

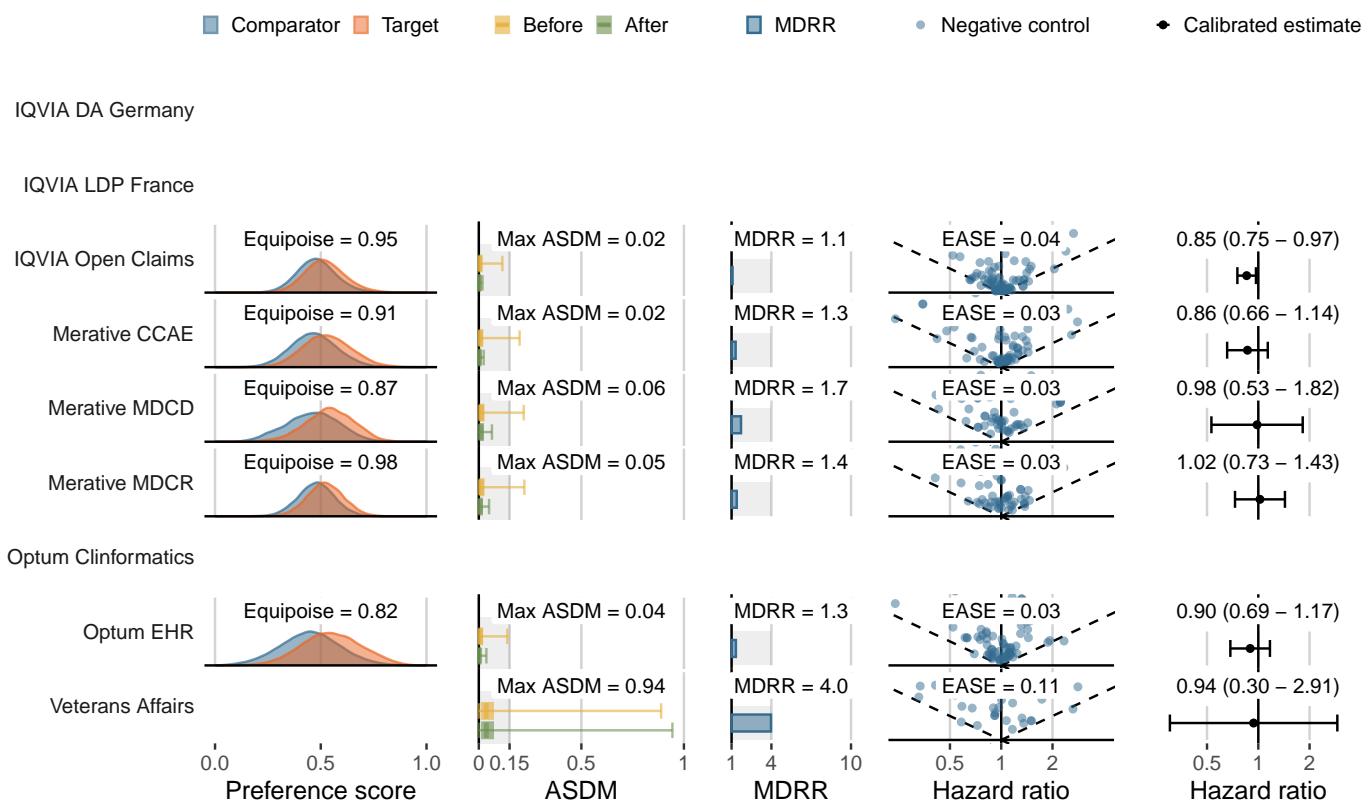
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

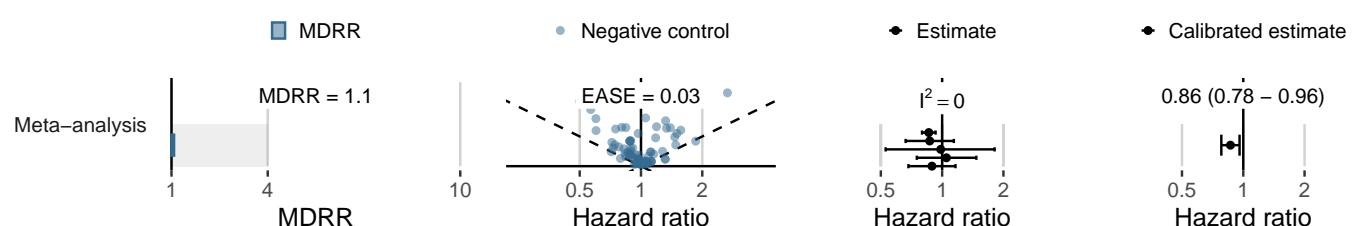
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,155	21,706	-	0.00
IQVIA LDP France	8,600	4,571	-	0.00
IQVIA Open Claims	660,107	590,424	2,764	4.68
Merative CCAE	80,722	68,396	259	3.79
Merative MDCD	6,841	4,966	39	7.85
Merative MDCR	14,775	14,046	160	11.39
Optum Clininformatics	-	-	-	-
Optum EHR	68,786	31,767	193	6.08
Veterans Affairs	1,039	1,101	<10	<9.08

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



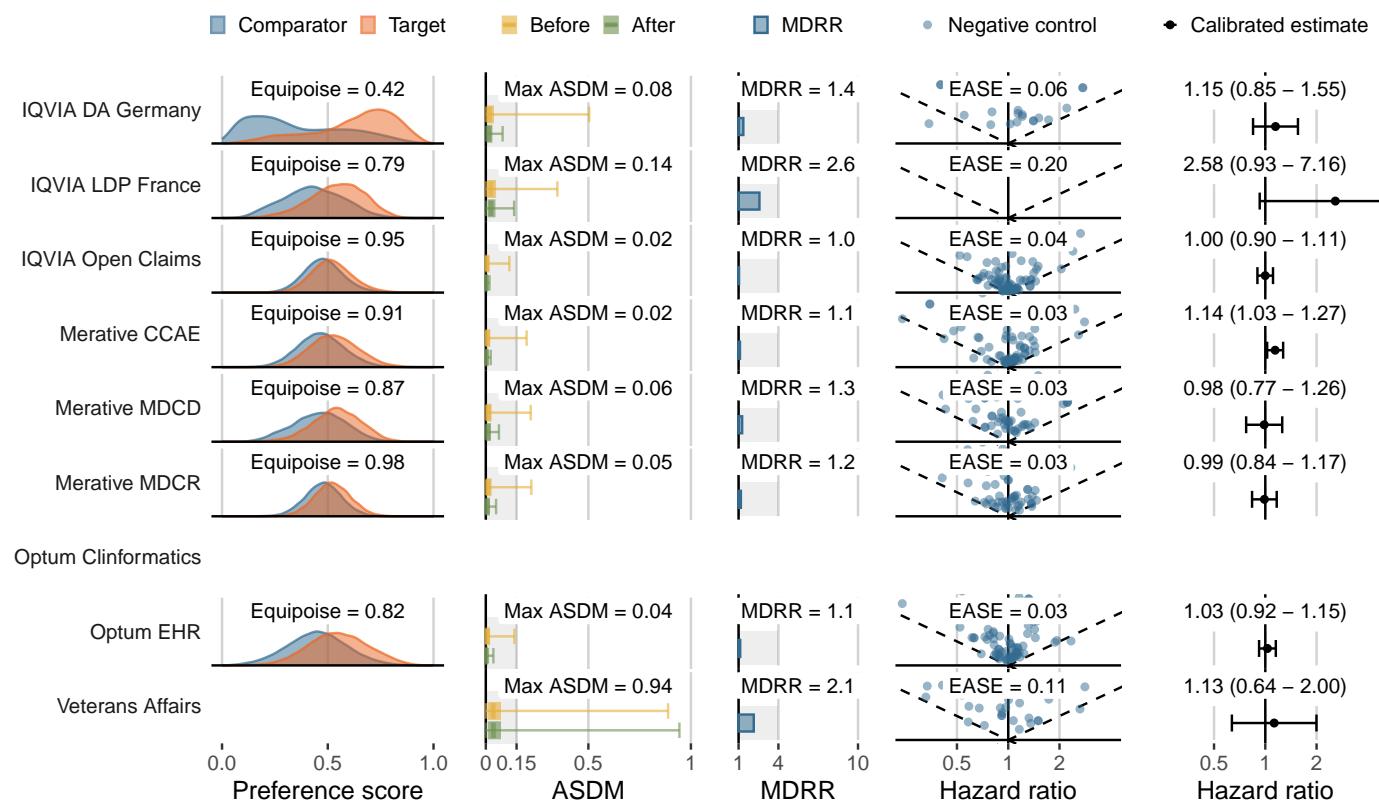
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Genitourinary infection**

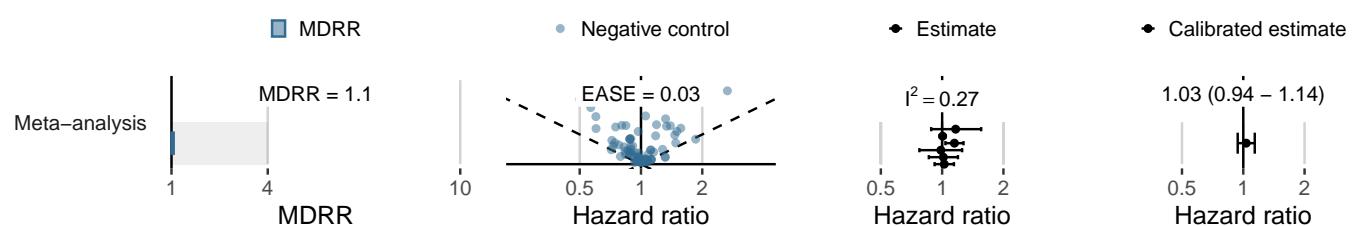
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	15,751	16,210	568	35.04
IQVIA LDP France	7,712	4,032	76	18.85
IQVIA Open Claims	520,744	459,423	14,716	32.03
Merative CCAE	66,443	54,975	2,142	38.96
Merative MDCD	5,139	3,528	235	66.62
Merative MDCR	11,864	10,846	709	65.37
Optum Clininformatics	-	-	-	-
Optum EHR	59,086	26,104	1,289	49.38
Veterans Affairs	938	976	18	18.44

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



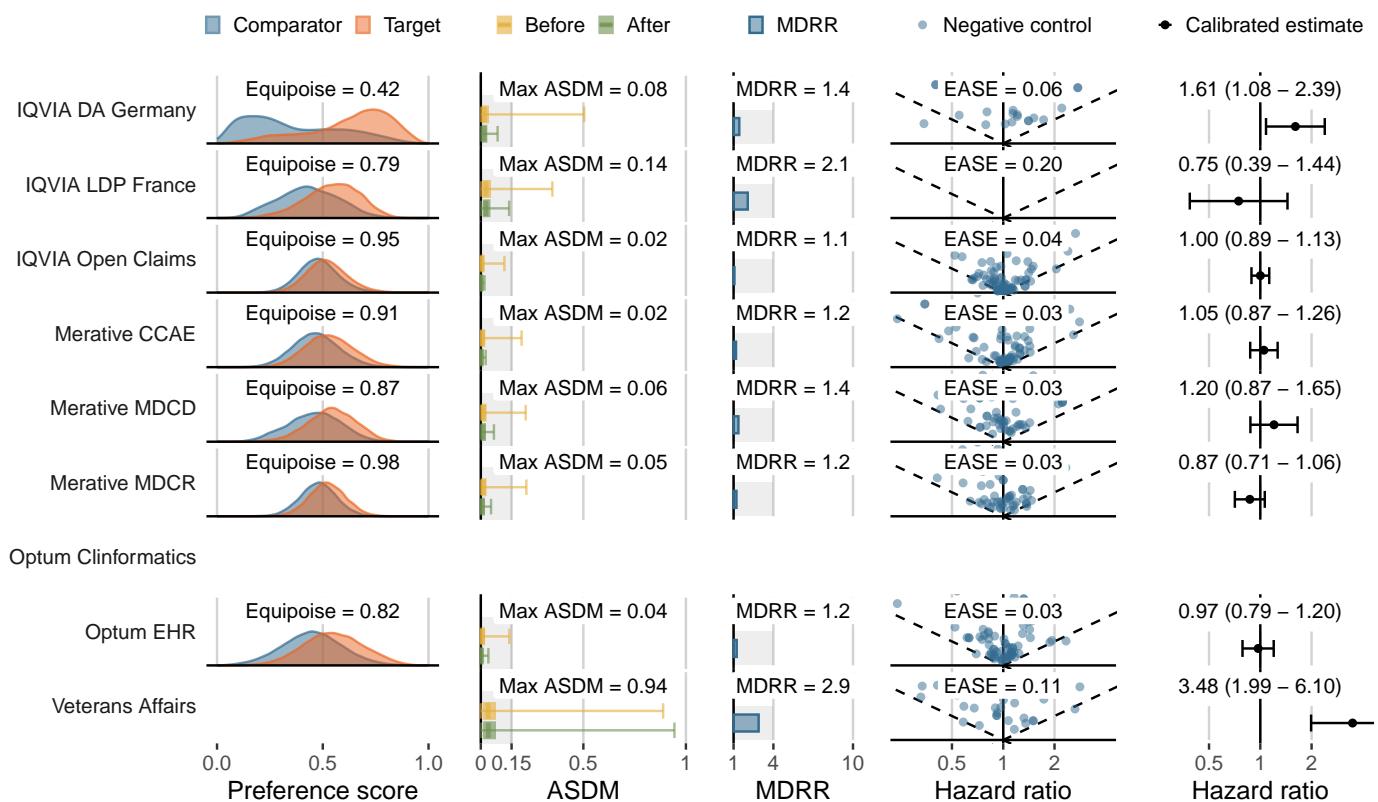
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Joint pain**

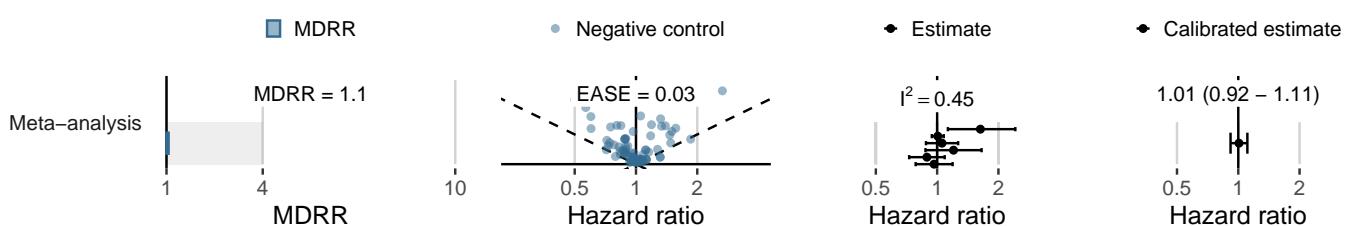
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,164	17,996	407	22.62
IQVIA LDP France	6,725	3,442	119	34.57
IQVIA Open Claims	637,321	569,337	4,072	7.15
Merative CCAE	77,678	65,618	727	11.08
Merative MDCD	5,229	3,515	143	40.69
Merative MDCR	12,218	11,202	472	42.13
Optum Clininformatics	-	-	-	-
Optum EHR	65,945	30,105	403	13.39
Veterans Affairs	752	799	22	27.52

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



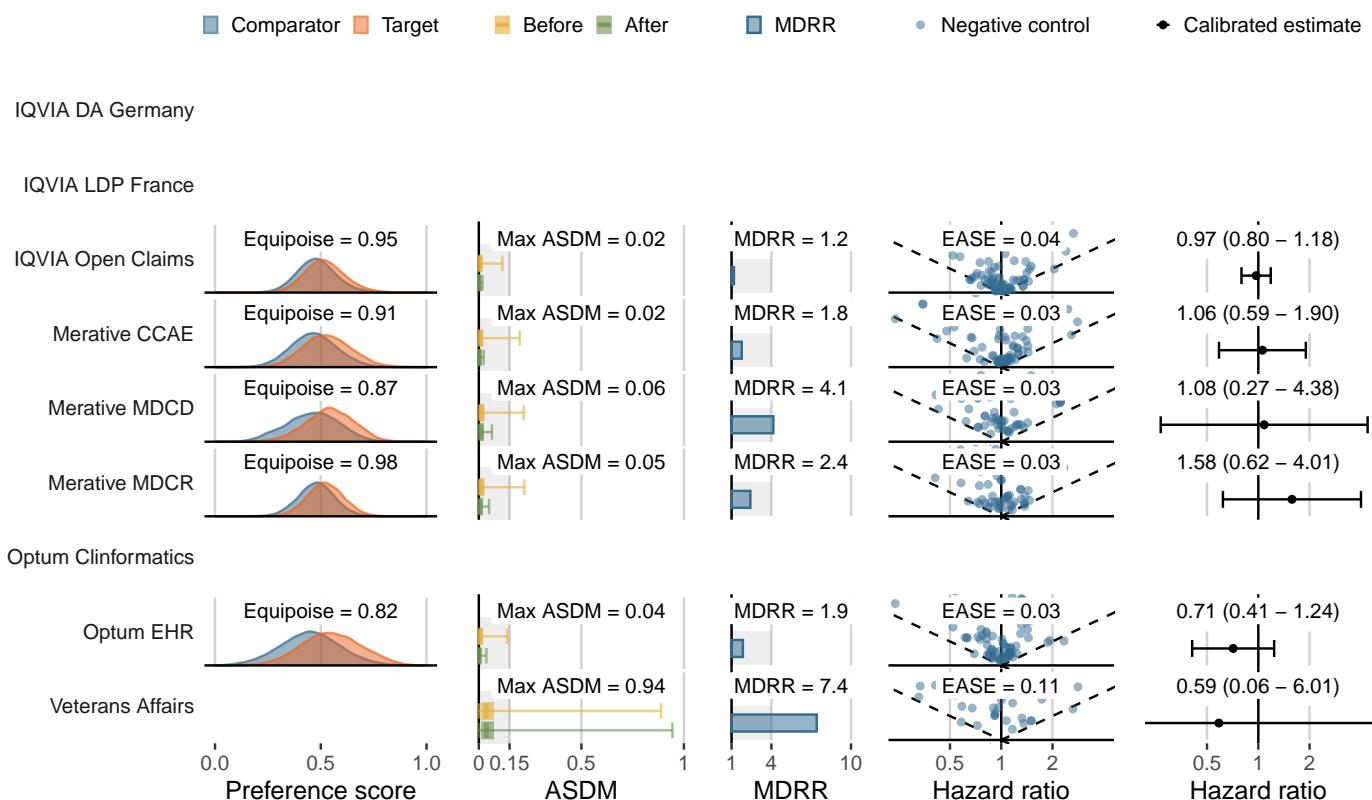
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Renal cancer**

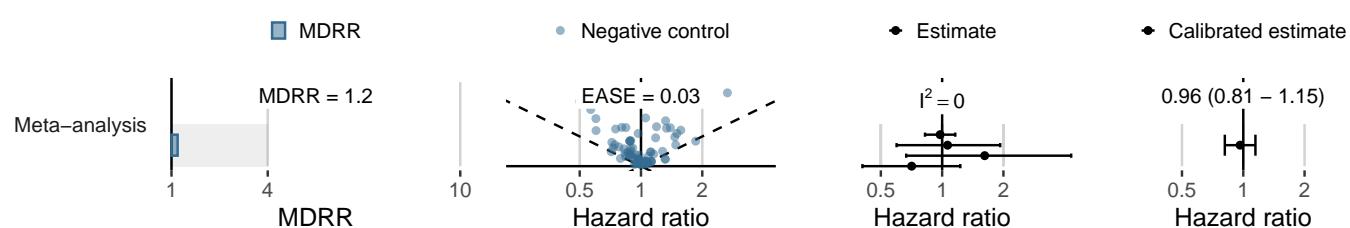
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,078	21,582	23	1.07
IQVIA LDP France	8,592	4,564	<5	<1.10
IQVIA Open Claims	676,054	605,815	571	0.94
Merative CCAE	81,972	69,656	66	0.95
Merative MDCD	7,079	5,148	10	1.94
Merative MDCR	15,315	14,547	26	1.79
Optum Clininformatics	-	-	-	-
Optum EHR	69,429	32,174	38	1.18
Veterans Affairs	1,057	1,116	<10	<8.96

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



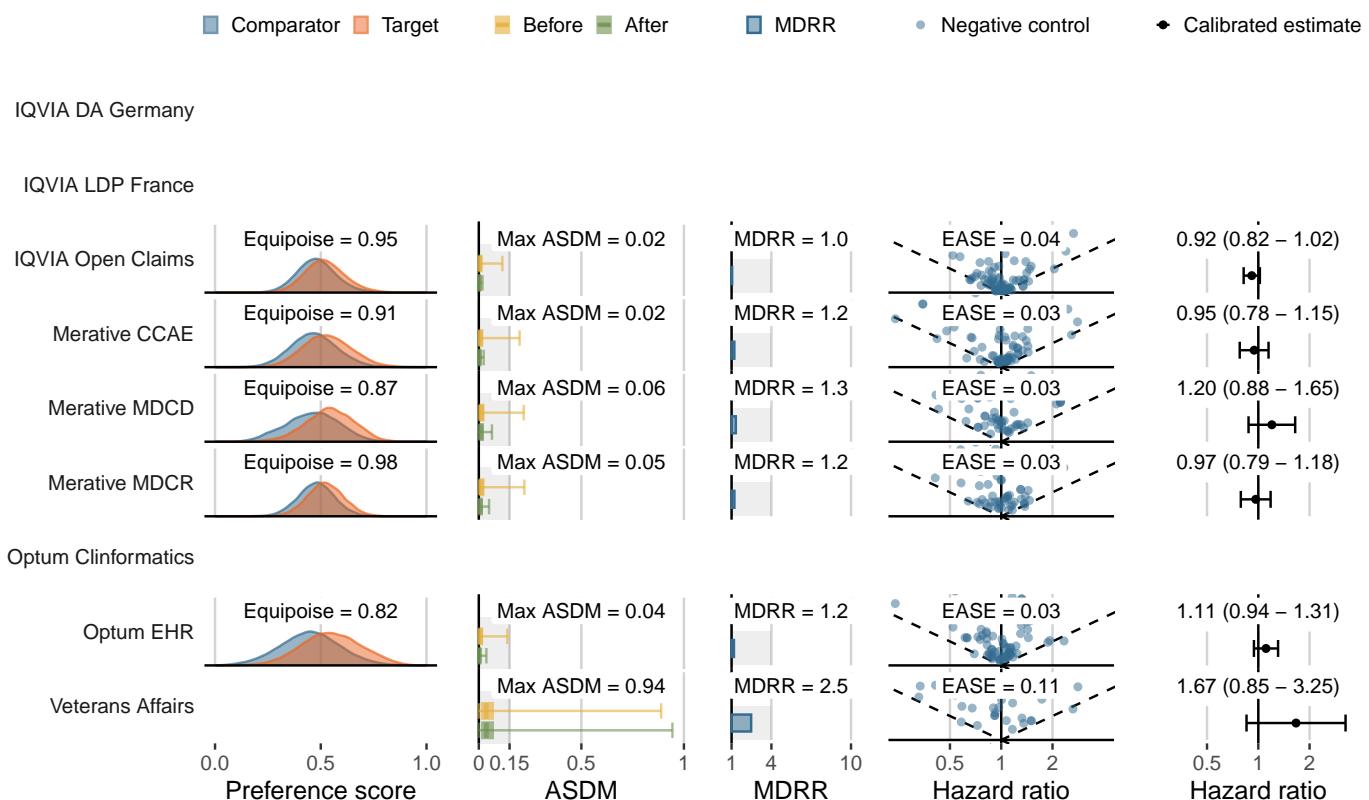
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute renal failure**

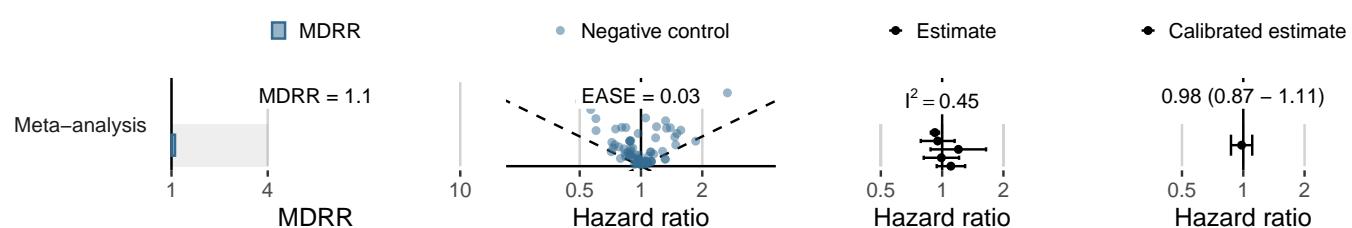
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,155	21,706	-	0.00
IQVIA LDP France	8,600	4,571	-	0.00
IQVIA Open Claims	654,579	583,573	7,983	13.68
Merative CCAE	80,845	68,531	527	7.69
Merative MDCD	6,620	4,704	166	35.29
Merative MDCR	14,433	13,610	465	34.17
Optum Clininformatics	-	-	-	-
Optum EHR	68,454	31,361	619	19.74
Veterans Affairs	1,030	1,074	16	14.89

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



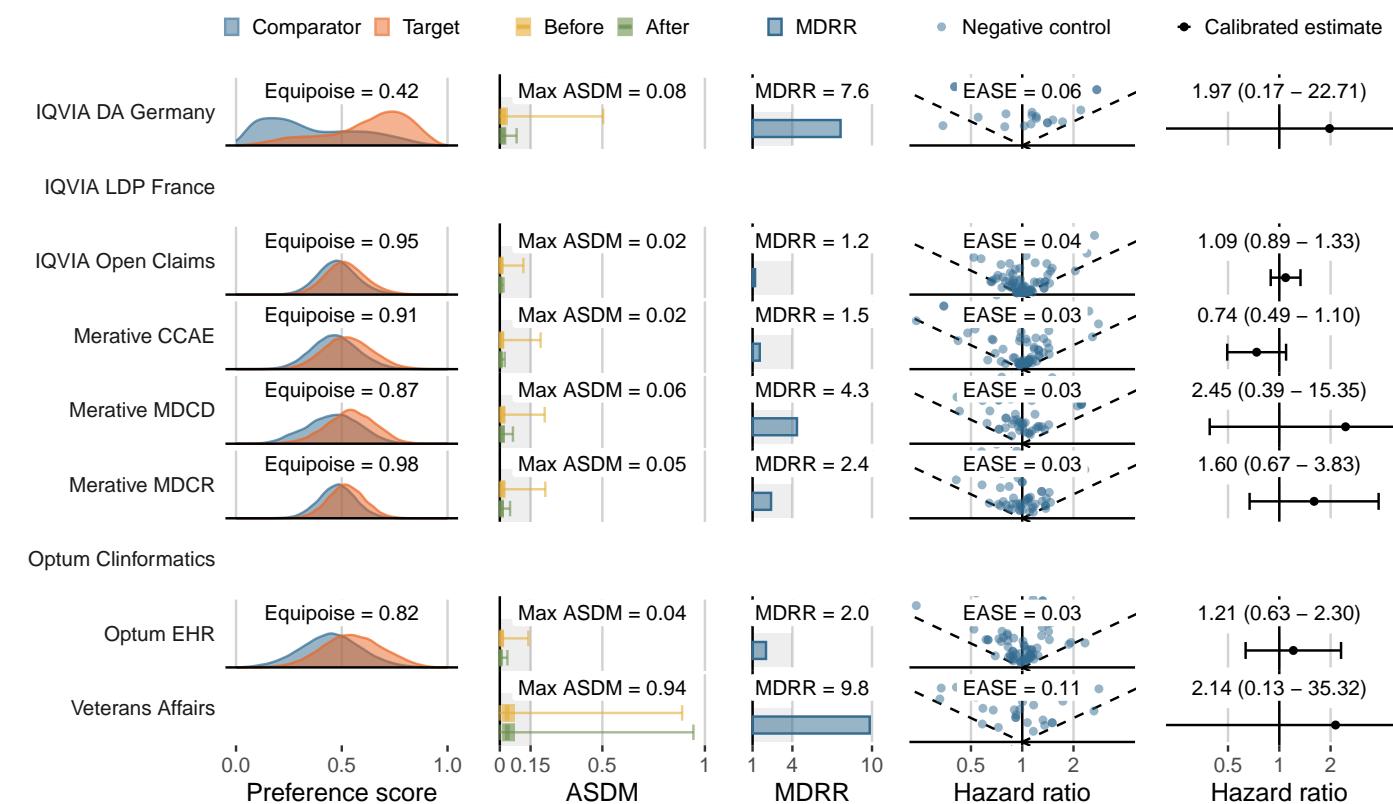
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Thyroid tumor**

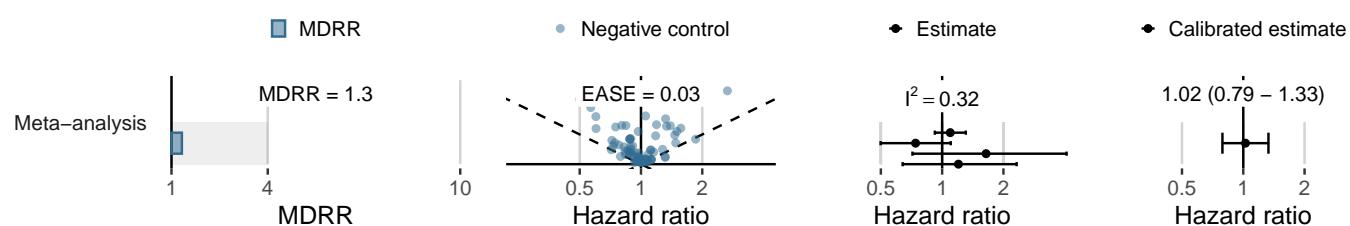
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,012	21,544	10	0.46
IQVIA LDP France	8,595	4,569	-	0.00
IQVIA Open Claims	673,960	603,601	597	0.99
Merative CCAE	81,705	69,405	108	1.56
Merative MDCD	7,067	5,144	6	1.17
Merative MDCR	15,306	14,521	26	1.79
Optum Clininformatics	-	-	-	-
Optum EHR	69,324	32,130	37	1.15
Veterans Affairs	1,059	1,123	<10	<8.91

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



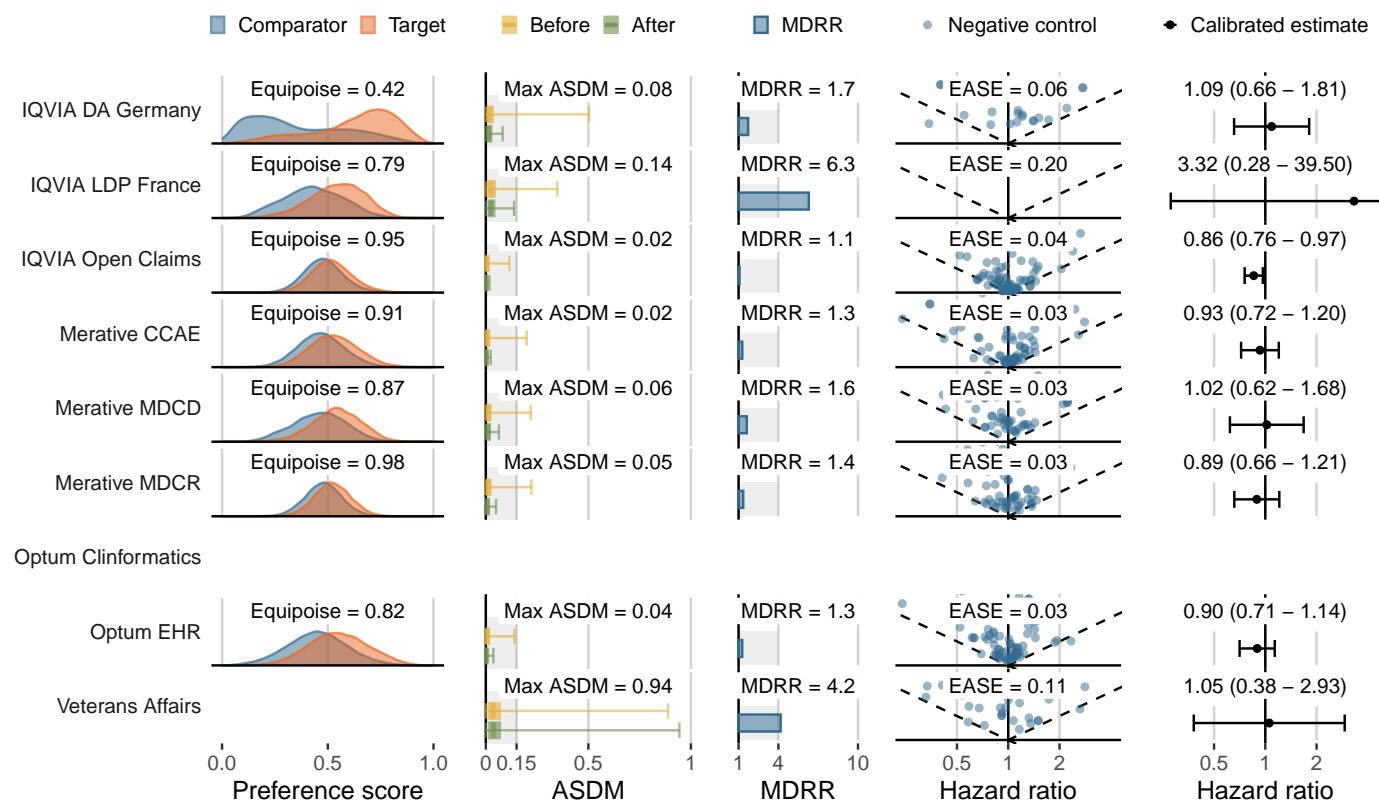
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

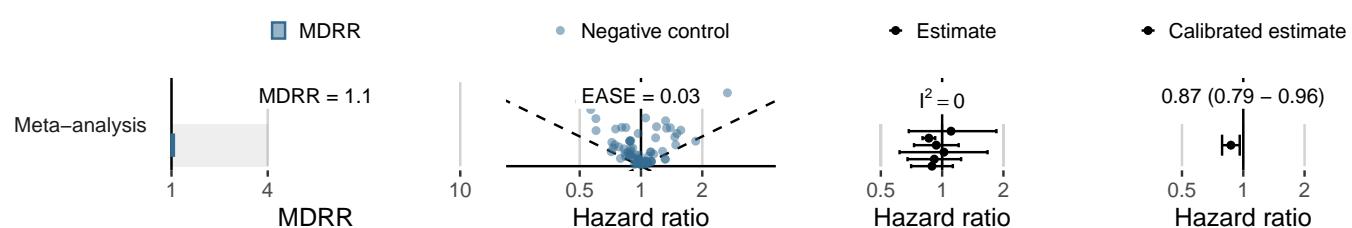
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	18,784	20,026	173	8.64
IQVIA LDP France	8,415	4,429	17	3.84
IQVIA Open Claims	655,914	586,631	2,927	4.99
Merative CCAE	80,349	68,078	317	4.66
Merative MDCD	6,755	4,873	61	12.52
Merative MDCR	14,758	14,024	180	12.83
Optum Clininformatics	-	-	-	-
Optum EHR	67,790	31,157	254	8.15
Veterans Affairs	1,032	1,086	<10	<9.21

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



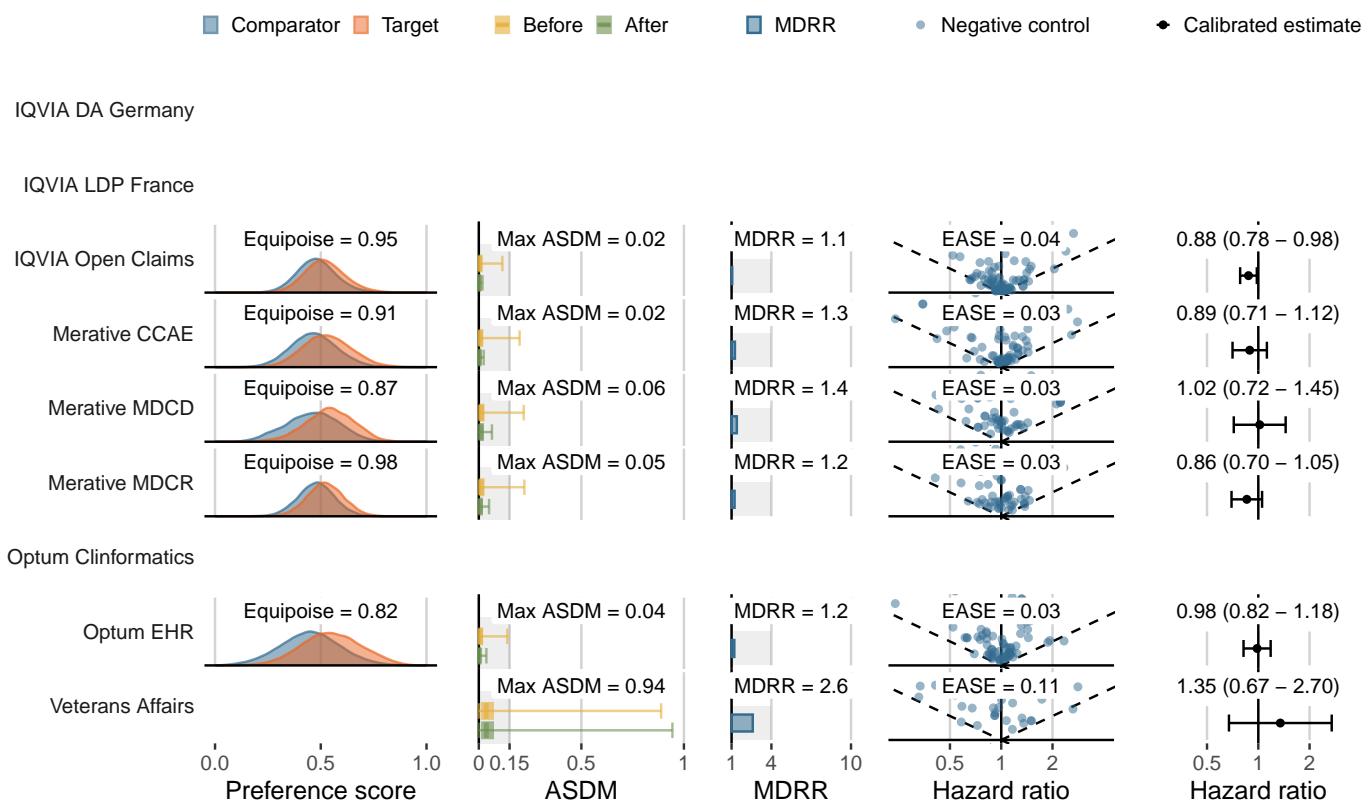
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

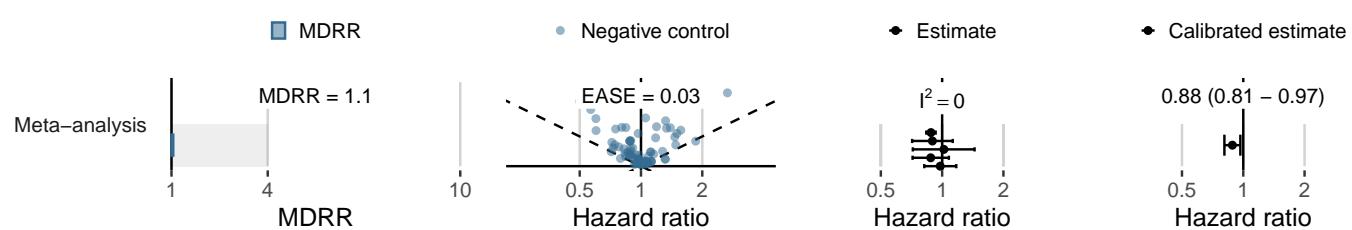
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,155	21,706	-	0.00
IQVIA LDP France	8,600	4,571	-	0.00
IQVIA Open Claims	651,229	582,116	5,981	10.27
Merative CCAE	80,700	68,512	373	5.44
Merative MDCD	6,430	4,619	117	25.33
Merative MDCR	14,006	13,285	409	30.79
Optum Clininformatics	-	-	-	-
Optum EHR	68,211	31,301	437	13.96
Veterans Affairs	1,012	1,083	13	12.01

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



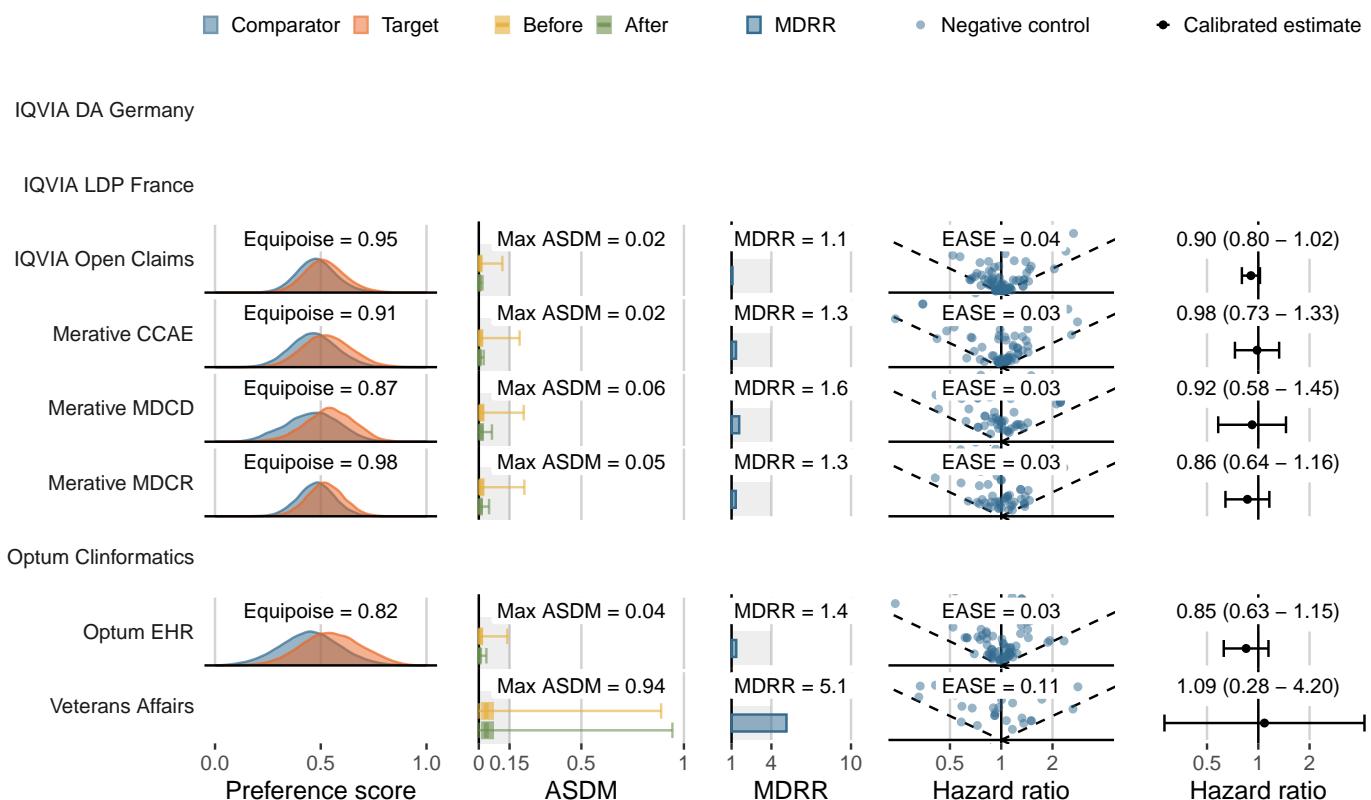
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Stroke**

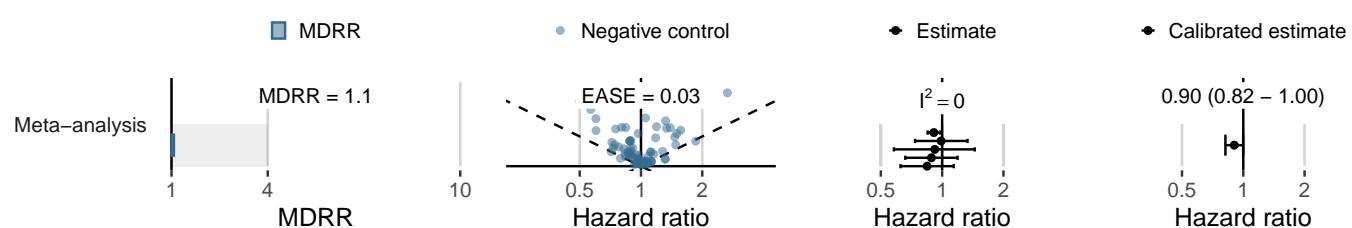
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,155	21,706	-	0.00
IQVIA LDP France	8,600	4,571	-	0.00
IQVIA Open Claims	659,806	591,012	3,225	5.46
Merative CCAE	81,156	69,010	238	3.45
Merative MDCD	6,801	4,923	64	13.00
Merative MDCR	14,711	13,941	216	15.49
Optum Clininformatics	-	-	-	-
Optum EHR	68,955	31,853	171	5.37
Veterans Affairs	1,048	1,116	<10	<8.96

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



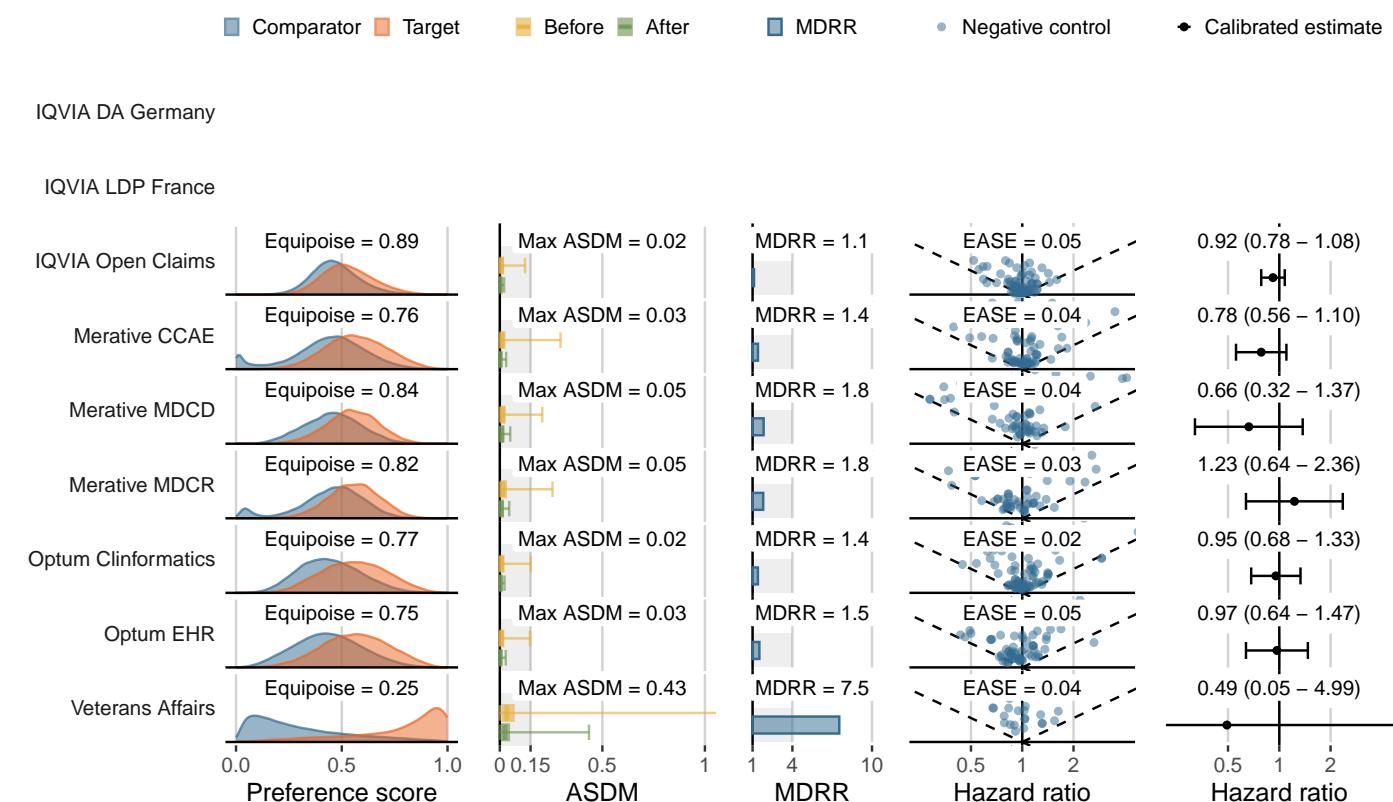
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

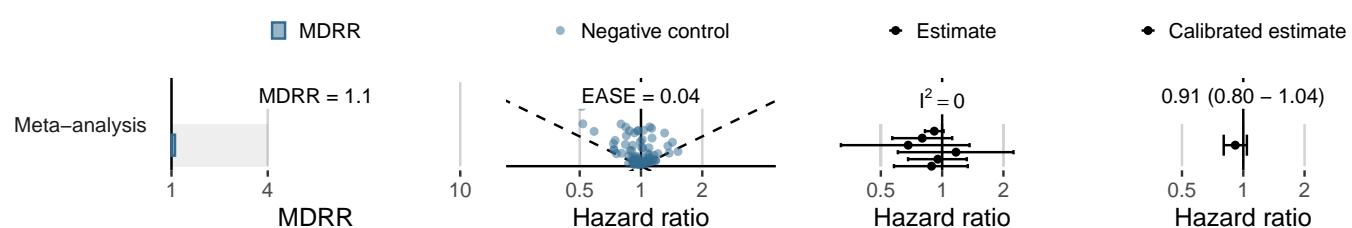
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	607,609	533,154	1,073	2.01
Merative CCAE	81,532	69,284	162	2.34
Merative MDCD	8,247	5,831	23	3.94
Merative MDCR	11,491	10,792	36	3.34
Optum Clininformatics	38,025	30,501	85	2.79
Optum EHR	56,507	25,690	63	2.45
Veterans Affairs	1,058	1,119	<10	<8.93

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



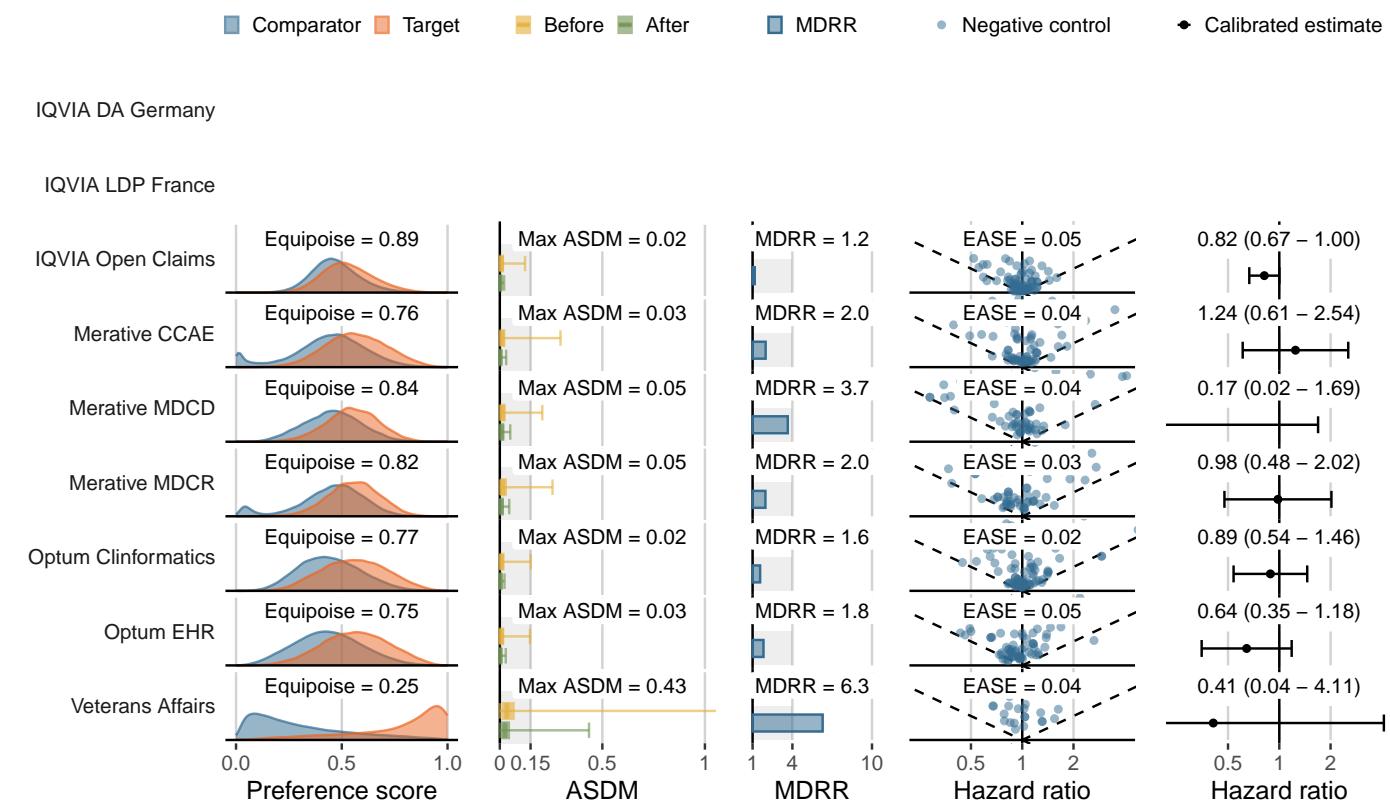
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Bladder cancer**

