Table C3. Comparison of lung dose estimates (in Sv) for nine scenarios using various assumptions in dose estimation algorithm. *Radon*; median and 90% credibility interval

Assumption	%	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9
Same as Task 6 report	5 50 95	0.89 3.42 14.40	0.92 3.36 14.84	0.76 2.82 11.03	0.37 1.40 5.28	0.11 0.38 1.62	0.59 2.12 7.83	0.10 0.35 1.16	0.11 0.40 1.94	0.17 0.74 3.20
No change in location for school	5 50 95	0.84 3.57 15.24	0.91 3.45 16.4	0.72 2.87 11.59	0.27 1.28 5.70	0.06 0.30 1.67	0.52 2.16 8.21	0.03 0.15 0.89	0.08 0.41 2.13	0.09 0.63 3.17
No change in location for work	5 50 95	n/a	1.00 3.67 16.52	0.58 2.46 11.05	n/a	0.12 0.41 1.77	n/a	0.10 0.35 1.17	n/a	n/a
No change in location for school or work	5 50 95	0.84 3.57 15.24	1.00 3.83 18.05	0.51 2.47 11.70	0.27 1.28 5.70	0.06 0.33 1.80	0.52 2.16 8.21	0.03 0.15 0.90	0.08 0.41 2.13	0.09 0.63 3.17
Indoor activity index = 1	5 50 95	0.89 3.42 14.40	0.93 3.44 15.14	0.77 2.85 11.25	0.38 1.45 5.53	0.11 0.39 1.65	0.59 2.12 7.83	0.10 0.35 1.18	0.11 0.40 1.94	0.17 0.76 3.25
Time spent outdoors = 67%	5 50 95	0.99 3.96 17.96	1.18 4.24 19.57	0.58 2.88 13.06	0.34 1.53 6.40	0.08 0.41 2.13	0.61 2.46 9.35	0.04 0.19 1.07	0.10 0.48 2.54	0.11 0.75 3.68
Use of contaminated irrigation water and ingestion of contaminated food and drinking water set to assumed values*	5 50 95	0.89 3.42 14.40	0.92 3.36 14.84	0.76 2.82 11.03	0.37 1.40 5.28	0.11 0.38 1.62	0.59 2.12 7.83	0.10 0.34 1.15	0.11 0.40 1.94	0.17 0.74 3.20

Contaminated soil ingested per day = 0.5 g	5 50 95	0.89 3.42 14.40	0.92 3.36 14.84	0.76 2.81 11.03	0.37 1.40 5.28	0.11 0.38 1.62	0.59 2.12 7.83	0.10 0.35 1.16	0.11 0.40 1.94	0.17 0.74 3.20
Time spent swimming in contaminated GMR** = 2%	5 50 95	0.89 3.42 14.40	0.92 3.36 14.84	0.76 2.82 11.03	0.37 1.40 5.28	0.11 0.38 1.62	0.59 2.12 7.83	0.10 0.35 1.16	0.11 0.40 1.94	0.17 0.74 3.20
All assumptions applied	5 50 95	1.00 3.96 17.97	1.19 4.26 19.71	0.58 2.90 13.16	0.34 1.54 6.50	0.08 0.41 2.14	0.61 2.46 9.35	0.04 0.19 1.08	0.09 0.48 2.53	0.11 0.76 3.72

* No contaminated drinking water; contaminated irrigation water source = Great Miami River (GMR); irrigation volume = 0.5 L / m^2 / day; 50% of vegetable intake contaminated; 10% of milk intake contaminated; 10% of beef intake contaminated; 10% of poultry intake contaminated; 10% of egg intake contaminated; 50% of fish intake contaminated; contaminated water source for fish = GMR.

