	-9,824	-848,860	-71,576	-1,283,469
ENBS (\$M)	4,175	3,423	12,868	8,906	6,988	5,310	77,908	20,184	100,873	-25,911	94,374	-36,497	-4,740	-775,121	-9,824	-848,864	-71,576	-1,283,473
ROI	20,875	856	64,342	2,226	34,941	1,327	389,540	5,046	504,365	-6,478	471,870	-9,124	-23,700	-193,780	-49,121	-212,216	-357,880	-320,868

### B. VOI analysis results for TRDM

$\mu_{exp}$	Low						Medium						High					
$\sigma_{exp}$	Low		Medium		High		Low		Medium		High		Low		Medium		High	
Scenario	1		2		3		4		5		6		7		8		9	
EV CI (\$M)	34,985		71,112		52,678		230,732		445,722		491,657		2,114,853		2,280,636		3,204,717	
EVIPPI (\$M)	169		13,847		16,765		169,559		322,652		342,378		1,443,267		1,566,202		2,085,909	
	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA	ETAP	THHA
EVISI (\$M)	0.2	43	799	7,490	2,312	11,584	85,293	161,570	226,786	314,381	306,819	339,030	1,257,430	1,425,135	1,465,699	1,560,703	2,013,589	2,077,867
CoD (\$M)	<0.1	25	34	4,280	99	6,620	3,635	92,335	9,665	179,665	13,076	193,751	53,590	814,446	62,467	891,921	85,817	1,187,474
EVDSI (\$M)	0.2	19	765	3,209	2,214	4,964	81,658	69,235	217,121	134,716	293,743	145,279	1,203,840	610,689	1,403,233	668,782	1,927,772	890,394
ENBS (\$M)	-0.01	15	765	3,205	2,214	4,960	81,658	69,231	217,121	134,712	293,743	145,275	1,203,840	610,685	1,403,232	668,778	1,927,771	890,390
ROI	-0.2	4	3,826	801	11,068	1,240	408,291	17,308	1,085,604	33,678	1,468,713	36,319	6,019,198	152,671	7,016,162	167,194	9,638,857	222,597