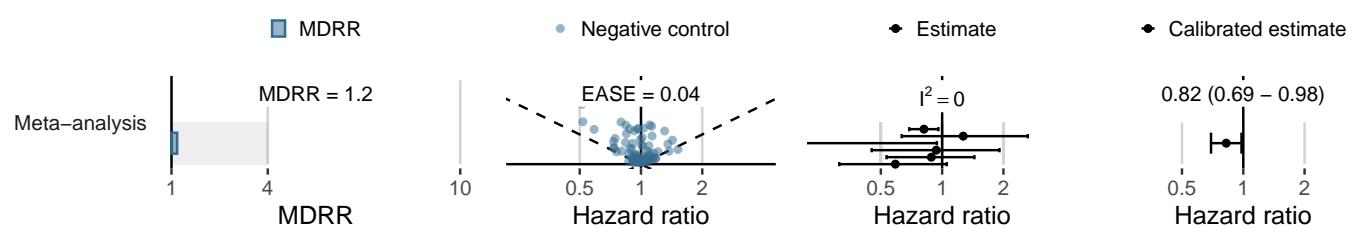
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	611,606	536,359	479	0.89
Merative CCAE	81,984	69,678	43	0.62
Merative MDCD	8,406	5,933	<5	<0.84
Merative MDCR	11,497	10,785	27	2.50
Optum Clininformatics	38,217	30,550	42	1.37
Optum EHR	56,589	25,715	28	1.09
Veterans Affairs	1,049	1,111	<10	<9.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



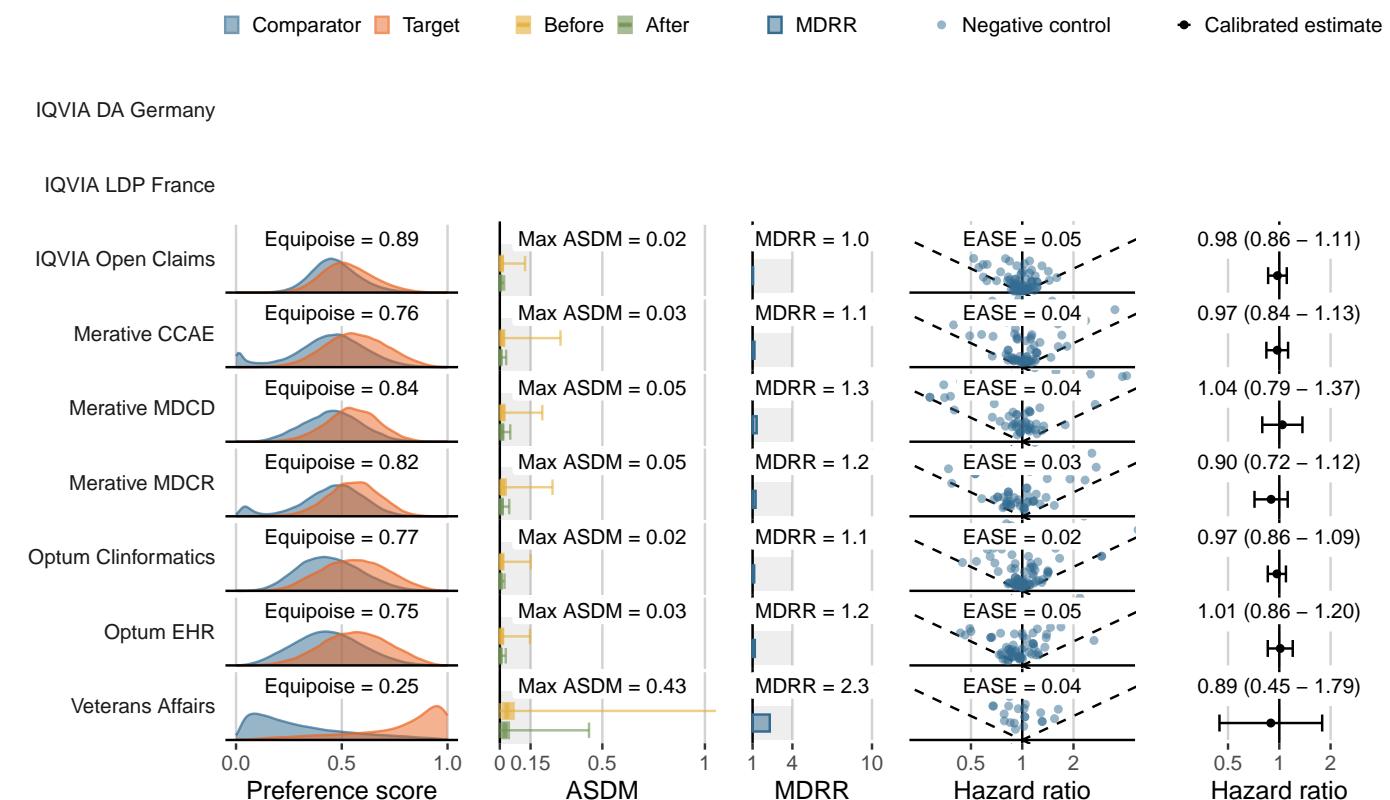
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Bone fracture**

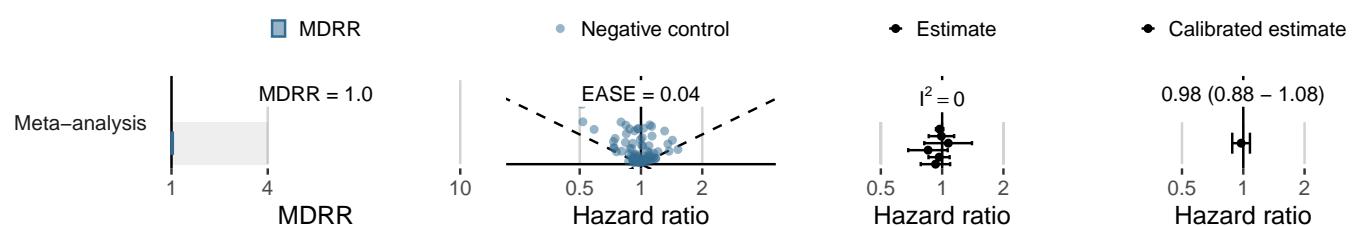
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	539,157	466,980	7,899	16.92
Merative CCAE	75,457	63,017	1,111	17.63
Merative MDCD	7,267	4,968	181	36.43
Merative MDCR	10,131	9,285	314	33.82
Optum Clininformatics	34,429	26,976	821	30.43
Optum EHR	52,922	23,664	482	20.37
Veterans Affairs	986	1,027	11	10.71

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



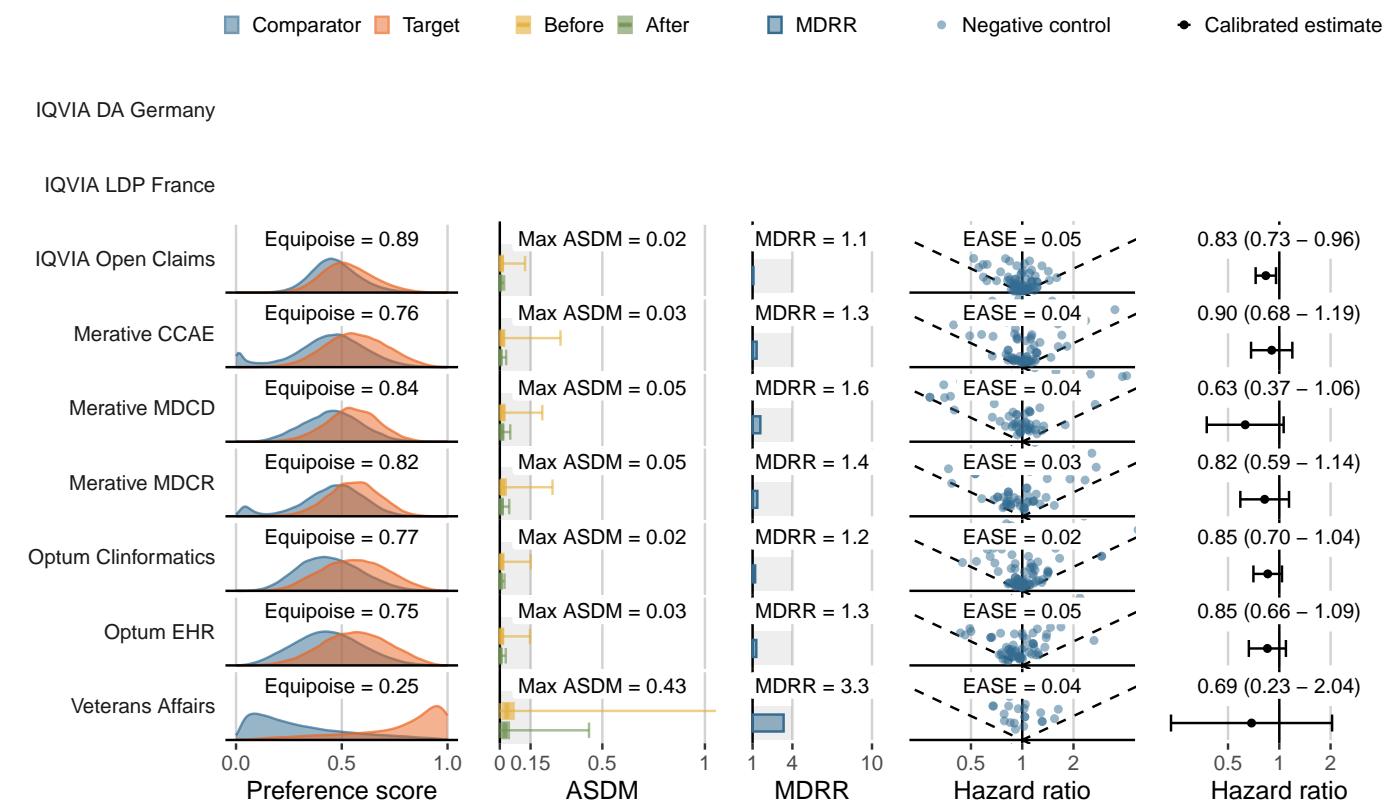
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

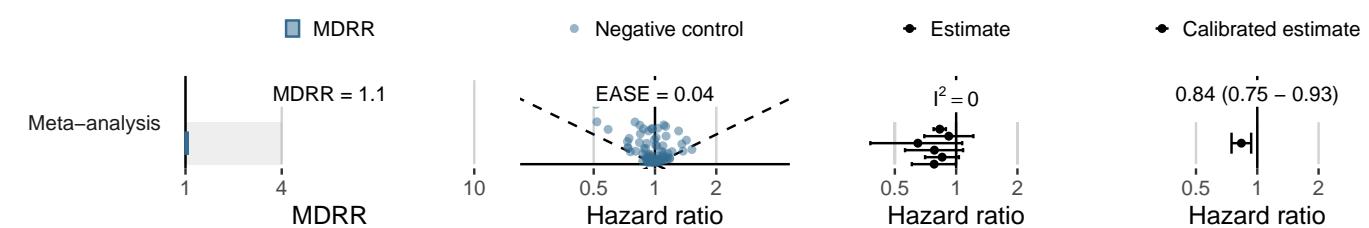
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	597,320	522,608	2,522	4.83
Merative CCAE	80,723	68,394	259	3.79
Merative MDCD	8,103	5,712	43	7.53
Merative MDCR	11,091	10,410	124	11.91
Optum Clininformatics	37,208	29,747	285	9.58
Optum EHR	56,076	25,405	154	6.06
Veterans Affairs	1,033	1,096	<10	<9.13

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



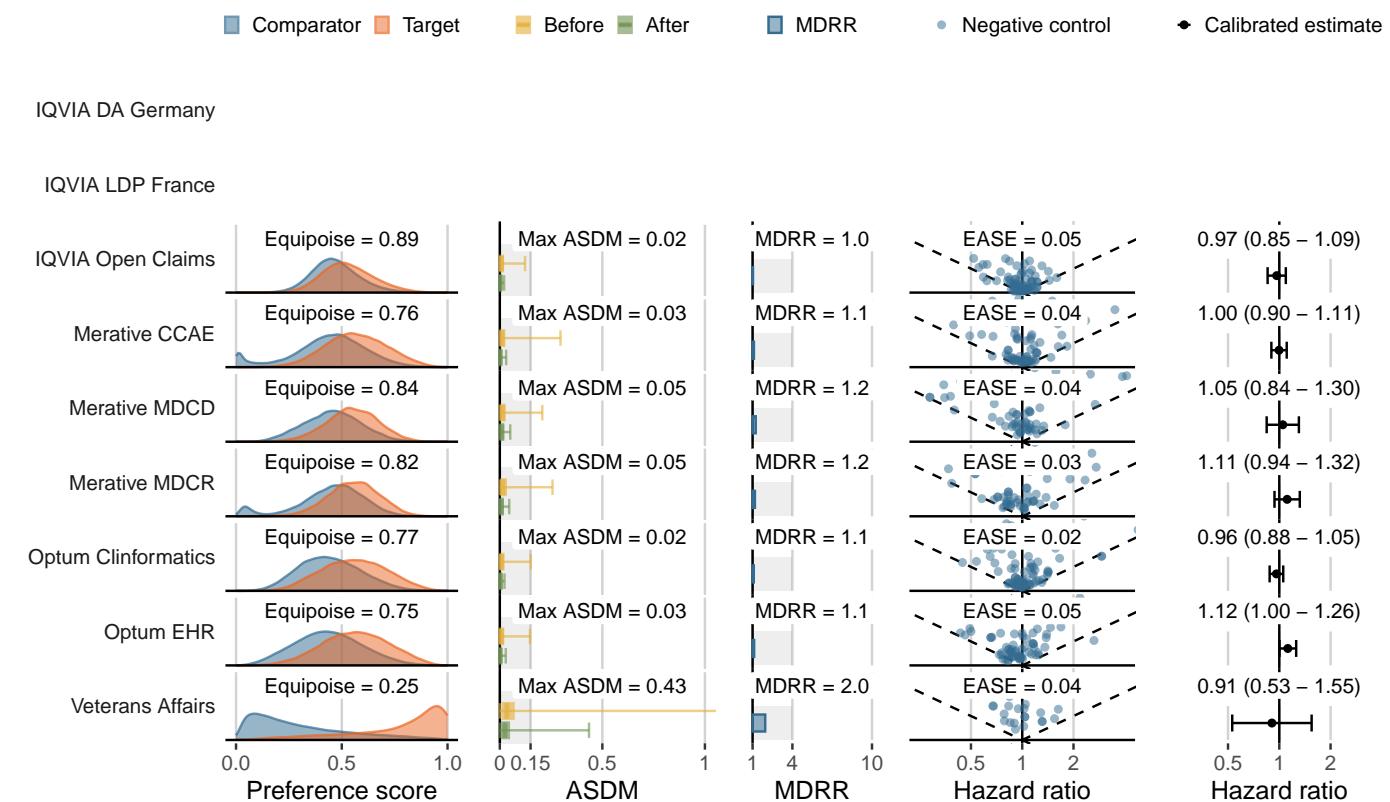
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Genitourinary infection**

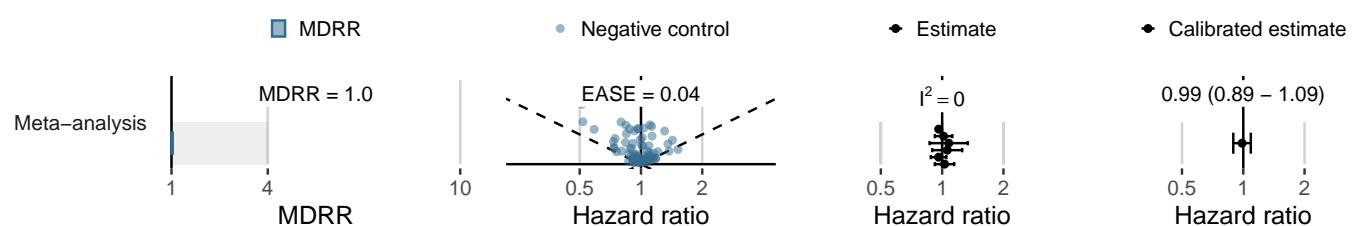
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	474,511	410,421	12,788	31.16
Merative CCAE	66,457	54,978	2,143	38.98
Merative MDCD	6,020	3,991	267	66.89
Merative MDCR	9,072	8,154	525	64.38
Optum Clininformatics	28,713	22,052	1,416	64.21
Optum EHR	48,447	21,030	1,042	49.55
Veterans Affairs	932	966	18	18.63

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



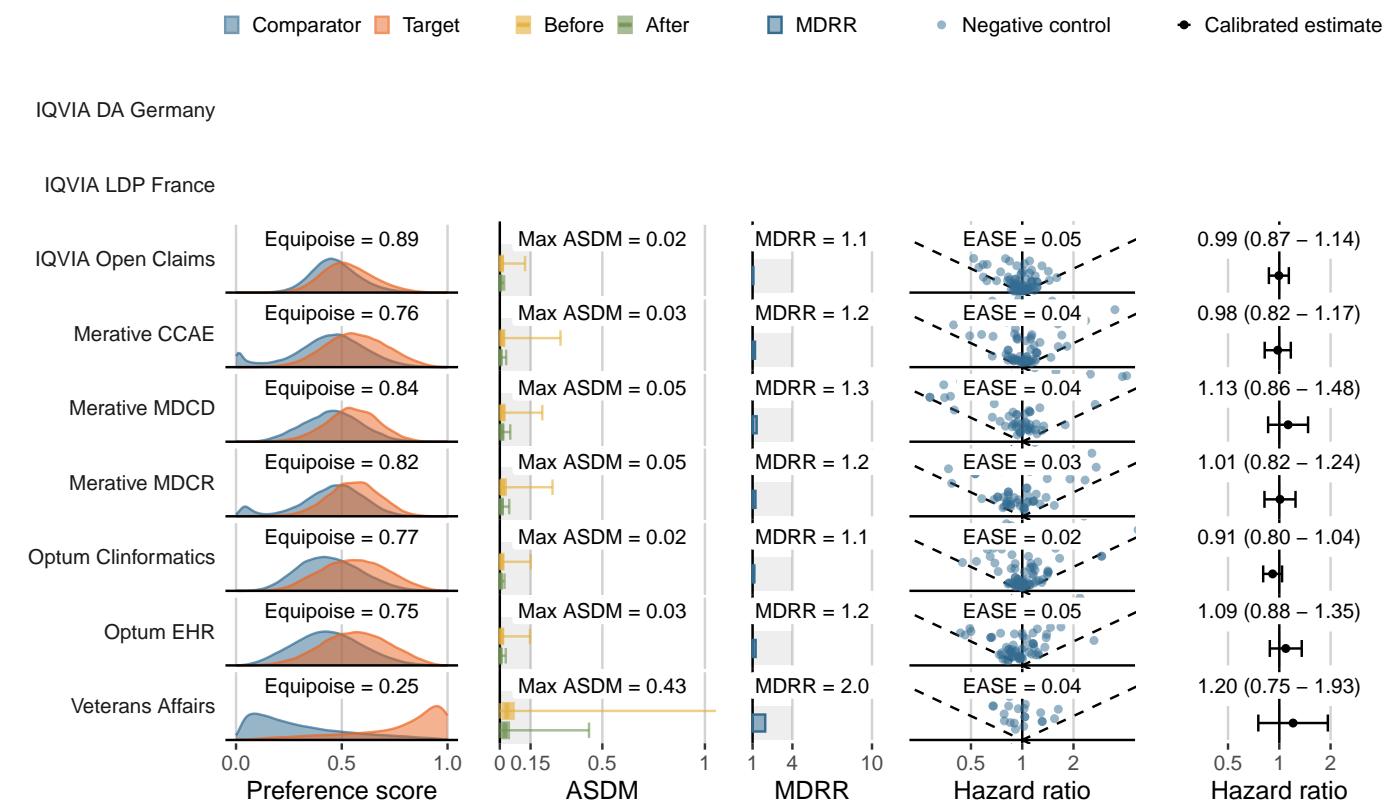
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Joint pain**

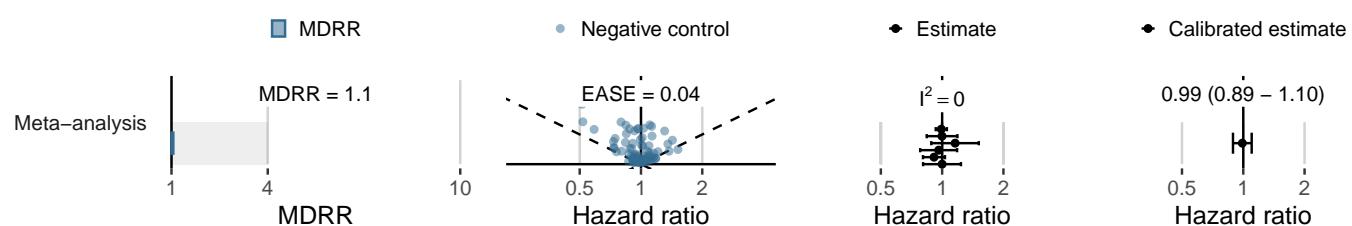
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	578,686	505,908	3,420	6.76
Merative CCAE	77,676	65,613	727	11.08
Merative MDCD	6,187	4,087	161	39.39
Merative MDCR	9,226	8,317	354	42.56
Optum Clininformatics	31,587	24,496	734	29.96
Optum EHR	54,003	24,213	308	12.72
Veterans Affairs	748	798	22	27.58

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



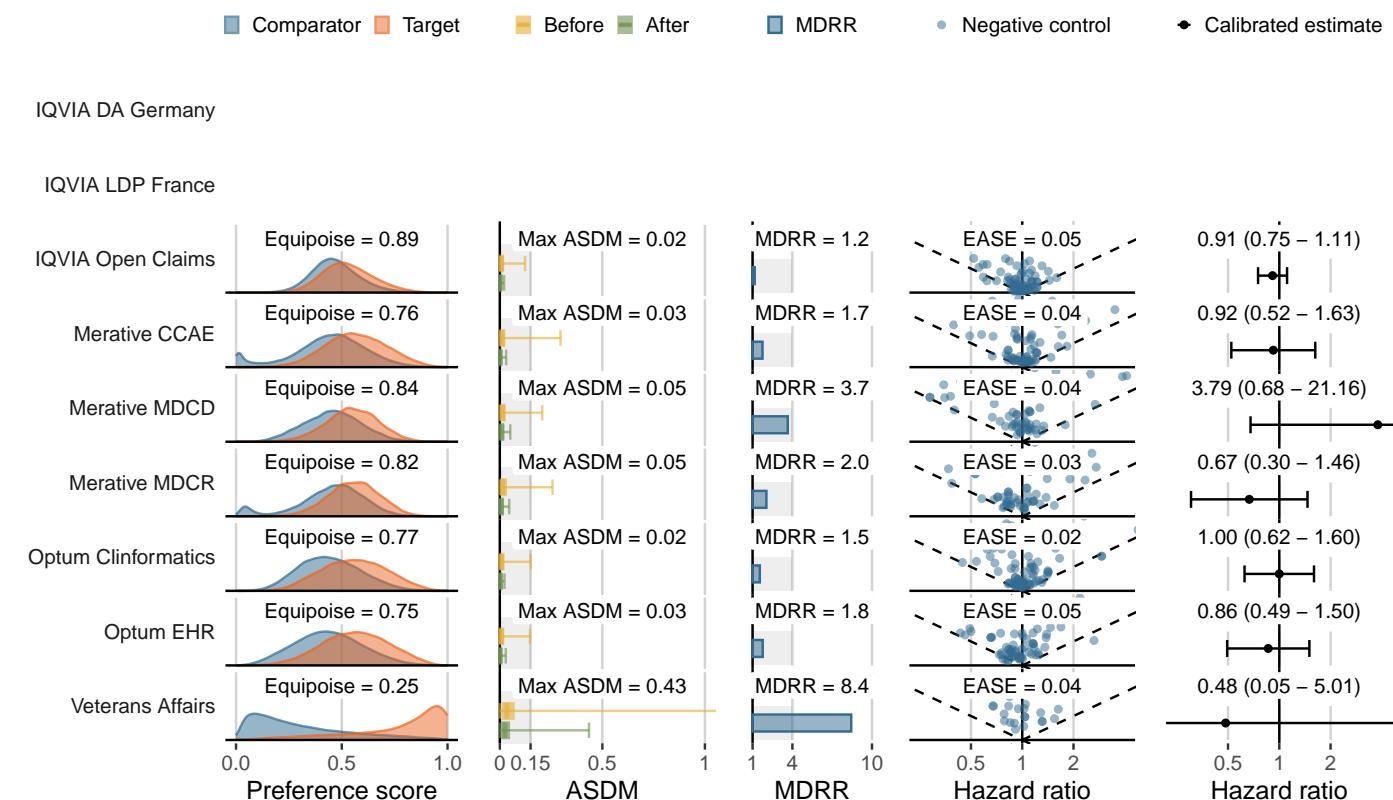
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Renal cancer**

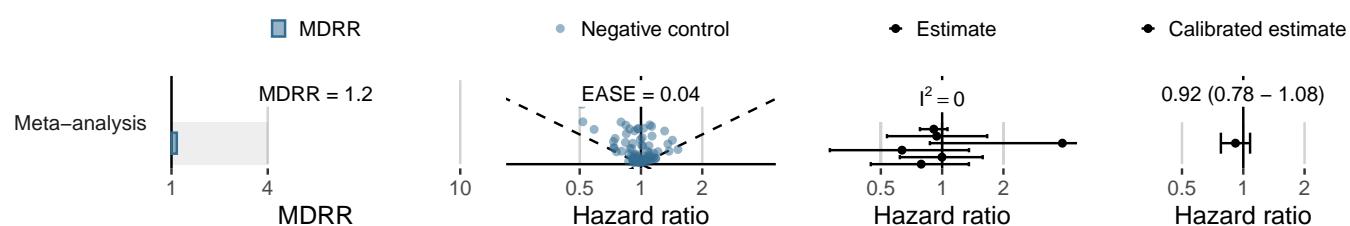
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	612,304	536,922	514	0.96
Merative CCAE	81,973	69,654	66	0.95
Merative MDCD	8,394	5,918	10	1.69
Merative MDCR	11,528	10,807	21	1.94
Optum Clininformatics	38,252	30,601	62	2.03
Optum EHR	56,636	25,766	30	1.16
Veterans Affairs	1,050	1,108	<10	<9.03

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



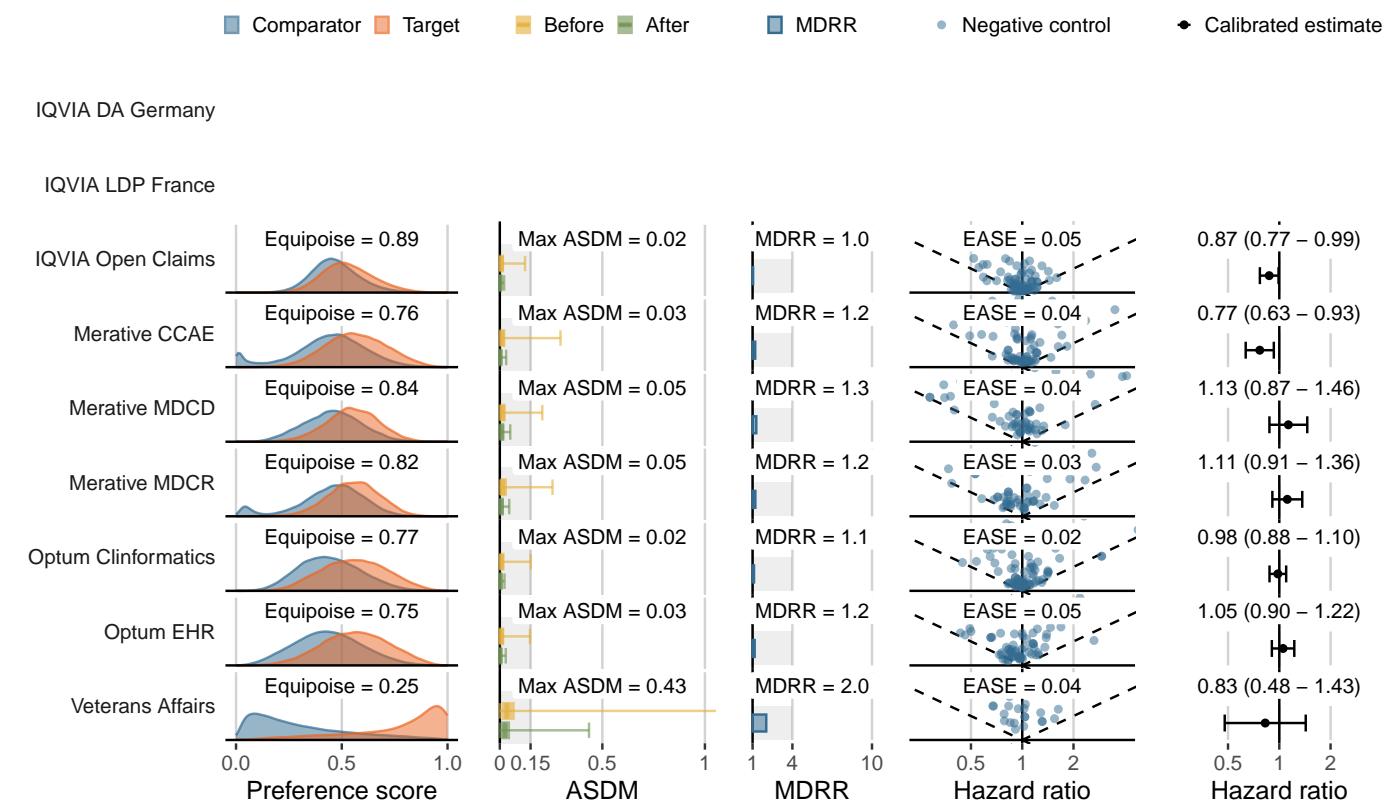
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute renal failure**

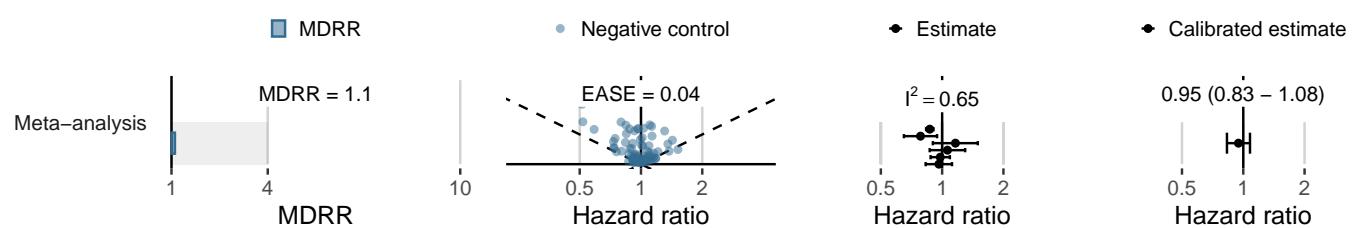
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	591,223	515,701	7,119	13.80
Merative CCAE	80,846	68,530	527	7.69
Merative MDCD	7,782	5,364	200	37.29
Merative MDCR	10,760	10,001	361	36.10
Optum Clininformatics	35,921	28,347	932	32.88
Optum EHR	55,782	25,059	528	21.07
Veterans Affairs	1,024	1,069	16	14.97

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



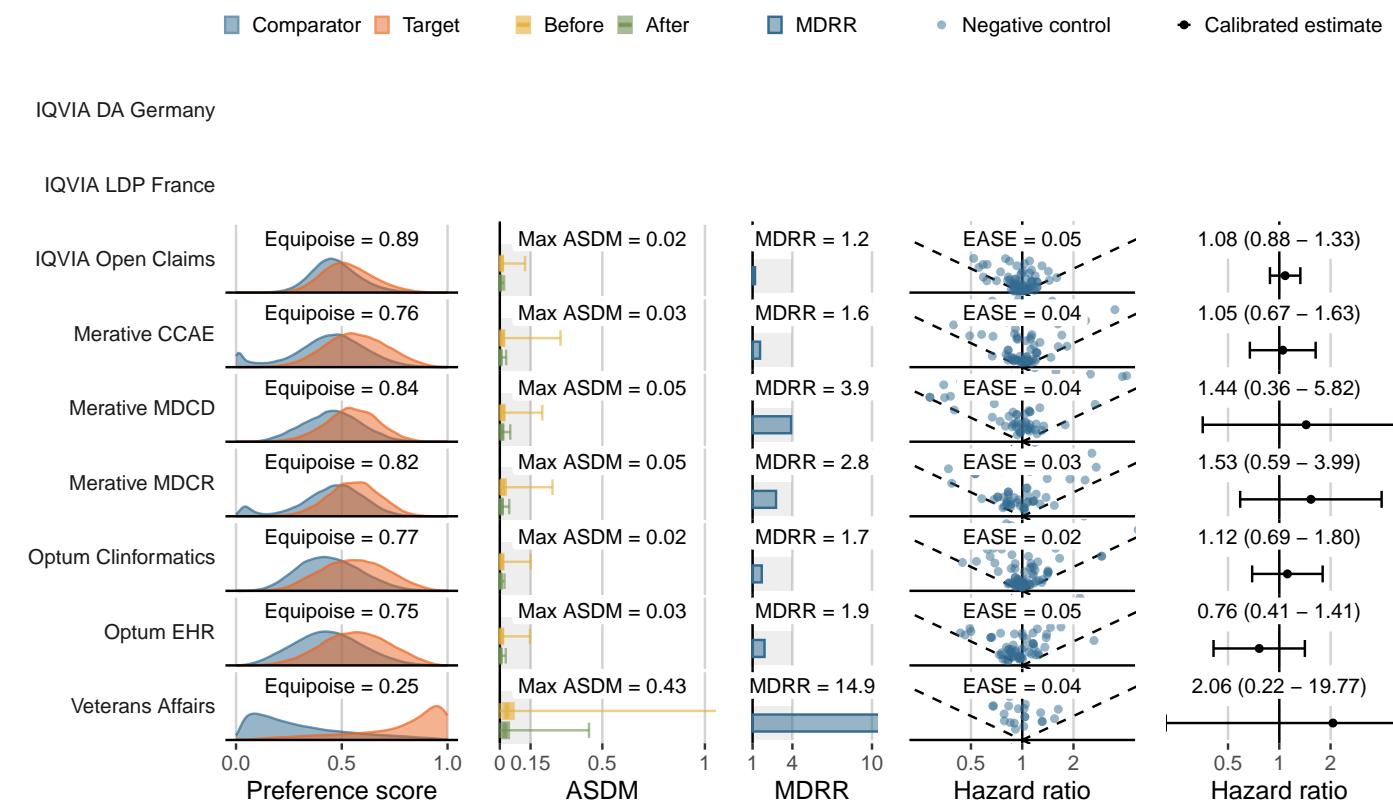
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Thyroid tumor**

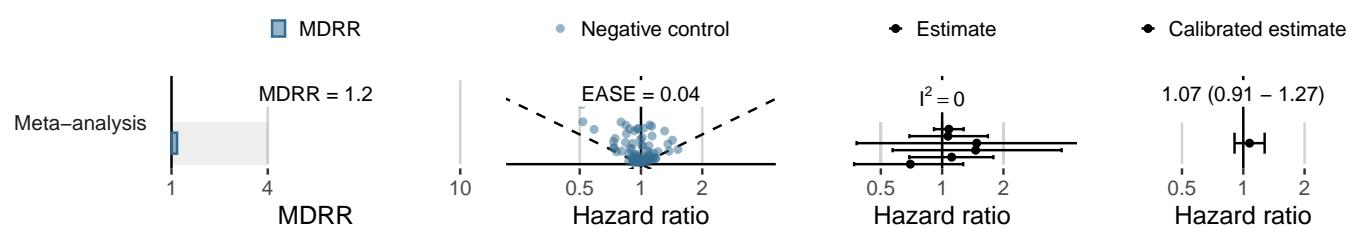
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	611,100	535,645	493	0.92
Merative CCAE	81,706	69,404	108	1.56
Merative MDCD	8,386	5,910	6	1.02
Merative MDCR	11,540	10,818	16	1.48
Optum Clininformatics	38,236	30,591	45	1.47
Optum EHR	56,560	25,731	30	1.17
Veterans Affairs	1,053	1,117	<10	<8.95

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



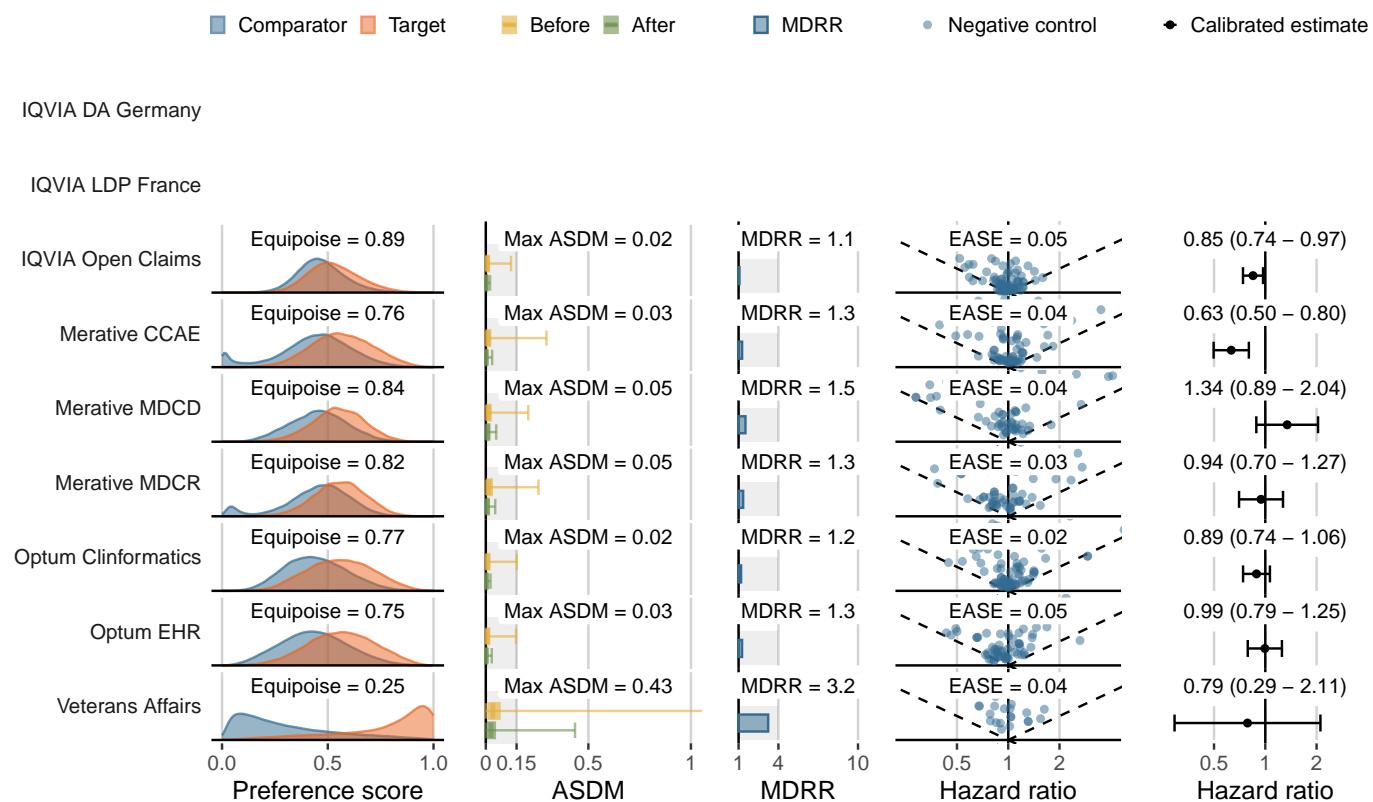
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

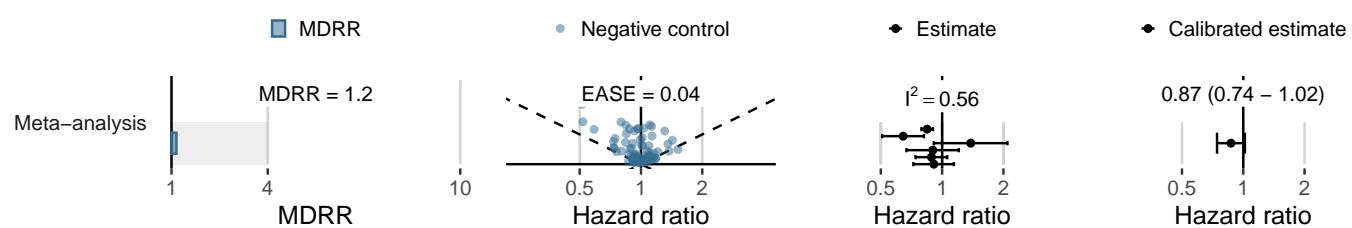
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	593,822	519,481	2,599	5.00
Merative CCAE	80,351	68,077	317	4.66
Merative MDCD	7,994	5,589	67	11.99
Merative MDCR	11,081	10,376	144	13.88
Optum Clininformatics	36,956	29,510	309	10.47
Optum EHR	55,311	25,000	209	8.36
Veterans Affairs	1,026	1,080	<10	<9.26

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



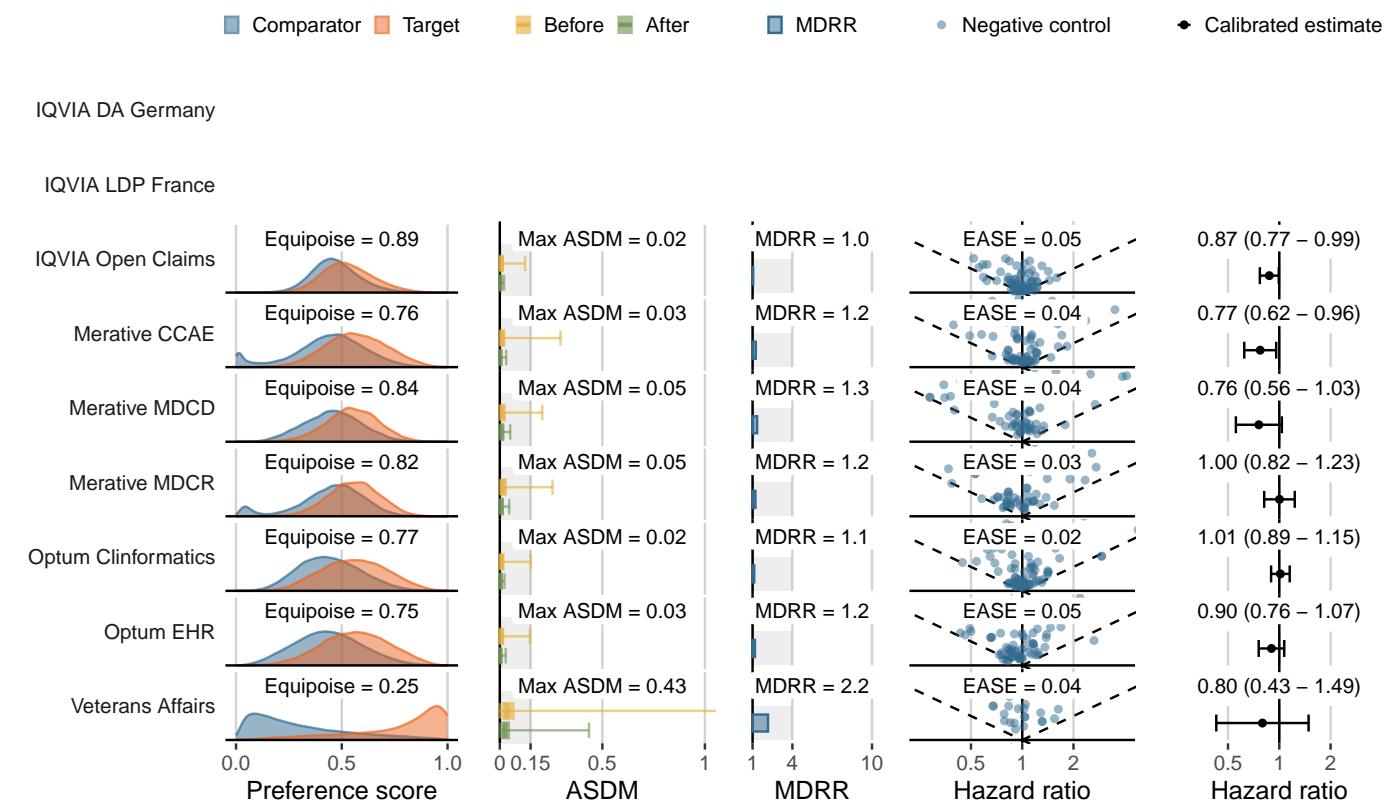
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

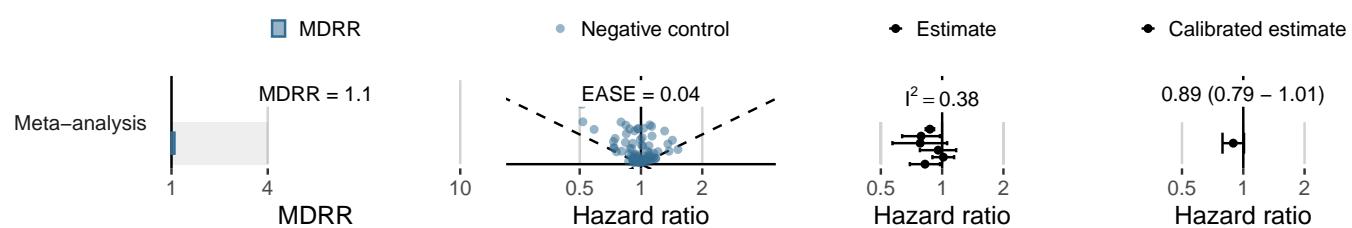
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	588,422	514,412	5,355	10.41
Merative CCAE	80,694	68,500	373	5.45
Merative MDCD	7,626	5,281	134	25.37
Merative MDCR	10,445	9,794	320	32.67
Optum Clininformatics	35,624	28,237	711	25.18
Optum EHR	55,527	24,975	388	15.54
Veterans Affairs	1,006	1,077	13	12.07

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



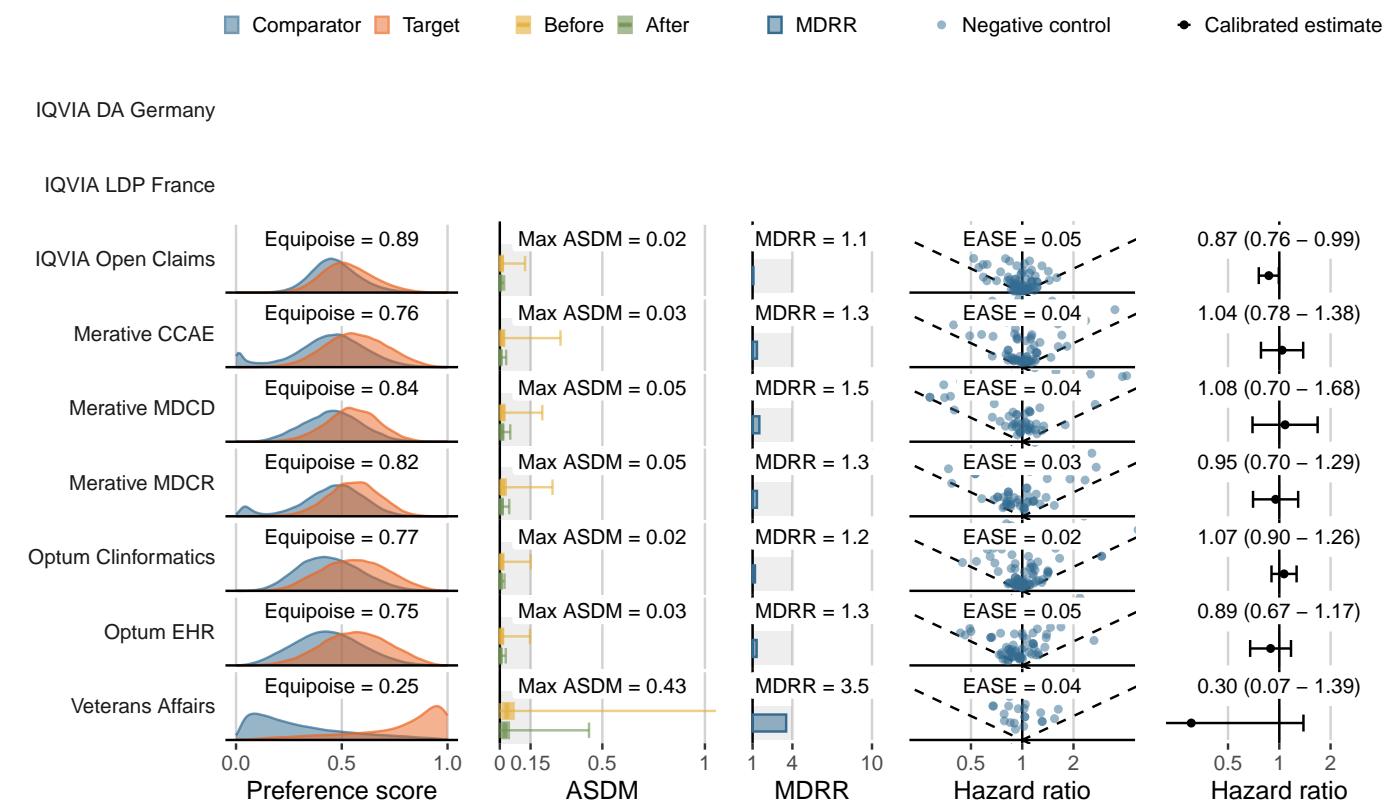
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Stroke**

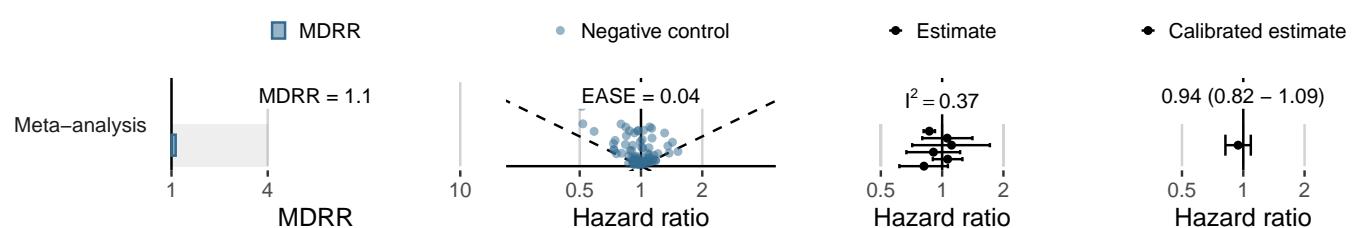
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	596,981	522,989	2,883	5.51
Merative CCAE	81,158	69,009	238	3.45
Merative MDCD	8,040	5,671	71	12.52
Merative MDCR	11,036	10,331	157	15.20
Optum Clininformatics	37,076	29,531	372	12.60
Optum EHR	56,243	25,494	152	5.96
Veterans Affairs	1,041	1,108	<10	<9.03

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



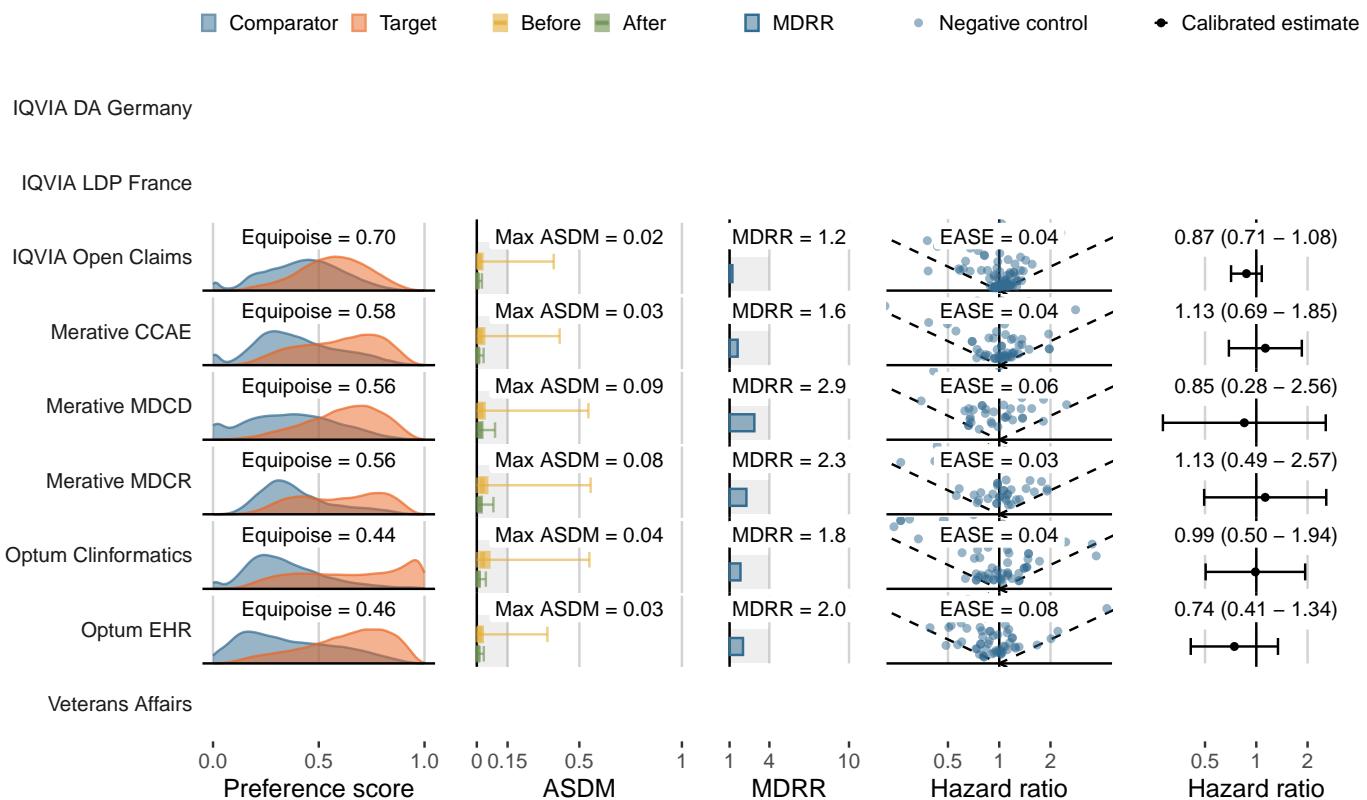
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