** Great Miami River (GMR)

Table C4. Comparison of lung dose estimates (in Sv) for nine scenarios using various assumptions in dose estimation algorithm. *Uranium*; median and 90% credibility interval

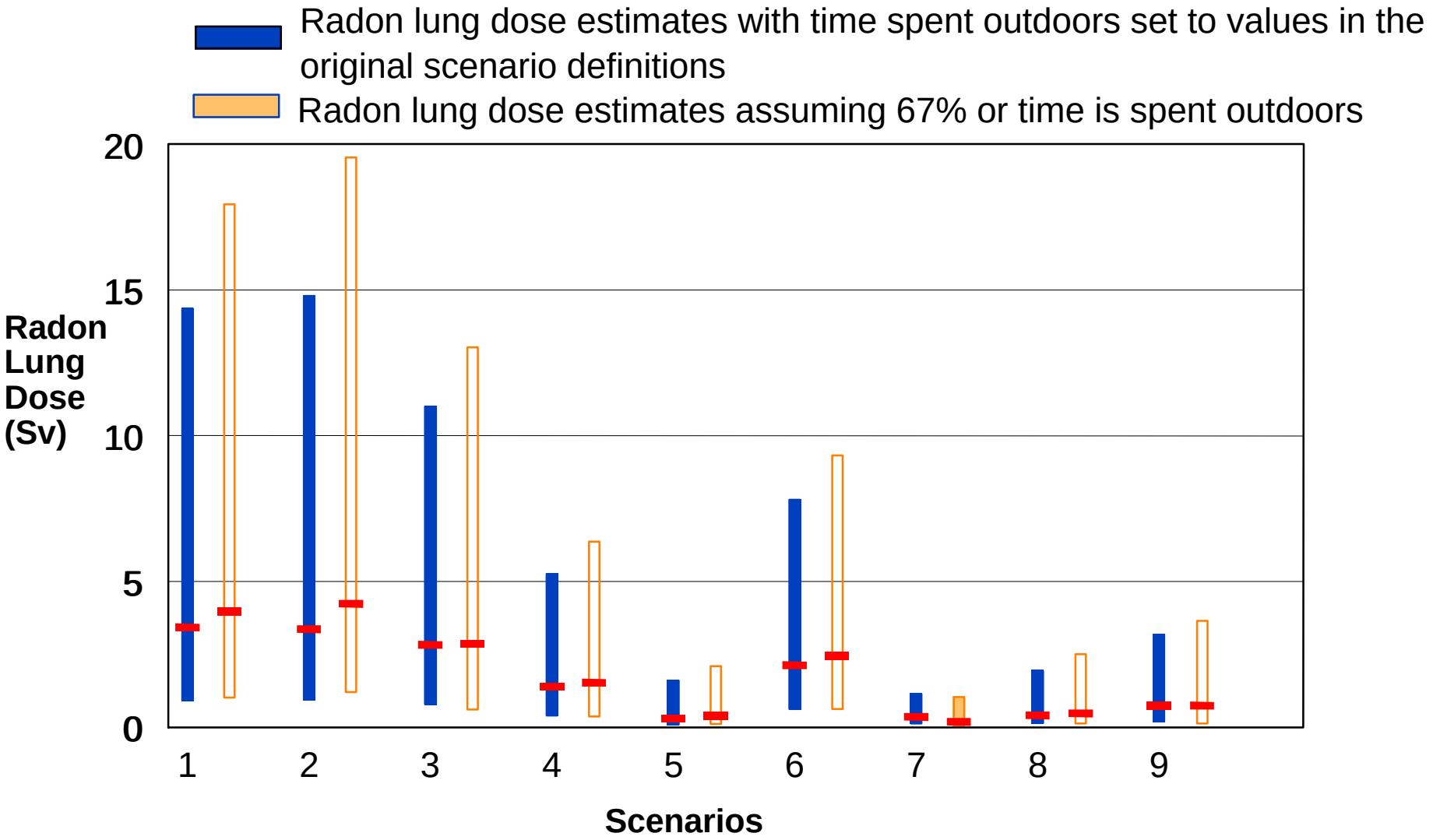
Assumption	%	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9
Same as Task 6 report	5 50 95	0.15 0.47 1.22	0.03 0.15 0.41	0.04 0.14 0.33	0.01 0.05 0.14	0.01 0.04 0.11	0.07 0.24 0.62	0.01 0.04 0.10	0.002 0.01 0.02	0.02 0.09 0.24
No change in location for school	5 50 95	0.16 0.52 1.39	0.03 0.15 0.43	0.04 0.13 0.34	0.01 0.05 0.15	0.01 0.04 0.11	0.07 0.24 0.66	0.01 0.02 0.06	0.002 0.01 0.02	0.02 0.08 0.24
No change in location for work	5 50 95	n/a	0.04 0.16 0.42	0.04 0.13 0.32	n/a	0.01 0.04 0.12	n/a	0.01 0.04 0.10	n/a	n/a
No change in location for school or work	5 50 95	0.16 0.52 1.39	0.04 0.16 0.44	0.04 0.12 0.33	0.01 0.05 0.15	0.01 0.04 0.11	0.07 0.24 0.66	0.01 0.02 0.06	0.002 0.01 0.02	0.02 0.08 0.24