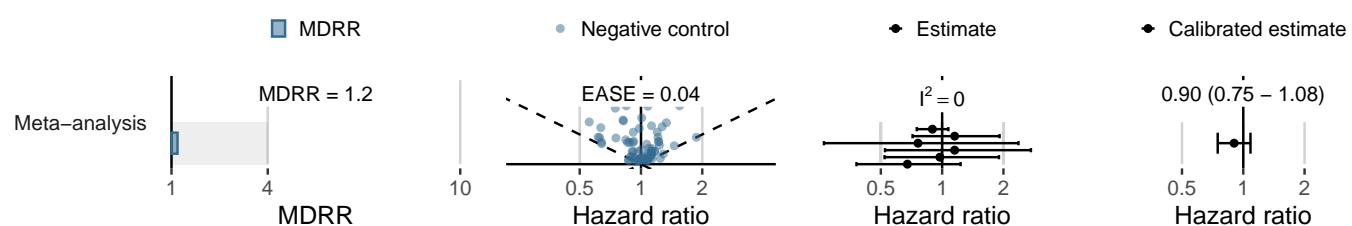
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,271	19,048	-	.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	671,179	601,806	1,205	2.00
Merative CCAE	81,477	69,228	162	2.34
Merative MDCD	8,983	6,479	26	4.01
Merative MDCR	15,177	14,495	49	3.38
Optum Clininformatics	43,294	35,139	97	2.76
Optum EHR	69,295	32,108	70	2.18
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



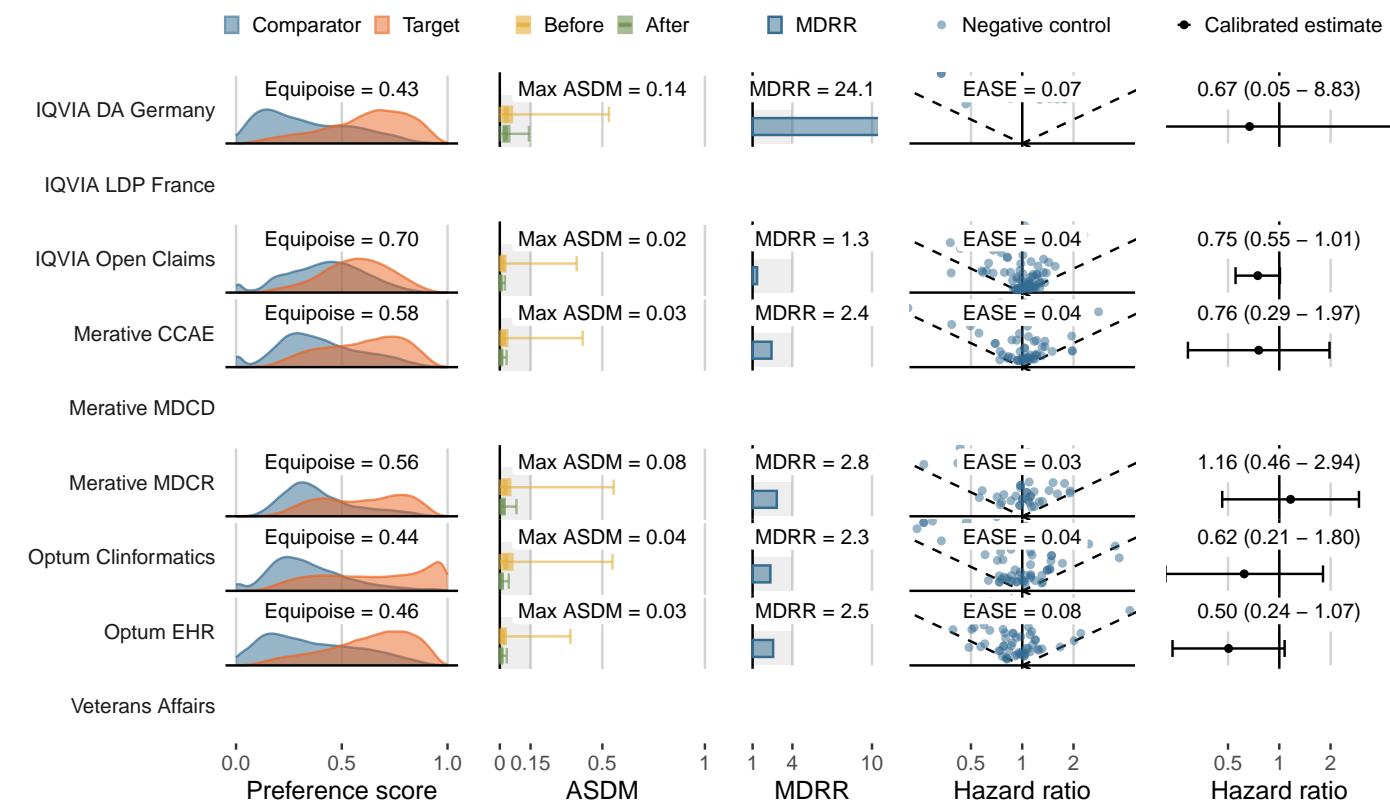
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Bladder cancer**

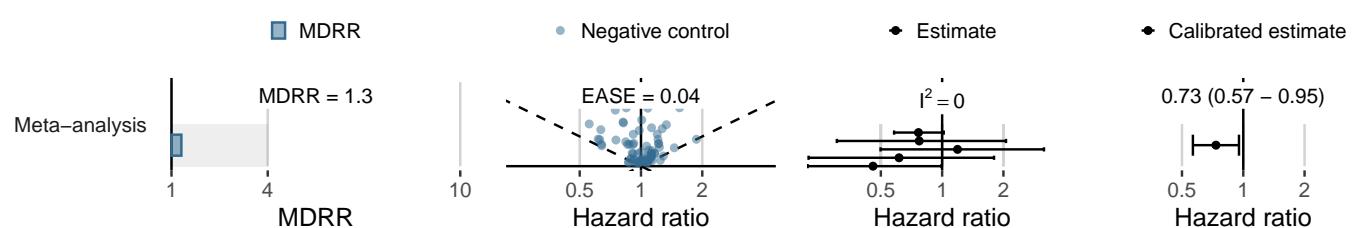
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,209	18,975	11	0.58
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	675,020	604,887	549	0.91
Merative CCAE	81,927	69,622	43	0.62
Merative MDCD	9,143	6,588	<5	<0.76
Merative MDCR	15,177	14,501	34	2.34
Optum Clininformatics	43,521	35,238	47	1.33
Optum EHR	69,374	32,135	36	1.12
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



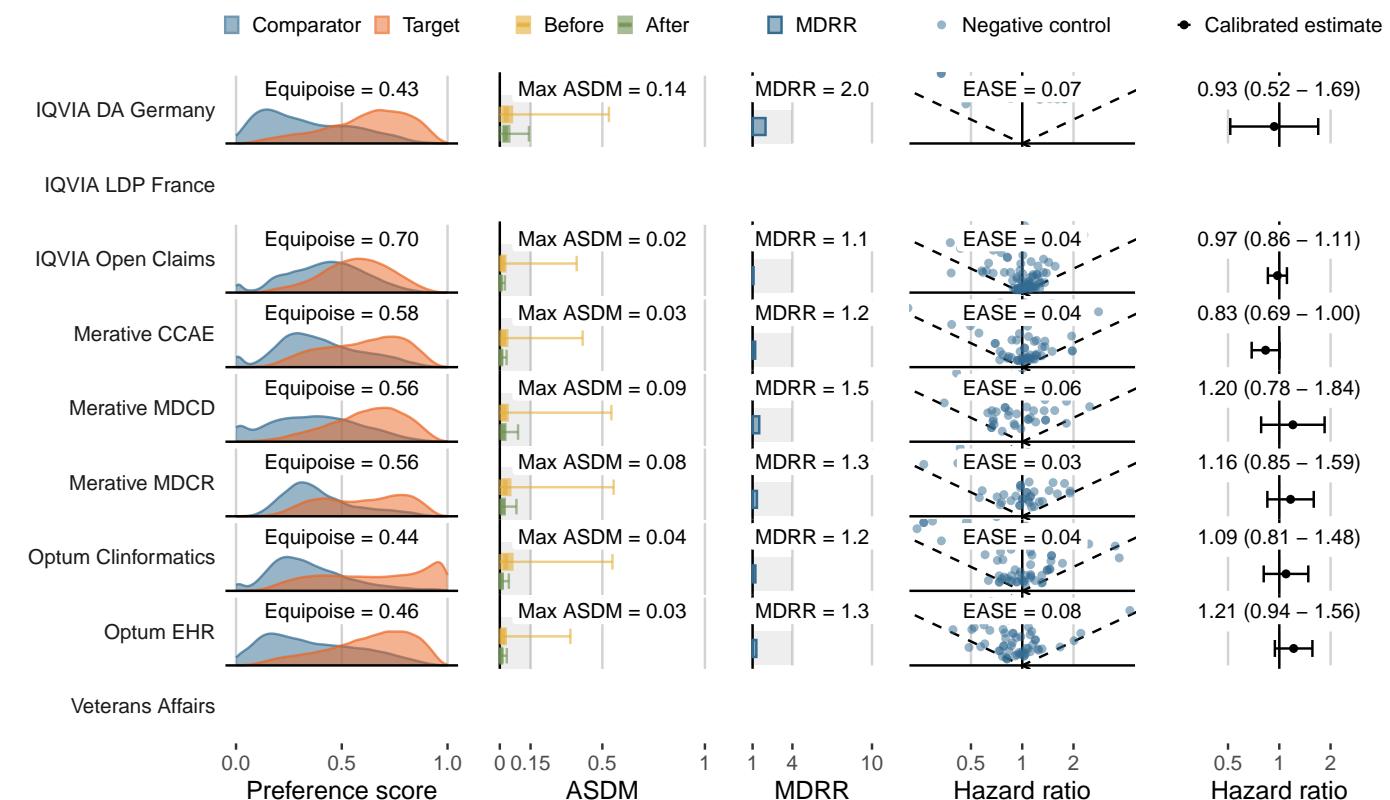
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Bone fracture**

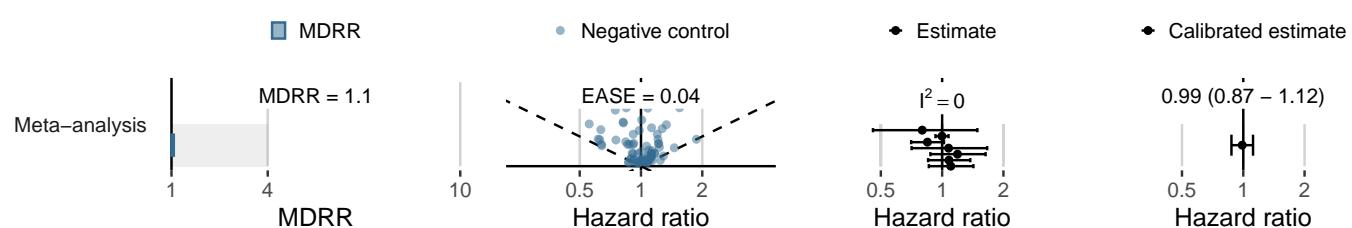
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	15,264	16,456	331	20.11
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	594,347	525,794	8,976	17.07
Merative CCAE	75,410	62,966	1,110	17.63
Merative MDCD	7,825	5,439	198	36.40
Merative MDCR	13,441	12,483	444	35.57
Optum Clininformatics	39,384	31,168	948	30.42
Optum EHR	64,981	29,627	578	19.51
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



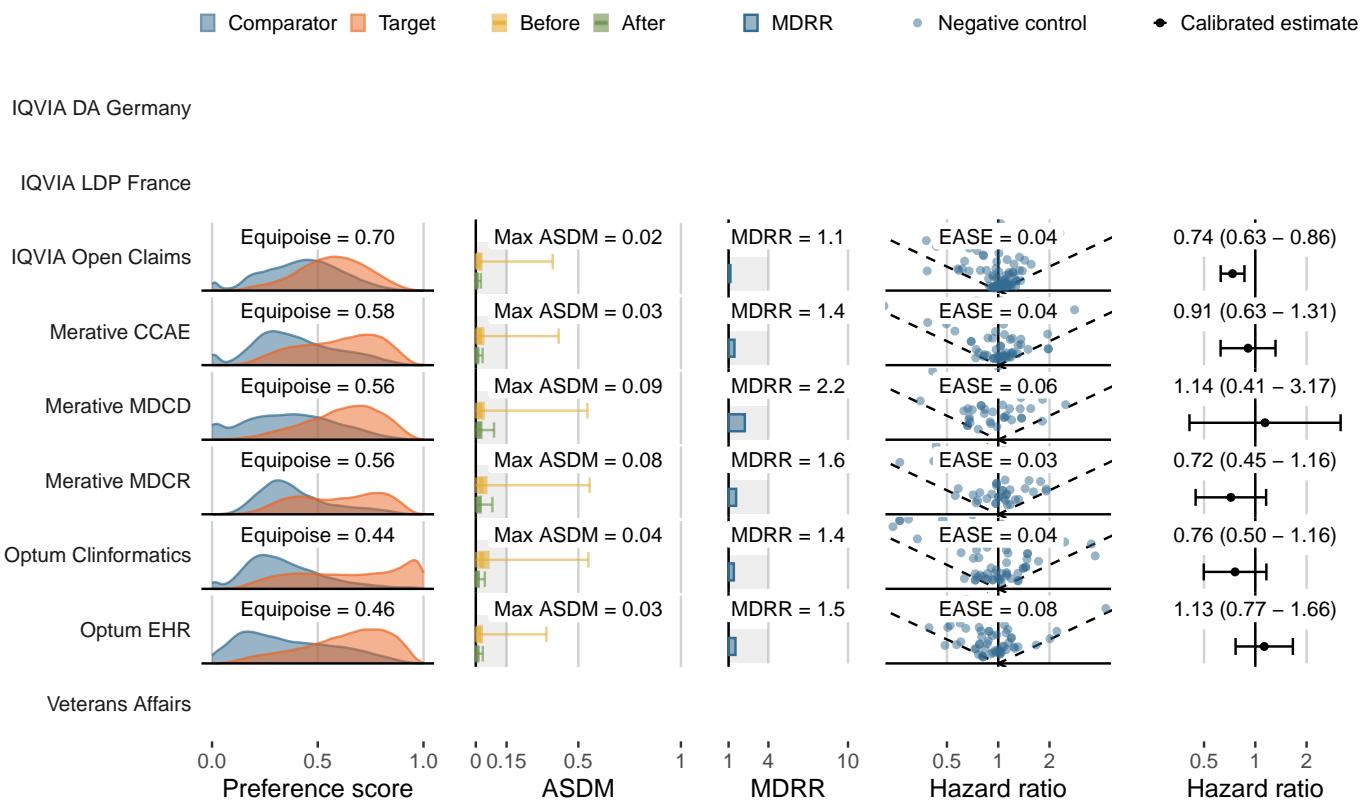
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

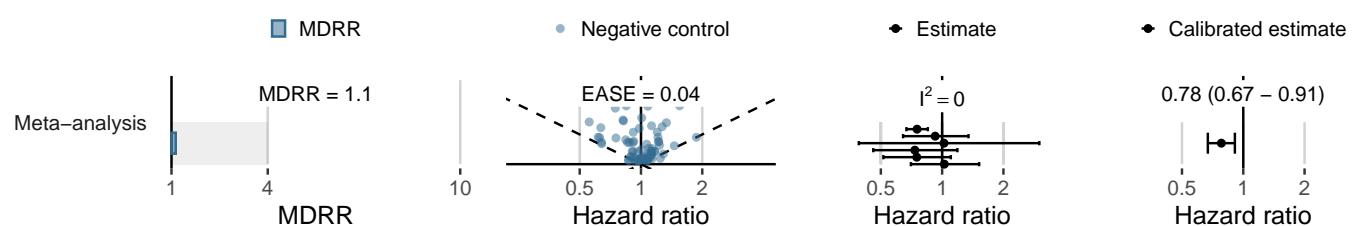
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,271	19,048	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	659,962	590,271	2,763	4.68
Merative CCAE	80,666	68,337	259	3.79
Merative MDCD	8,826	6,334	52	8.21
Merative MDCR	14,687	14,018	160	11.41
Optum Clininformatics	42,556	34,455	307	8.91
Optum EHR	68,767	31,757	193	6.08
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



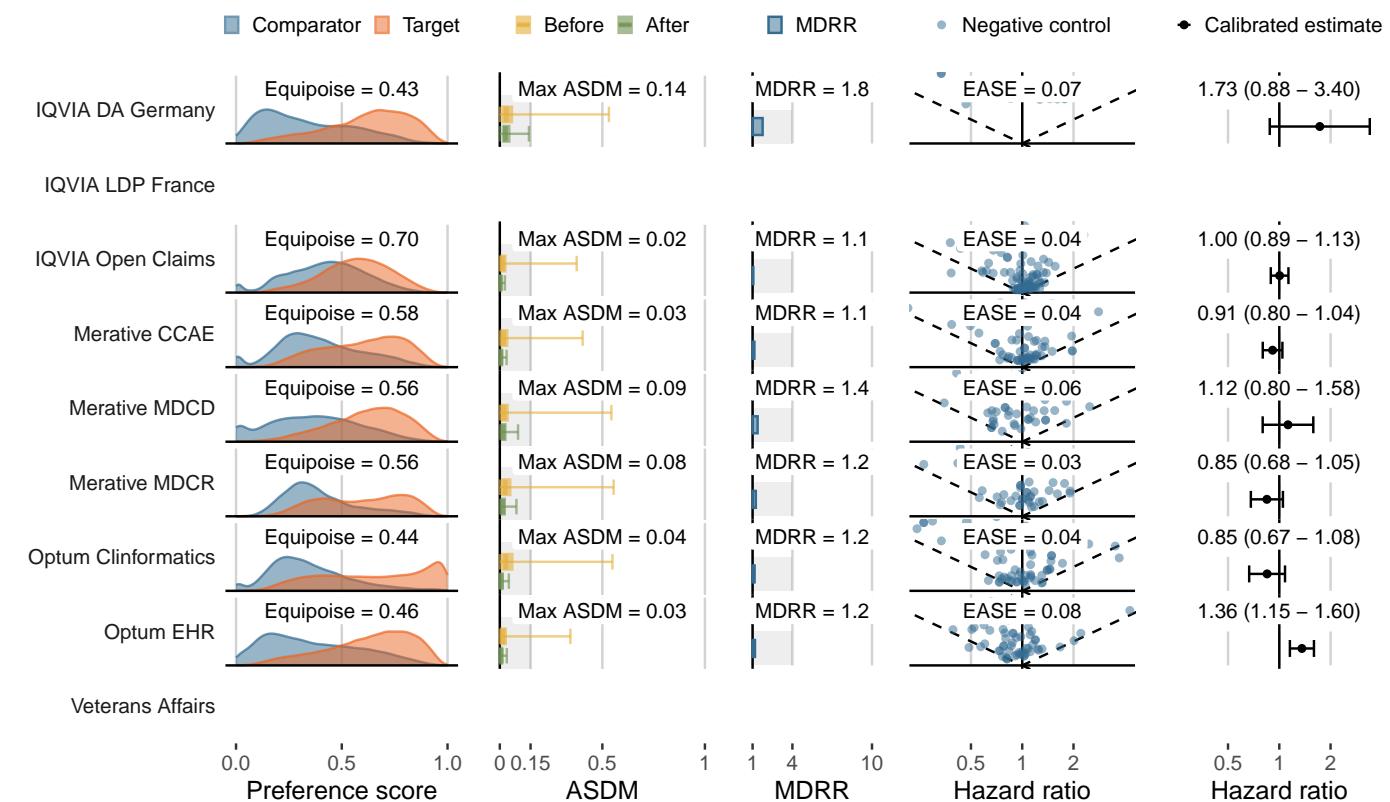
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Genitourinary infection**

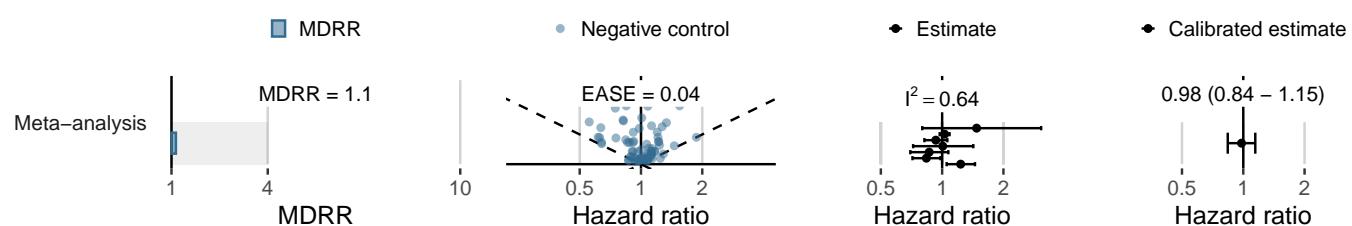
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	13,504	14,151	491	34.70
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	520,710	459,385	14,710	32.02
Merative CCAE	66,434	54,963	2,141	38.95
Merative MDCD	6,489	4,355	304	69.80
Merative MDCR	11,812	10,835	711	65.62
Optum Clininformatics	32,635	25,327	1,645	64.95
Optum EHR	58,960	26,022	1,286	49.42
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



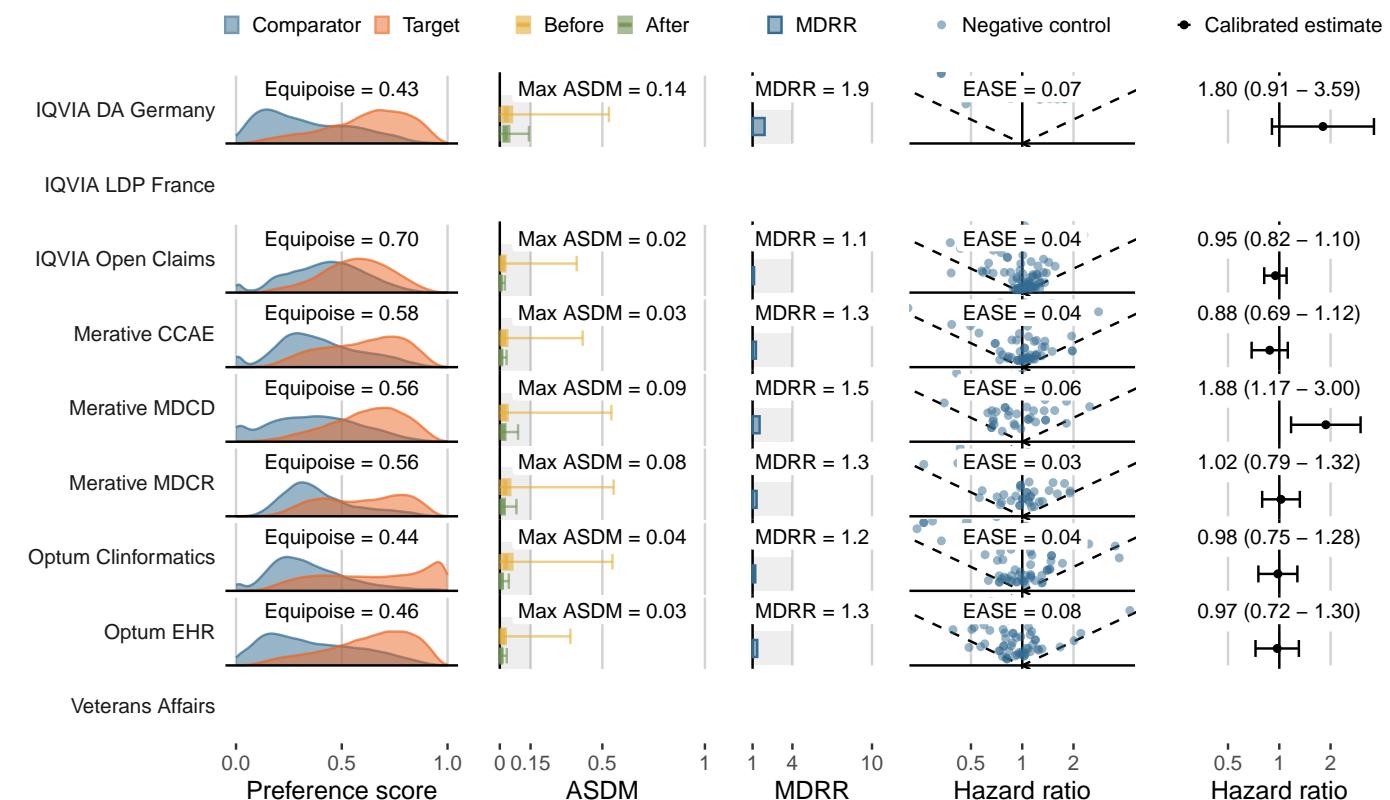
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Joint pain**

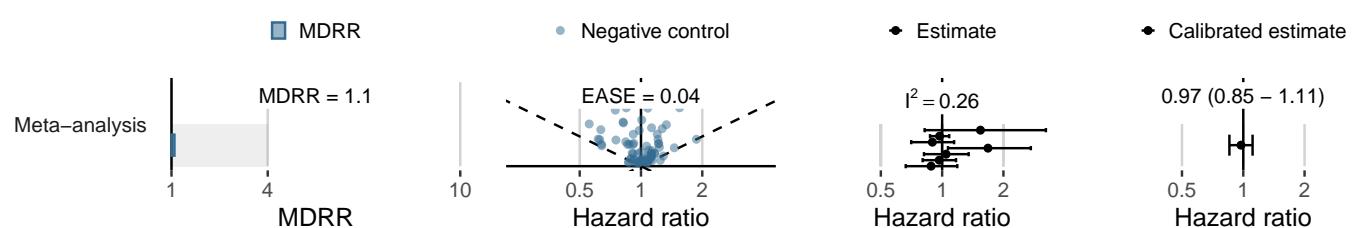
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	14,903	15,904	369	23.20
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	637,207	569,223	4,071	7.15
Merative CCAE	77,624	65,558	727	11.09
Merative MDCD	6,557	4,369	183	41.89
Merative MDCR	12,124	11,173	471	42.16
Optum Clininformatics	35,955	28,269	938	33.18
Optum EHR	65,850	30,038	401	13.35
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



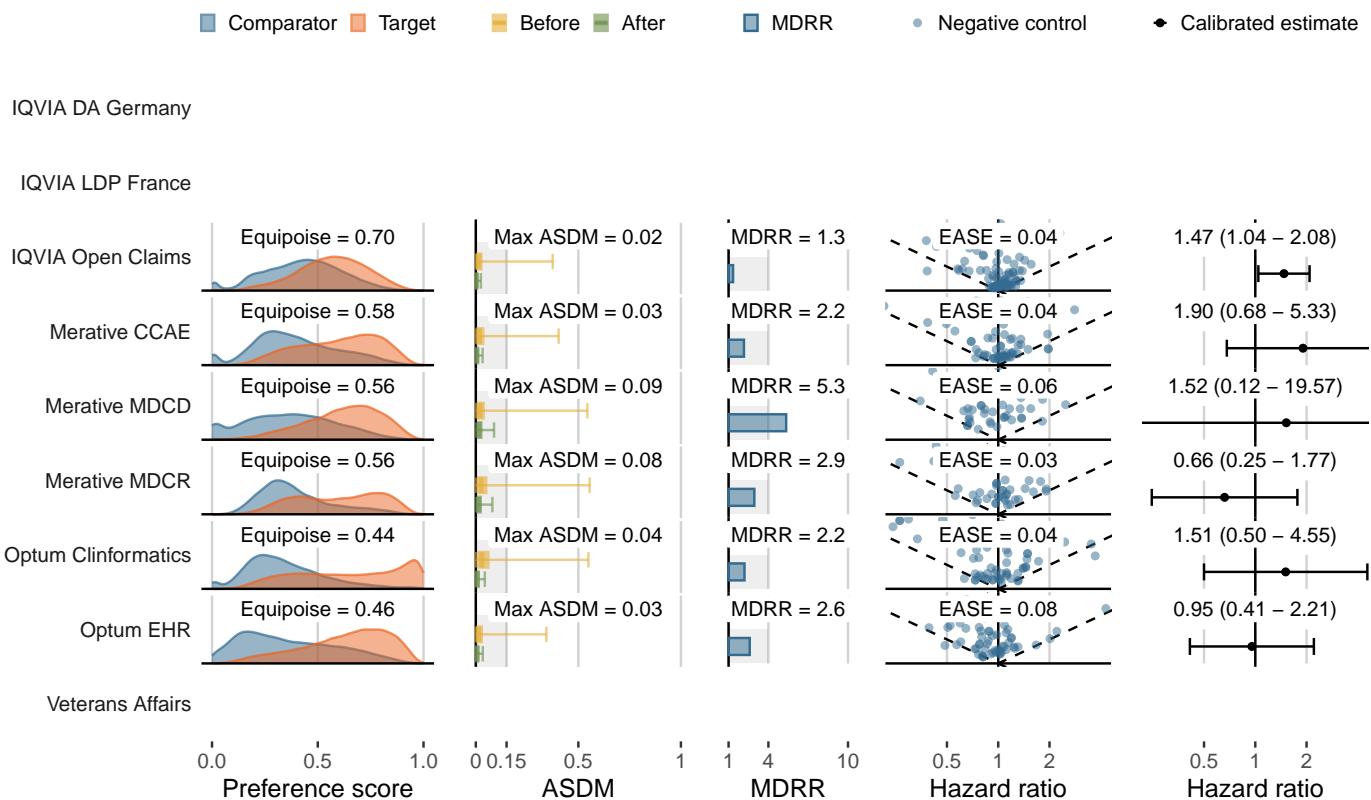
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Renal cancer**

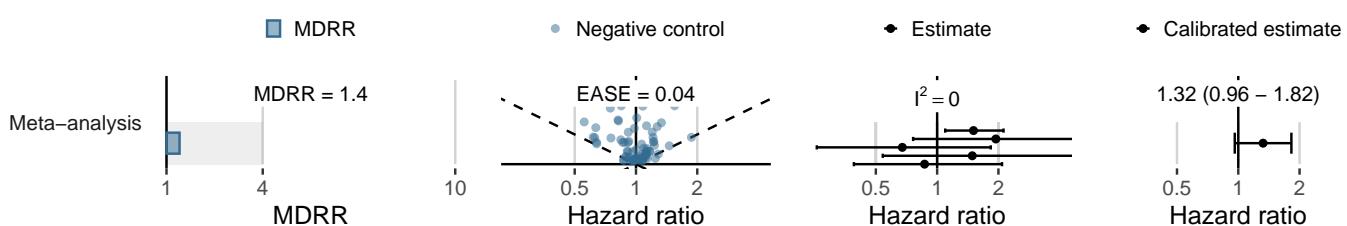
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,214	18,948	19	1.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	675,902	605,655	571	.94
Merative CCAE	81,917	69,598	66	.95
Merative MDCD	9,132	6,572	10	1.52
Merative MDCR	15,225	14,517	26	1.79
Optum Clininformatics	43,552	35,279	60	1.70
Optum EHR	69,409	32,164	38	1.18
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



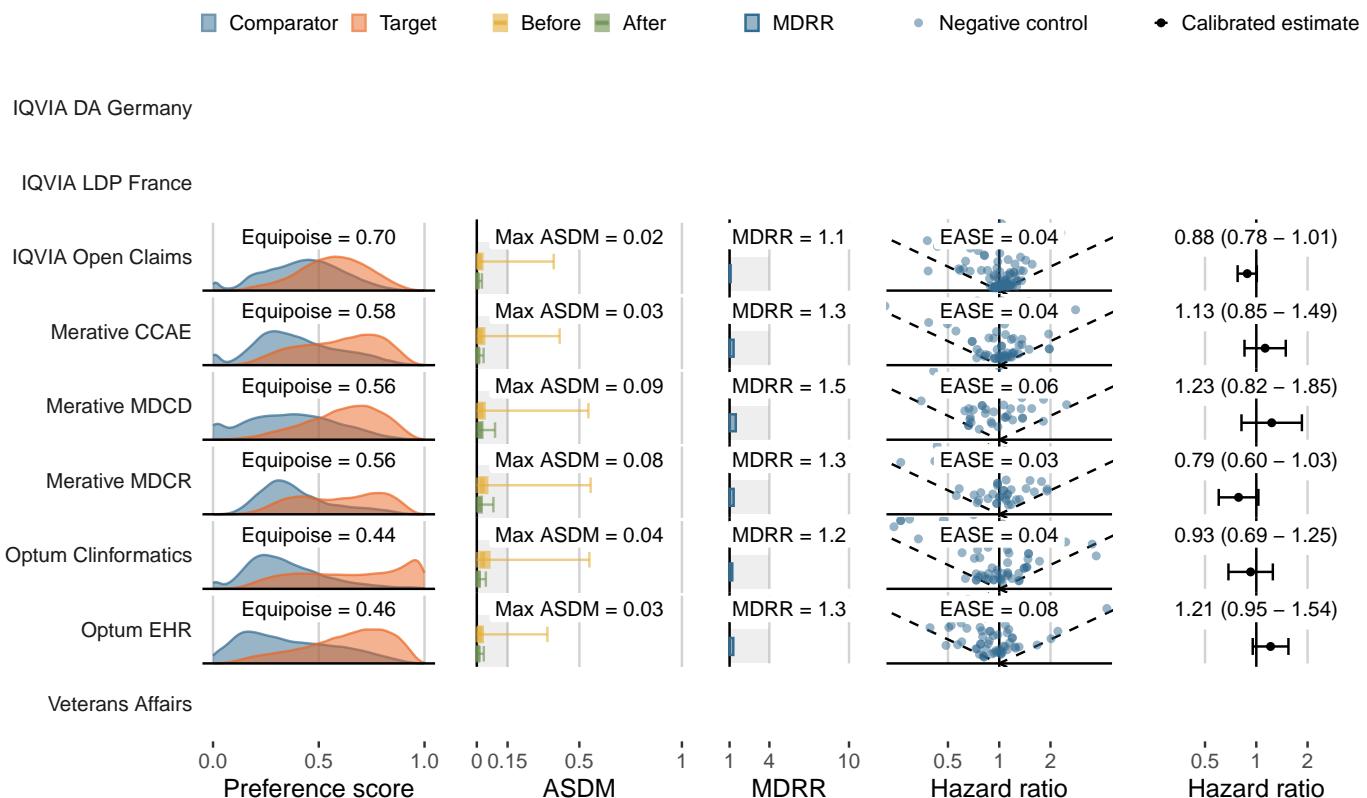
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute renal failure**

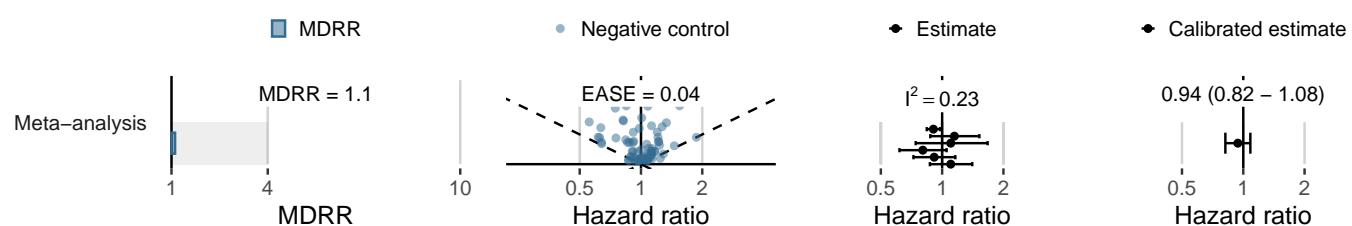
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,271	19,048	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	654,446	583,440	7,978	13.67
Merative CCAE	80,788	68,475	525	7.67
Merative MDCD	8,494	5,956	218	36.60
Merative MDCR	14,343	13,581	463	34.09
Optum Clininformatics	41,397	33,085	1,025	30.98
Optum EHR	68,440	31,356	618	19.71
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



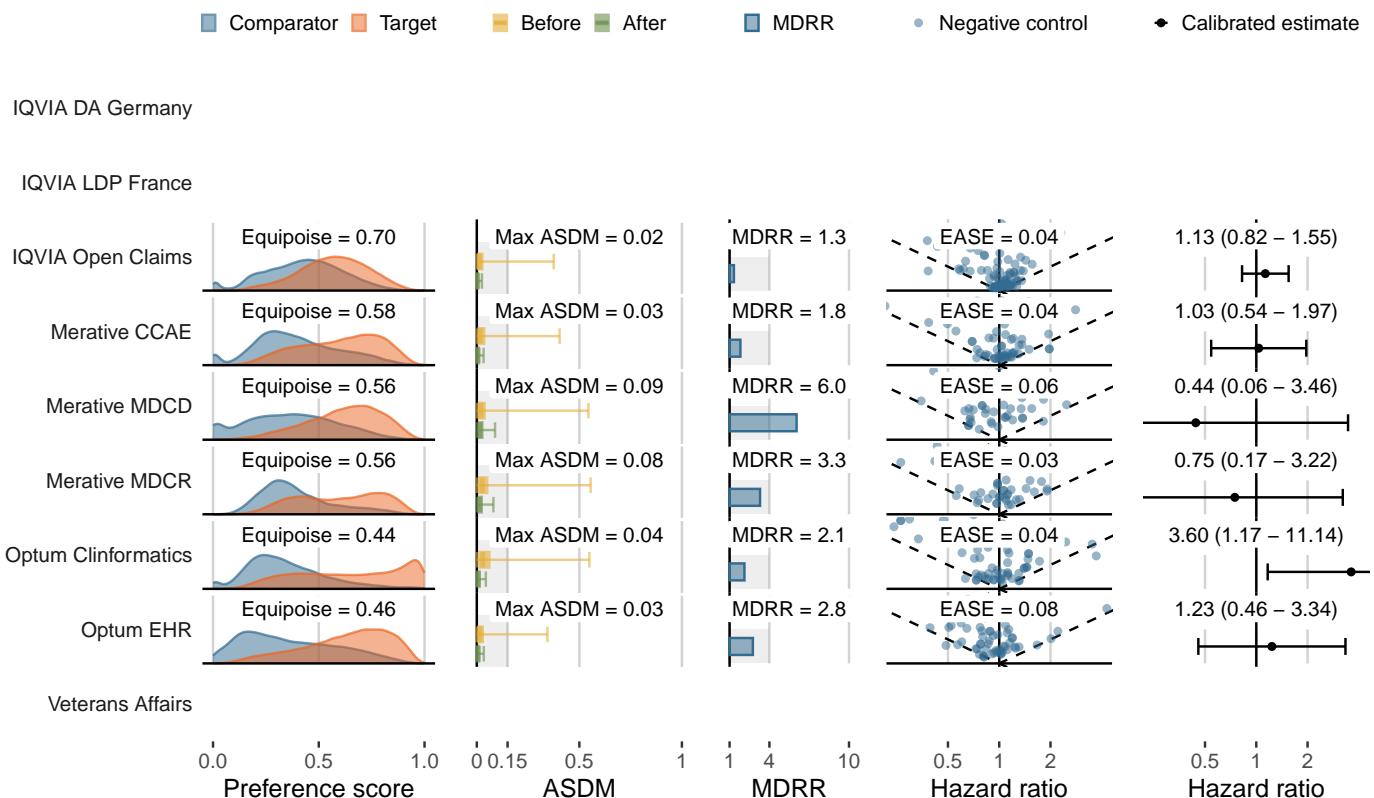
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Thyroid tumor**

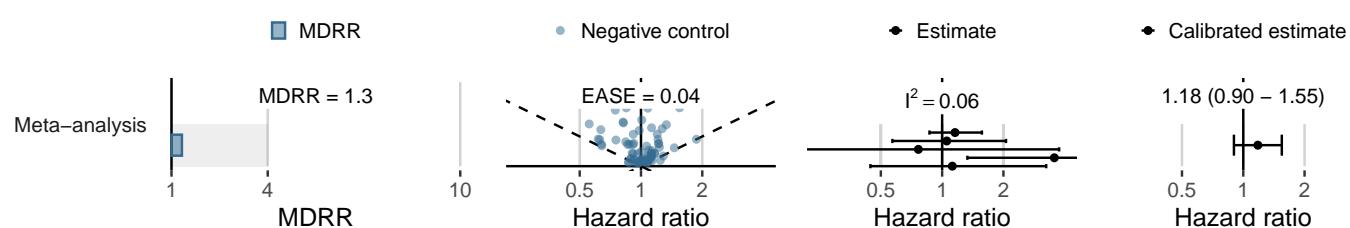
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,115	18,869	10	.53
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	673,818	603,450	597	.99
Merative CCAE	81,651	69,351	107	1.54
Merative MDCD	9,121	6,561	8	1.22
Merative MDCR	15,216	14,492	26	1.79
Optum Clininformatics	43,495	35,228	62	1.76
Optum EHR	69,304	32,120	37	1.15
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



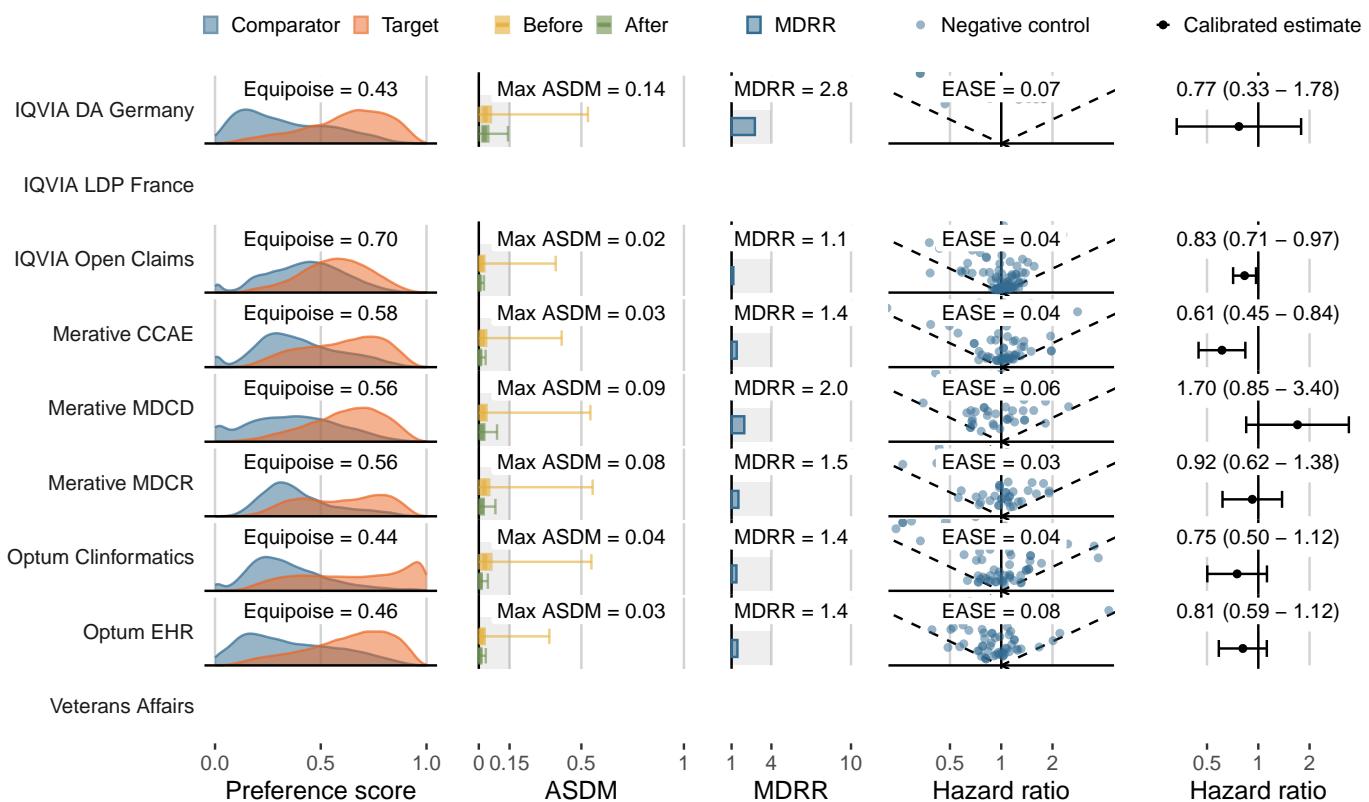
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

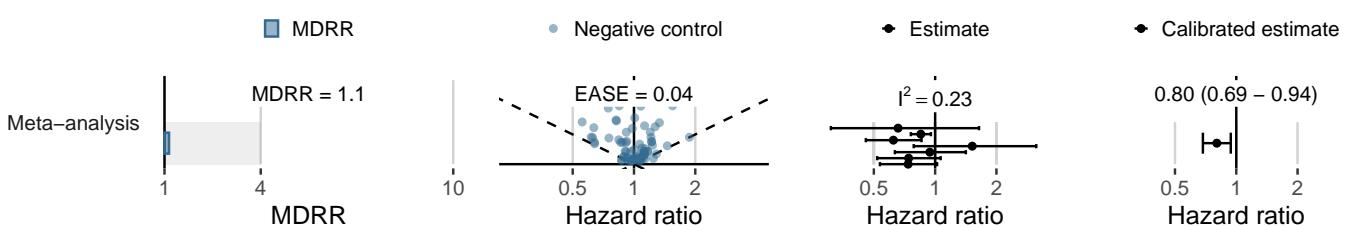
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,003	17,468	151	8.64
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	655,779	586,488	2,925	4.99
Merative CCAE	80,299	68,025	316	4.65
Merative MDCD	8,706	6,187	77	12.44
Merative MDCR	14,669	13,997	180	12.86
Optum Clininformatics	42,028	33,943	349	10.28
Optum EHR	67,777	31,151	255	8.19
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



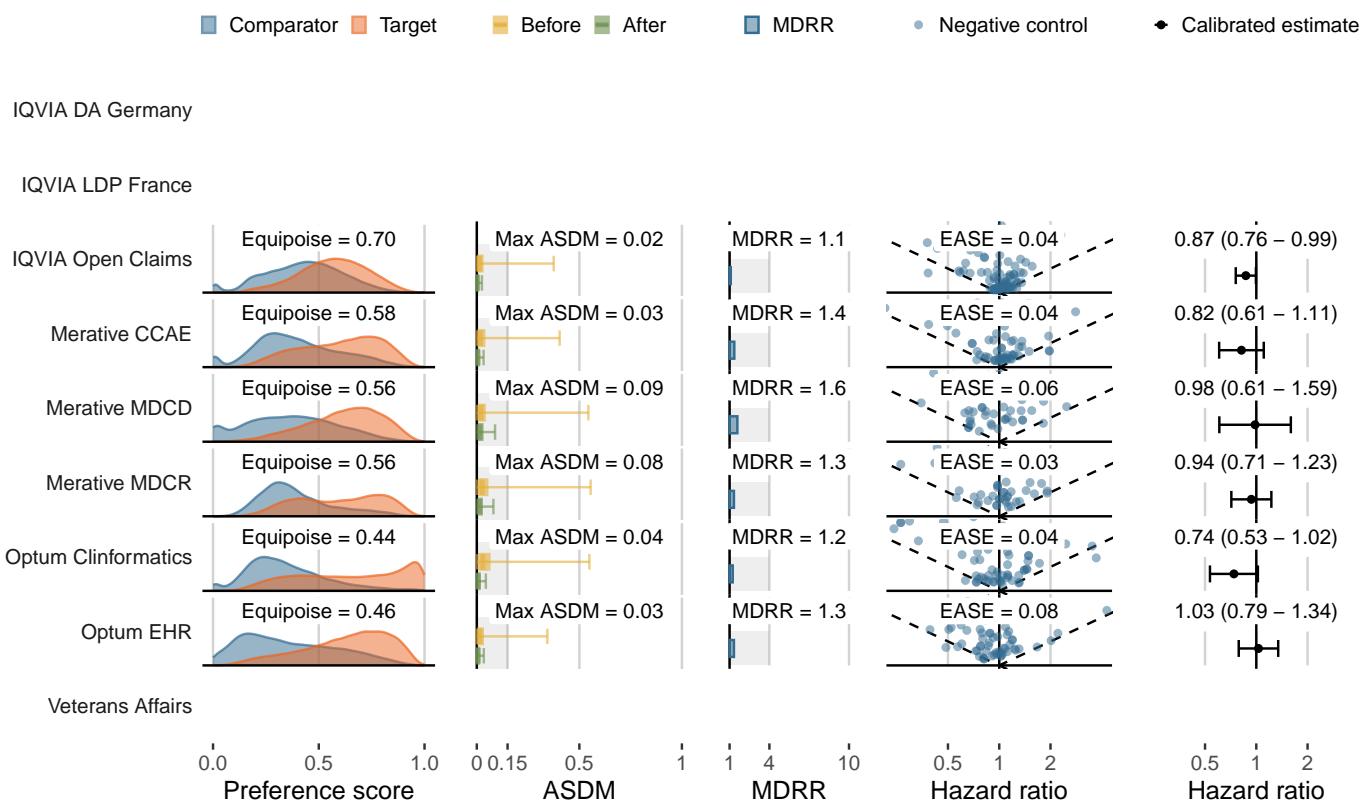
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

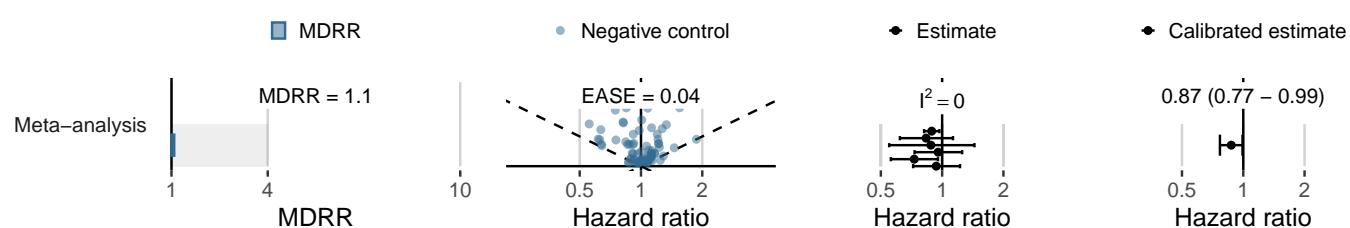
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,271	19,048	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	651,097	581,984	5,979	10.27
Merative CCAE	80,644	68,454	373	5.45
Merative MDCD	8,295	5,866	149	25.40
Merative MDCR	13,927	13,260	409	30.84
Optum Clininformatics	41,019	32,959	772	23.42
Optum EHR	68,194	31,294	438	14.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



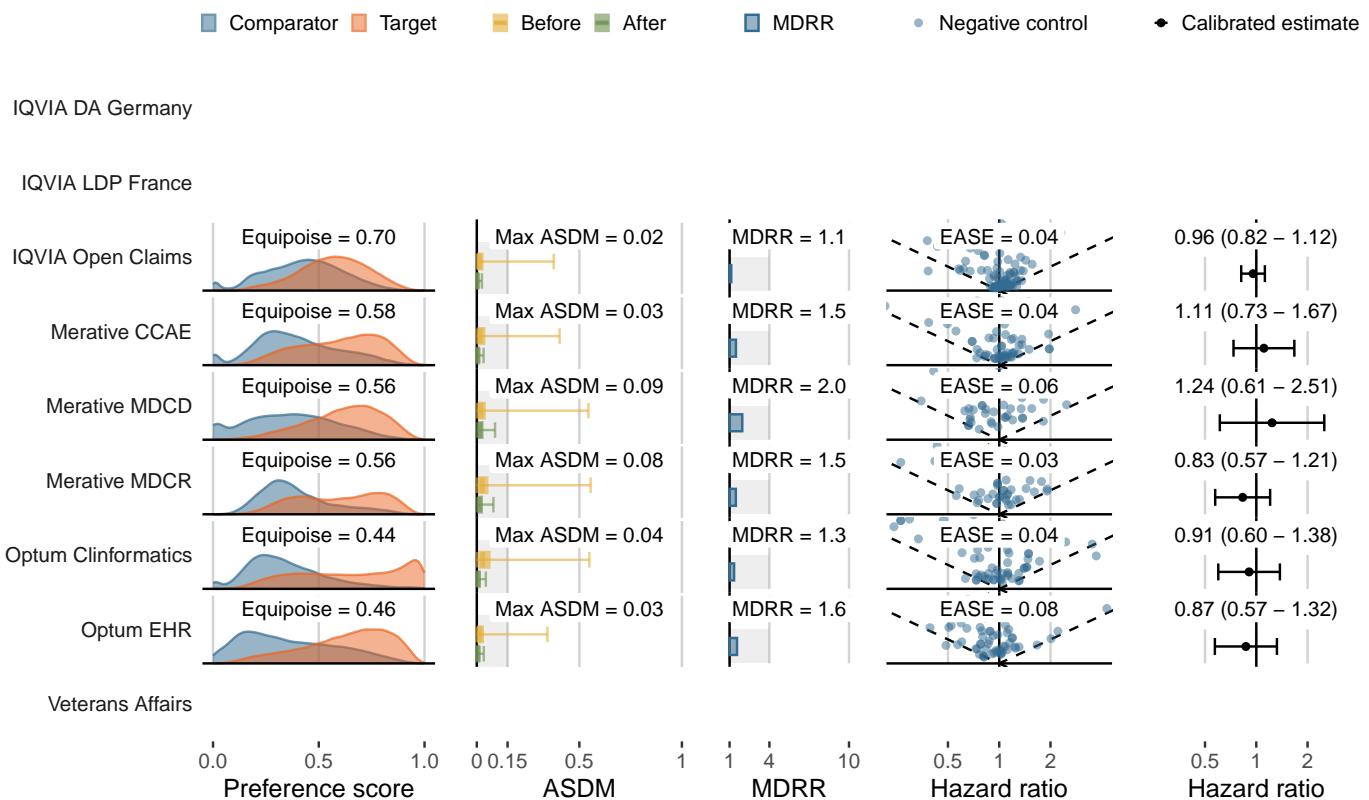
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Stroke**

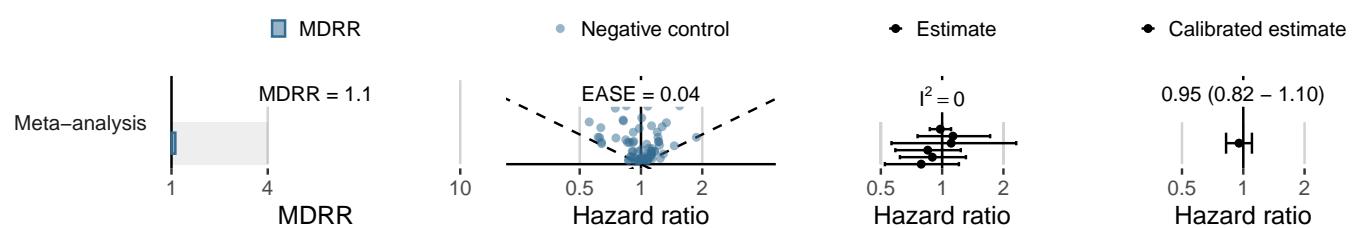
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,271	19,048	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	659,668	590,865	3,224	5.46
Merative CCAE	81,100	68,952	238	3.45
Merative MDCD	8,739	6,271	74	11.80
Merative MDCR	14,620	13,911	215	15.46
Optum Clininformatics	42,269	34,102	413	12.11
Optum EHR	68,946	31,848	171	5.37
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



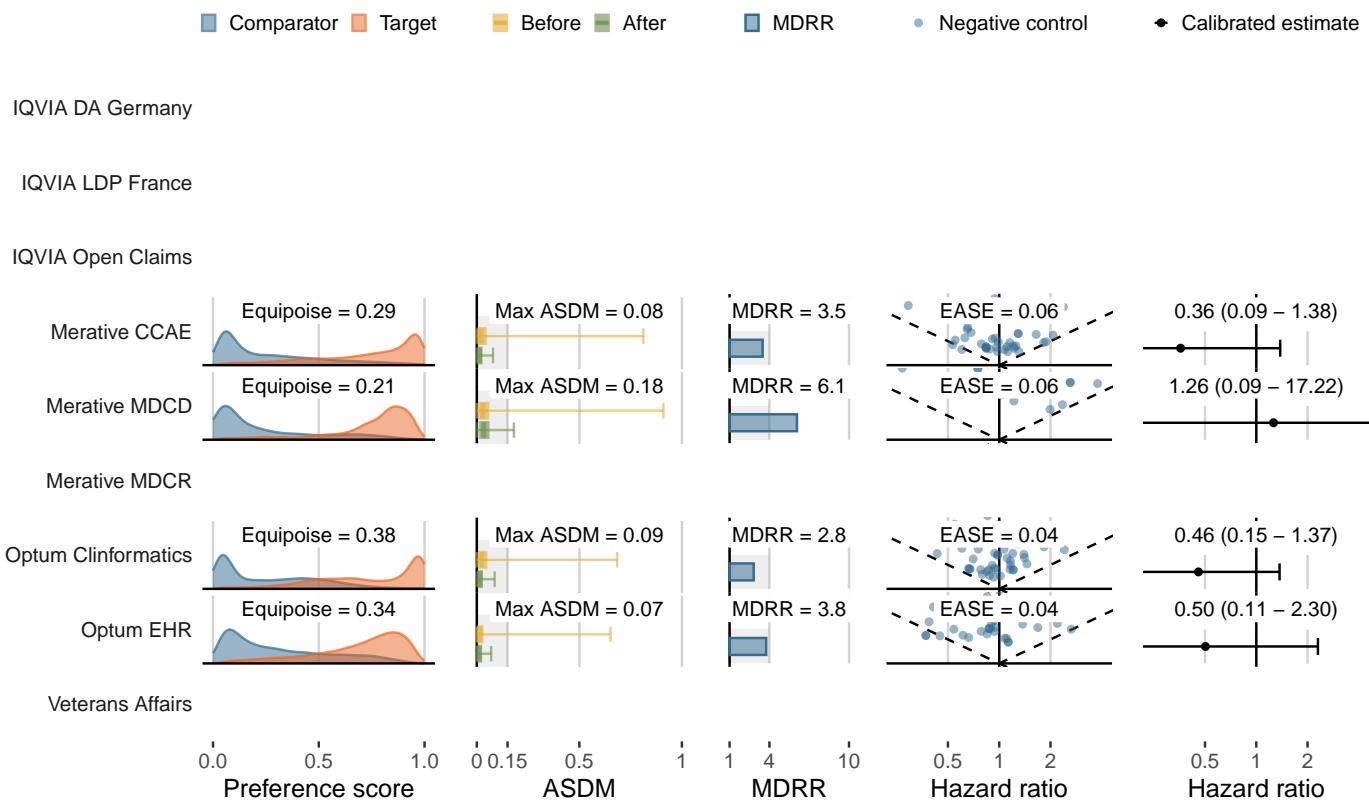
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

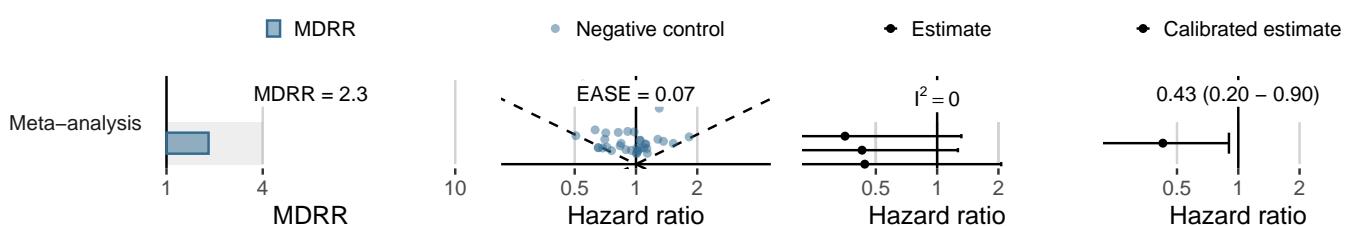
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,543	12,427	23	1.85
Merative MDCD	2,506	1,467	10	6.82
Merative MDCR	1,134	746	<5	<6.70
Optum Clininformatics	10,507	7,816	29	3.71
Optum EHR	13,966	7,009	18	2.57
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



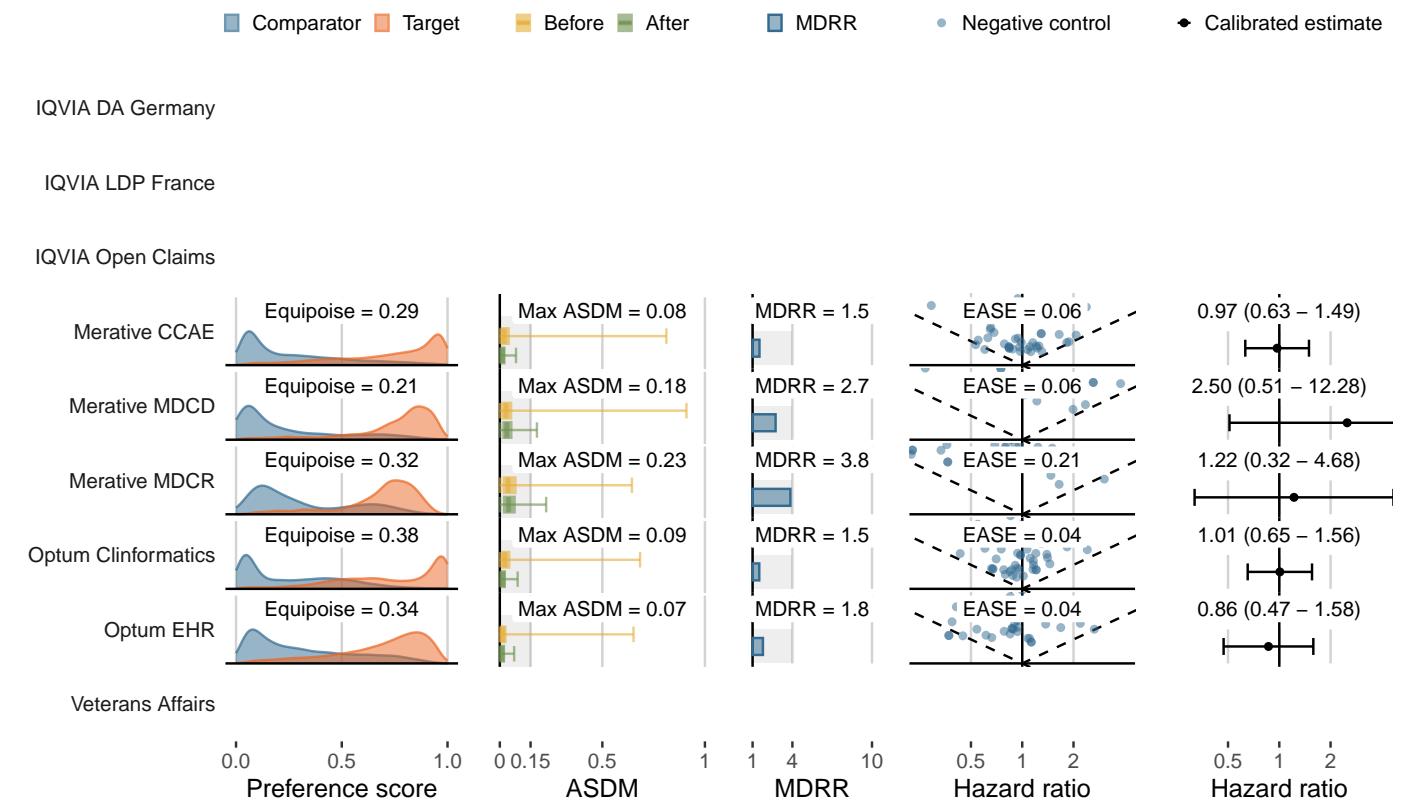
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

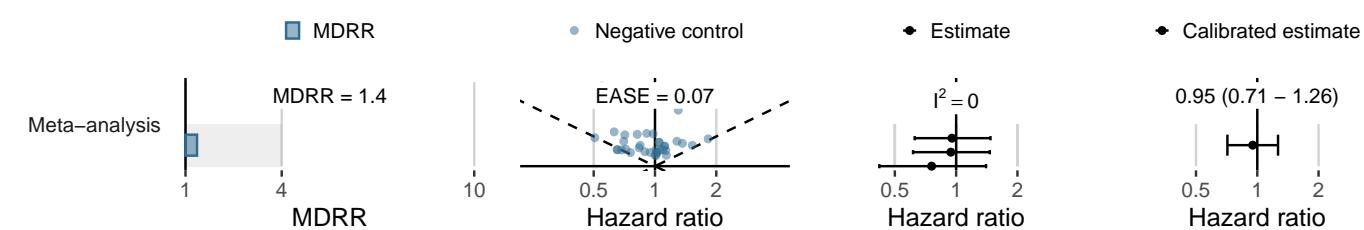
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	14,046	10,984	210	19.12
Merative MDCD	2,182	1,262	43	34.08
Merative MDCR	1,012	649	16	24.65
Optum Clininformatics	9,524	6,942	191	27.51
Optum EHR	12,885	6,385	96	15.04
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Canagliflozin (SGLT2 Inhibitors)**
- Outcome: **Acute myocardial infarction**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,388	12,265	45	3.67
Merative MDCD	2,468	1,445	13	9.00
Merative MDCR	1,112	730	6	8.22
Optum Clininformatics	10,341	7,702	36	4.67
Optum EHR	13,873	6,958	25	3.59
Veterans Affairs	-	-	-	-

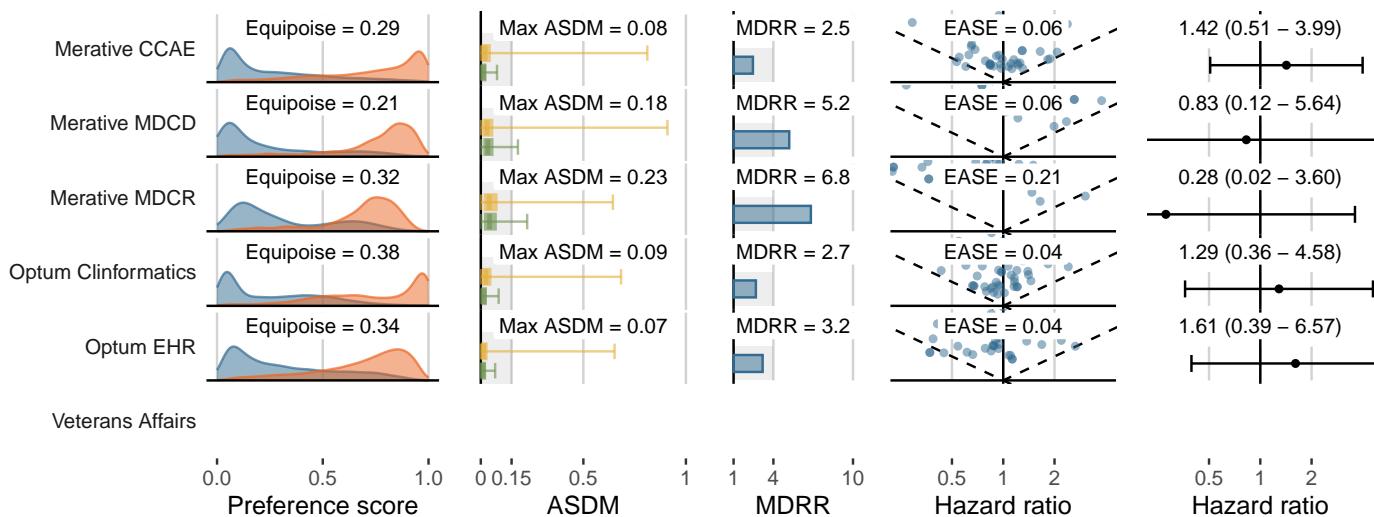
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

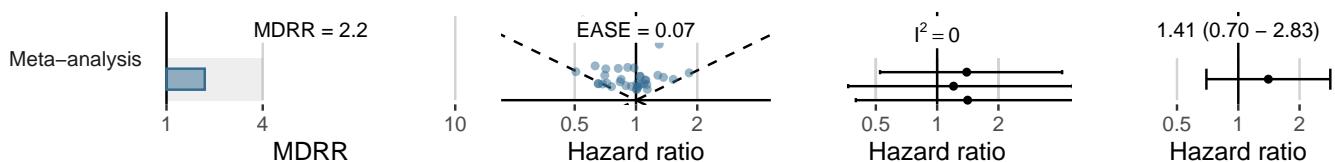
IQVIA Open Claims



Veterans Affairs

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ● Calibrated estimate



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	12,148	9,527	364	38.21
Merative MDCD	1,811	1,032	50	48.46
Merative MDCR	900	558	30	53.73
Optum Clininformatics	8,007	5,815	308	52.96
Optum EHR	11,542	5,690	214	37.61
Veterans Affairs	-	-	-	-

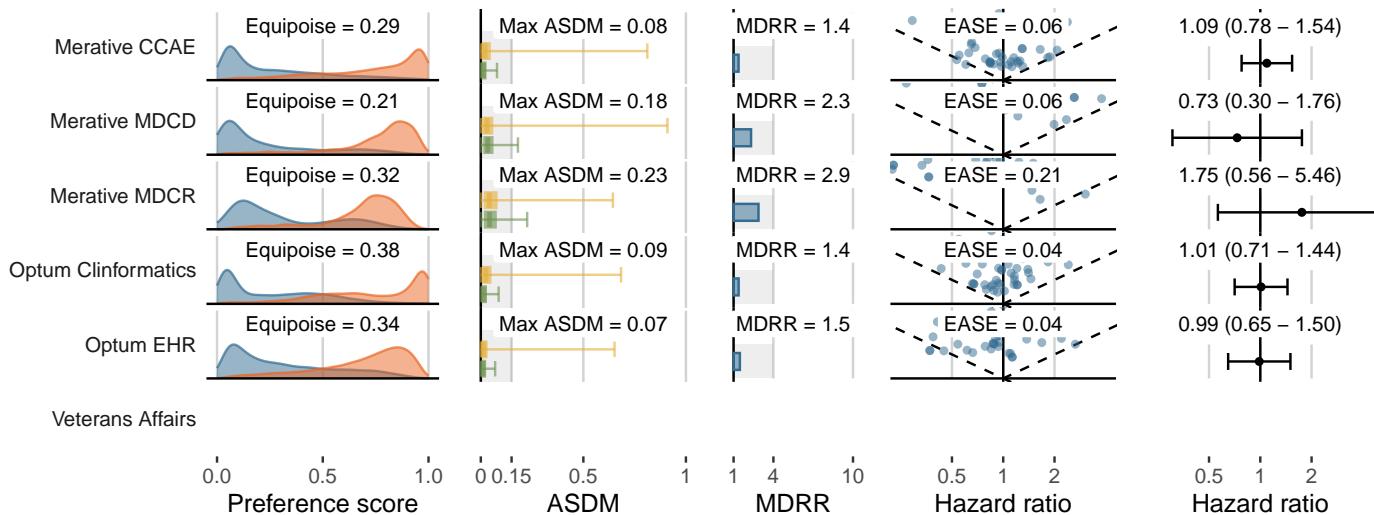
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

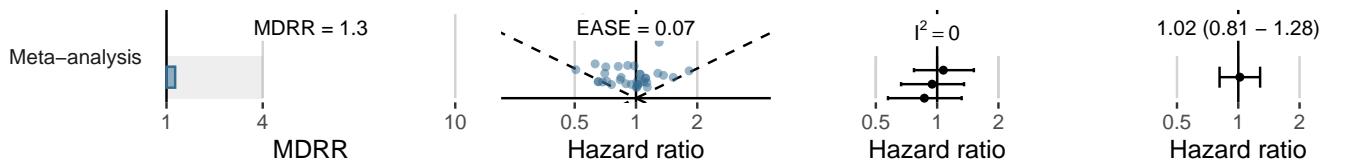
IQVIA Open Claims



Veterans Affairs

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Canagliflozin (SGLT2 Inhibitors)**
- Outcome: **Joint pain**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	14,344	11,329	147	12.98
Merative MDCD	2,026	1,163	31	26.66
Merative MDCR	999	652	<5	<7.67
Optum Clininformatics	9,168	6,628	93	14.03
Optum EHR	13,004	6,434	78	12.12
Veterans Affairs	-	-	-	-

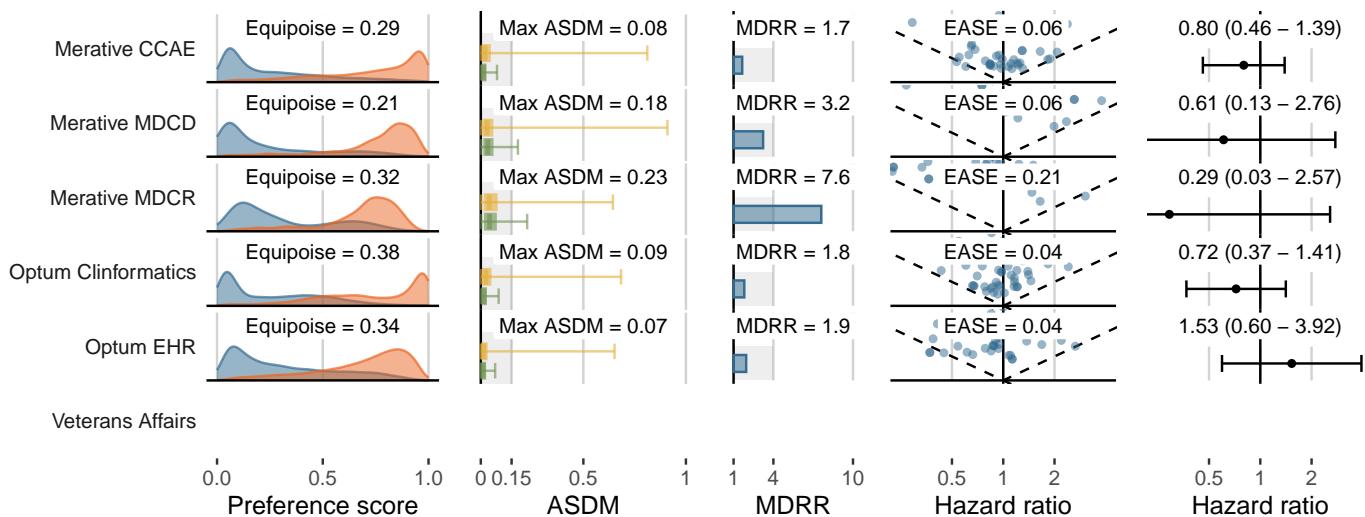
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

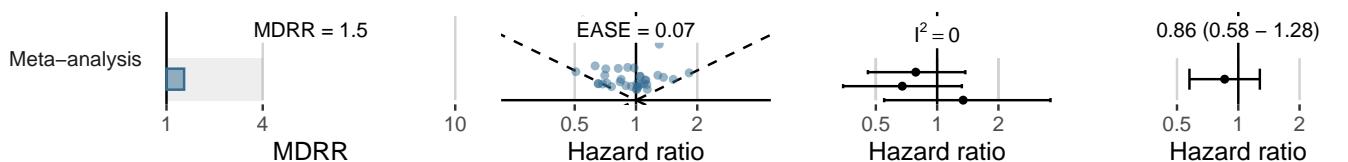
IQVIA LDP France

IQVIA Open Claims



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



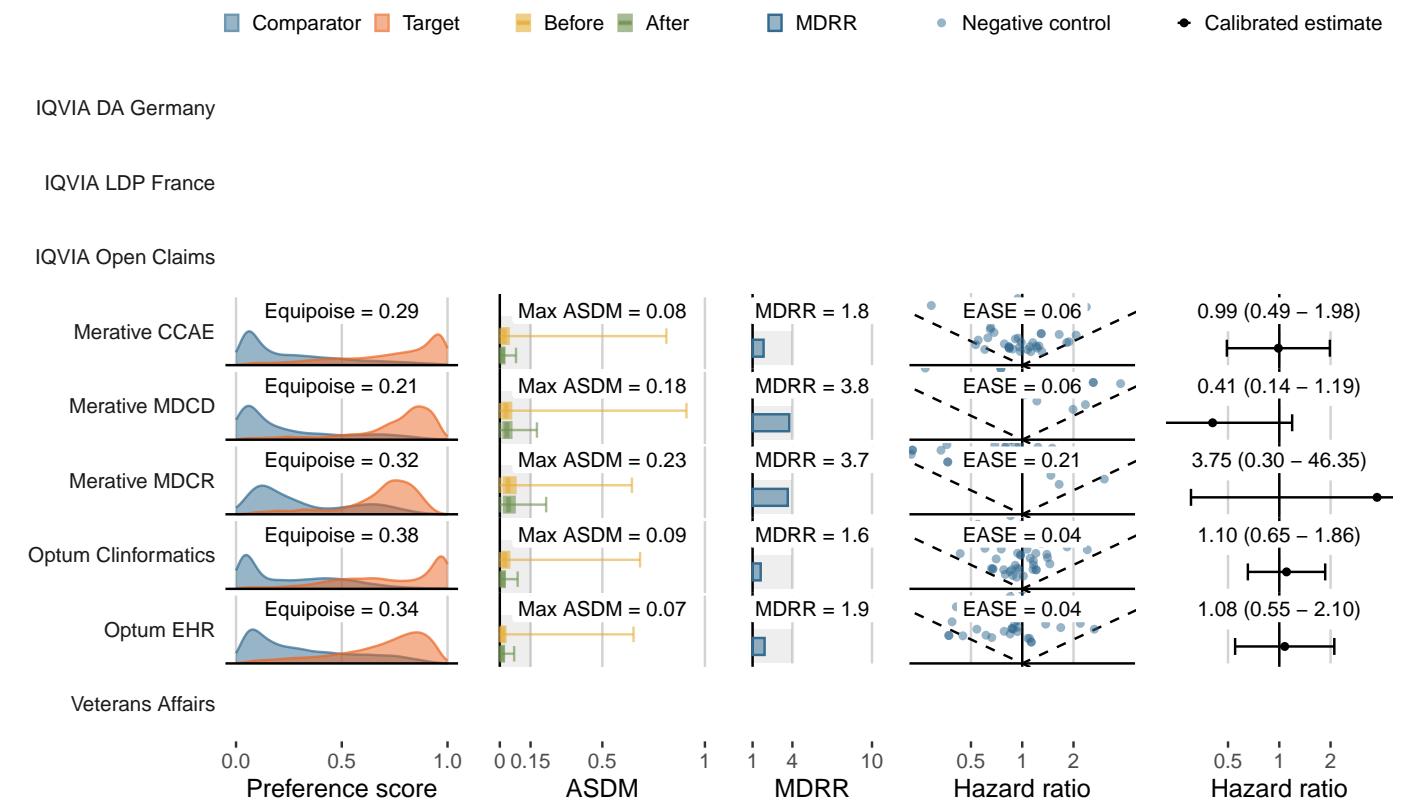
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

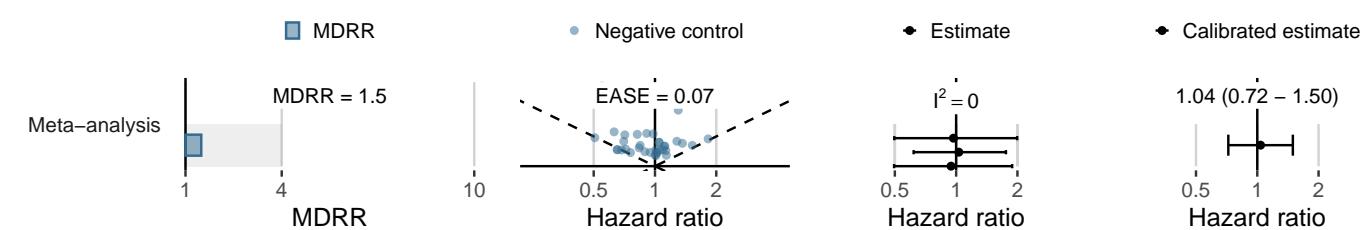
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,347	12,221	105	8.59
Merative MDCD	2,360	1,358	21	15.46
Merative MDCR	1,093	714	19	26.61
Optum Clininformatics	9,833	7,391	146	19.75
Optum EHR	13,837	6,893	82	11.90
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,549	12,402	20	1.61
Merative MDCD	2,528	1,483	<5	<3.37
Merative MDCR	1,135	745	<5	<6.72
Optum Clininformatics	10,533	7,824	11	1.41
Optum EHR	13,946	7,010	7	1.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims



Merative MDCD

Merative MDCR

Optum Clininformatics



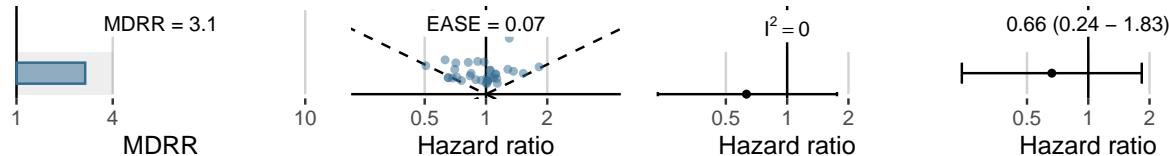
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ● Calibrated estimate

Meta-analysis



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Canagliflozin (SGLT2 Inhibitors)**
- Outcome: **Venous thromboembolic events**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,175	12,056	65	5.39
Merative MDCD	2,381	1,403	10	7.13
Merative MDCR	1,088	702	10	14.24
Optum Clininformatics	10,188	7,555	53	7.02
Optum EHR	13,607	6,820	45	6.60
Veterans Affairs	-	-	-	-

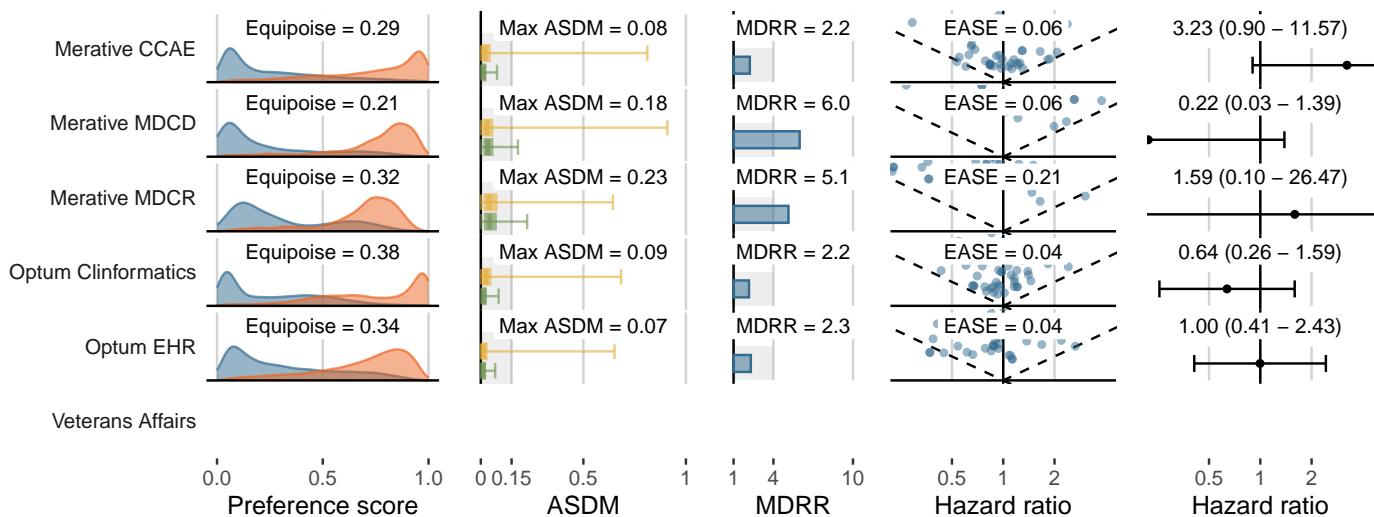
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

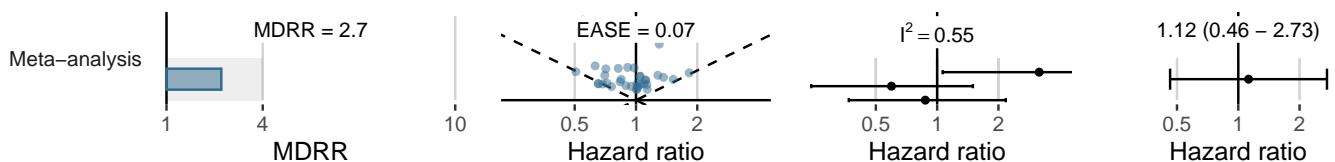
IQVIA Open Claims



Veterans Affairs

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



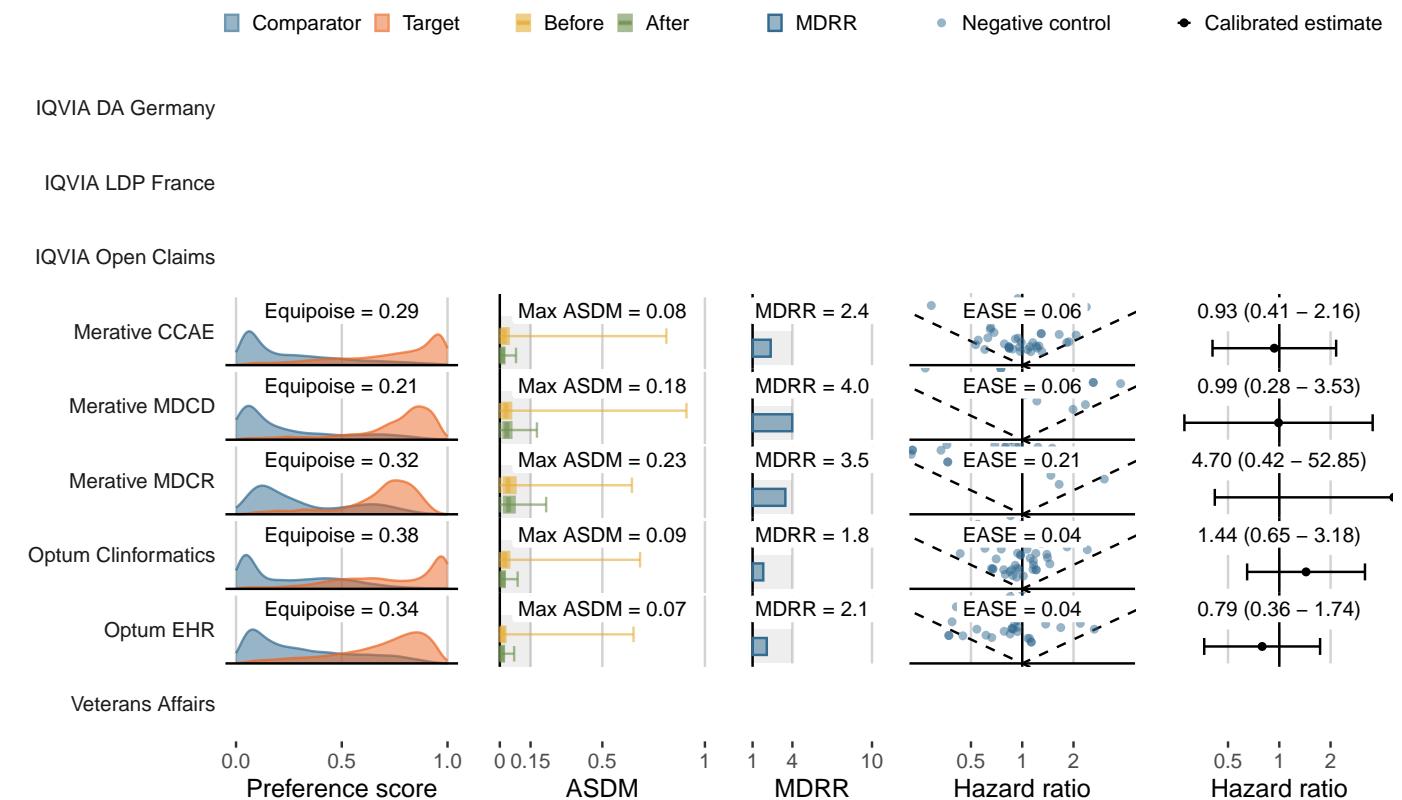
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Canagliflozin (SGLT2 Inhibitors)**
- Outcome: **Hospitalization with heart failure**

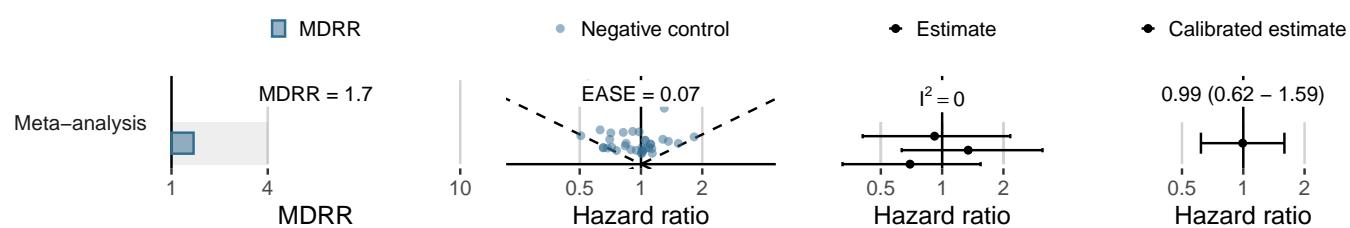
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,327	12,226	48	3.93
Merative MDCD	2,354	1,371	21	15.31
Merative MDCR	1,070	703	21	29.87
Optum Clininformatics	9,942	7,416	106	14.29
Optum EHR	13,804	6,889	62	9.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	15,437	12,304	37	3.01
Merative MDCD	2,452	1,444	11	7.62
Merative MDCR	1,103	718	9	12.53
Optum Clininformatics	10,373	7,689	50	6.50
Optum EHR	13,915	6,982	20	2.86
Veterans Affairs	-	-	-	-

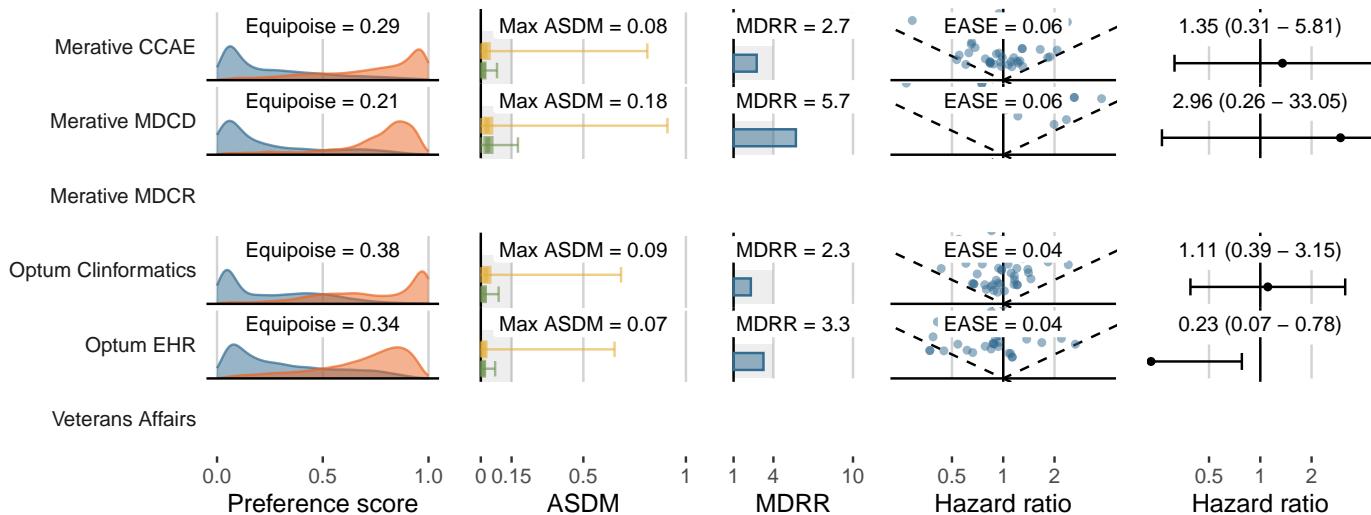
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

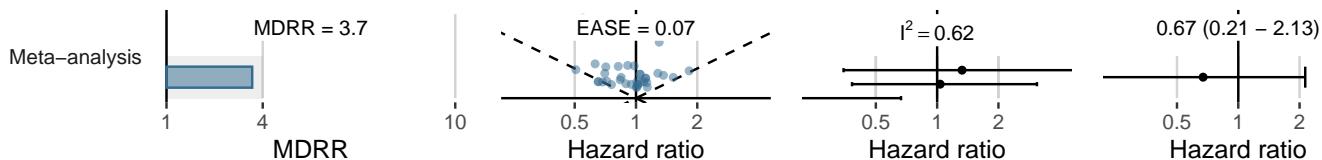
IQVIA LDP France

IQVIA Open Claims



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



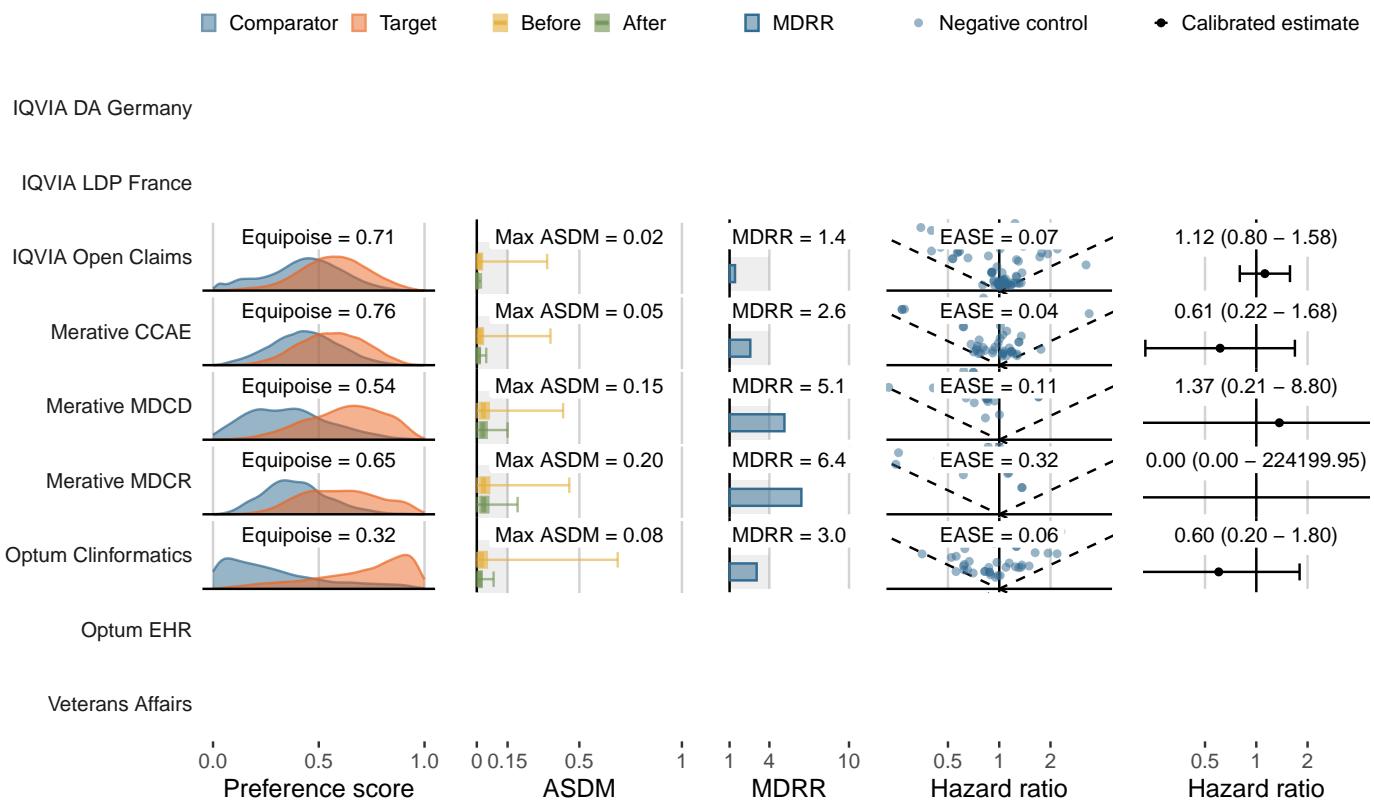
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

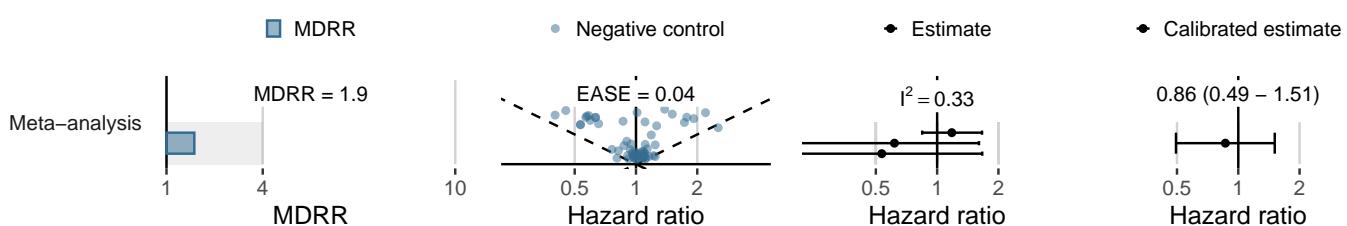
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	159,923	125,129	187	1.49
Merative CCAE	11,162	9,150	16	1.75
Merative MDCD	2,549	1,456	10	6.87
Merative MDCR	1,127	747	<5	<6.69
Optum Clininformatics	12,066	8,213	29	3.53
Optum EHR	13,963	6,975	18	2.58
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



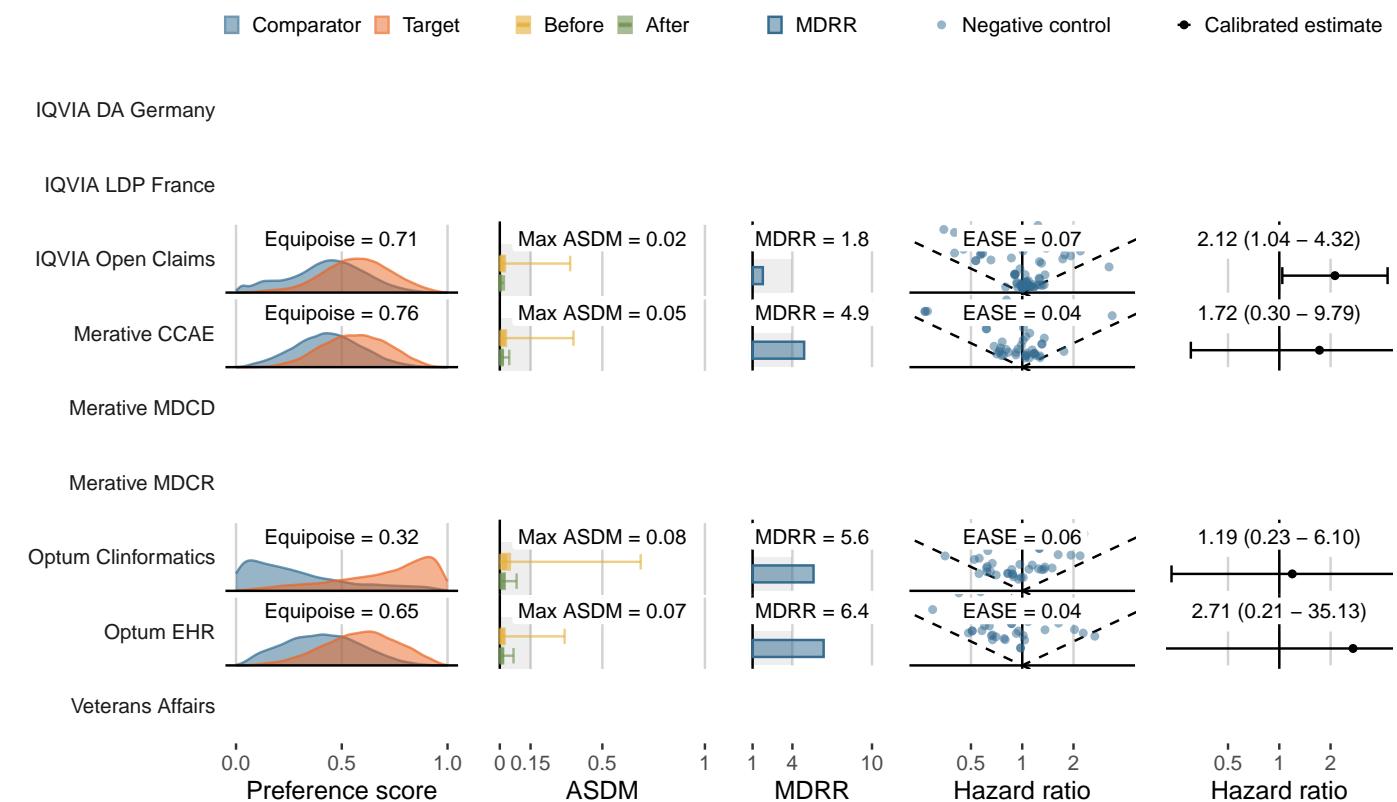
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

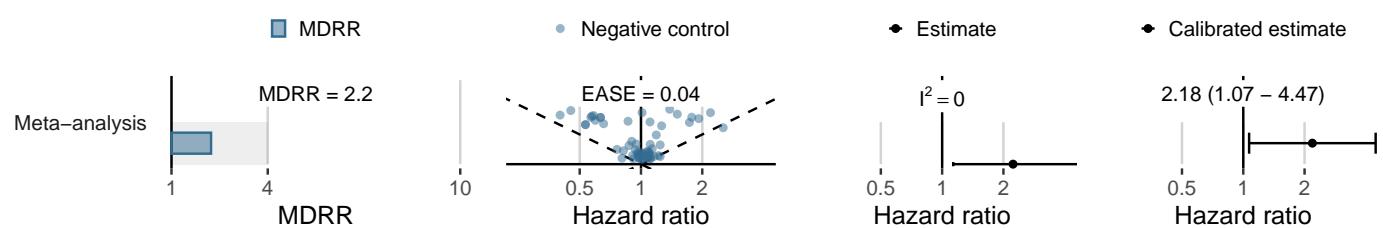
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	160,986	125,786	82	0.65
Merative CCAE	11,235	9,187	<5	<0.54
Merative MDCD	2,588	1,484	-	0.00
Merative MDCR	1,122	742	-	0.00
Optum Clininformatics	12,115	8,231	10	1.21
Optum EHR	14,002	7,007	5	0.71
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



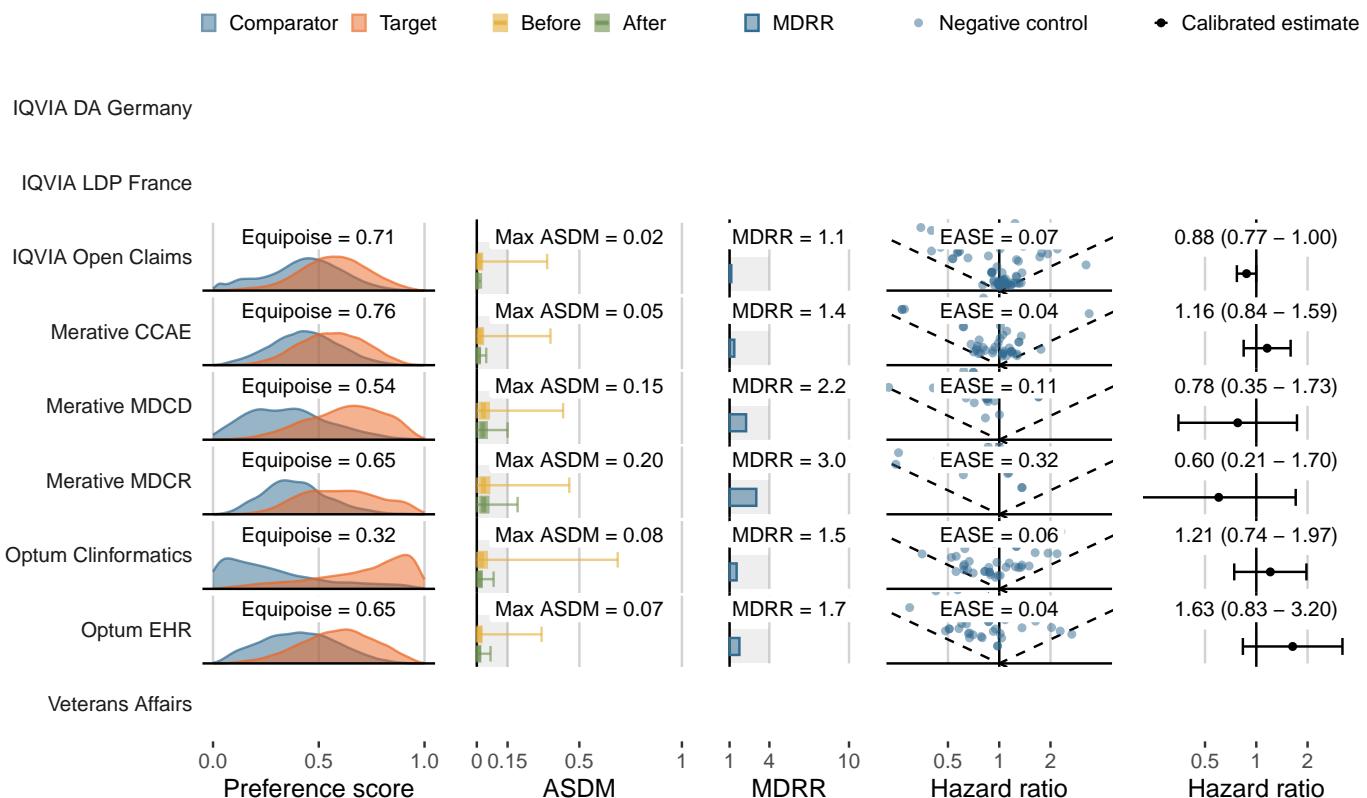
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

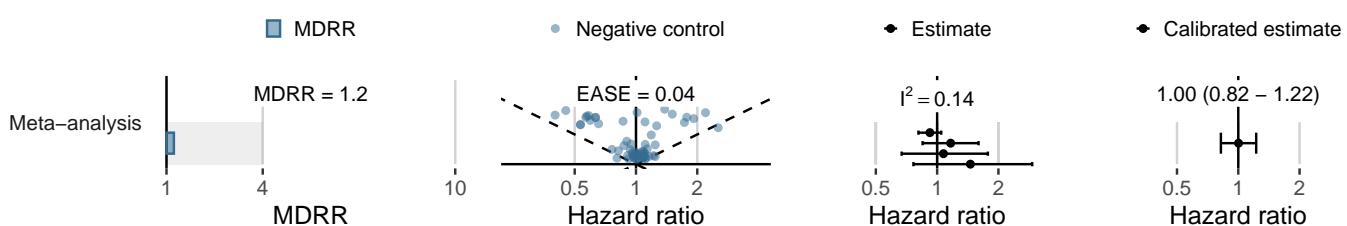
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	96,170	76,378	931	12.19
Merative CCAE	10,208	8,143	150	18.42
Merative MDCD	2,220	1,255	43	34.27
Merative MDCR	989	645	16	24.81
Optum Clininformatics	10,950	7,316	206	28.16
Optum EHR	12,838	6,328	95	15.01
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