Indoor activity index = 1	5 50 95	0.15 0.47 1.22	0.04 0.18 0.49	0.05 0.15 0.37	0.02 0.06 0.19	0.01 0.05 0.13	0.07 0.24 0.62	0.01 0.04 0.11	0.002 0.01 0.02	0.03 0.10 0.28
Time spent outdoors = 67%	5 50 95	0.17 0.54 1.46	0.04 0.18 0.51	0.04 0.13 0.36	0.02 0.06 0.19	0.01 0.05 0.19	0.08 0.26 0.70	0.01 0.03 0.07	0.002 0.01 0.02	0.02 0.09 0.28
Use of contaminated irrigation water and ingestion of contaminated food and drinking water set to assumed values*	5 50 95	0.15 0.47 1.22	0.04 0.15 0.41	0.04 0.13 0.33	0.01 0.05 0.14	0.01 0.04 0.11	0.07 0.24 0.62	0.01 0.04 0.10	0.002 0.01 0.02	0.02 0.09 0.24
Contaminated soil ingested per day = 0.5 g	5 50 95	0.15 0.47 1.22	0.04 0.15 0.41	0.04 0.14 0.33	0.01 0.05 0.14	0.01 0.04 0.11	0.07 0.24 0.62	0.01 0.04 0.10	0.002 0.01 0.02	0.02 0.09 0.24

Time spent swimming in contaminated GMR** = 2%	5 50 95	0.15 0.47 1.22	0.04 0.15 0.41	0.04 0.14 0.33	0.01 0.05 0.14	0.01 0.04 0.11	0.07 0.24 0.62	0.01 0.04 0.10	0.002 0.01 0.02	0.02 0.09 0.24
All assumptions applied	5 50 95	0.17 0.54 1.46	0.04 0.19 0.55	0.05 0.14 0.37	0.02 0.07 0.21	0.01 0.05 0.14	0.08 0.26 0.70	0.01 0.03 0.08	0.002 0.01 0.02	0.02 0.10 0.29

* No contaminated drinking water; contaminated irrigation water source = Great Miami River (GMR); irrigation volume = 0.5 L / m^2 / day; 50% of vegetable intake contaminated; 10% of milk intake contaminated; 10% of beef intake contaminated; 10% of poultry intake contaminated; 10% of egg intake contaminated; 50% of fish intake contaminated; contaminated water source for fish = GMR.

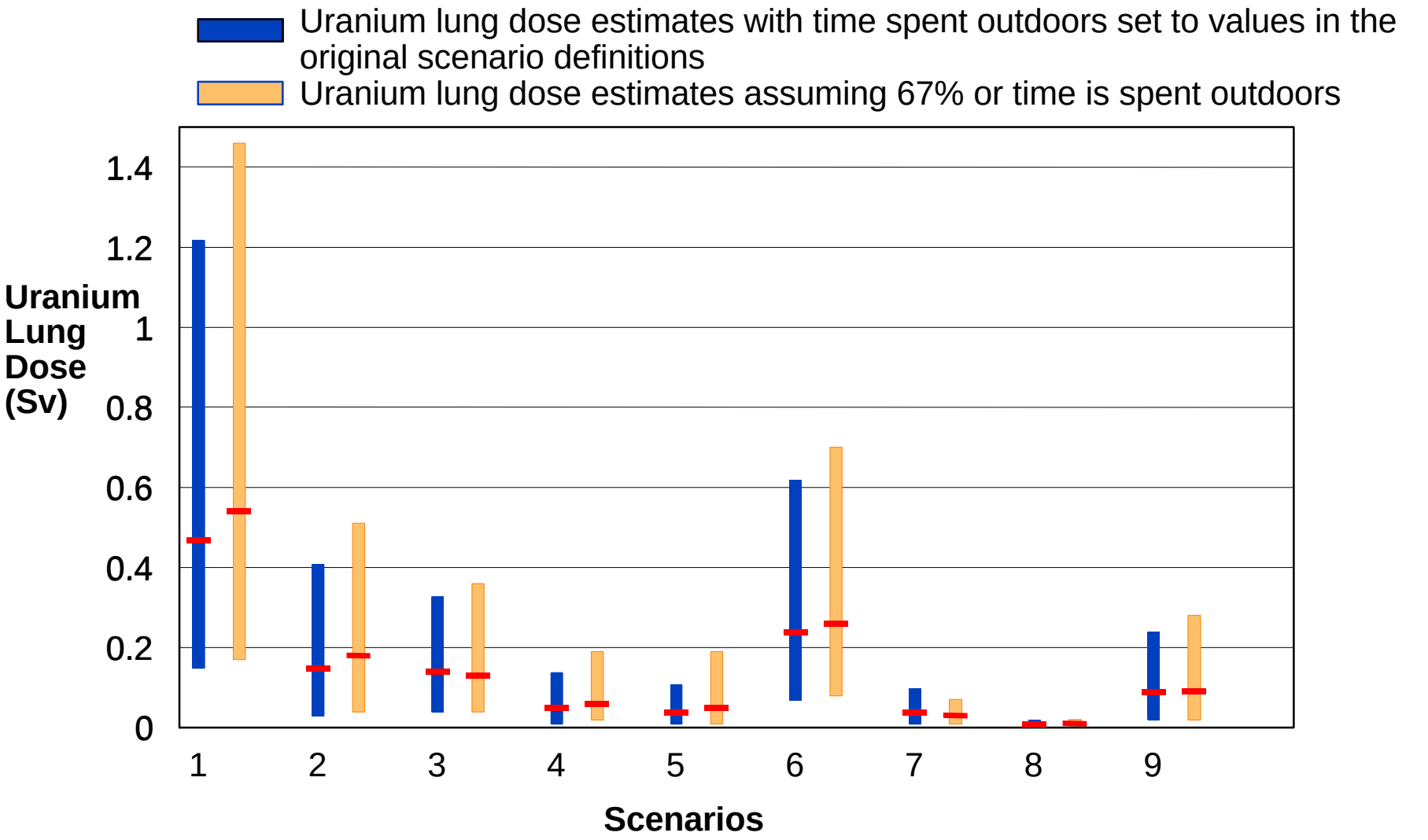
** Great Miami River (GMR)

Figure C1. Impact of assuming 67% of a scenario's time is spent outdoors on radon lung dose estimates