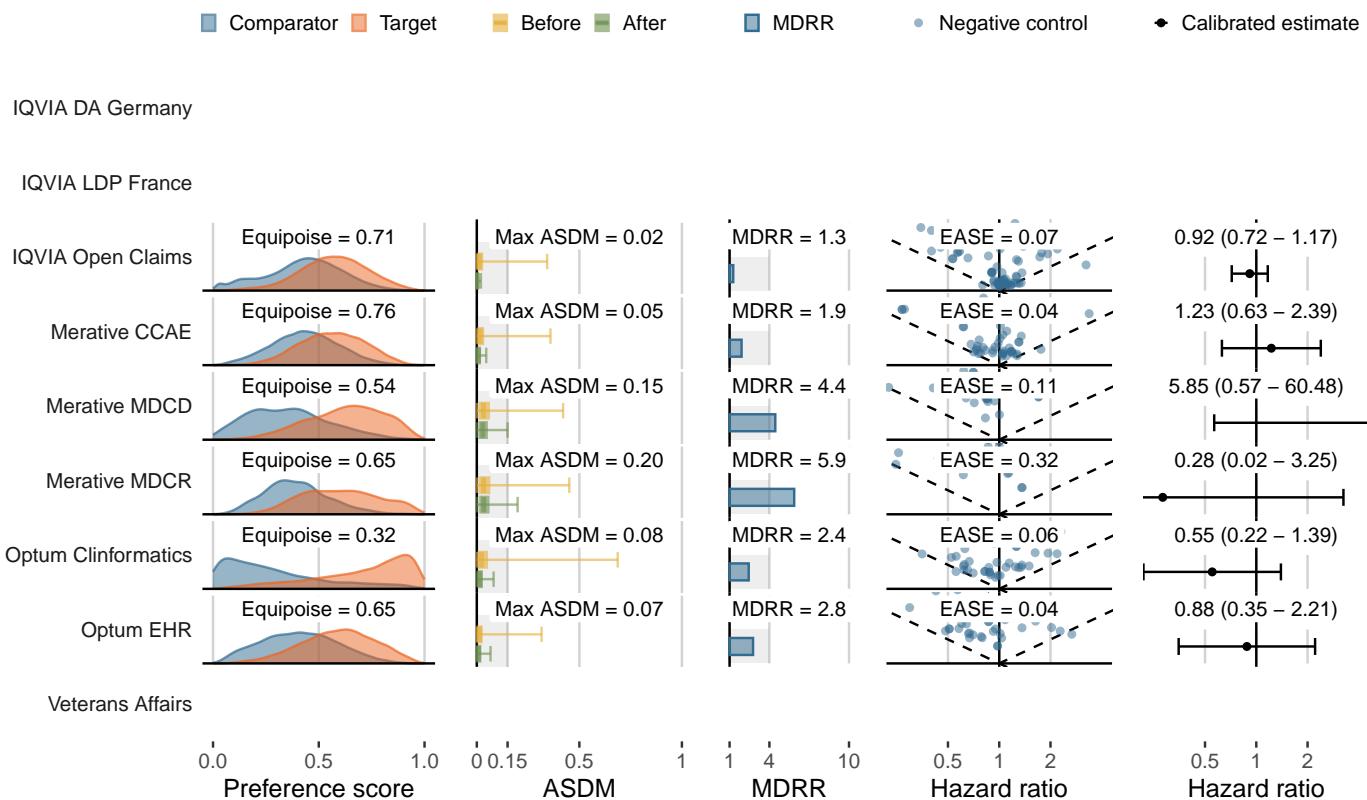
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Dapagliflozin (SGLT2 Inhibitors)**
- Outcome: **Acute myocardial infarction**

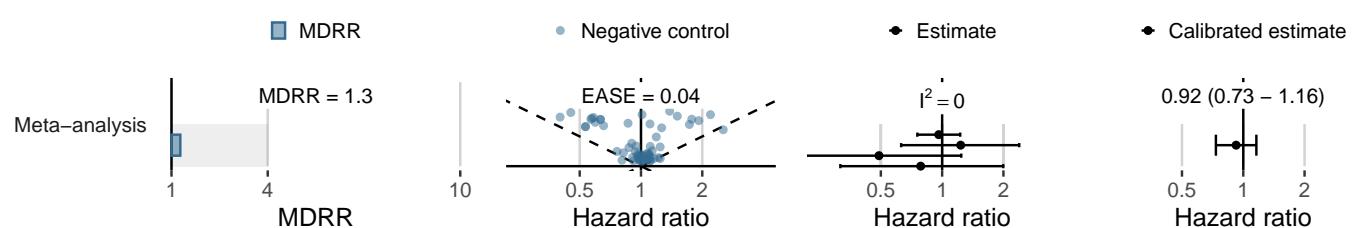
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	157,893	123,463	319	2.58
Merative CCAE	11,031	8,992	34	3.78
Merative MDCD	2,511	1,434	13	9.07
Merative MDCR	1,104	731	6	8.21
Optum Clininformatics	11,908	8,105	41	5.06
Optum EHR	13,869	6,923	24	3.47
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



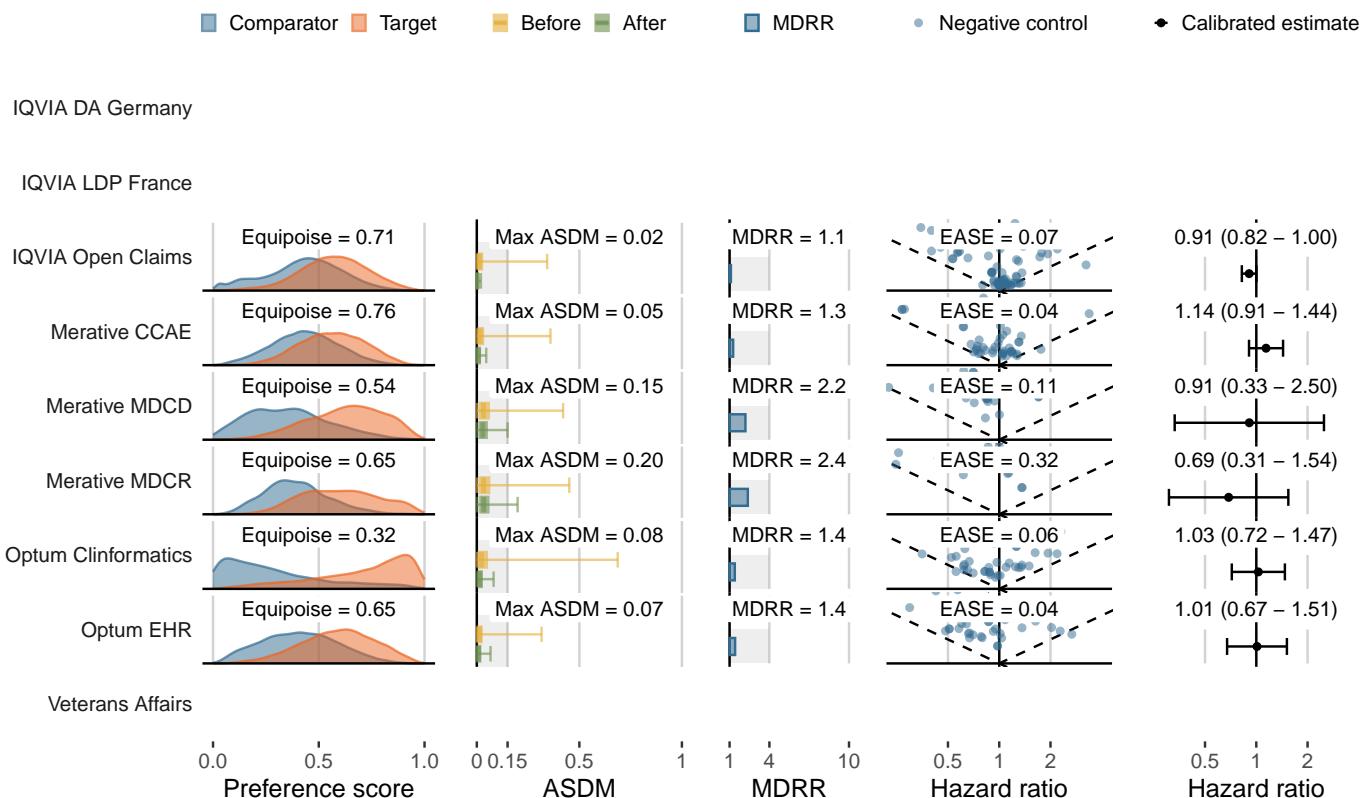
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

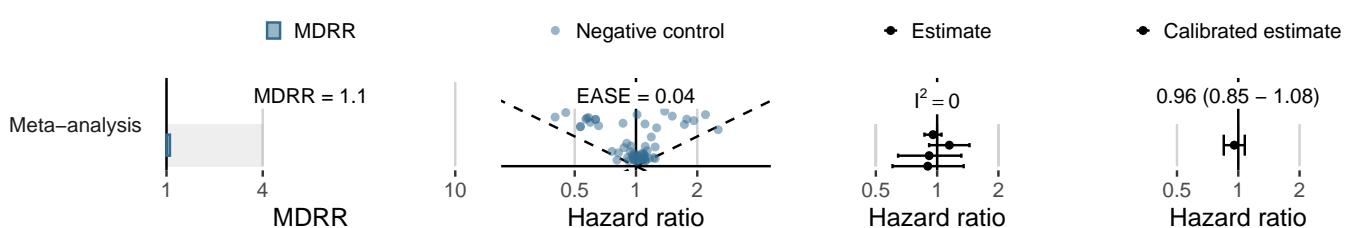
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	85,299	68,306	1,563	22.88
Merative CCAE	8,997	7,249	253	34.90
Merative MDCD	1,849	1,028	50	48.64
Merative MDCR	887	555	30	54.09
Optum Clininformatics	9,465	6,200	335	54.03
Optum EHR	11,537	5,668	212	37.40
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



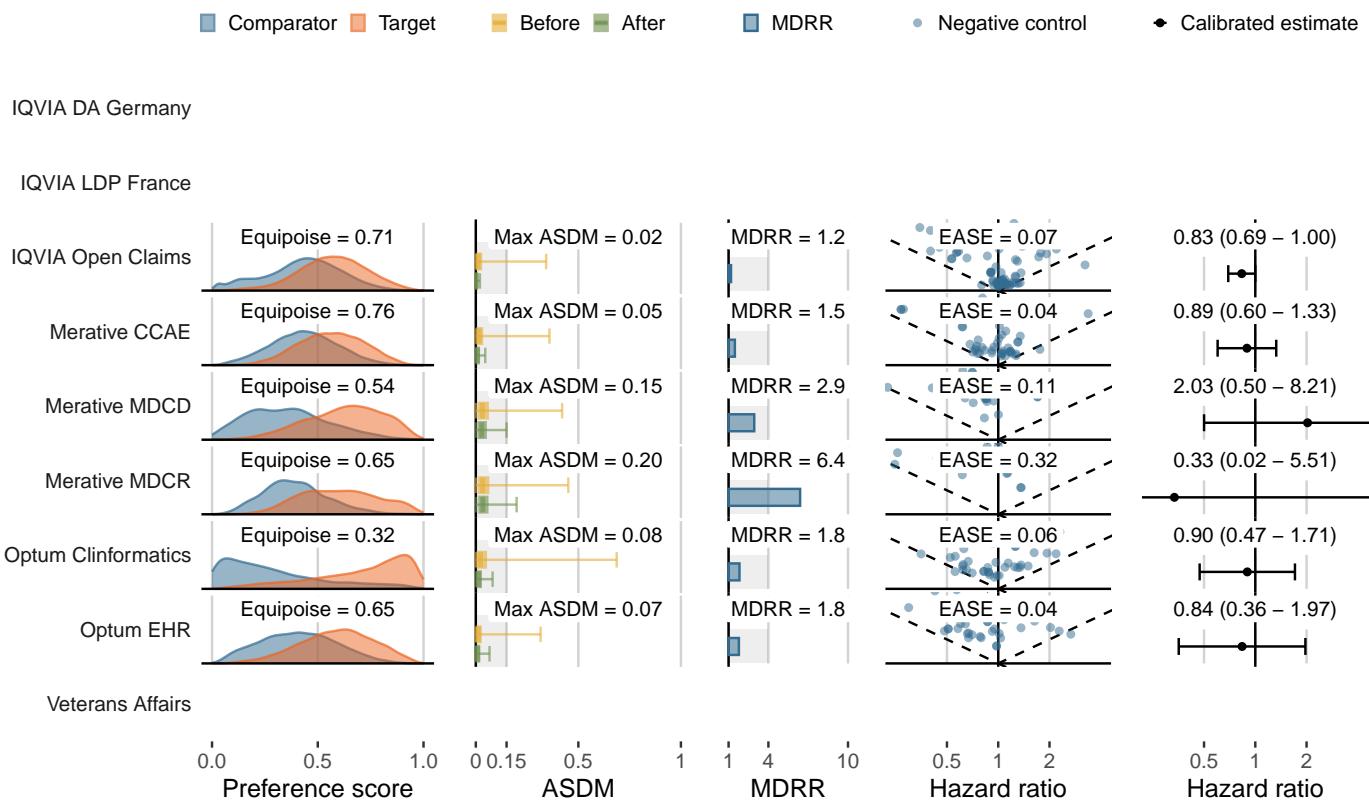
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Dapagliflozin (SGLT2 Inhibitors)**
- Outcome: **Joint pain**

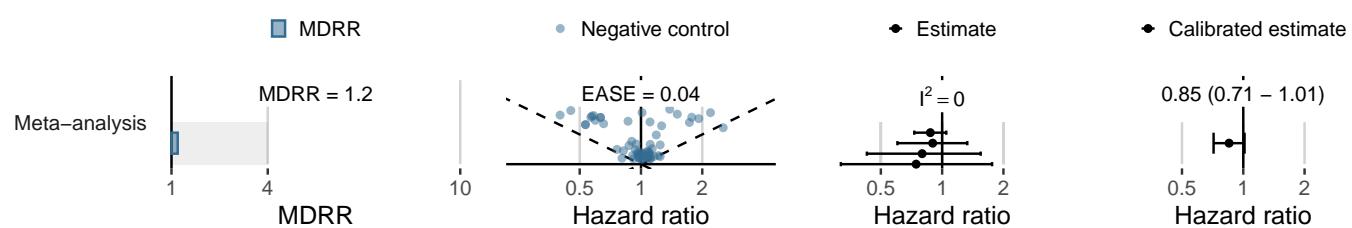
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	103,167	82,327	472	5.73
Merative CCAE	10,463	8,427	95	11.27
Merative MDCD	2,067	1,156	30	25.96
Merative MDCR	994	653	<5	<7.65
Optum Clininformatics	10,453	6,948	101	14.54
Optum EHR	13,010	6,409	75	11.70
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



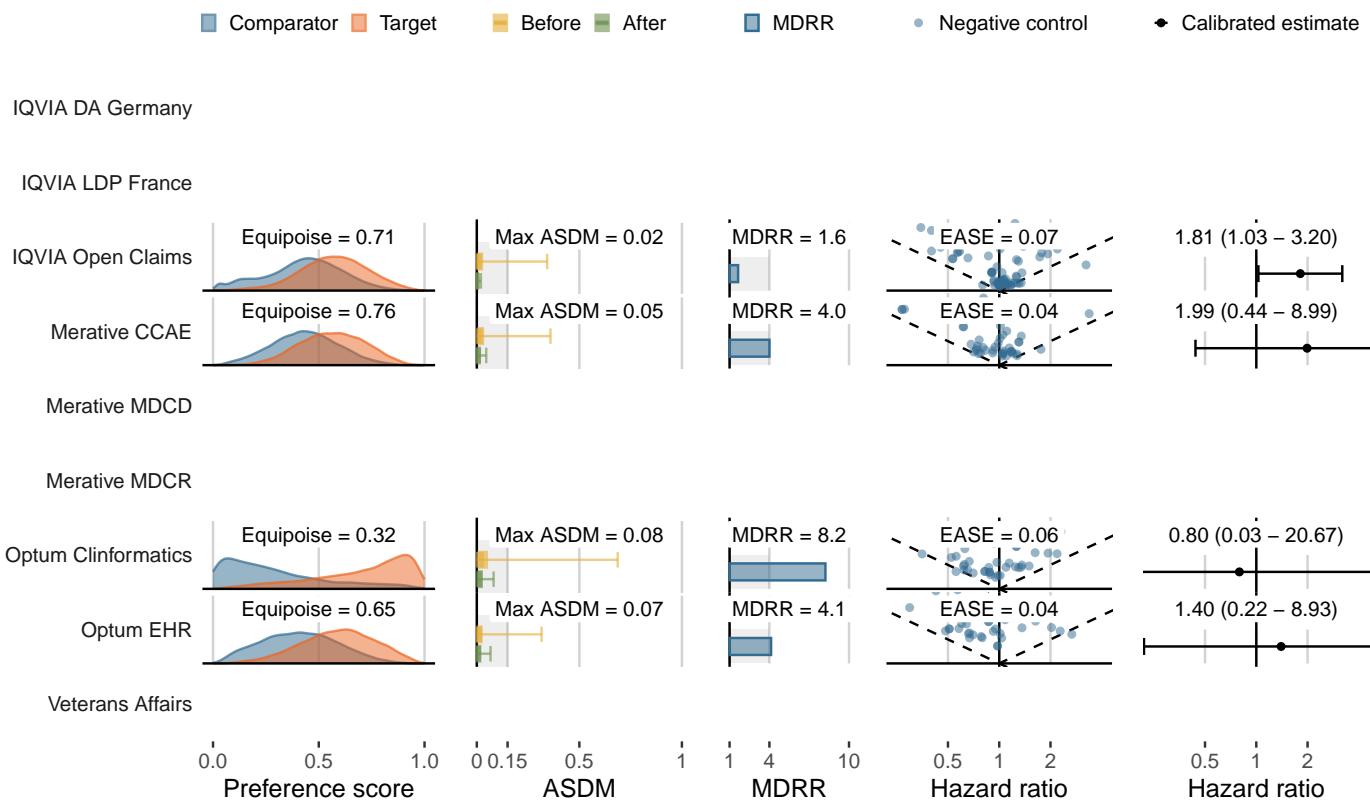
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

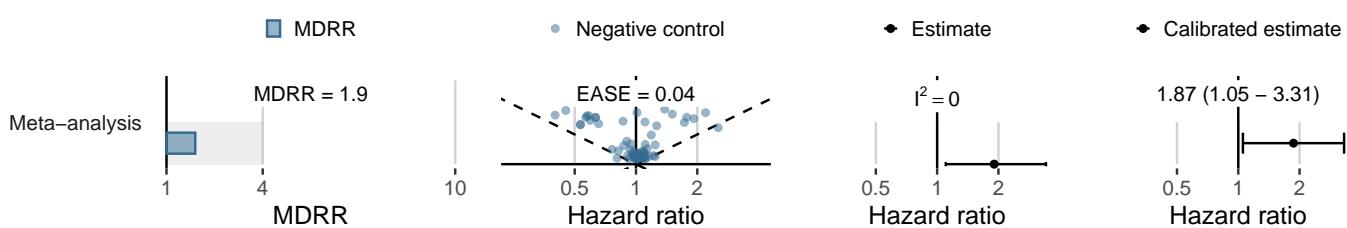
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	160,892	125,721	90	0.72
Merative CCAE	11,228	9,167	8	0.87
Merative MDCD	2,586	1,481	-	0.00
Merative MDCR	1,122	742	<5	<6.74
Optum Clininformatics	12,113	8,233	5	0.61
Optum EHR	13,987	6,993	12	1.72
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



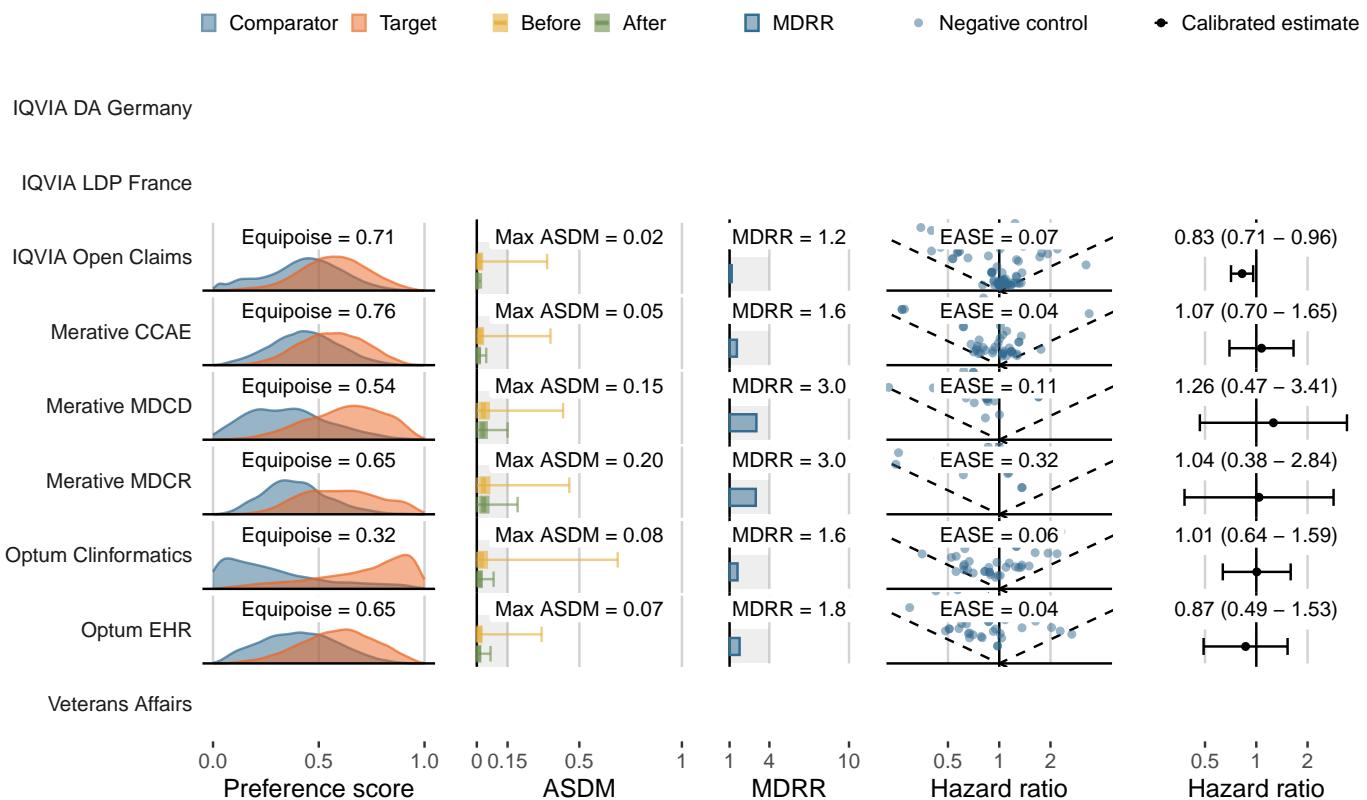
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Dapagliflozin (SGLT2 Inhibitors)**
- Outcome: **Acute renal failure**

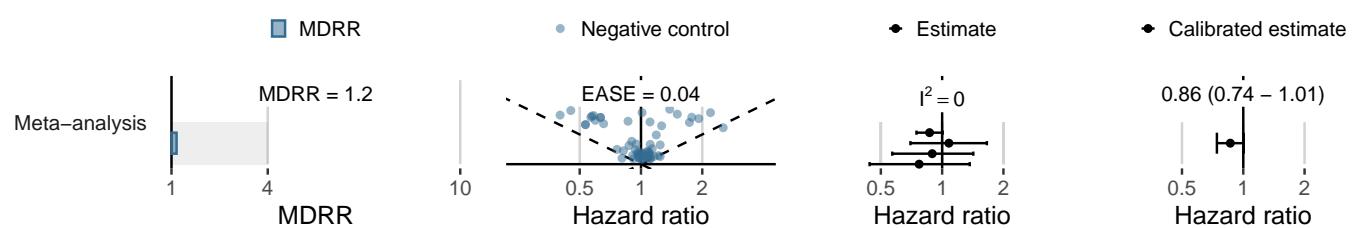
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	156,583	122,247	932	7.62
Merative CCAE	11,029	9,000	76	8.44
Merative MDCD	2,414	1,354	21	15.51
Merative MDCR	1,086	715	19	26.58
Optum Clininformatics	11,629	7,856	154	19.60
Optum EHR	13,834	6,860	82	11.95
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



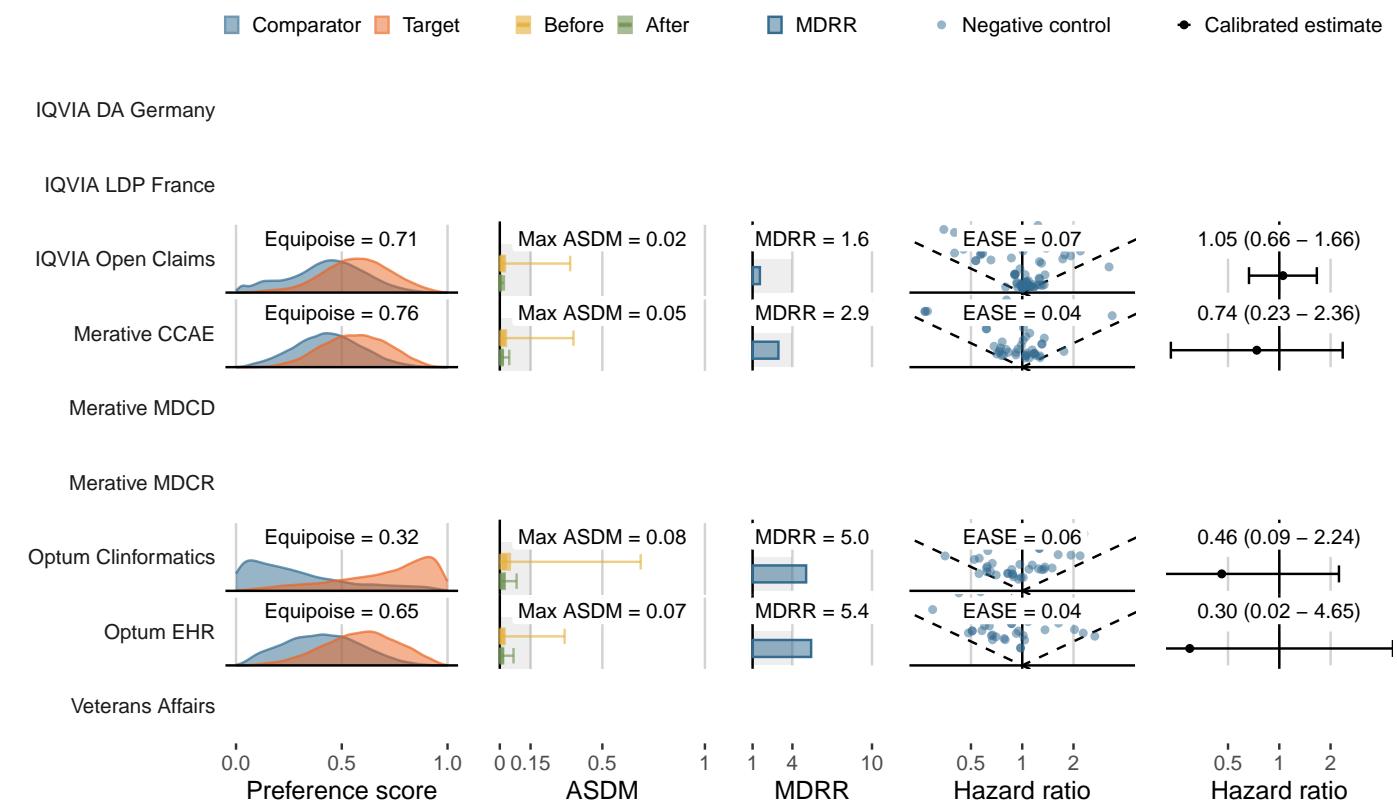
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

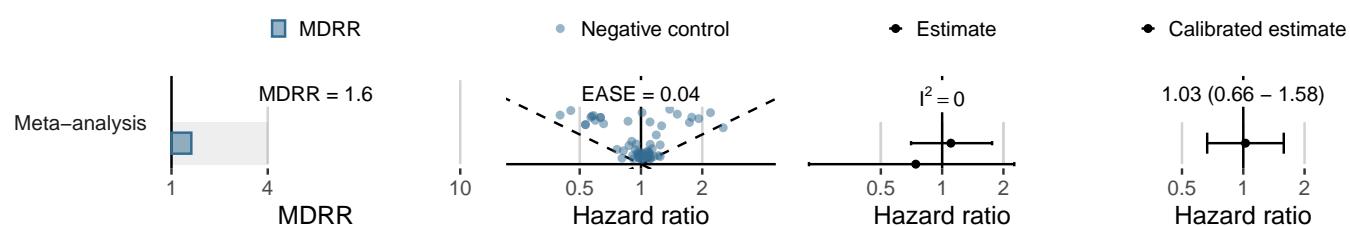
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	159,972	124,993	110	0.88
Merative CCAE	11,187	9,135	14	1.53
Merative MDCD	2,574	1,473	<5	<3.39
Merative MDCR	1,128	746	<5	<6.71
Optum Clininformatics	12,104	8,225	12	1.46
Optum EHR	13,943	6,976	7	1.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



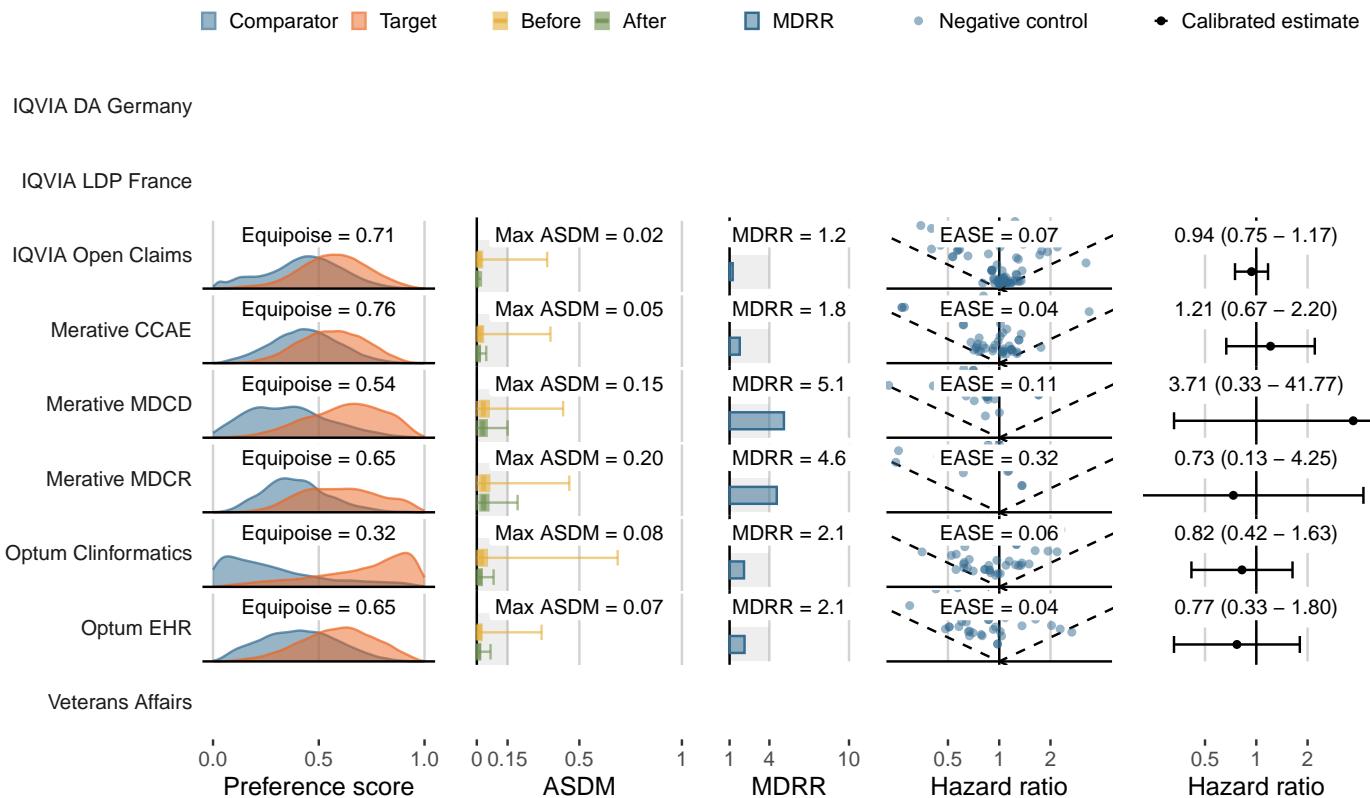
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Dapagliflozin (SGLT2 Inhibitors)**
- Outcome: **Venous thromboembolic events**

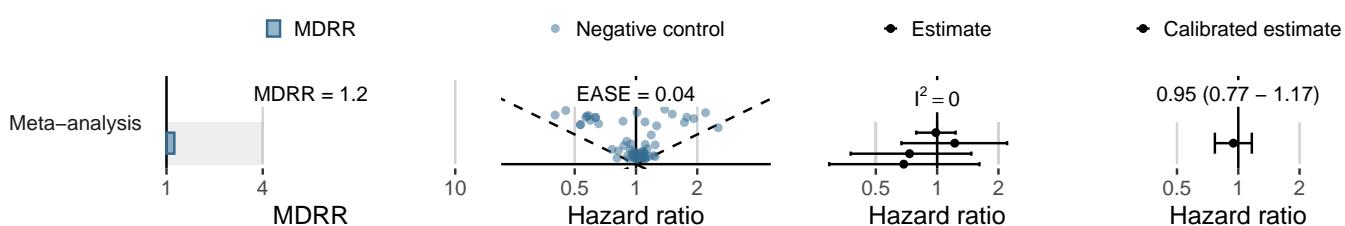
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	155,224	121,291	478	3.94
Merative CCAE	10,940	8,925	45	5.04
Merative MDCD	2,425	1,393	10	7.18
Merative MDCR	1,081	703	10	14.22
Optum Clininformatics	11,689	7,941	58	7.30
Optum EHR	13,556	6,757	43	6.36
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



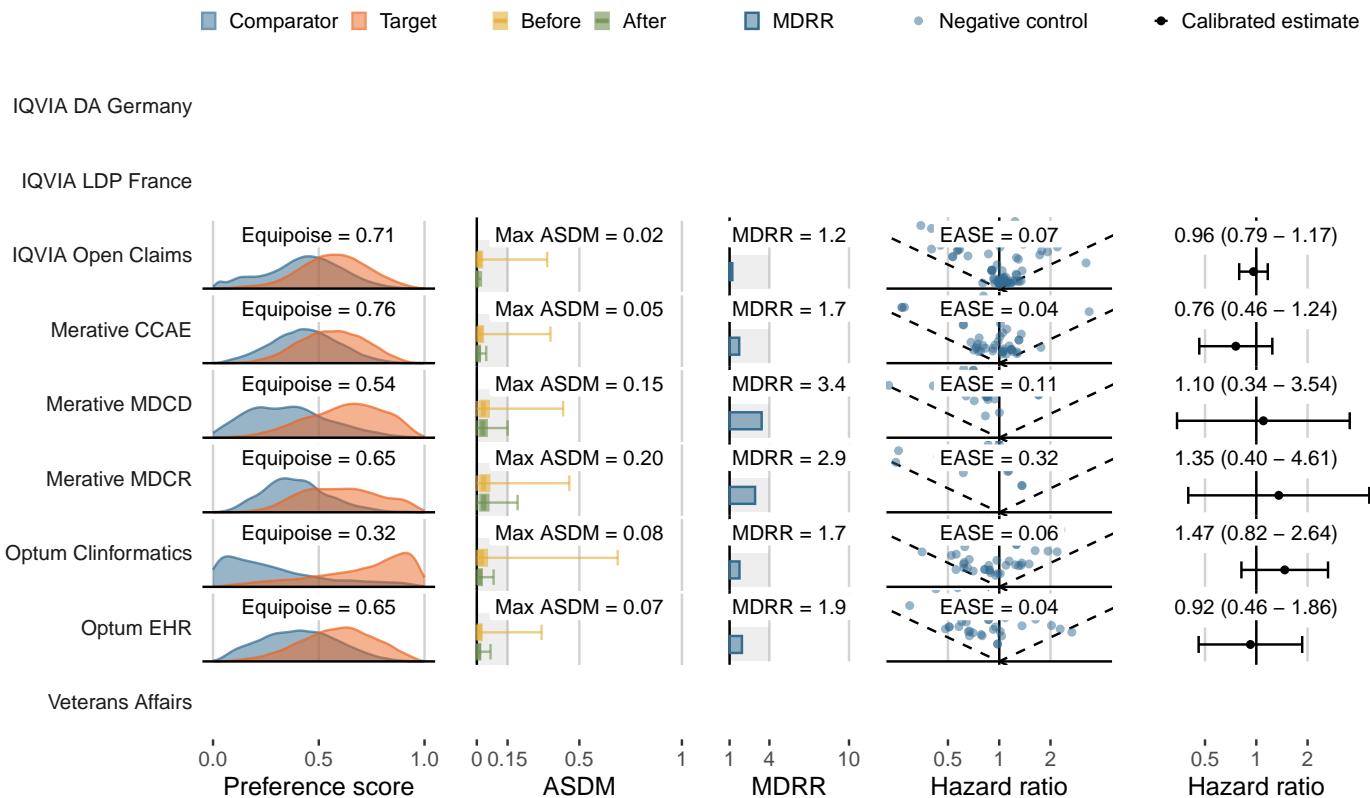
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Dapagliflozin (SGLT2 Inhibitors)**
- Outcome: **Hospitalization with heart failure**

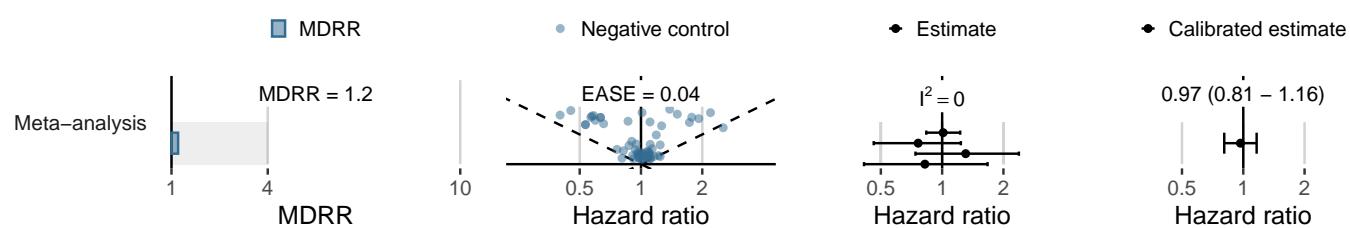
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	156,338	122,332	587	4.80
Merative CCAE	11,016	9,001	42	4.67
Merative MDCD	2,393	1,360	21	15.44
Merative MDCR	1,060	704	21	29.84
Optum Clininformatics	11,584	7,839	115	14.67
Optum EHR	13,801	6,857	58	8.46
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



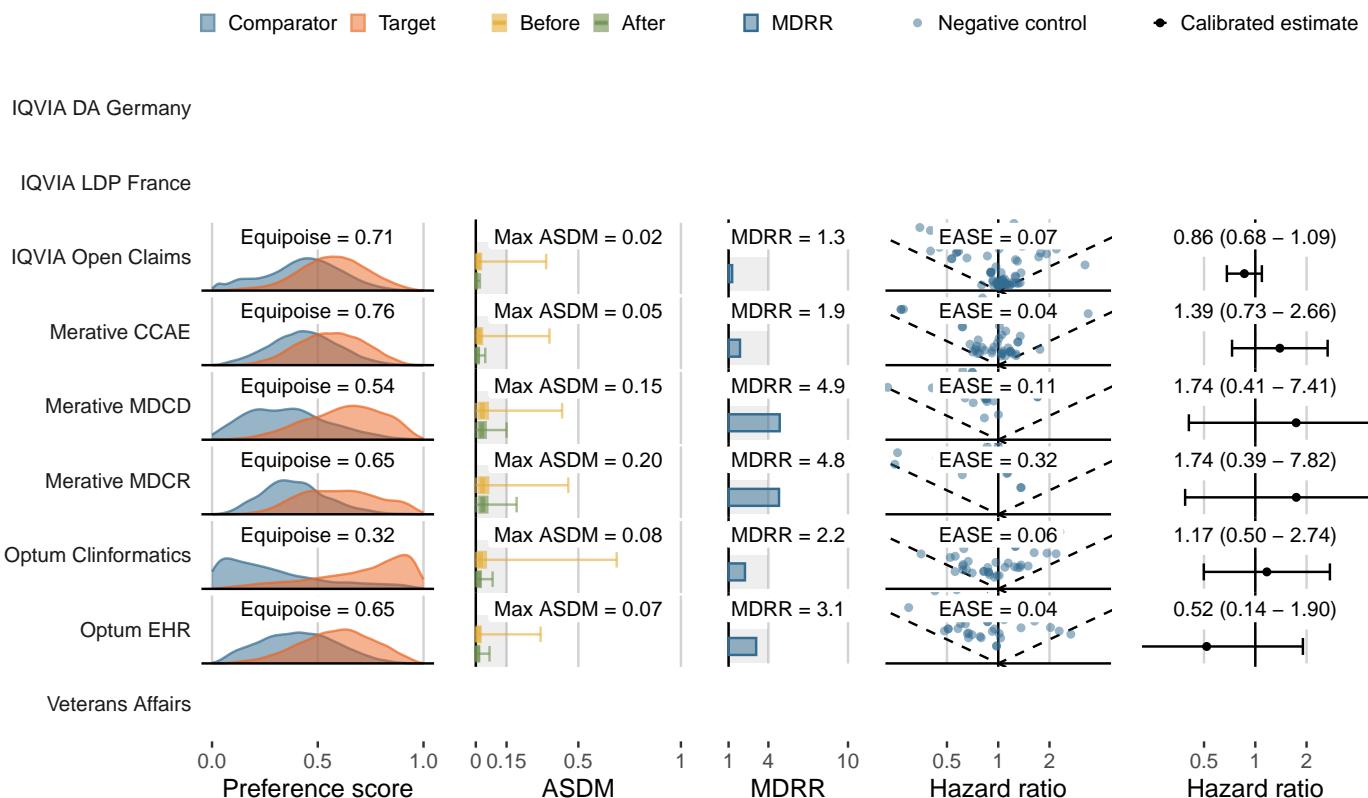
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Dapagliflozin (SGLT2 Inhibitors)**
- Outcome: **Stroke**

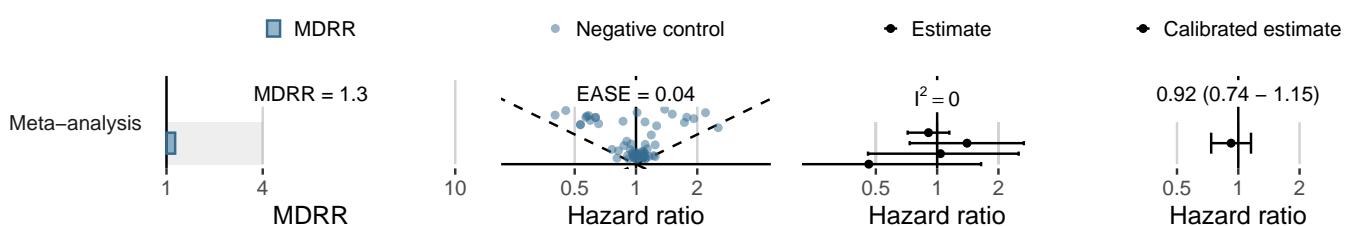
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	158,148	123,771	358	2.89
Merative CCAE	11,090	9,062	29	3.20
Merative MDCD	2,494	1,432	11	7.68
Merative MDCR	1,092	715	9	12.58
Optum Clininformatics	11,918	8,086	51	6.31
Optum EHR	13,852	6,909	20	2.89
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



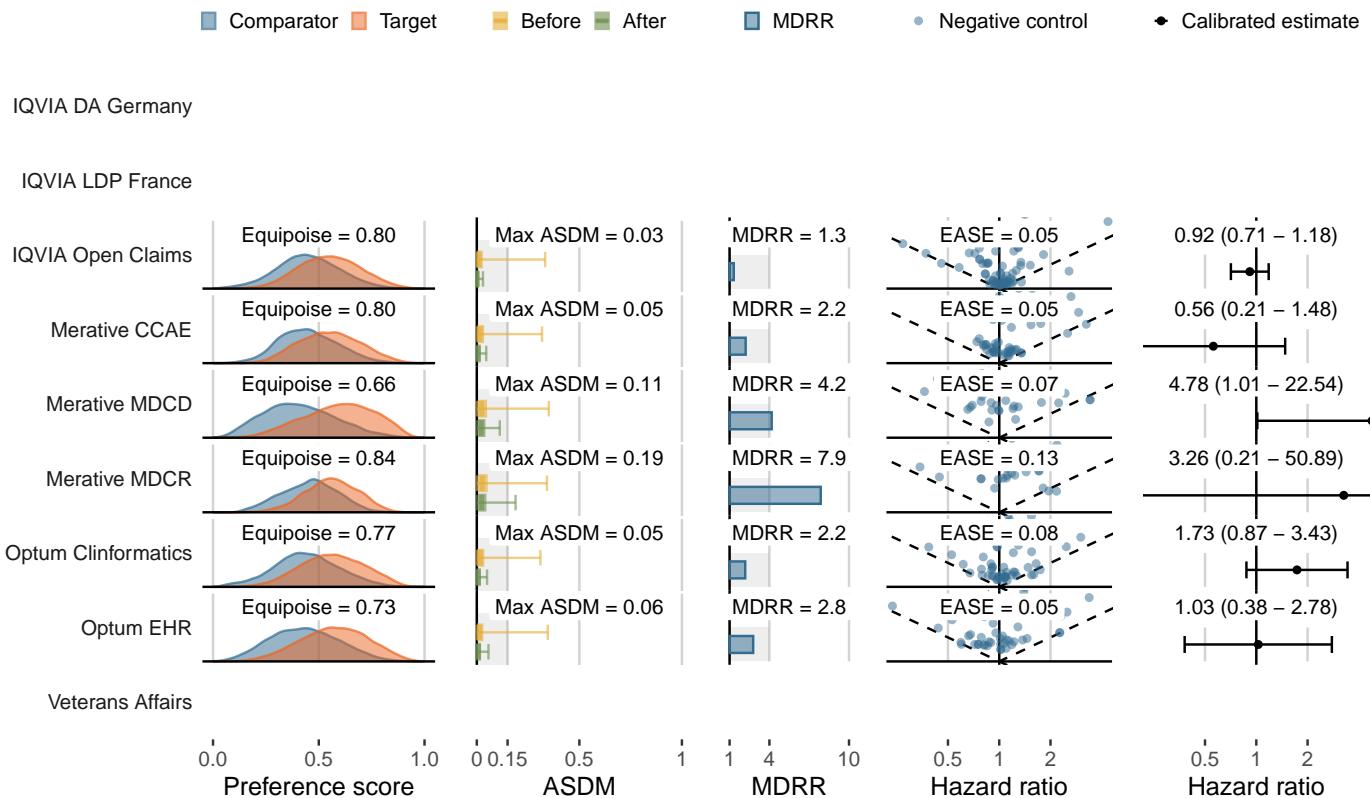
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

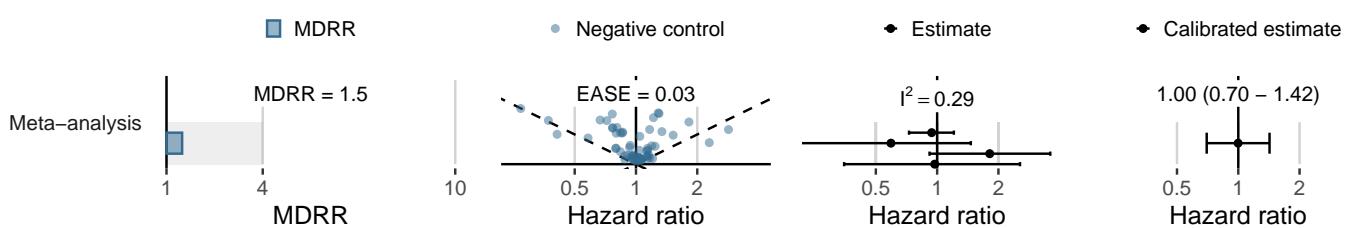
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	147,232	115,904	169	1.46
Merative CCAE	13,352	10,743	20	1.86
Merative MDCD	1,658	976	7	7.17
Merative MDCR	1,086	707	<5	<7.07
Optum Clininformatics	11,332	7,713	26	3.37
Optum EHR	11,710	5,766	15	2.60
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	148,300	116,553	76	.65
Merative CCAE	13,439	10,800	5	.46
Merative MDCD	1,686	996	-	.00
Merative MDCR	1,080	700	-	.00
Optum Clininformatics	11,386	7,735	9	1.16
Optum EHR	11,744	5,790	5	.86
Veterans Affairs	-	-	-	-

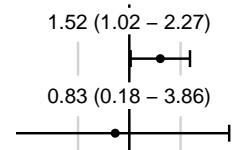
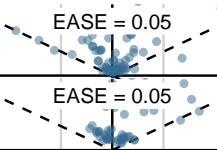
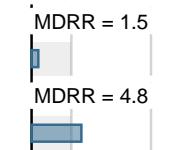
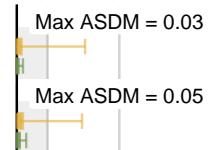
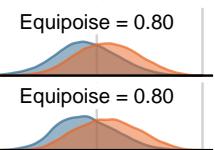
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

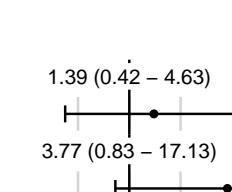
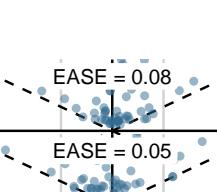
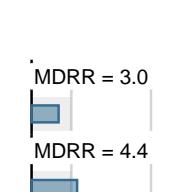
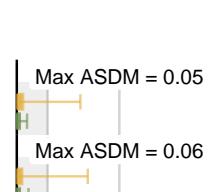
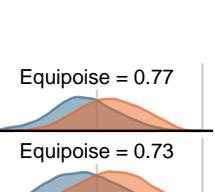
IQVIA LDP France

IQVIA Open Claims



Merative MDCD

Merative MDCR



Preference score

ASDM

MDRR

Hazard ratio

Hazard ratio

Veterans Affairs

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

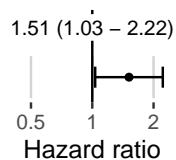
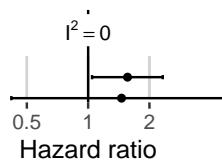
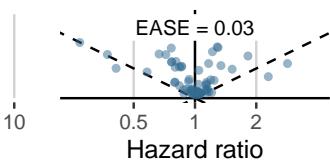
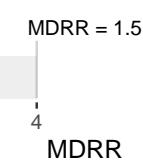
■ MDRR

● Negative control

● Estimate

● Calibrated estimate

Meta-analysis



Hazard ratio

Hazard ratio

Hazard ratio

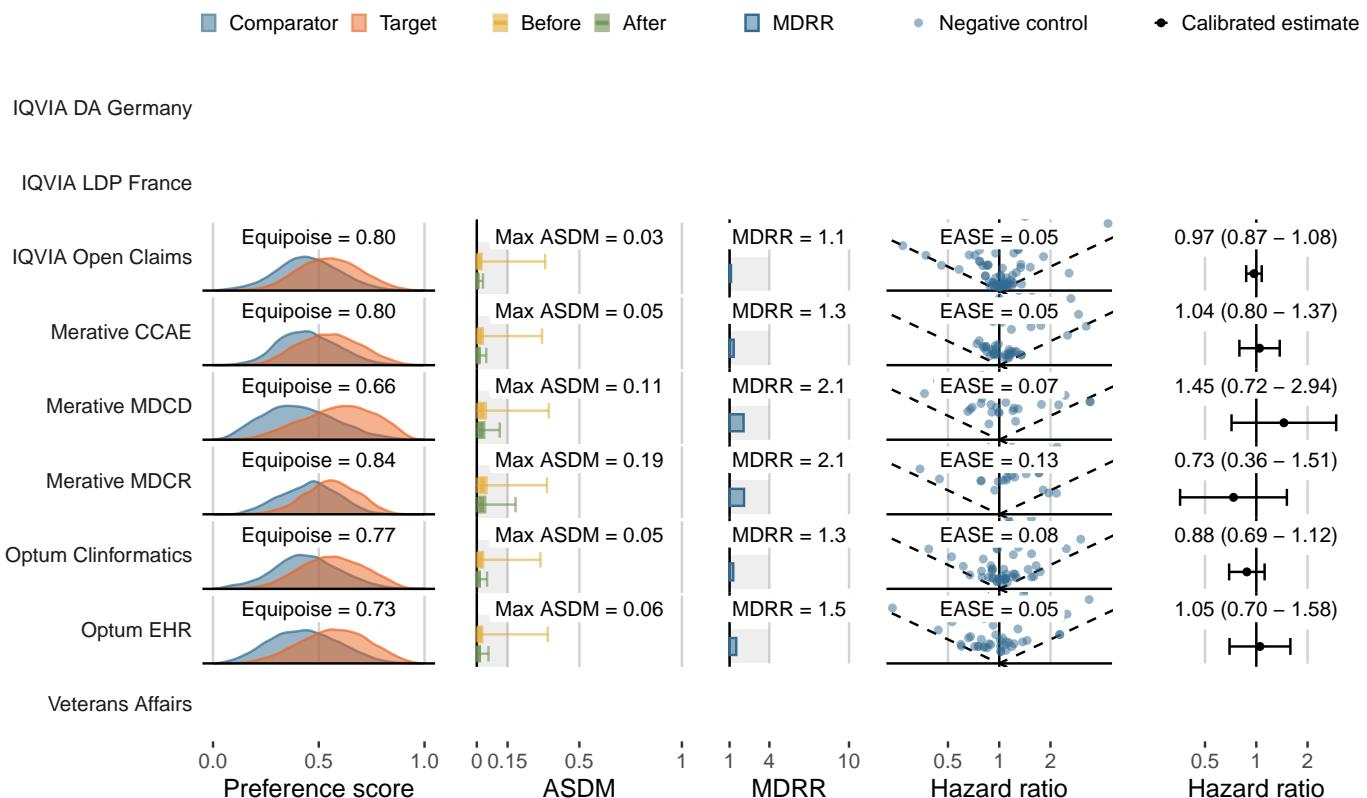
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