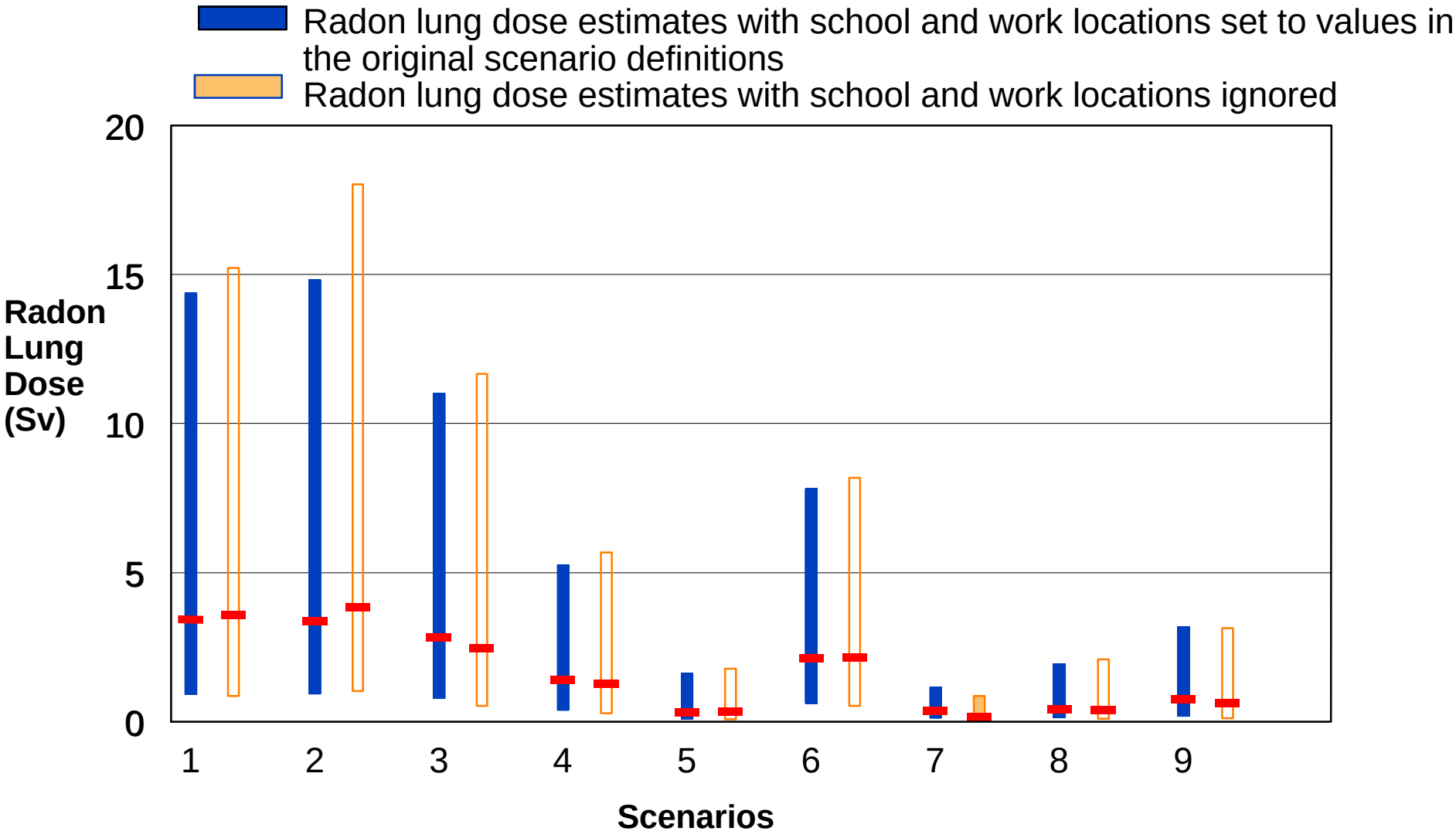
The horizontal line shows the median dose estimate for each scenario and the length of the box indicates the 90% credibility interval

Figure C2. Impact of assuming 67% of a scenario's time is spent outdoors on uranium lung dose estimates



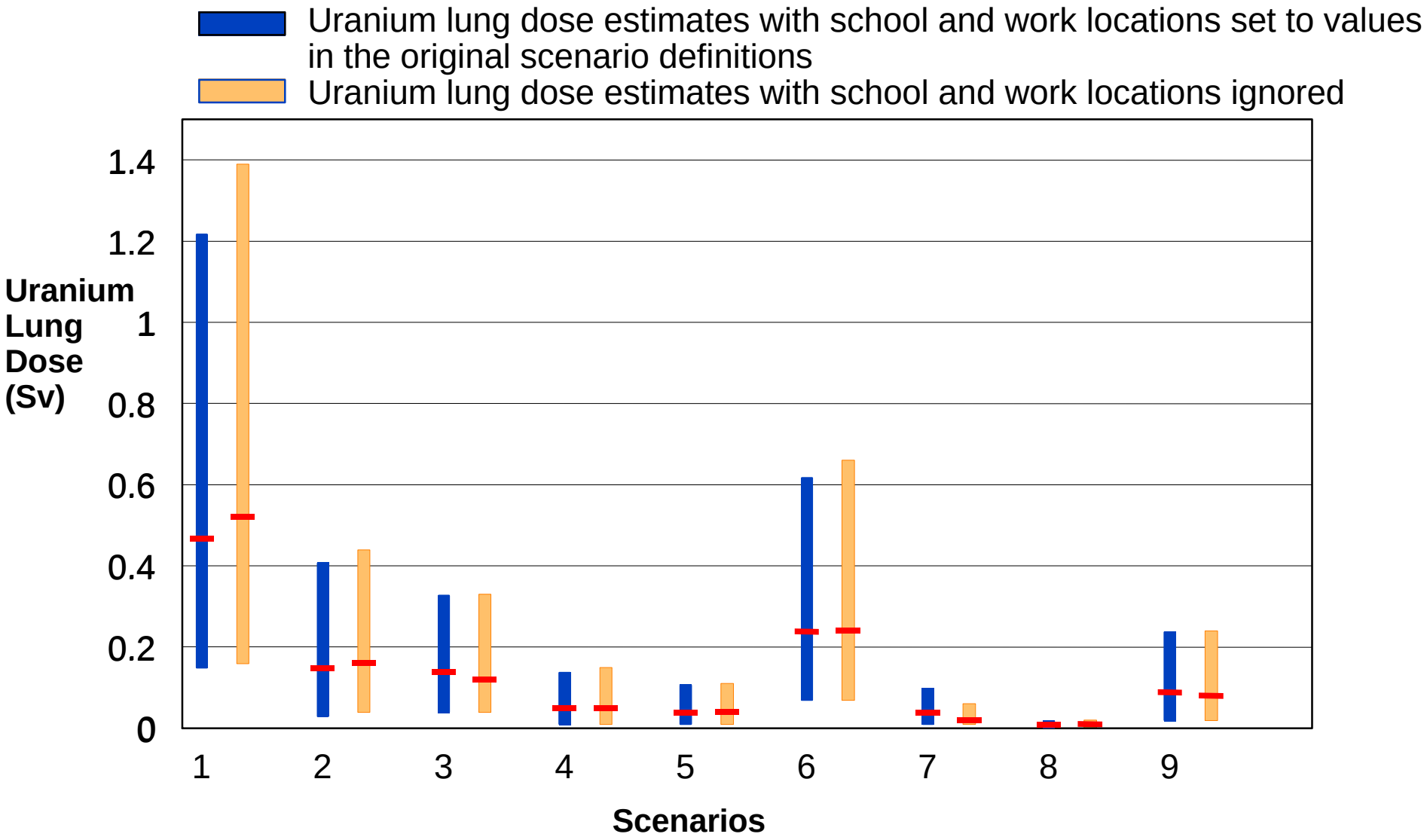
The horizontal bar shows the median dose estimate for each scenario and the length of the box indicates the 90% credibility interval

Figure C3. Impact of ignoring changes in location due to school and work on radon lung dose estimates