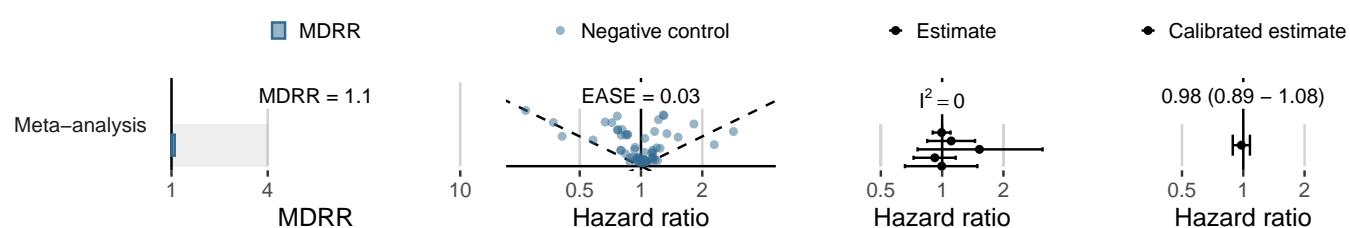
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	127,534	99,773	1,272	12.75
Merative CCAE	12,106	9,569	174	18.18
Merative MDCD	1,451	838	29	34.61
Merative MDCR	974	613	16	26.09
Optum Clininformatics	10,285	6,879	192	27.91
Optum EHR	10,843	5,275	79	14.98
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



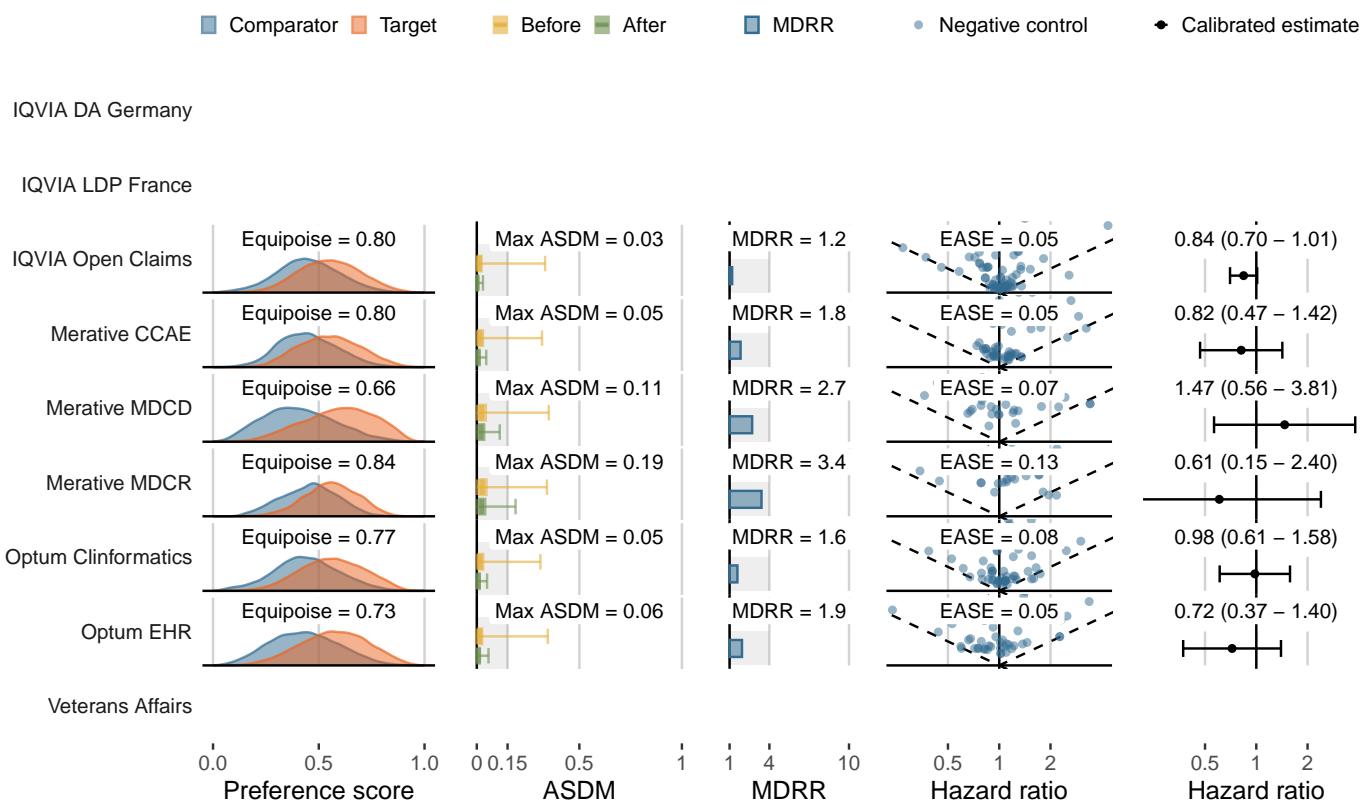
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

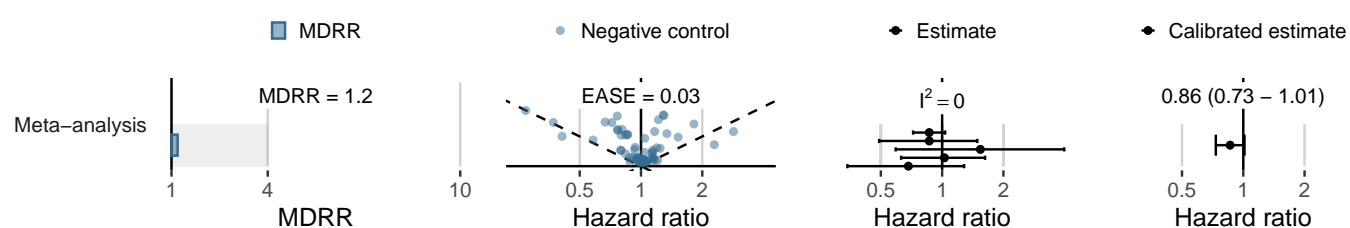
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	145,265	114,267	298	2.61
Merative CCAE	13,206	10,613	33	3.11
Merative MDCD	1,628	953	13	13.64
Merative MDCR	1,061	688	6	8.72
Optum Clininformatics	11,176	7,609	38	4.99
Optum EHR	11,618	5,713	21	3.68
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



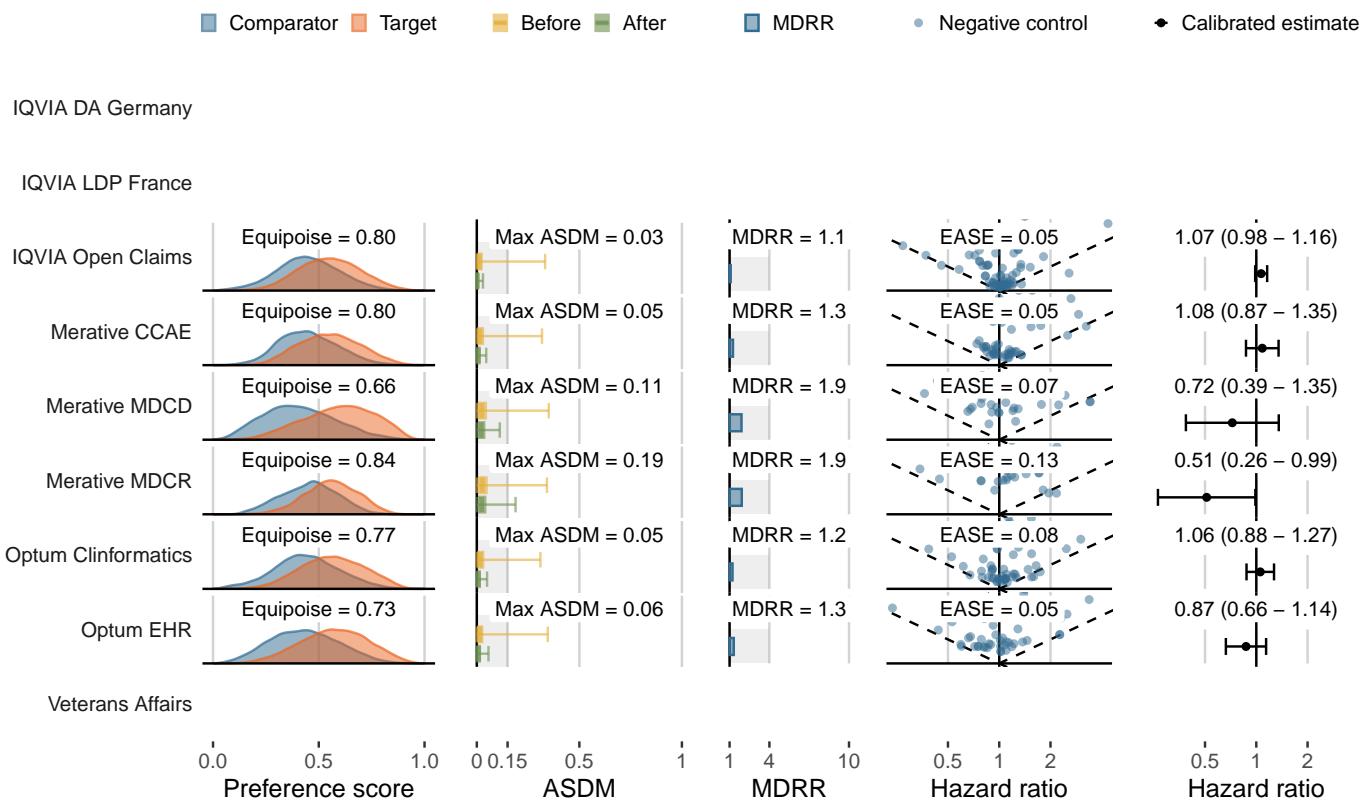
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

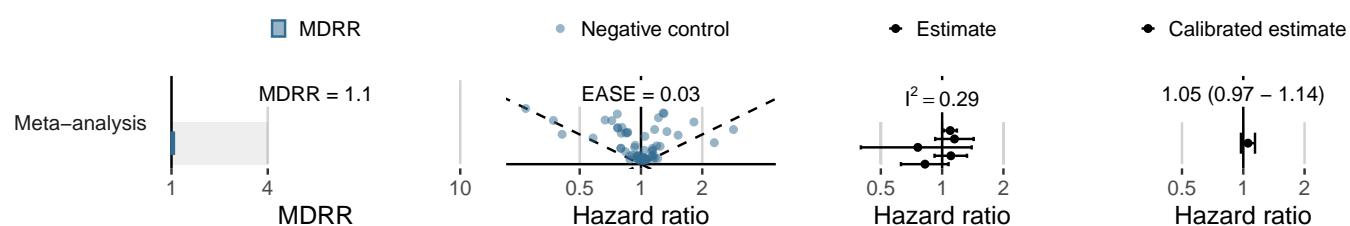
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	112,298	88,413	2,161	24.44
Merative CCAE	10,750	8,493	295	34.73
Merative MDCD	1,221	701	31	44.25
Merative MDCR	879	540	30	55.56
Optum Clininformatics	8,969	5,880	311	52.89
Optum EHR	9,878	4,796	173	36.07
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



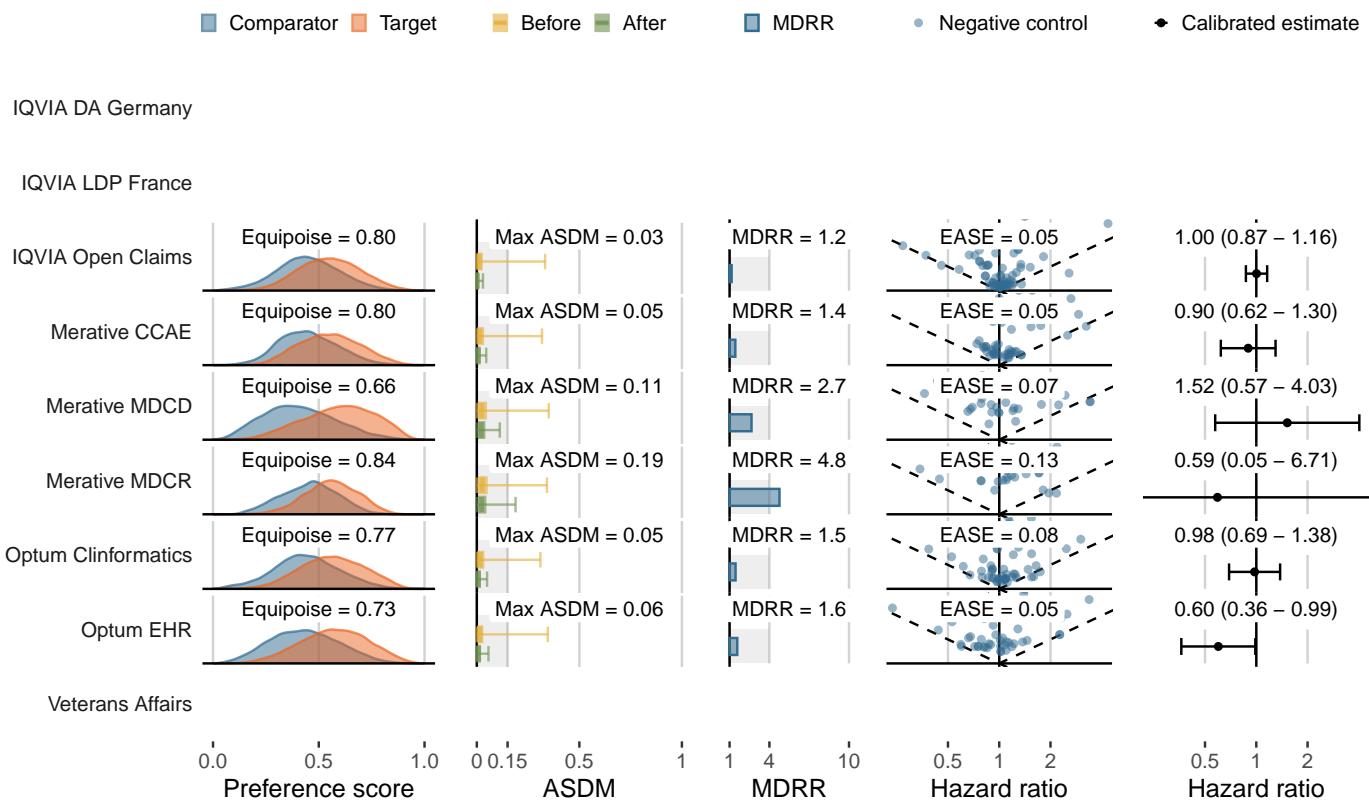
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

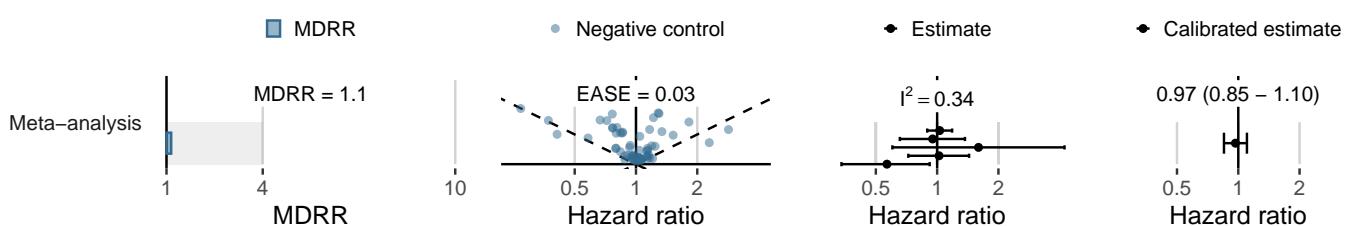
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	137,602	108,051	680	6.29
Merative CCAE	12,469	9,952	119	11.96
Merative MDCD	1,317	774	16	20.67
Merative MDCR	965	625	<5	<8.00
Optum Clininformatics	9,883	6,575	91	13.84
Optum EHR	10,960	5,321	56	10.52
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



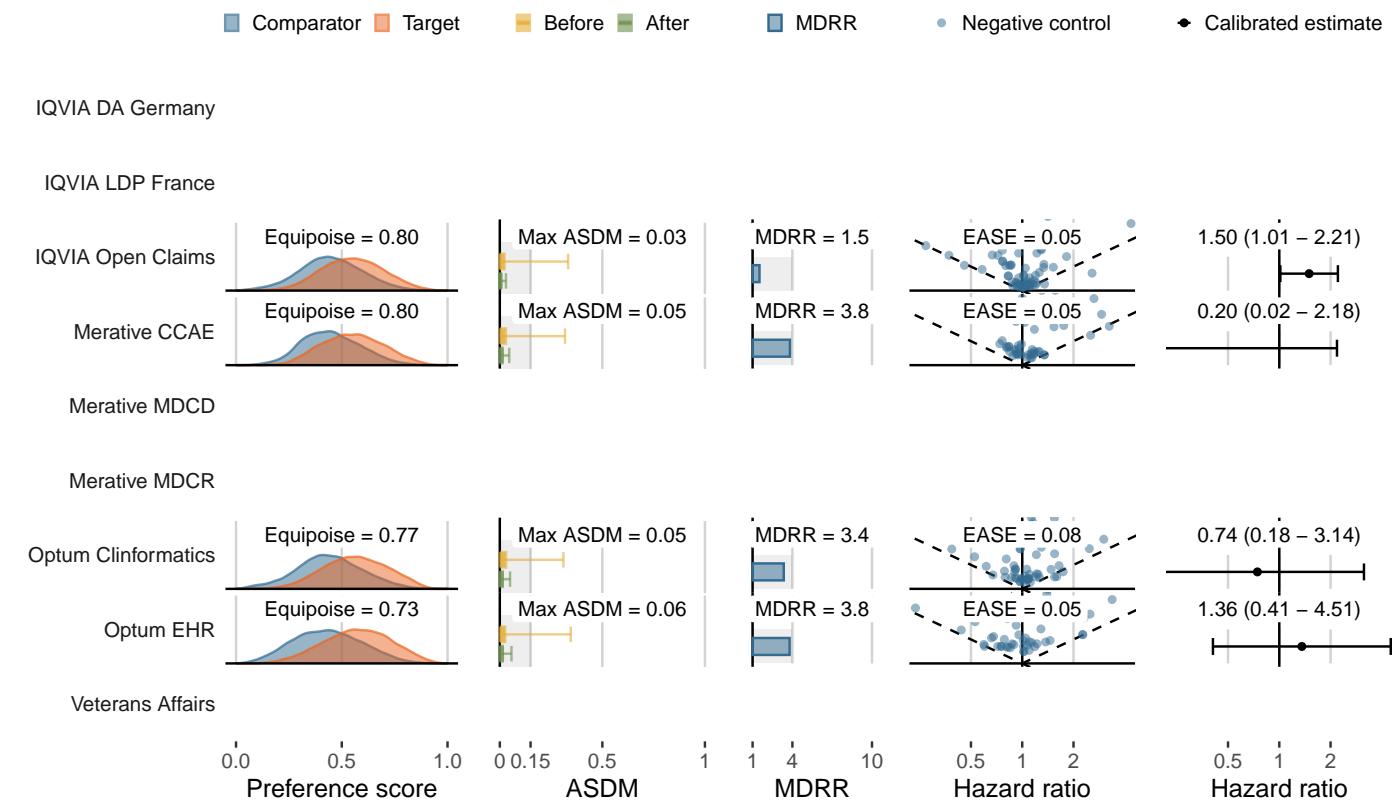
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

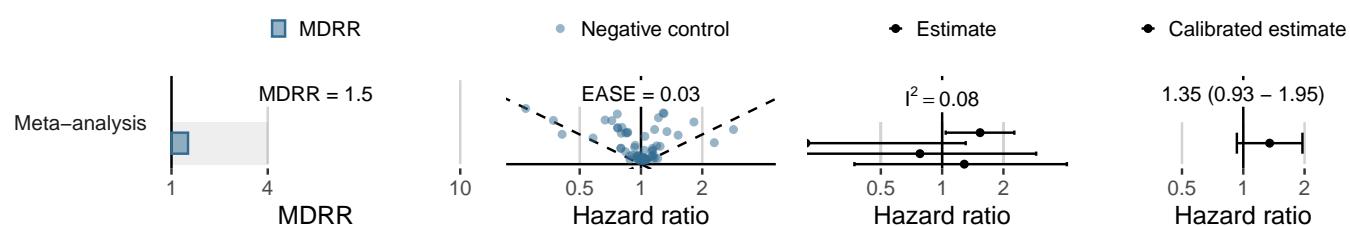
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	148,273	116,537	82	0.70
Merative CCAE	13,426	10,779	8	0.74
Merative MDCD	1,686	994	-	0.00
Merative MDCR	1,081	700	<5	<7.14
Optum Clininformatics	11,384	7,738	5	0.65
Optum EHR	11,743	5,784	11	1.90
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



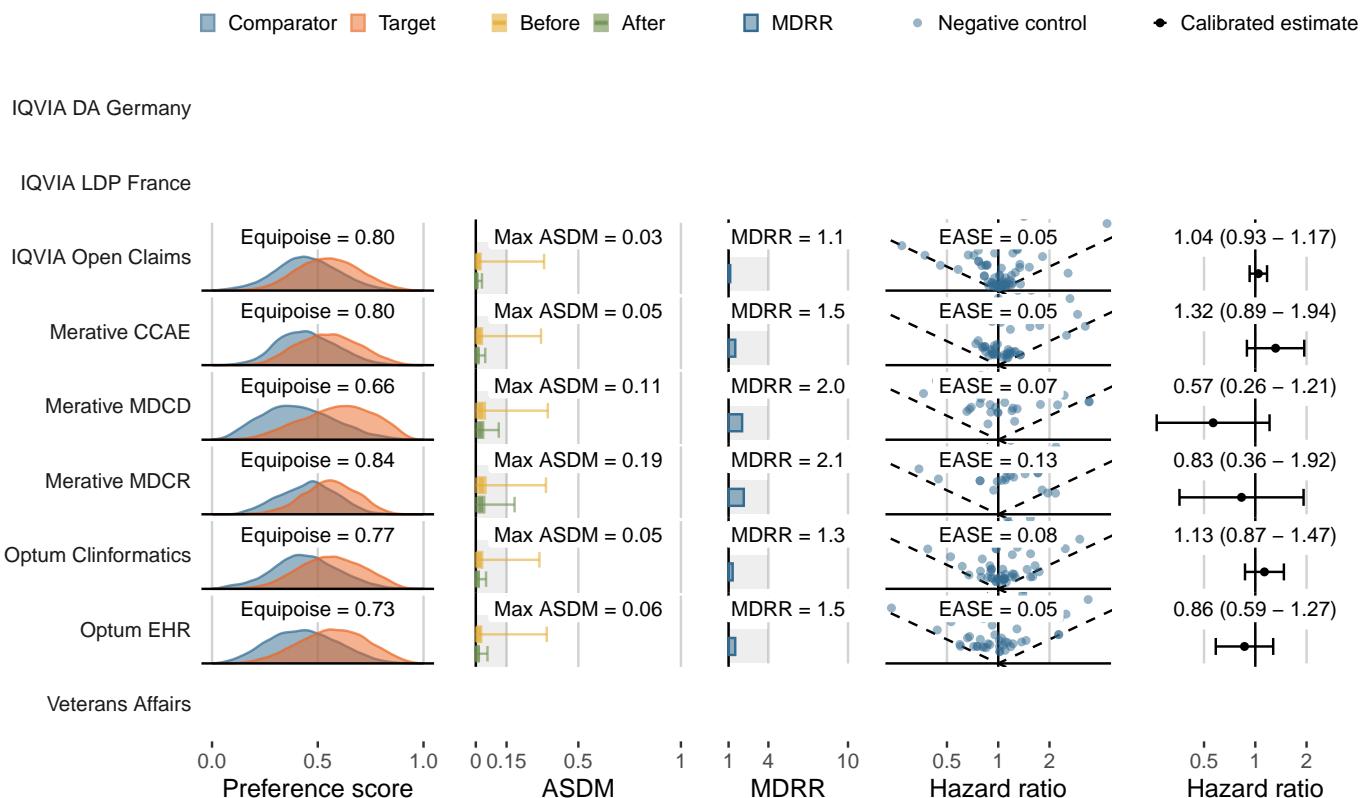
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

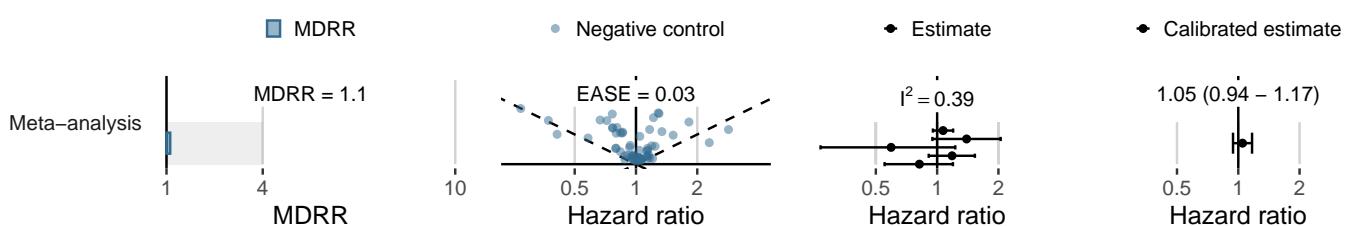
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	144,293	113,339	853	7.53
Merative CCAE	13,182	10,567	93	8.80
Merative MDCD	1,579	925	13	14.06
Merative MDCR	1,046	677	19	28.08
Optum Clininformatics	10,925	7,392	148	20.02
Optum EHR	11,609	5,677	70	12.33
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



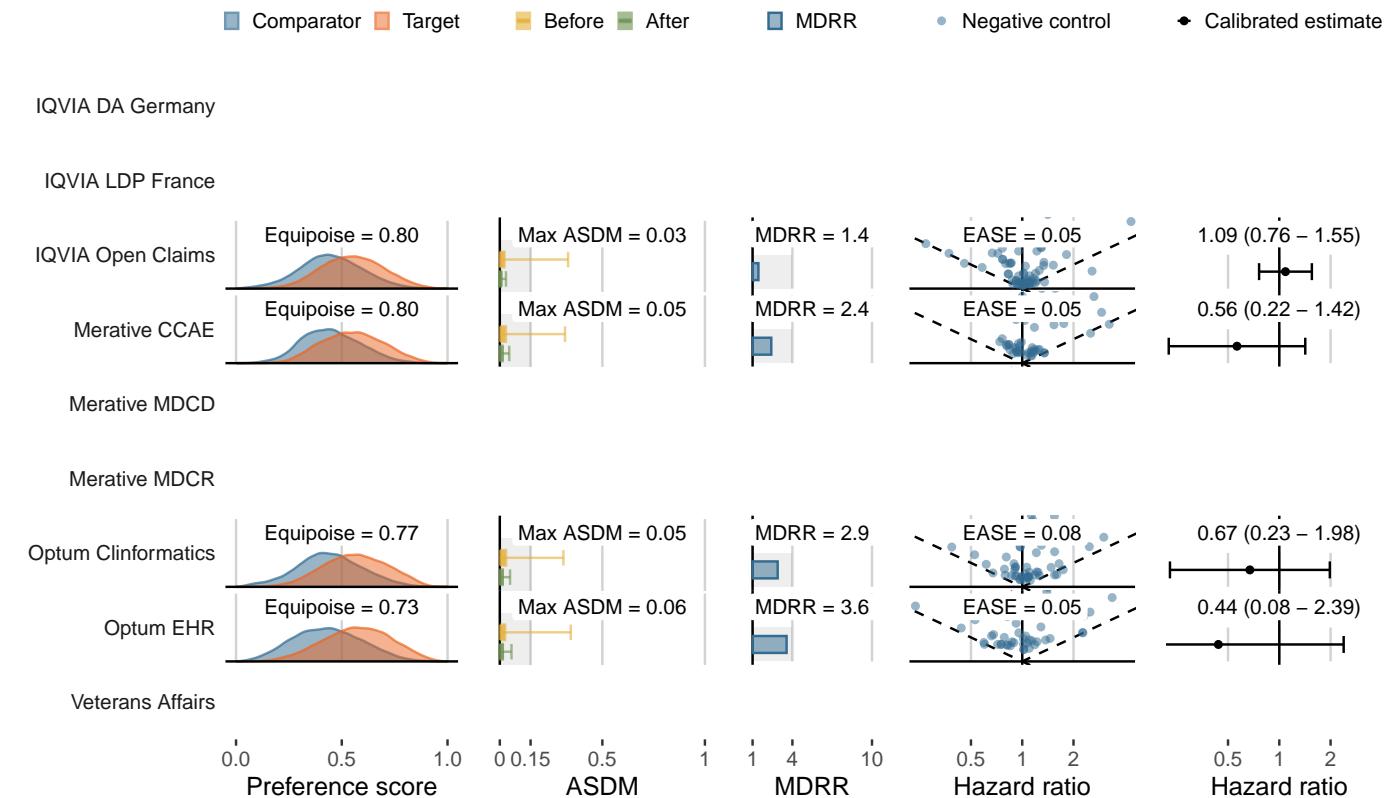
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

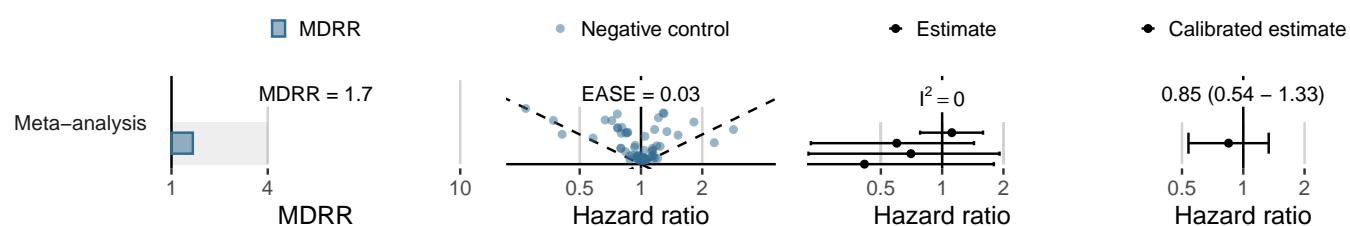
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	147,429	115,864	98	0.85
Merative CCAE	13,372	10,747	15	1.40
Merative MDCD	1,679	990	<5	<5.05
Merative MDCR	1,086	704	<5	<7.10
Optum Clininformatics	11,372	7,732	10	1.29
Optum EHR	11,698	5,767	<5	<0.87
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



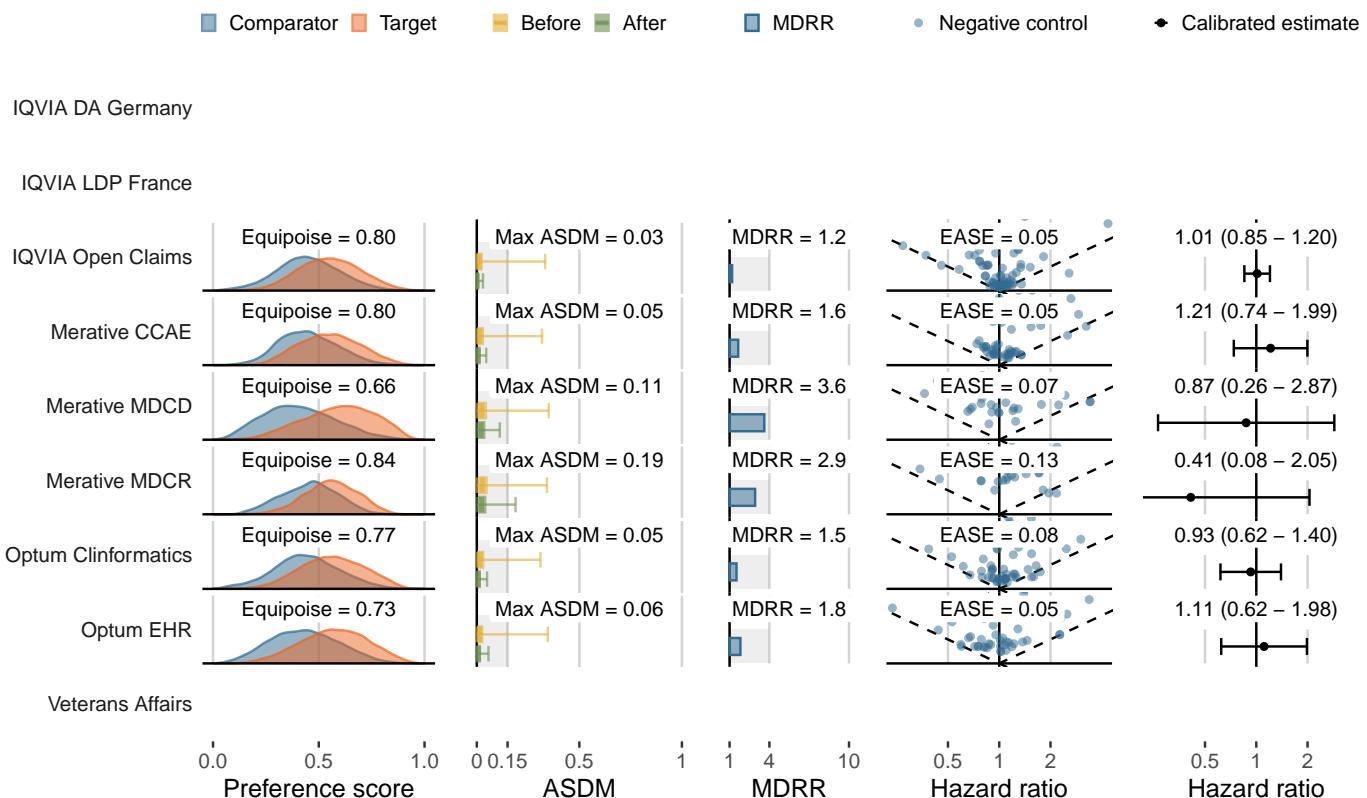
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

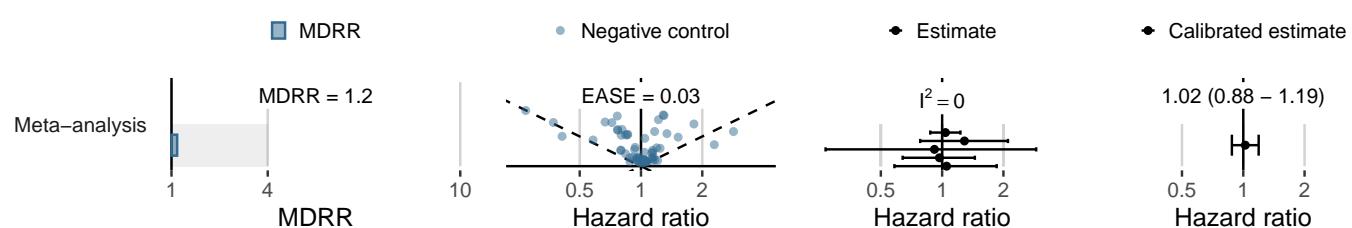
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	143,206	112,552	432	3.84
Merative CCAE	13,079	10,465	56	5.35
Merative MDCD	1,597	945	7	7.40
Merative MDCR	1,046	666	10	15.01
Optum Clininformatics	10,990	7,456	53	7.11
Optum EHR	11,429	5,615	36	6.41
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



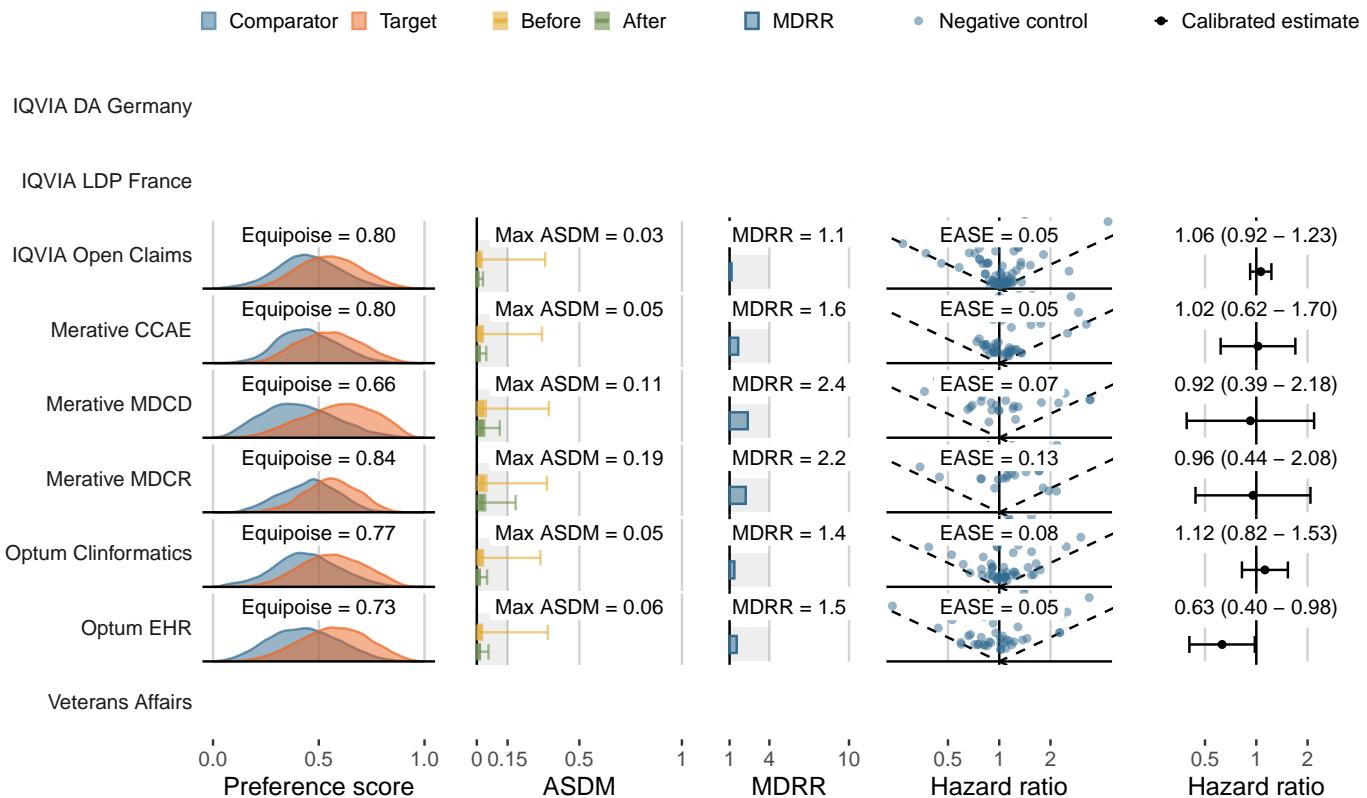
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

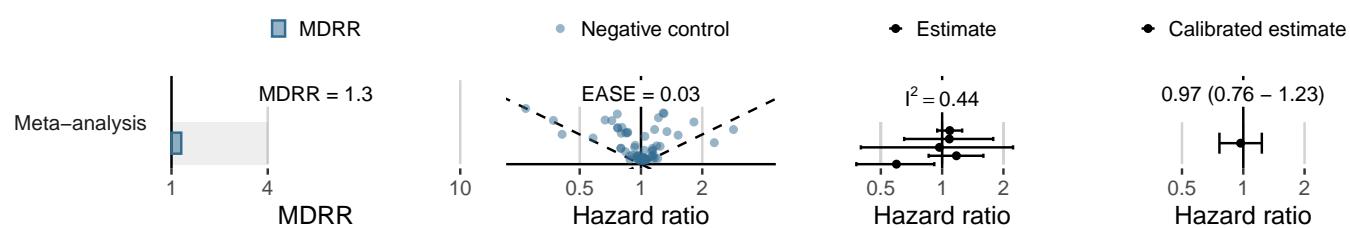
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	143,861	113,321	545	4.81
Merative CCAE	13,164	10,582	44	4.16
Merative MDCD	1,532	920	13	14.14
Merative MDCR	1,021	663	21	31.69
Optum Clininformatics	10,886	7,359	112	15.22
Optum EHR	11,560	5,650	54	9.56
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



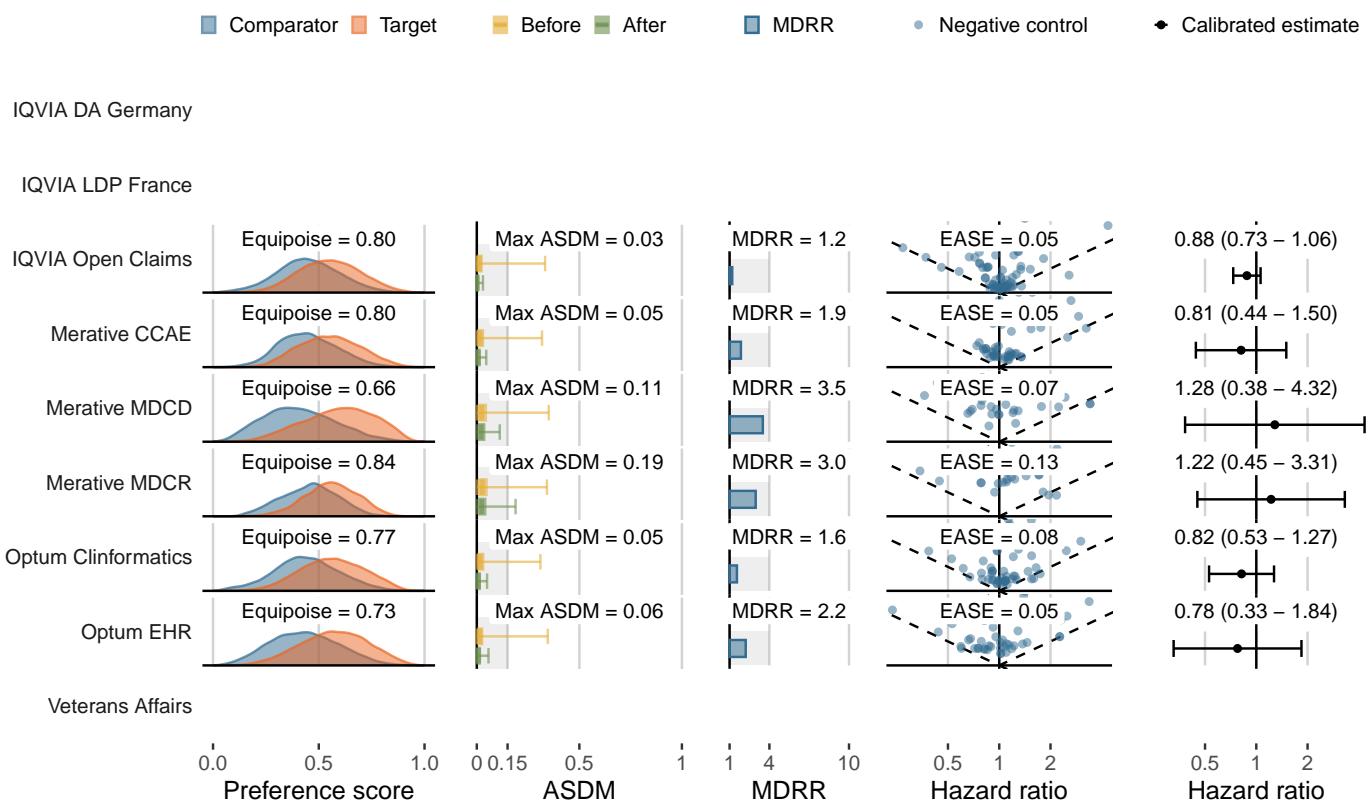
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

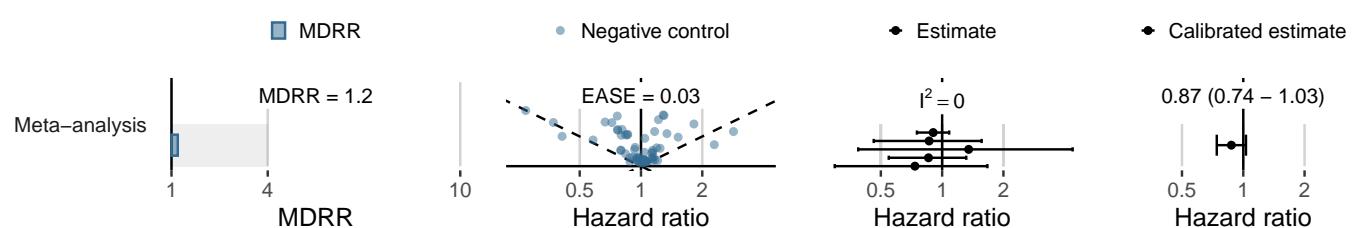
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	145,627	114,686	336	2.93
Merative CCAE	13,274	10,652	31	2.91
Merative MDCD	1,628	972	6	6.17
Merative MDCR	1,059	683	9	13.17
Optum Clininformatics	11,196	7,596	46	6.06
Optum EHR	11,672	5,745	18	3.13
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



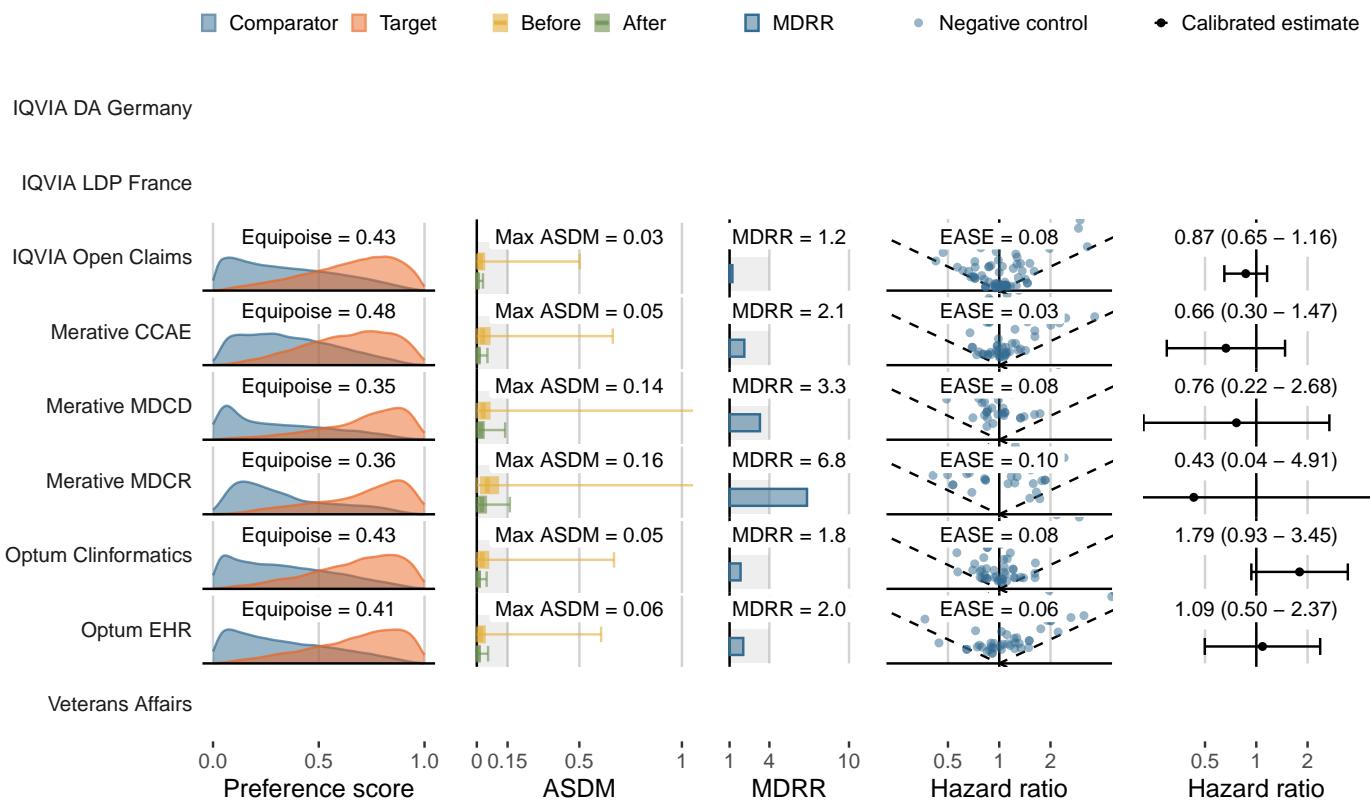
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

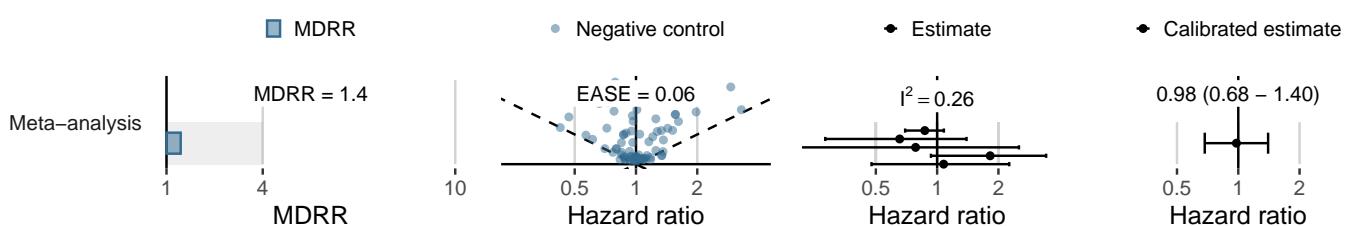
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	135,580	111,433	172	1.54
Merative CCAE	10,661	9,348	15	1.60
Merative MDCD	1,628	1,091	6	5.50
Merative MDCR	872	651	<5	<7.68
Optum Clininformatics	9,154	6,612	21	3.18
Optum EHR	10,838	5,453	13	2.38
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Bladder cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	136,556	112,053	74	0.66
Merative CCAE	10,738	9,386	<5	<0.53
Merative MDCD	1,658	1,112	-	0.00
Merative MDCR	868	646	-	0.00
Optum Clininformatics	9,209	6,640	9	1.36
Optum EHR	10,876	5,479	5	0.91
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

Legend: ■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

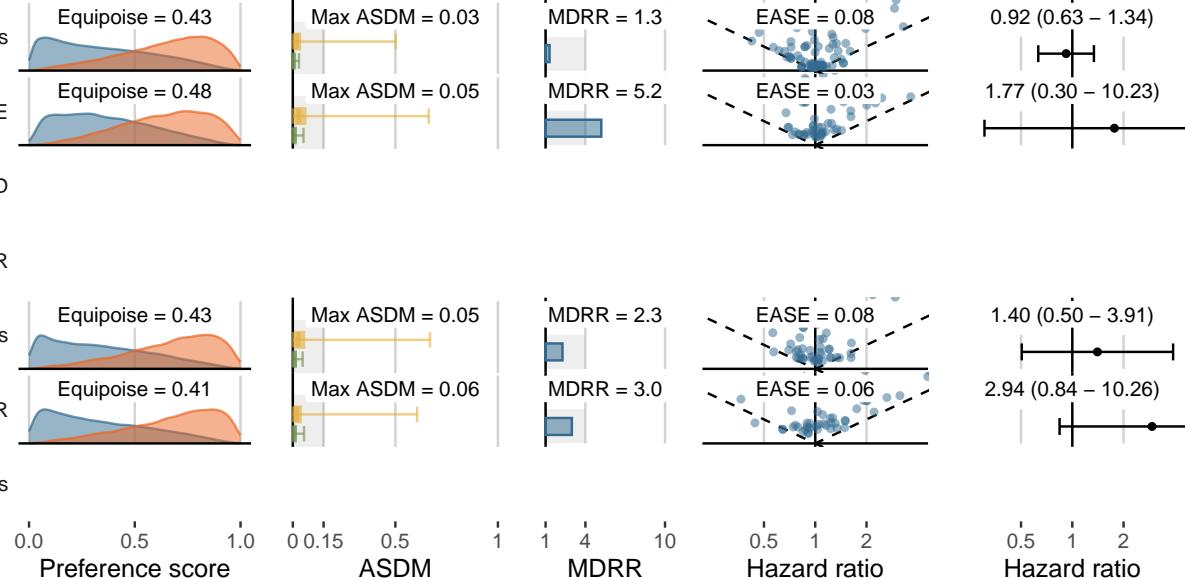
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

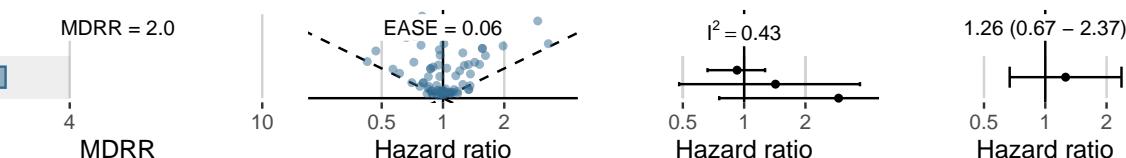
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

Legend: ■ MDRR ● Negative control ● Estimate ◆ Calibrated estimate

Meta-analysis



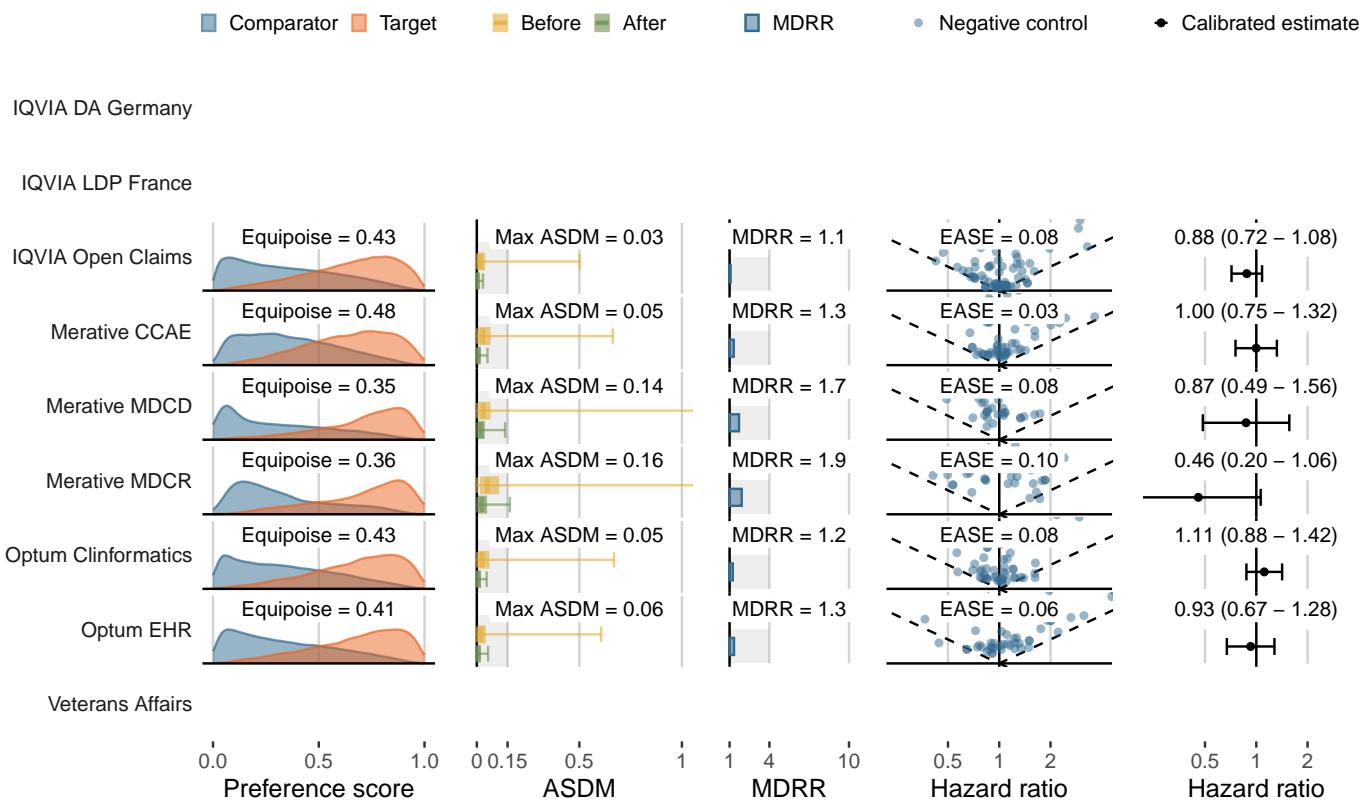
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Bone fracture**

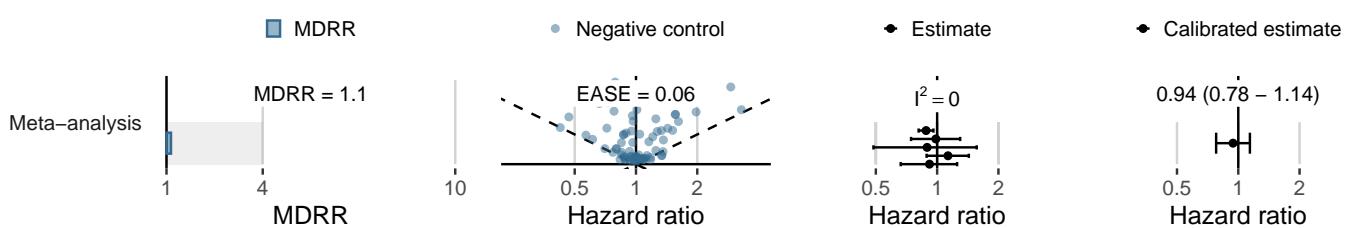
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	117,544	95,869	1,221	12.74
Merative CCAE	9,706	8,294	155	18.69
Merative MDCD	1,425	950	30	31.59
Merative MDCR	782	569	12	21.07
Optum Clininformatics	8,351	5,920	163	27.53
Optum EHR	10,048	4,985	79	15.85
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



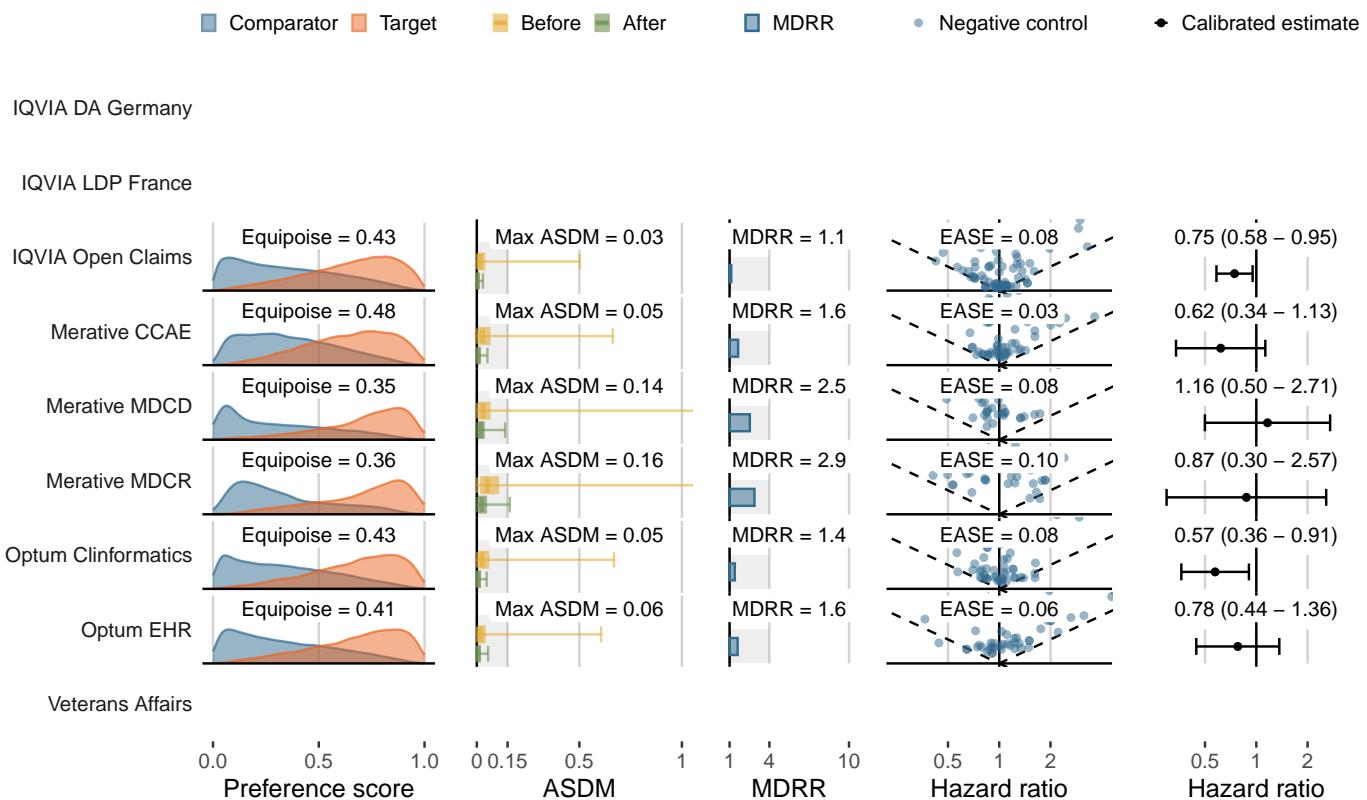
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

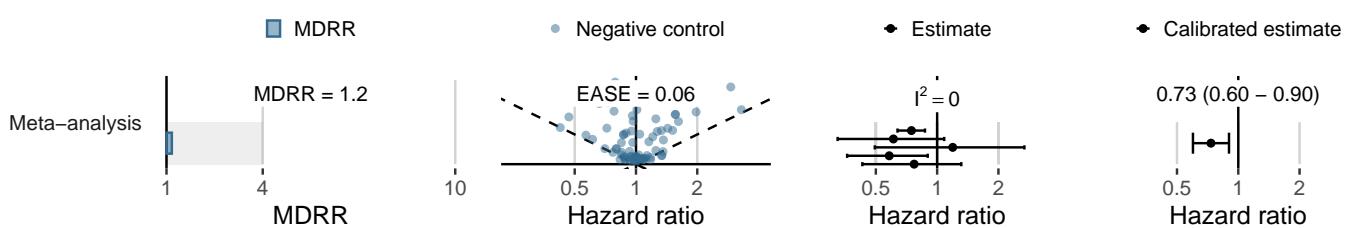
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	133,803	109,945	284	2.58
Merative CCAE	10,566	9,225	34	3.69
Merative MDCD	1,611	1,076	12	11.15
Merative MDCR	853	639	6	9.39
Optum Clininformatics	9,039	6,532	36	5.51
Optum EHR	10,781	5,418	22	4.06
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



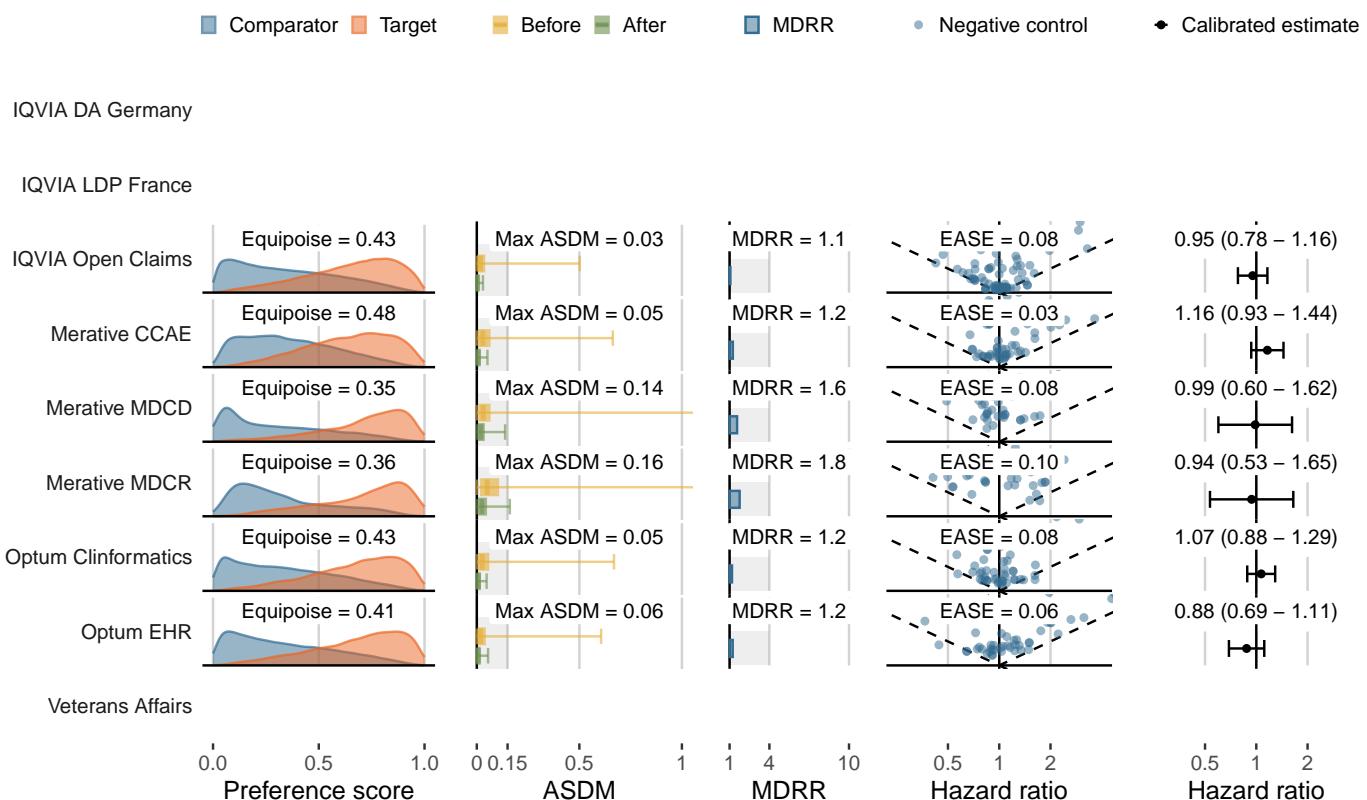
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Genitourinary infection**

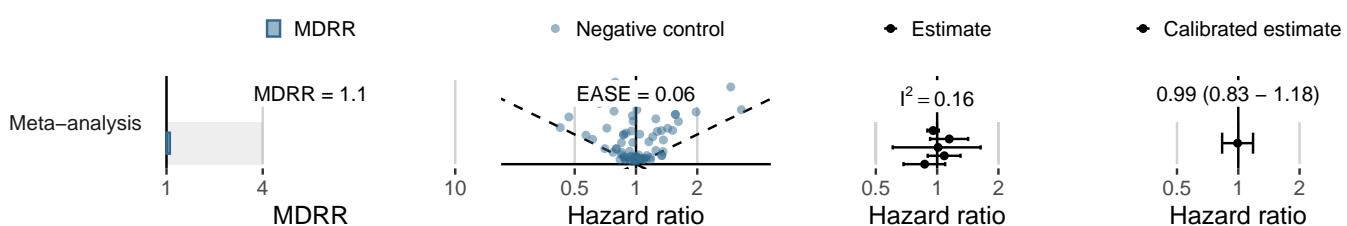
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	103,178	84,713	2,075	24.49
Merative CCAE	8,541	7,304	261	35.73
Merative MDCD	1,208	770	41	53.26
Merative MDCR	694	484	29	59.90
Optum Clininformatics	7,278	5,048	264	52.29
Optum EHR	9,116	4,485	169	37.68
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



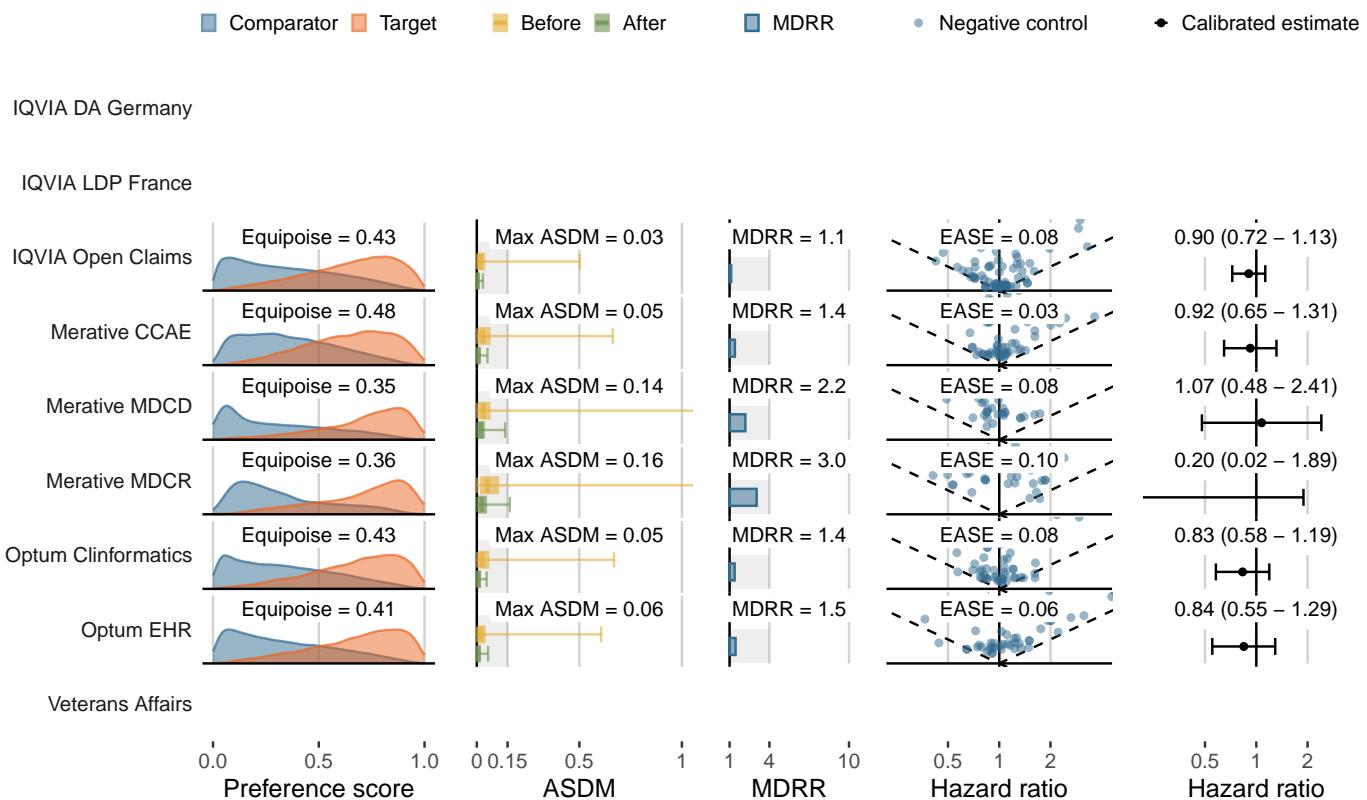
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Joint pain**

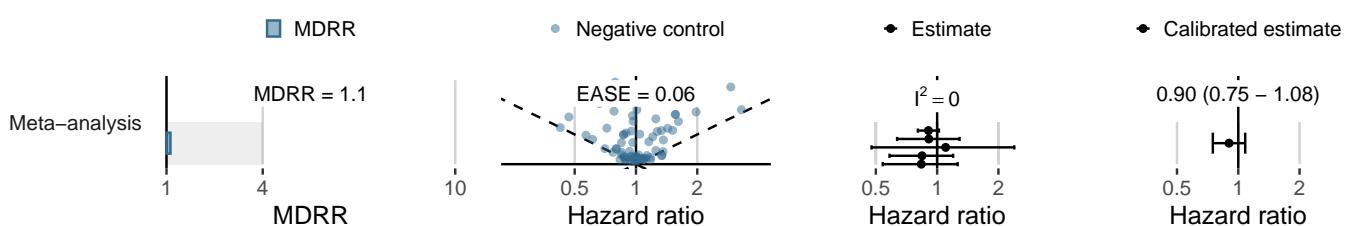
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	127,059	104,103	675	6.48
Merative CCAE	10,060	8,654	103	11.90
Merative MDCD	1,309	858	19	22.16
Merative MDCR	761	567	<5	<8.82
Optum Clininformatics	8,014	5,655	74	13.09
Optum EHR	10,197	5,071	56	11.04
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



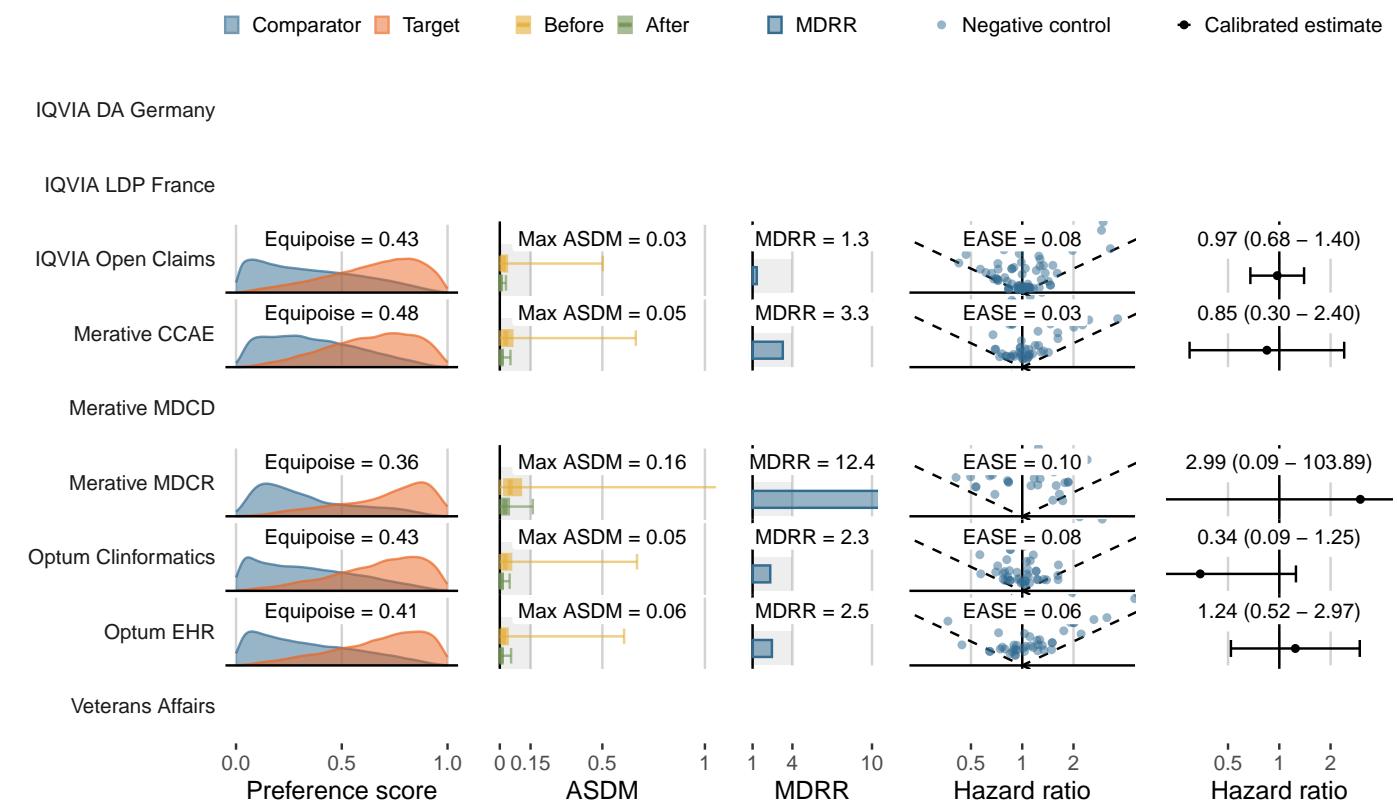
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Renal cancer**

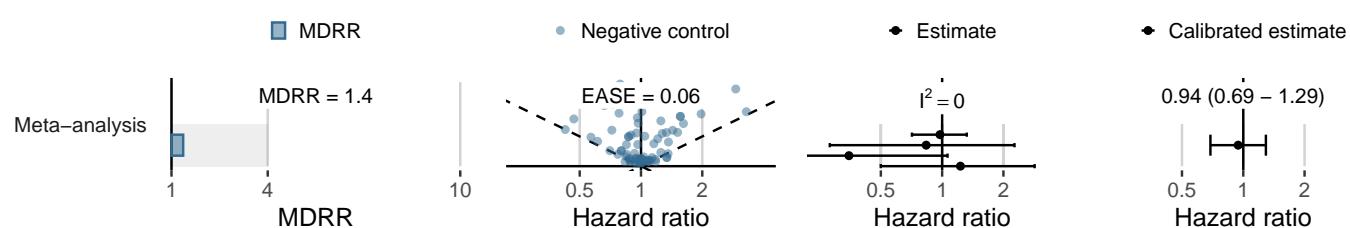
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	136,537	112,037	78	0.70
Merative CCAE	10,729	9,376	9	0.96
Merative MDCD	1,657	1,111	-	0.00
Merative MDCR	871	646	<5	<7.74
Optum Clininformatics	9,209	6,636	<5	<0.75
Optum EHR	10,867	5,469	12	2.19
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



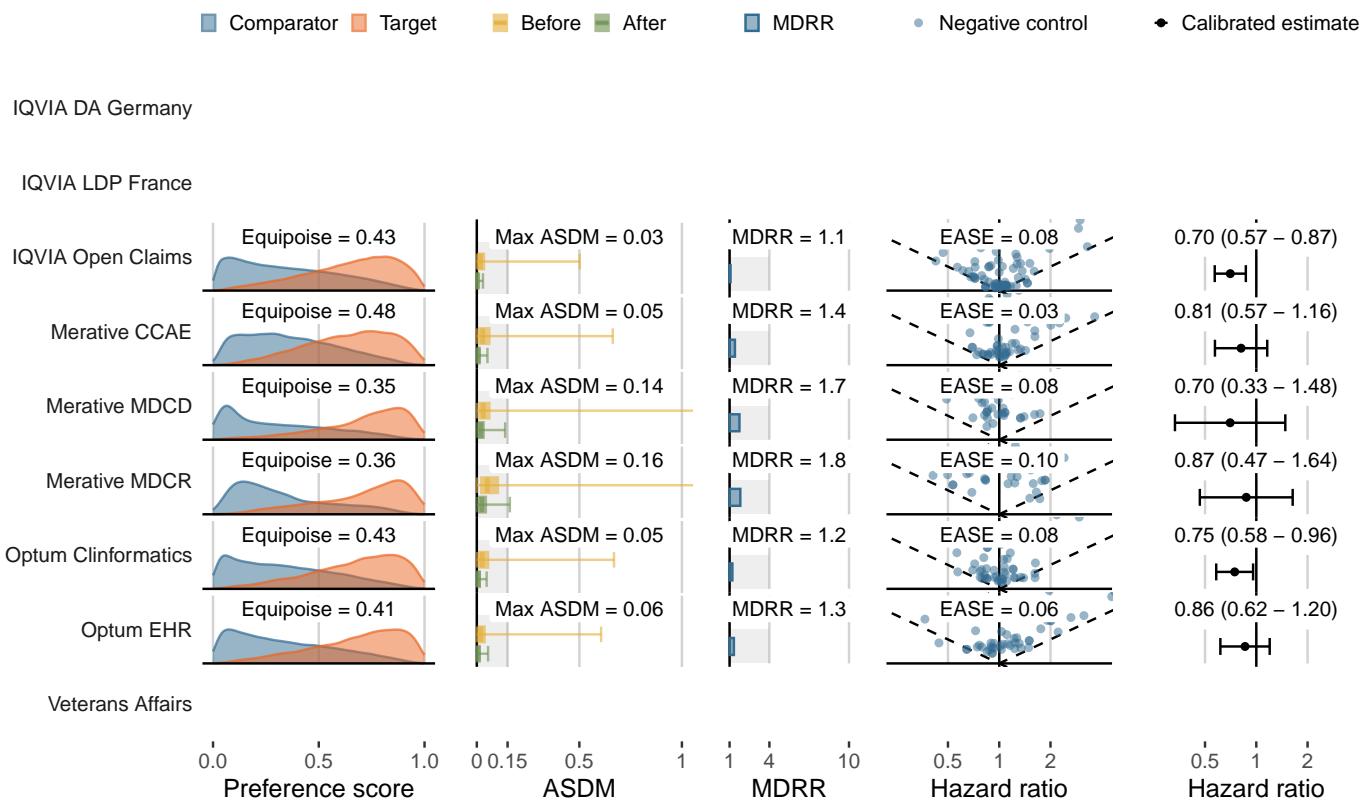
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute renal failure**

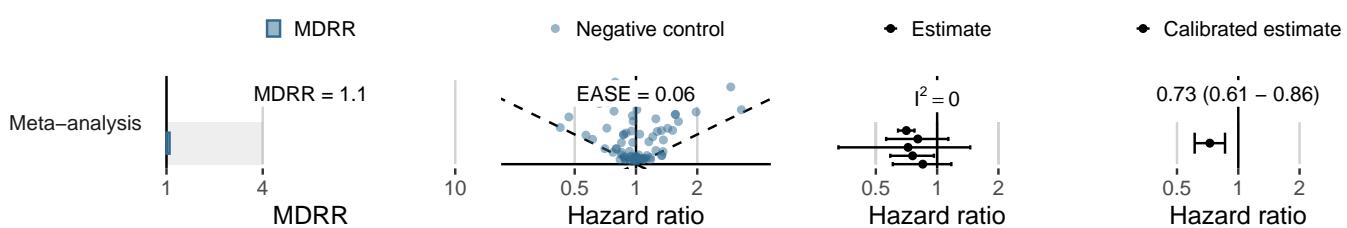
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	132,653	108,772	833	7.66
Merative CCAE	10,546	9,199	81	8.80
Merative MDCD	1,541	1,005	14	13.94
Merative MDCR	845	621	17	27.35
Optum Clininformatics	8,825	6,310	131	20.76
Optum EHR	10,735	5,350	69	12.90
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



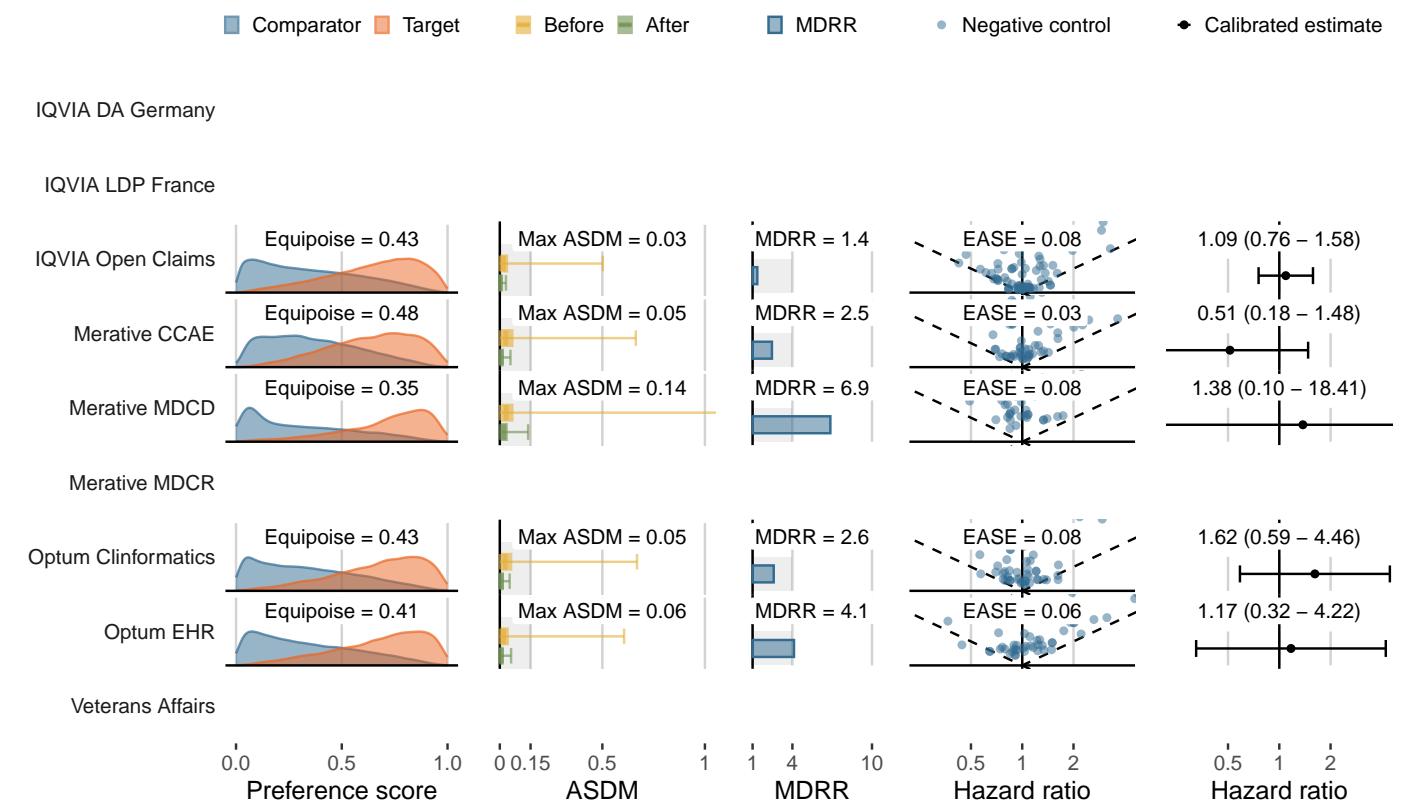
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Thyroid tumor**

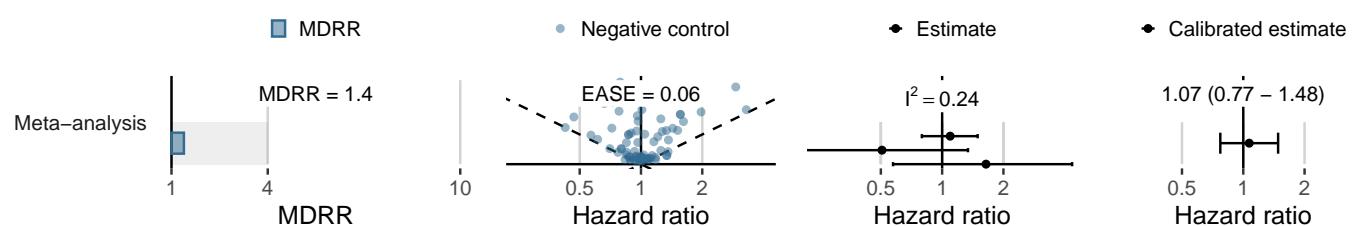
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	135,868	111,507	92	0.83
Merative CCAE	10,692	9,340	13	1.39
Merative MDCD	1,655	1,105	<5	<4.53
Merative MDCR	875	650	<5	<7.69
Optum Clininformatics	9,203	6,632	10	1.51
Optum EHR	10,838	5,467	5	0.91
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



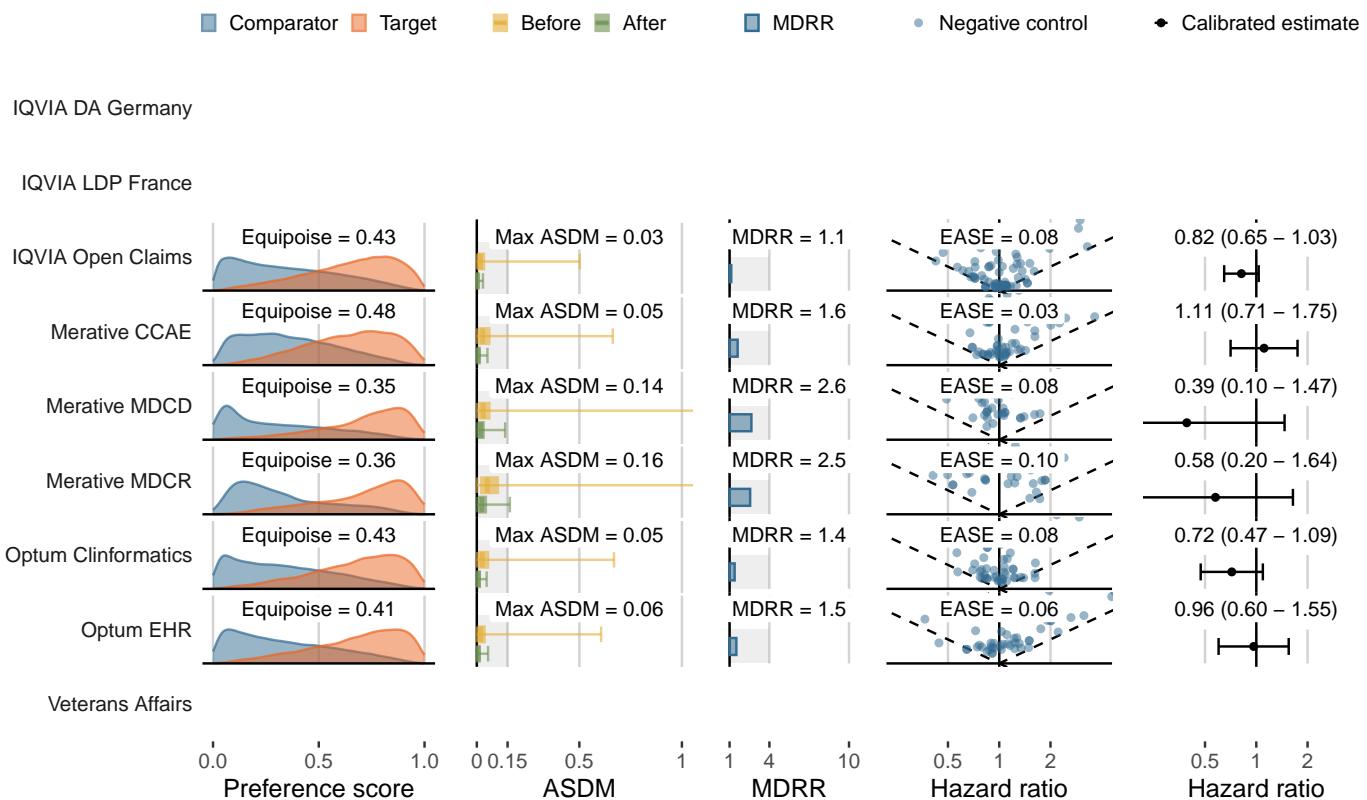
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

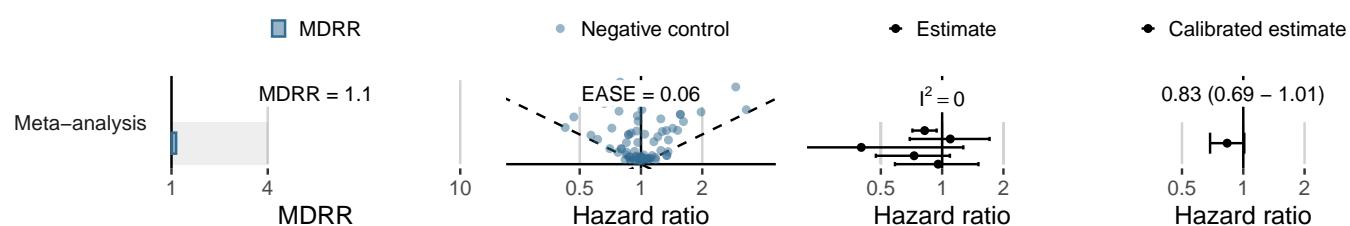
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	131,826	108,177	428	3.96
Merative CCAE	10,438	9,090	51	5.61
Merative MDCD	1,578	1,050	7	6.66
Merative MDCR	840	613	10	16.32
Optum Clininformatics	8,896	6,409	45	7.02
Optum EHR	10,597	5,332	36	6.75
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



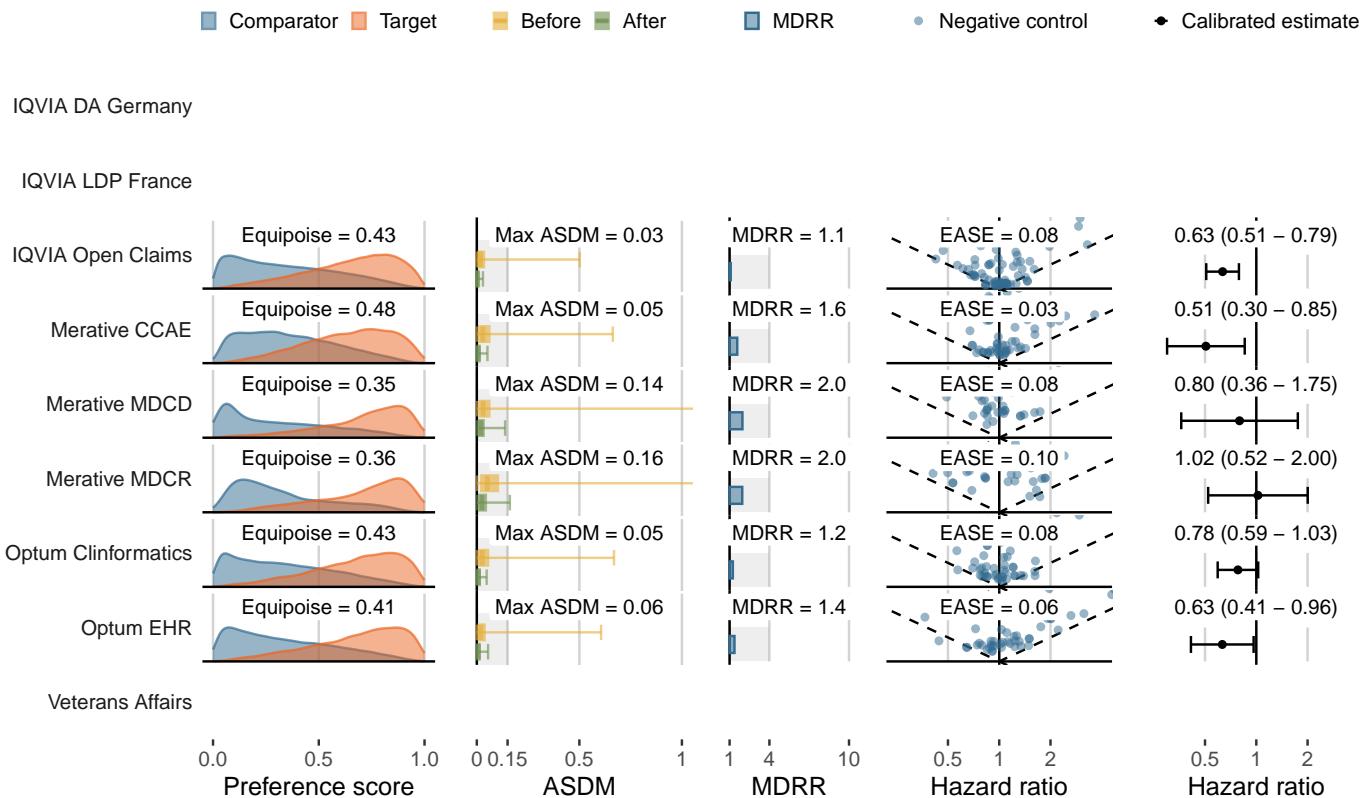
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

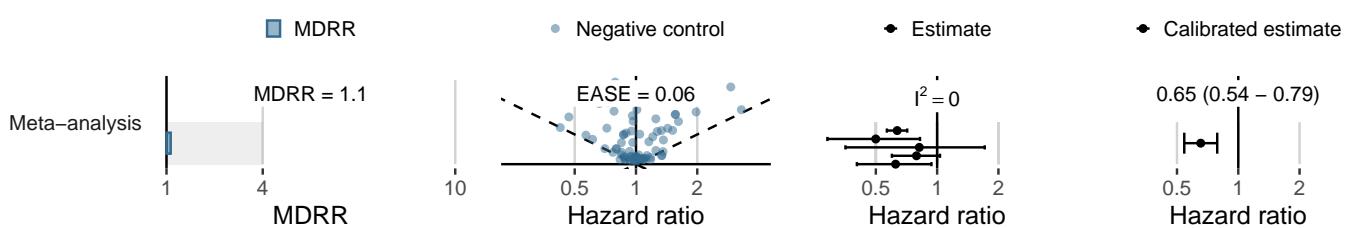
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	132,444	108,845	529	4.86
Merative CCAE	10,523	9,207	37	4.02
Merative MDCD	1,524	1,014	14	13.81
Merative MDCR	839	621	20	32.19
Optum Clininformatics	8,809	6,310	97	15.37
Optum EHR	10,704	5,349	50	9.35
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



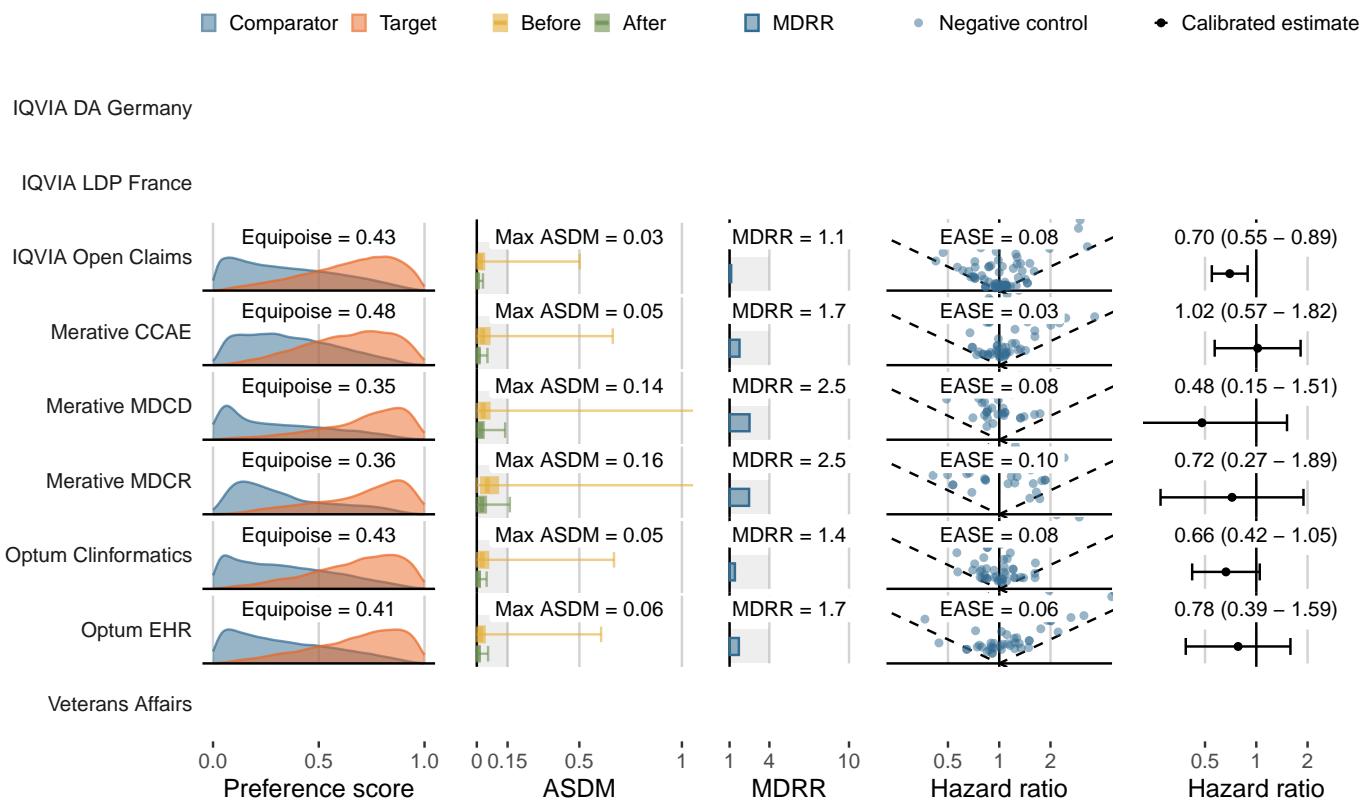
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Stroke**

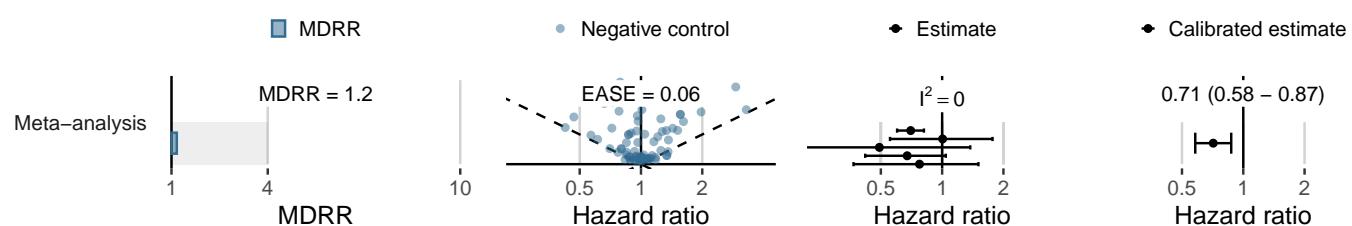
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	134,074	110,278	321	2.91
Merative CCAE	10,600	9,255	32	3.46
Merative MDCD	1,610	1,076	8	7.44
Merative MDCR	851	627	8	12.76
Optum Clininformatics	9,046	6,506	43	6.61
Optum EHR	10,794	5,427	16	2.95
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



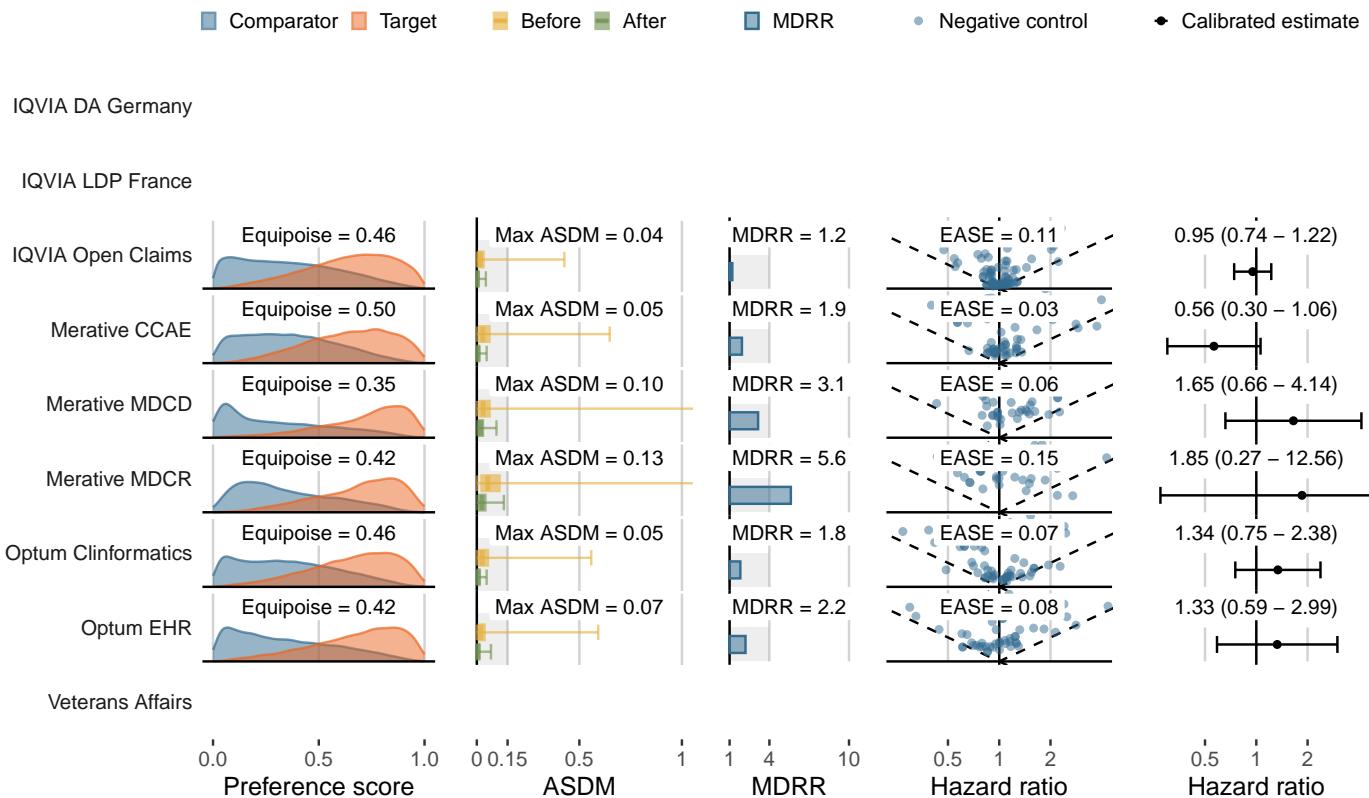
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Glipizide (Sulfonylureas)**
- Outcome: **Acute pancreatitis**

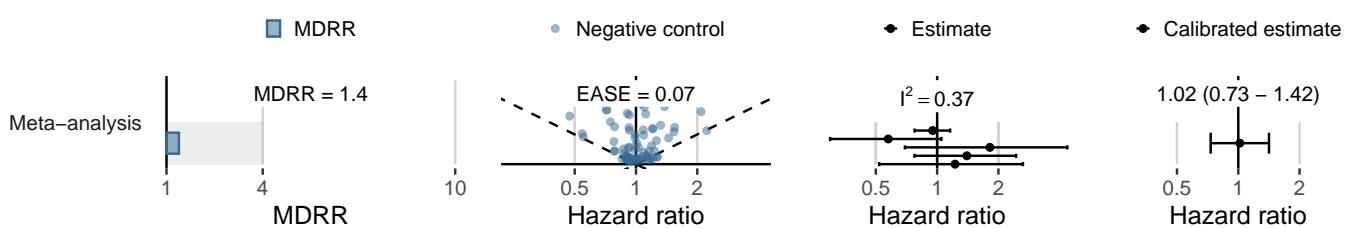
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	149,538	118,710	175	1.47
Merative CCAE	11,980	10,023	19	1.90
Merative MDCD	1,935	1,220	9	7.38
Merative MDCR	948	682	<5	<7.33
Optum Clininformatics	10,392	7,297	24	3.29
Optum EHR	12,057	5,973	14	2.34
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Bladder cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	150,598	119,362	77	.65
Merative CCAE	12,052	10,063	5	.50
Merative MDCD	1,970	1,244	-	.00
Merative MDCR	941	675	-	.00
Optum Clininformatics	10,438	7,314	10	1.37
Optum EHR	12,086	6,002	5	.83
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

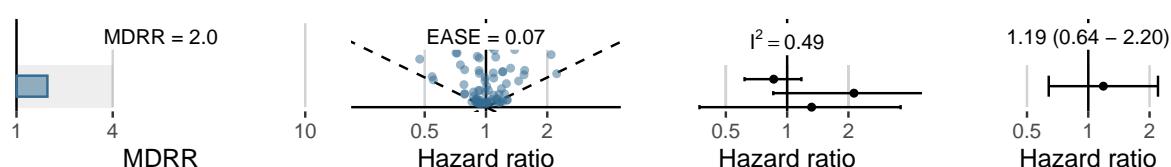
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