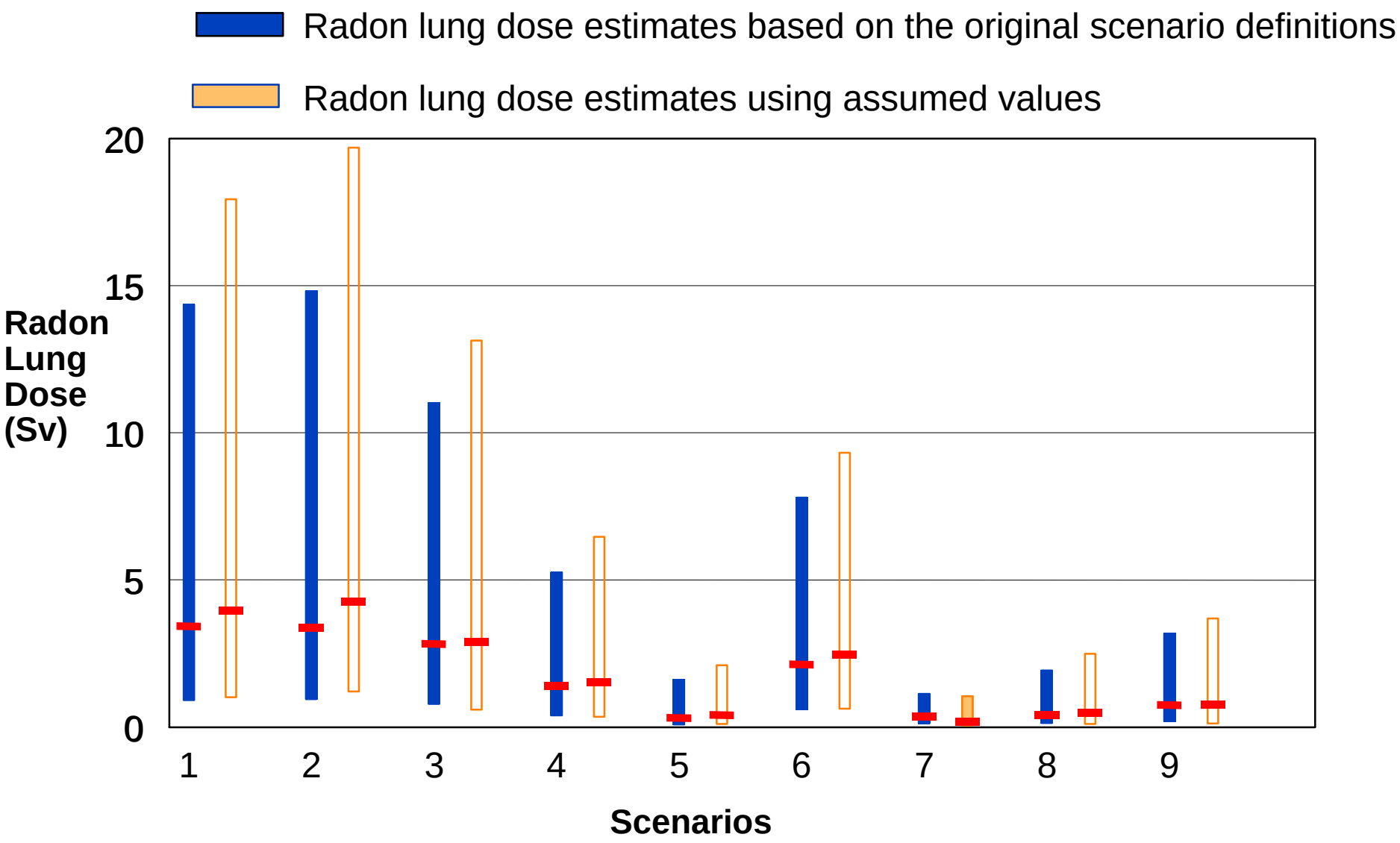
The horizontal bar shows the median dose estimate for each scenario and the length of the box indicates the 90% credibility interval

Figure C4. Impact of ignoring changes in location due to school and work on uranium lung dose estimates



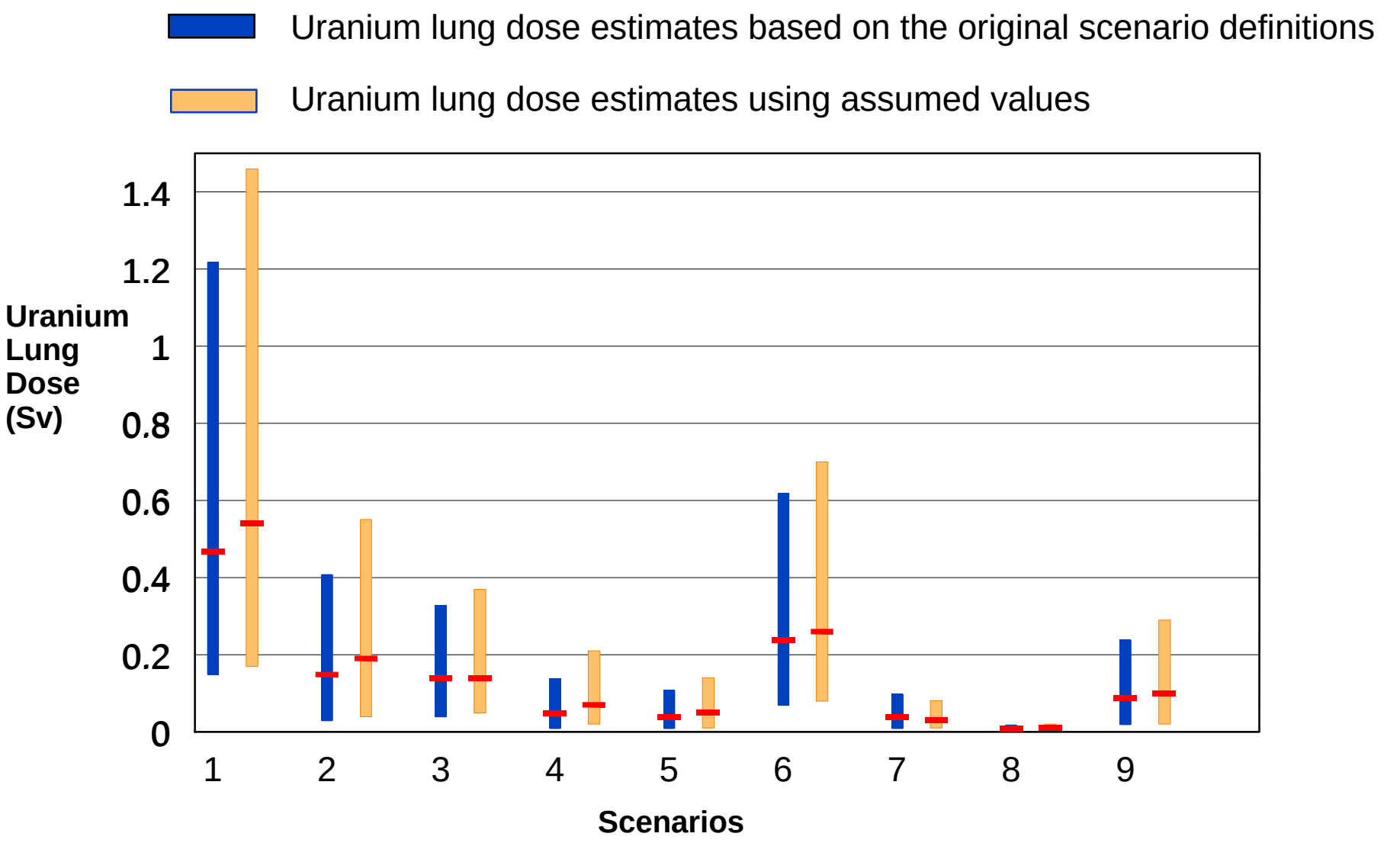
The horizontal bar shows the median dose estimate for each scenario and the length of the box indicates the 90% credibility interval

Figure C5. Impact of applying all assumptions on radon lung dose estimates



The horizontal bar shows the median dose estimate for each scenario and the length of the box indicates the 90% credibility interval

Figure C6. Impact of applying all assumptions on uranium lung dose estimates



The horizontal bar shows the median dose estimate for each scenario and the length of the box indicates the 90% credibility interval