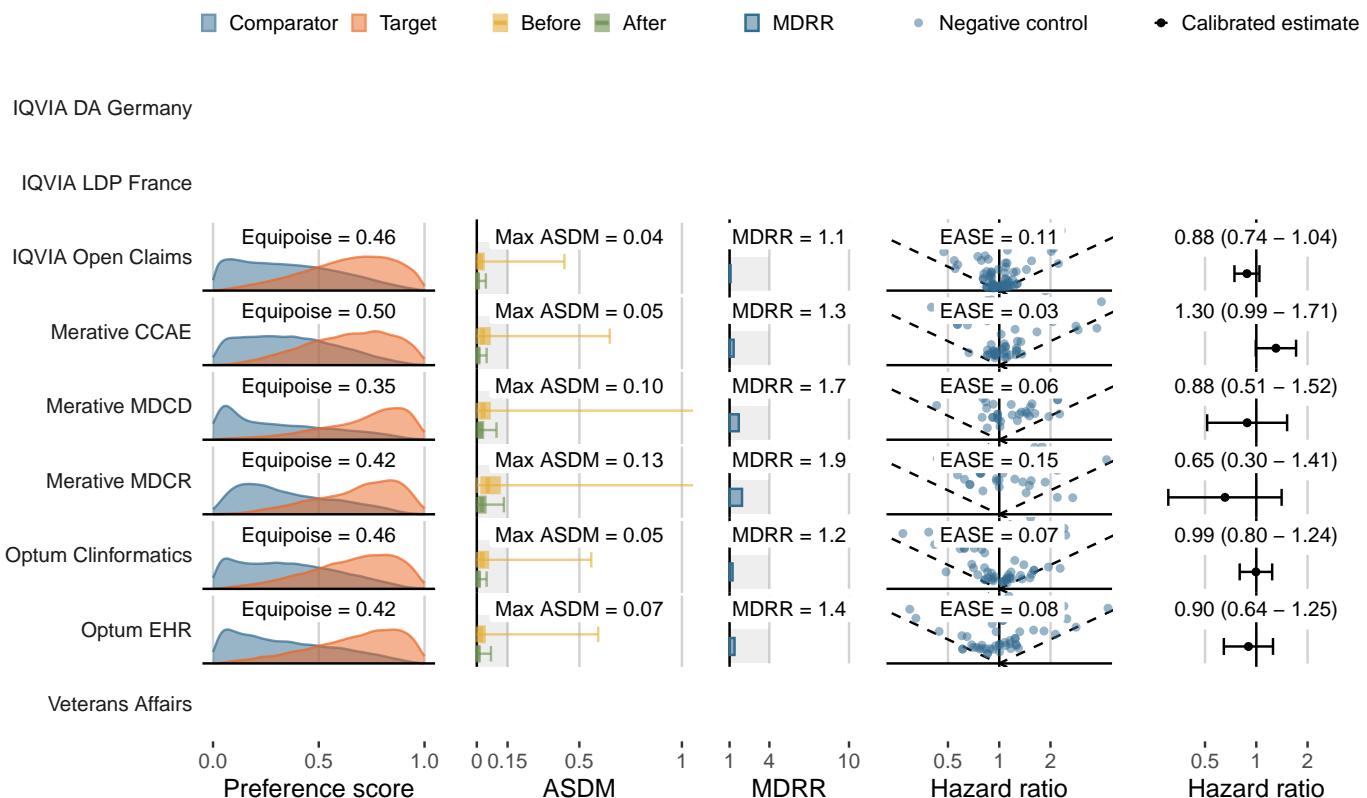
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Bone fracture**

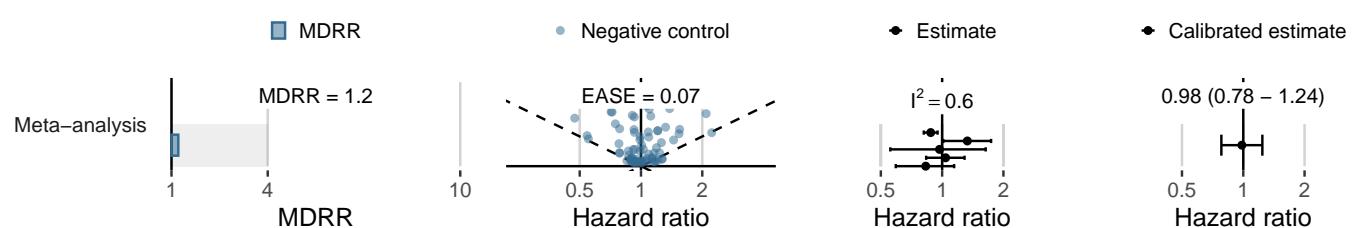
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	129,457	101,956	1,313	12.88
Merative CCAE	10,930	8,932	163	18.25
Merative MDCD	1,694	1,050	35	33.33
Merative MDCR	855	598	14	23.42
Optum Clininformatics	9,493	6,535	181	27.70
Optum EHR	11,120	5,452	80	14.67
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



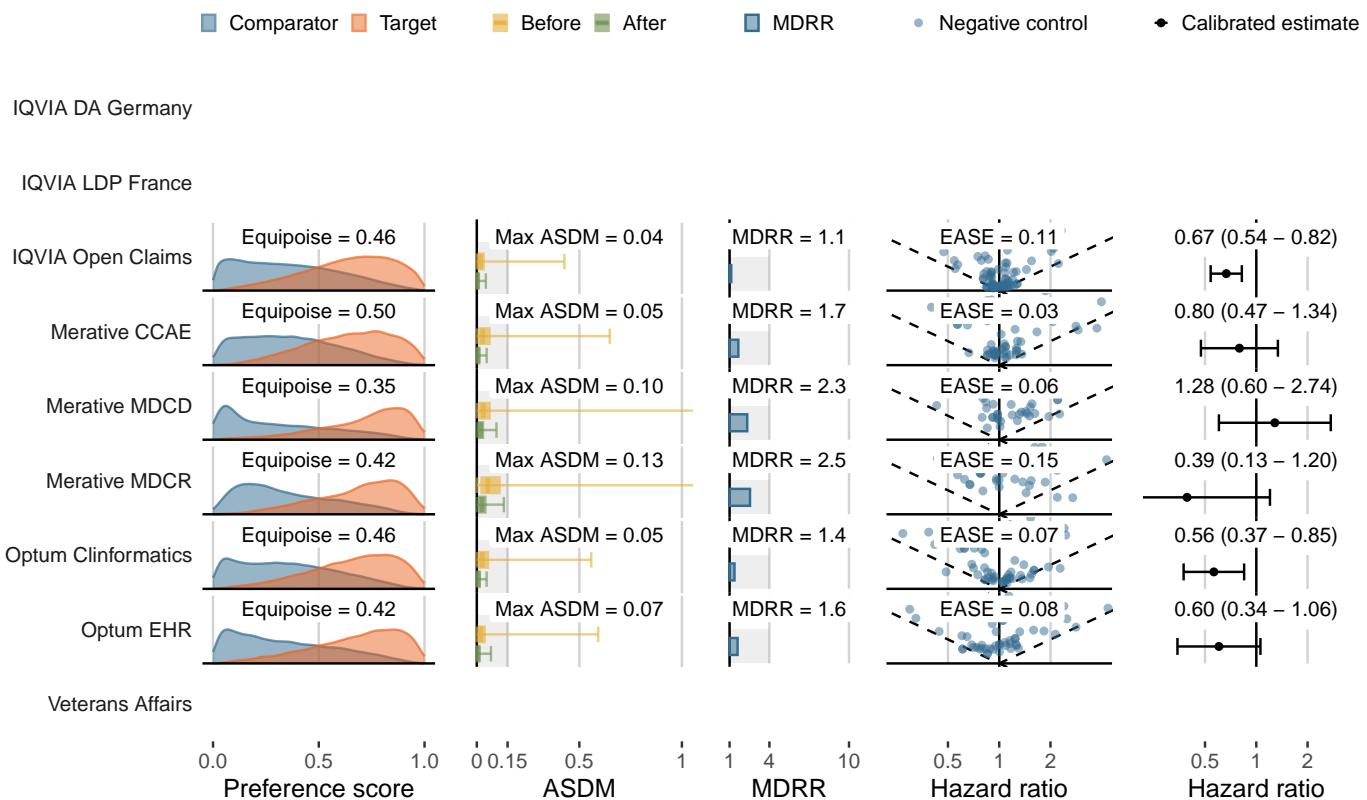
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

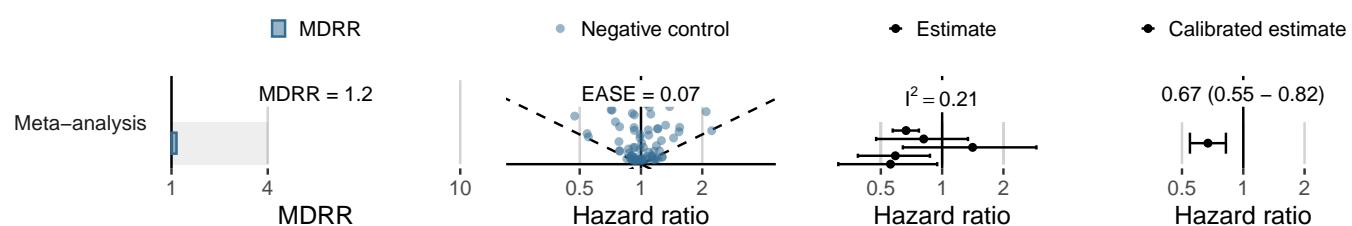
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	147,571	117,099	306	2.61
Merative CCAE	11,852	9,895	37	3.74
Merative MDCD	1,914	1,204	12	9.96
Merative MDCR	927	666	6	9.01
Optum Clininformatics	10,242	7,199	38	5.28
Optum EHR	11,962	5,922	23	3.88
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



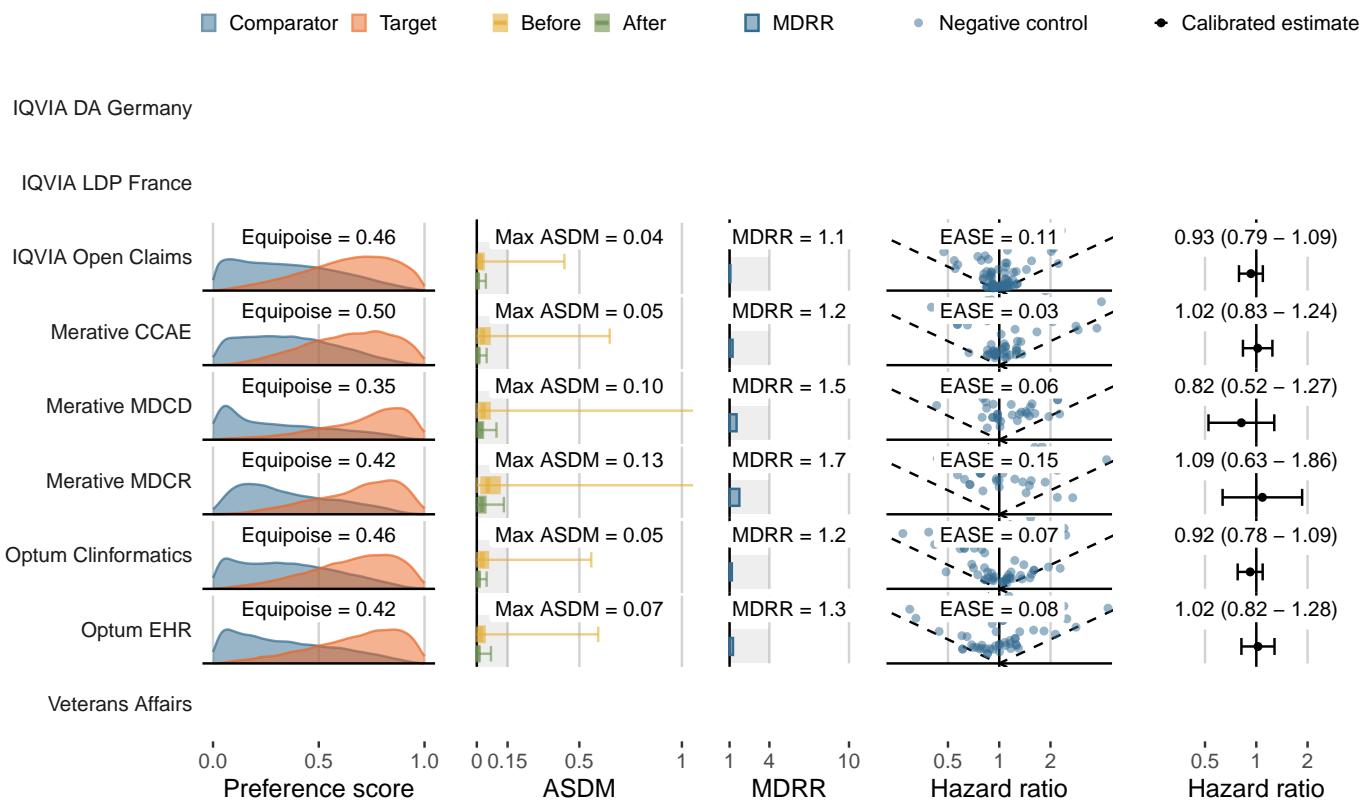
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Genitourinary infection**

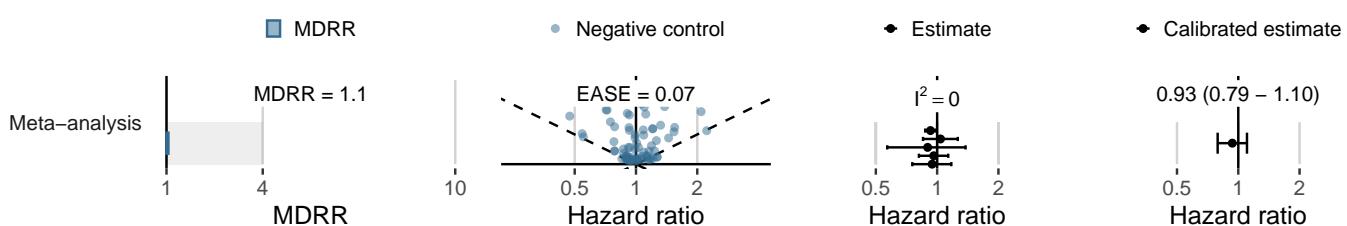
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	113,095	89,696	2,258	25.17
Merative CCAE	9,651	7,885	282	35.77
Merative MDCD	1,426	865	44	50.88
Merative MDCR	764	505	29	57.38
Optum Clininformatics	8,234	5,535	295	53.30
Optum EHR	10,092	4,910	192	39.10
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



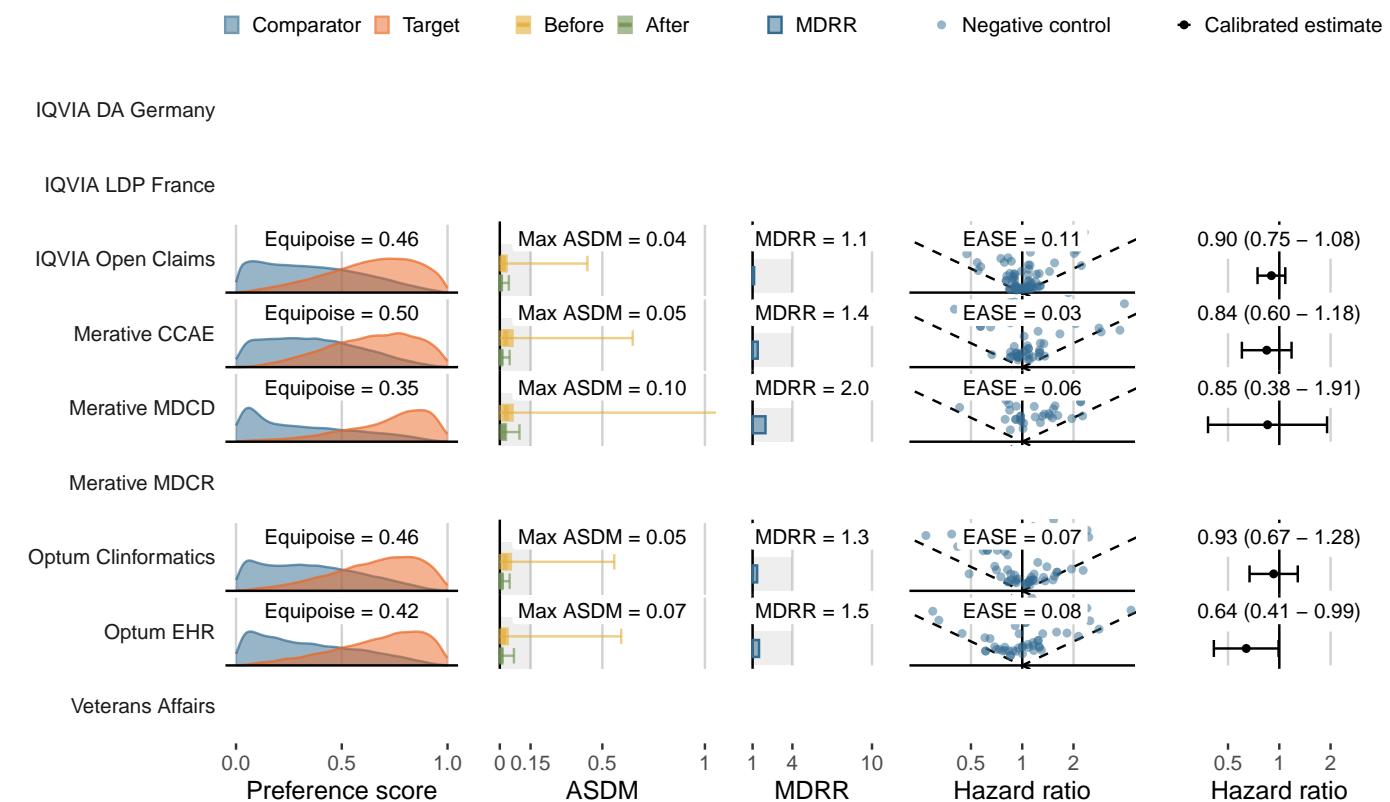
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Joint pain**

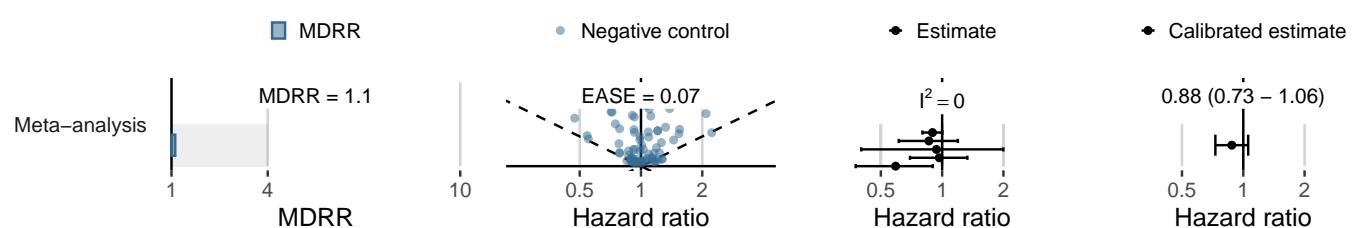
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	139,640	110,627	723	6.54
Merative CCAE	11,237	9,262	102	11.01
Merative MDCD	1,572	962	22	22.86
Merative MDCR	839	597	<5	<8.38
Optum Clininformatics	9,092	6,212	80	12.88
Optum EHR	11,319	5,559	57	10.25
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



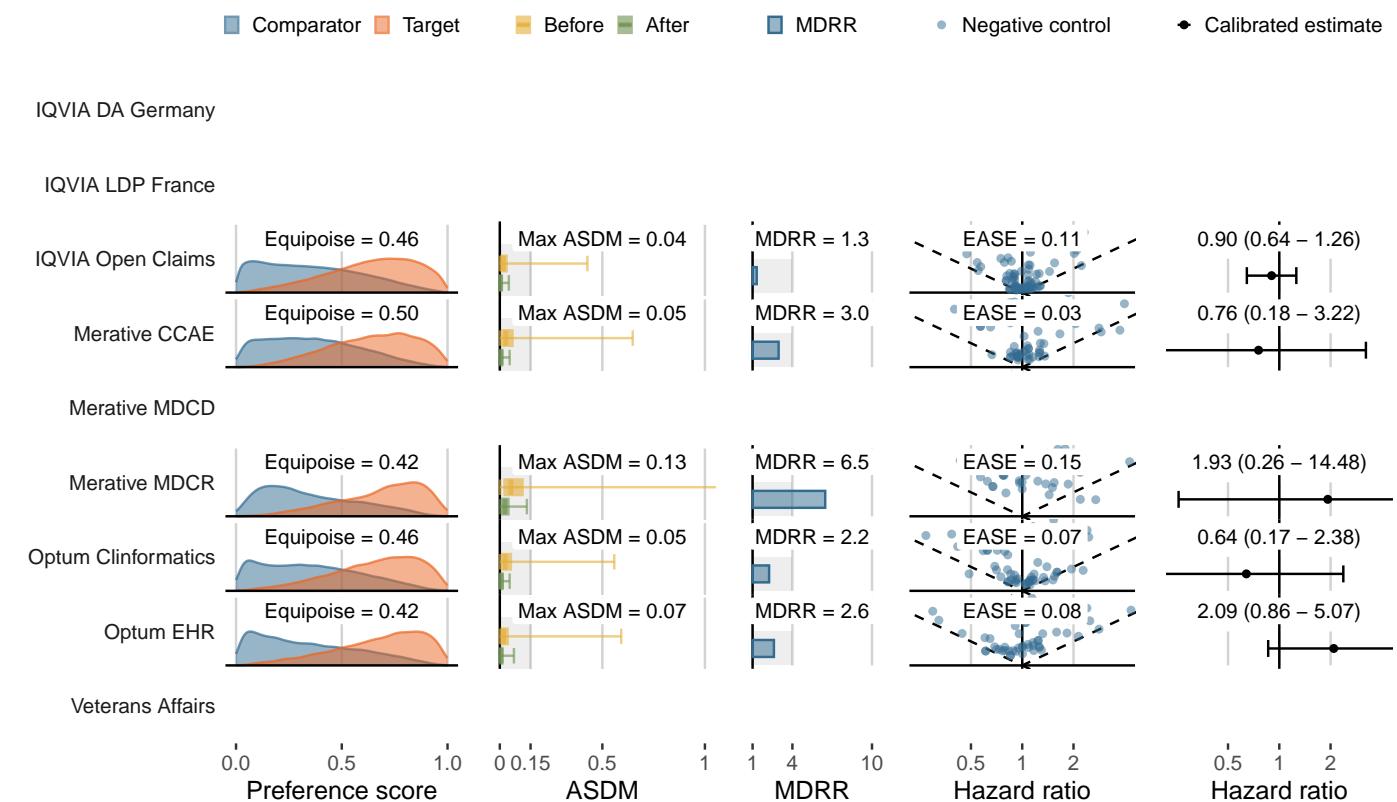
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Renal cancer**

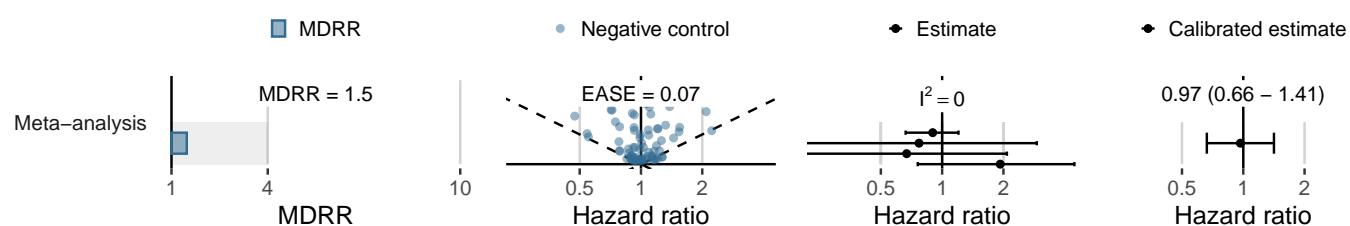
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	150,548	119,336	85	0.71
Merative CCAE	12,044	10,040	9	0.90
Merative MDCD	1,969	1,242	-	0.00
Merative MDCR	945	676	<5	<7.40
Optum Clininformatics	10,437	7,315	<5	<0.68
Optum EHR	12,080	5,994	12	2.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



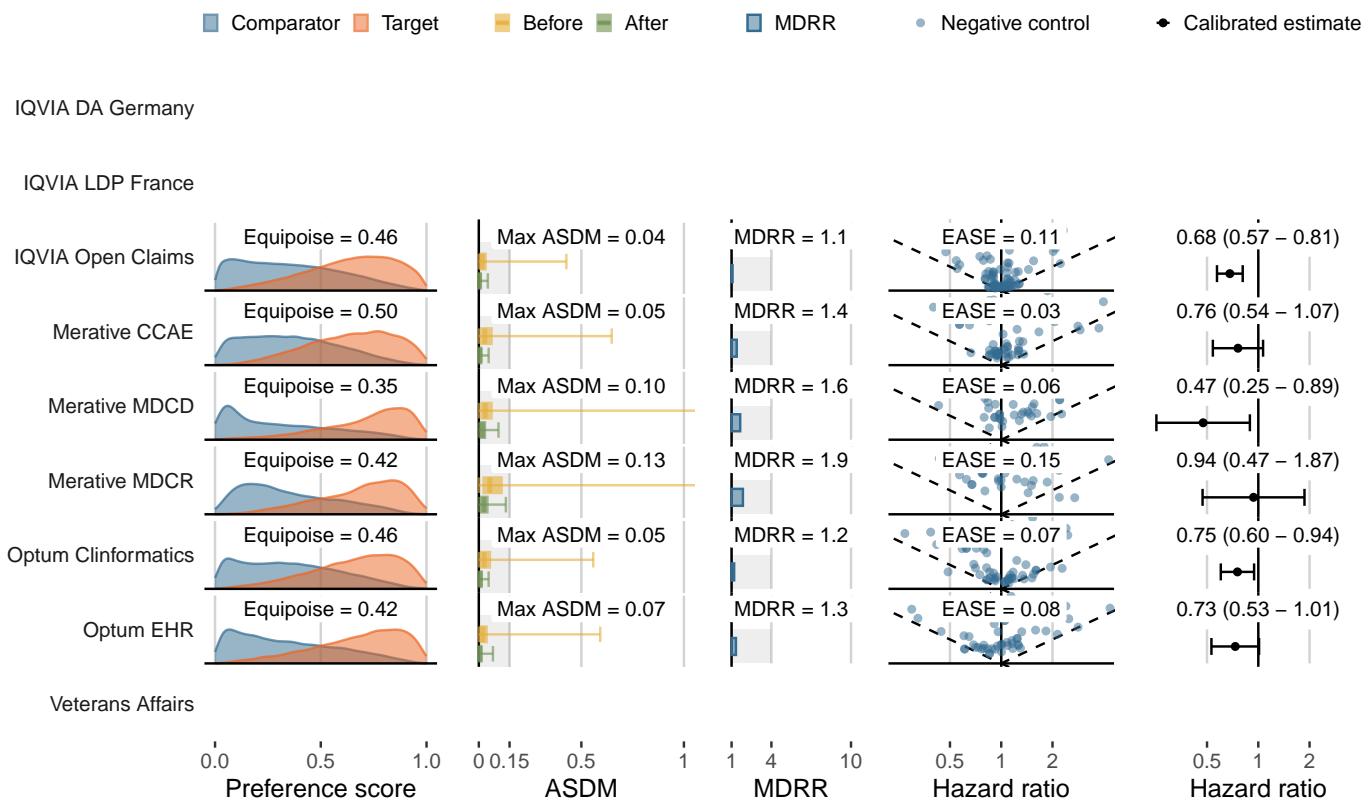
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute renal failure**

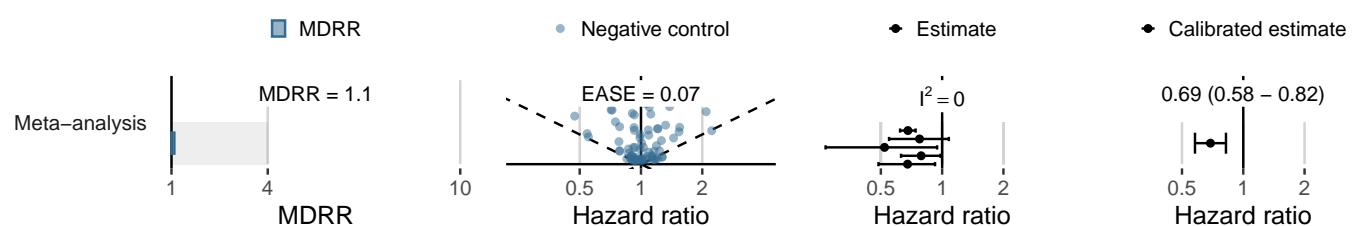
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	146,292	115,886	893	7.71
Merative CCAE	11,838	9,866	83	8.41
Merative MDCD	1,837	1,128	18	15.95
Merative MDCR	915	652	18	27.60
Optum Clininformatics	9,999	6,966	144	20.67
Optum EHR	11,951	5,878	73	12.42
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



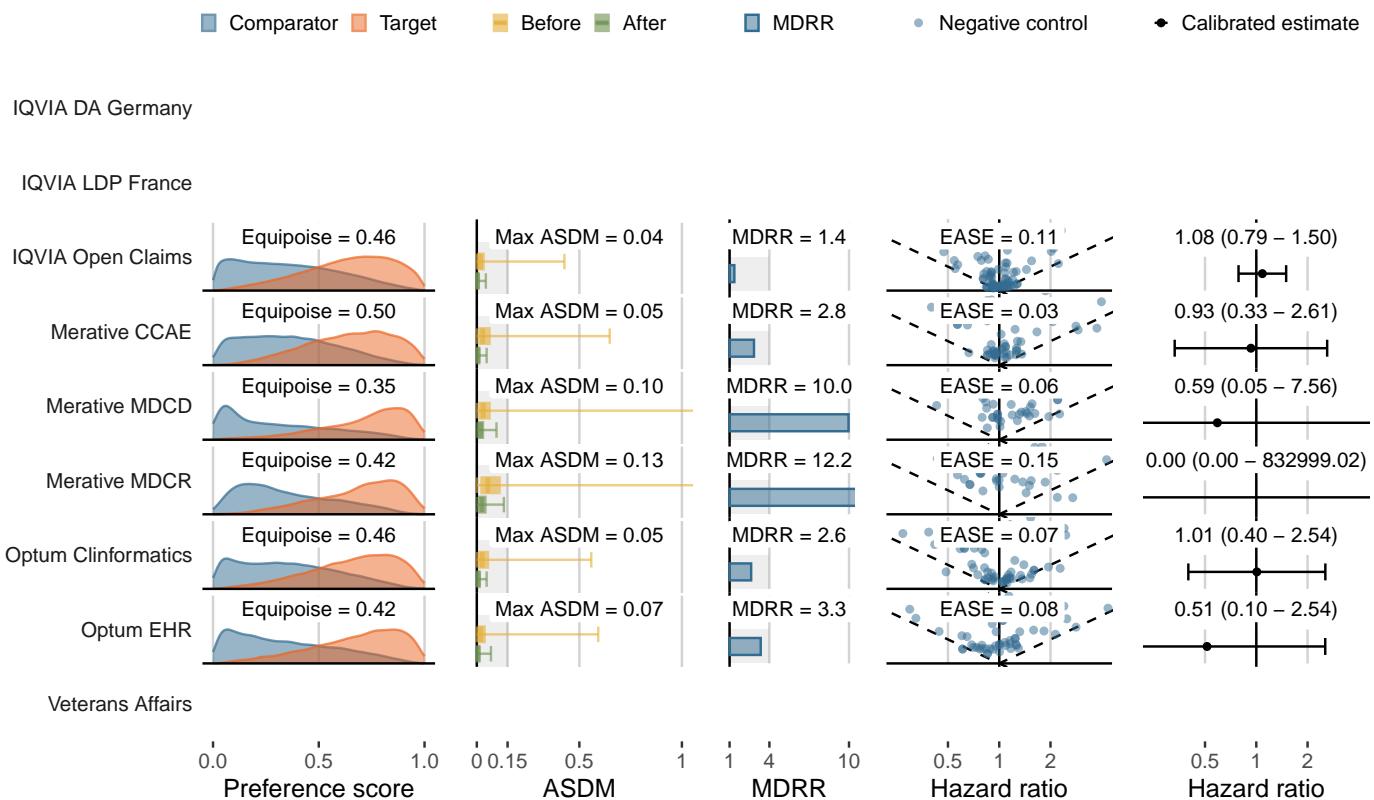
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Thyroid tumor**

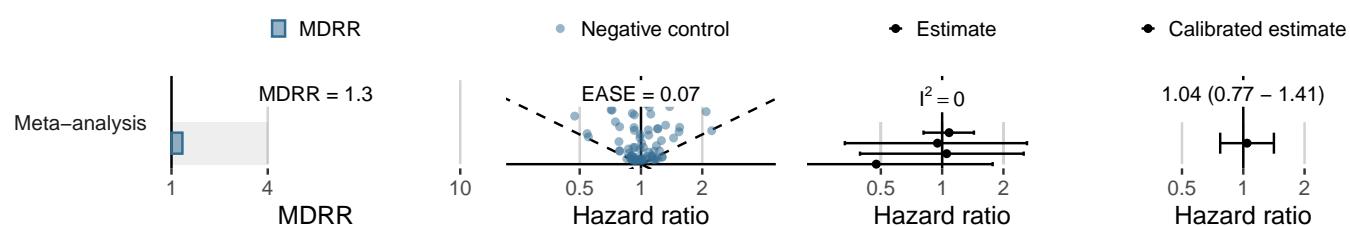
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	149,822	118,771	100	0.84
Merative CCAE	12,003	10,023	16	1.60
Merative MDCD	1,962	1,234	<5	<4.05
Merative MDCR	948	680	<5	<7.36
Optum Clininformatics	10,432	7,311	9	1.23
Optum EHR	12,040	5,975	5	0.84
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



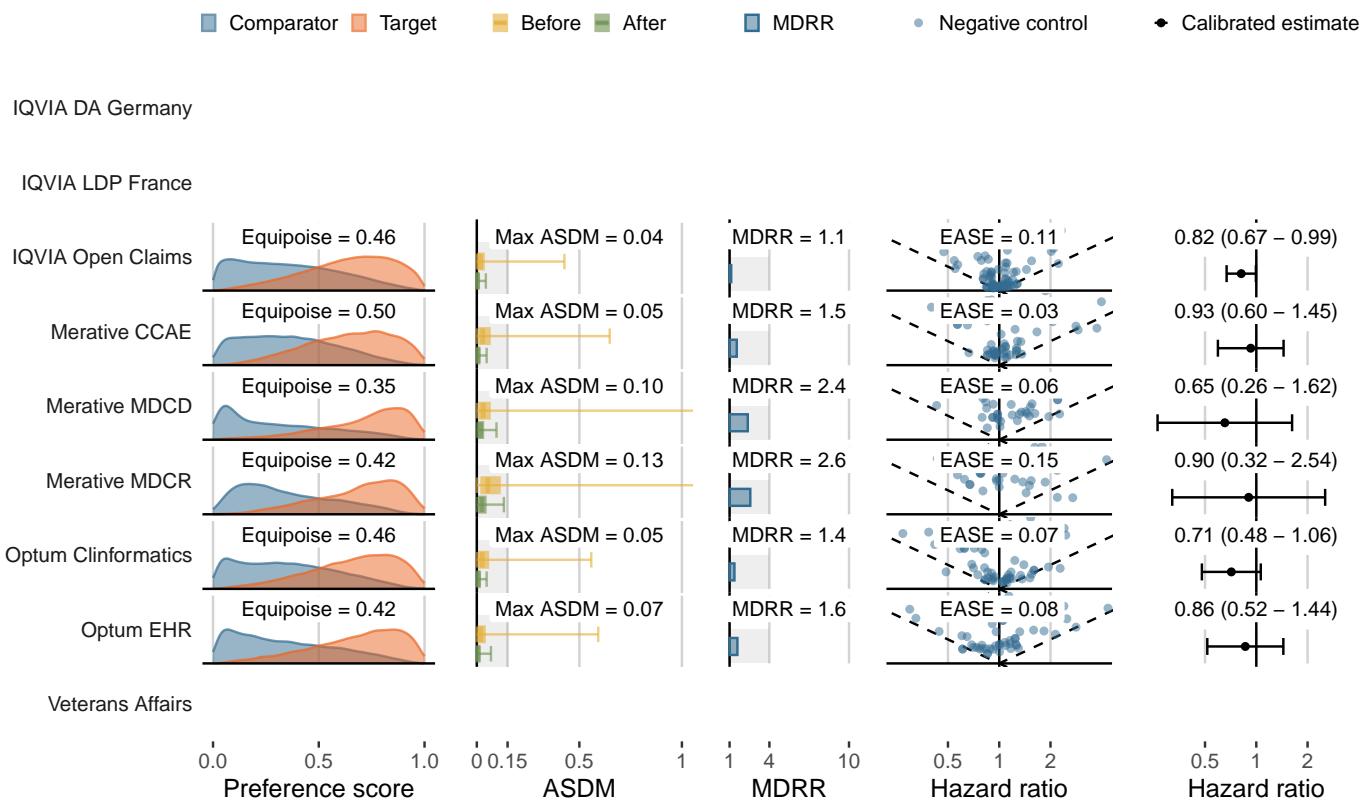
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

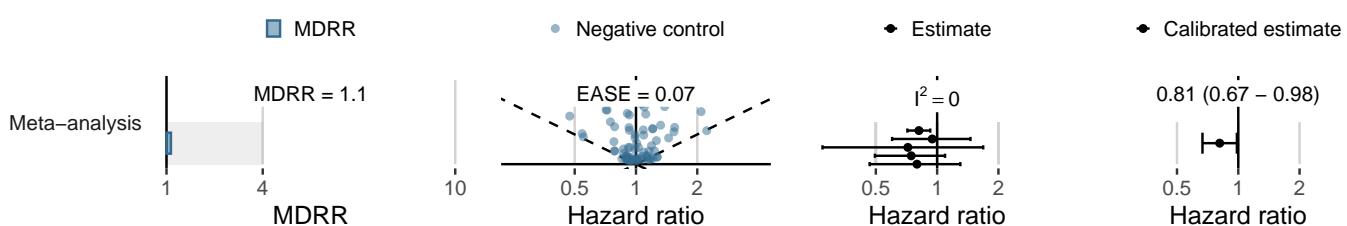
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	145,338	115,258	452	3.92
Merative CCAE	11,736	9,761	51	5.22
Merative MDCD	1,875	1,184	9	7.60
Merative MDCR	912	640	10	15.64
Optum Clininformatics	10,084	7,067	49	6.93
Optum EHR	11,755	5,820	37	6.36
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



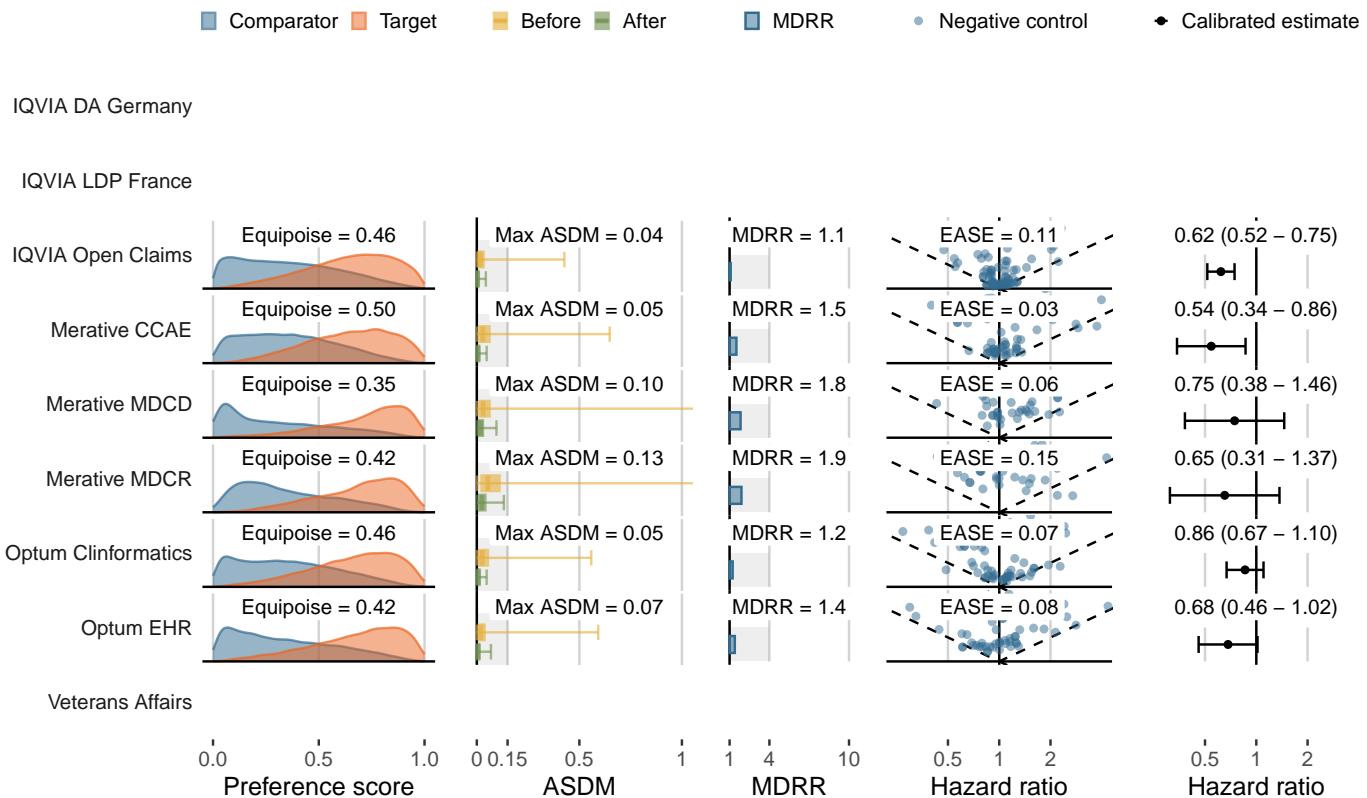
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide (GLP-1 Receptor Agonists)**
- Comparator (class): **Glipizide (Sulfonylureas)**
- Outcome: **Hospitalization with heart failure**

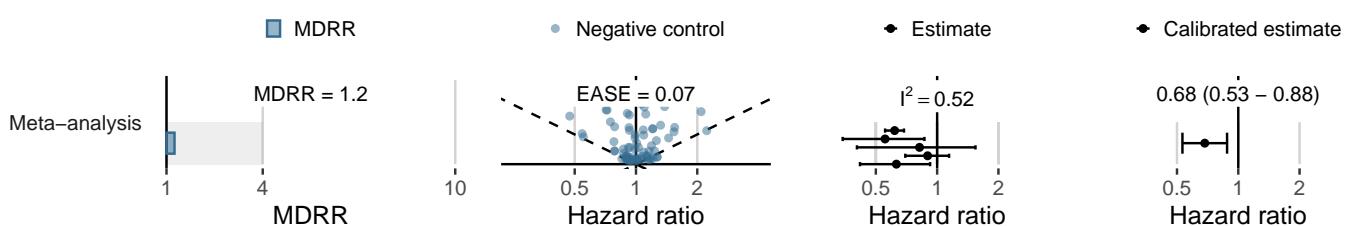
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	146,065	116,006	560	4.83
Merative CCAE	11,813	9,855	40	4.06
Merative MDCD	1,819	1,138	16	14.06
Merative MDCR	909	646	20	30.94
Optum Clininformatics	9,961	6,948	112	16.12
Optum EHR	11,900	5,861	56	9.55
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



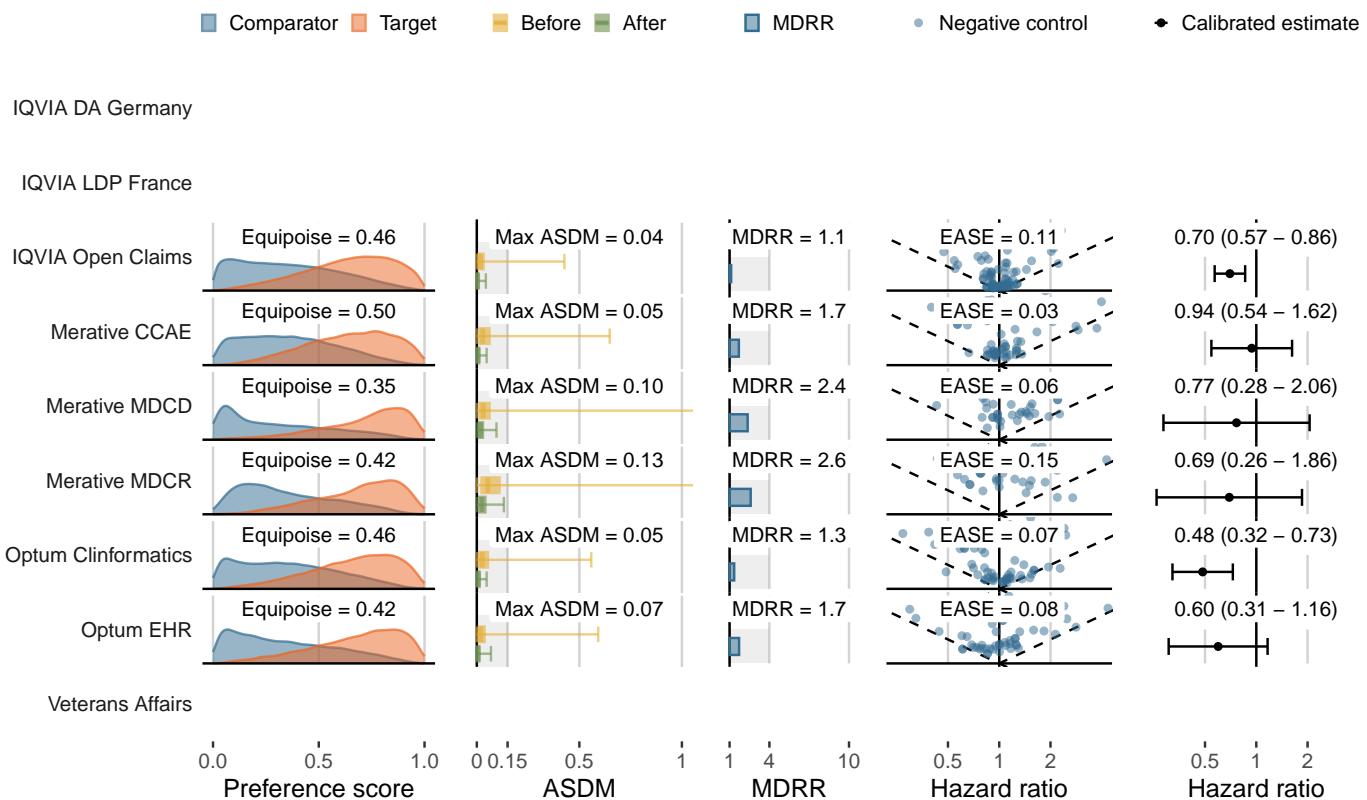
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Stroke**

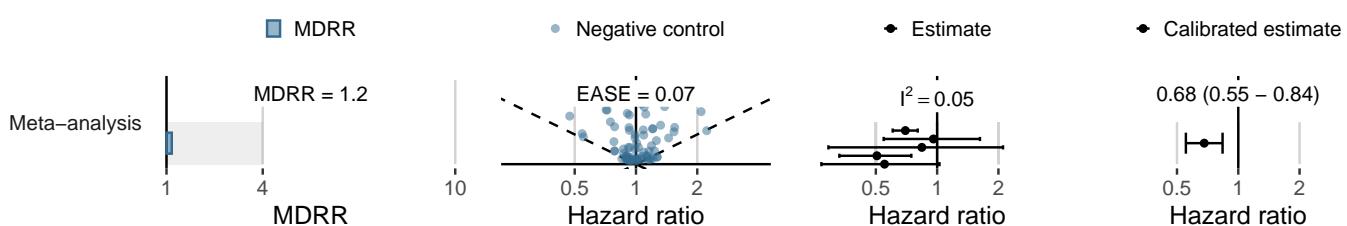
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	147,862	117,427	339	2.89
Merative CCAE	11,899	9,917	31	3.13
Merative MDCD	1,910	1,205	10	8.30
Merative MDCR	921	654	8	12.24
Optum Clininformatics	10,263	7,188	46	6.40
Optum EHR	12,006	5,946	17	2.86
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



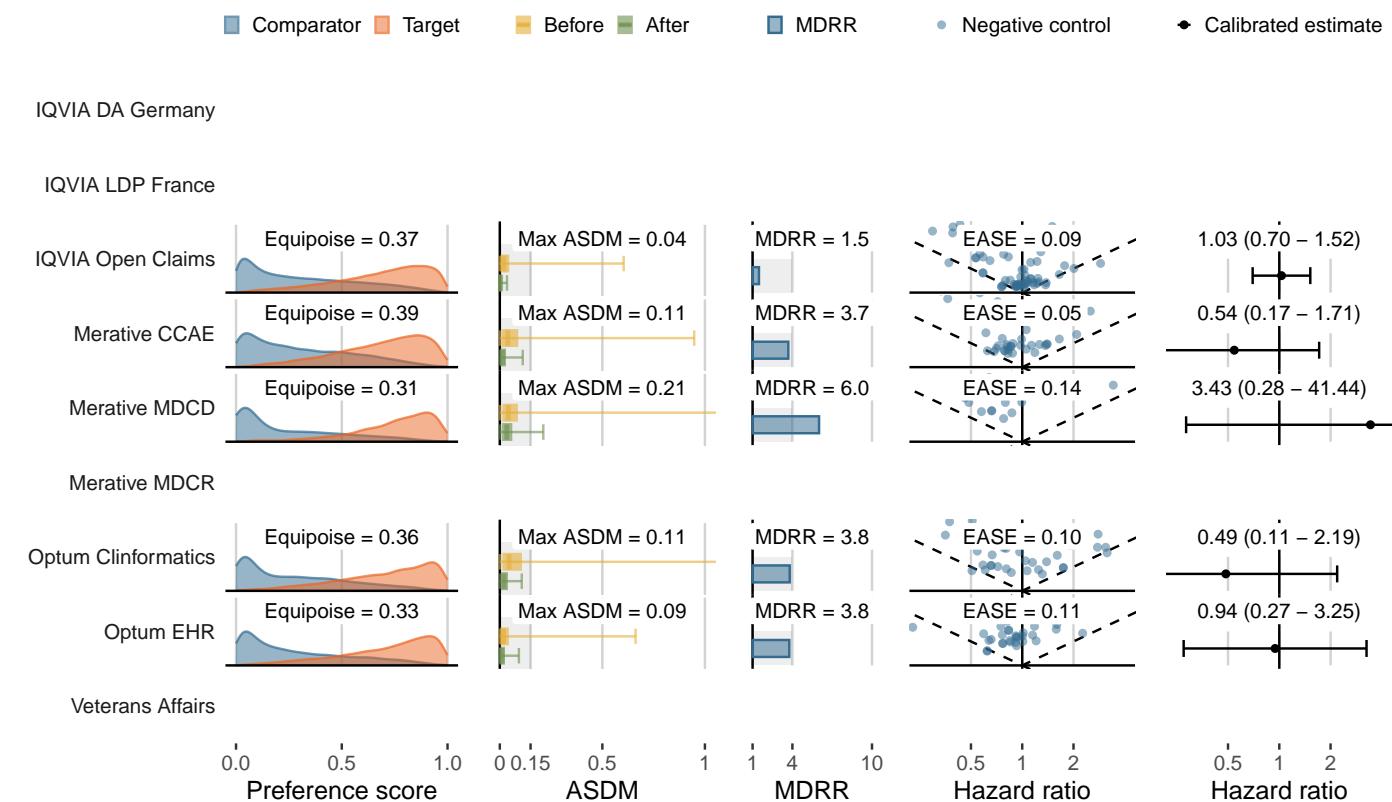
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

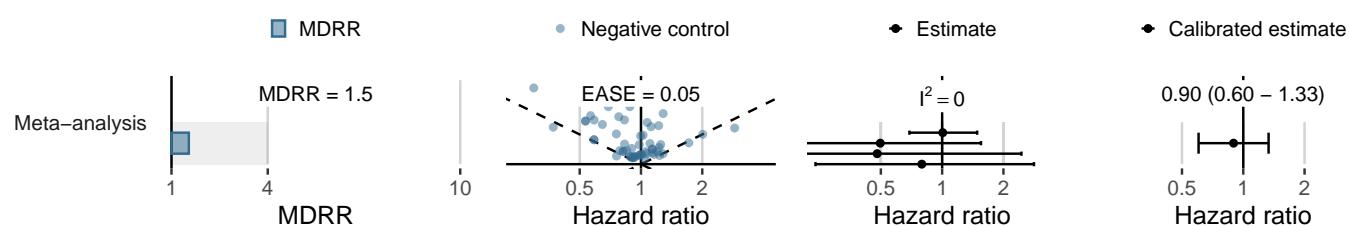
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	159,871	125,105	187	1.49
Merative CCAE	15,502	12,380	23	1.86
Merative MDCD	2,482	1,451	10	6.89
Merative MDCR	1,041	731	<5	<6.84
Optum Clininformatics	11,410	7,932	28	3.53
Optum EHR	13,949	6,981	18	2.58
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Bladder cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	160,934	125,761	82	.65
Merative CCAE	15,578	12,418	5	.40
Merative MDCD	2,519	1,478	-	.00
Merative MDCR	1,036	726	-	.00
Optum Clininformatics	11,454	7,948	9	1.13
Optum EHR	13,989	7,013	5	.71
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

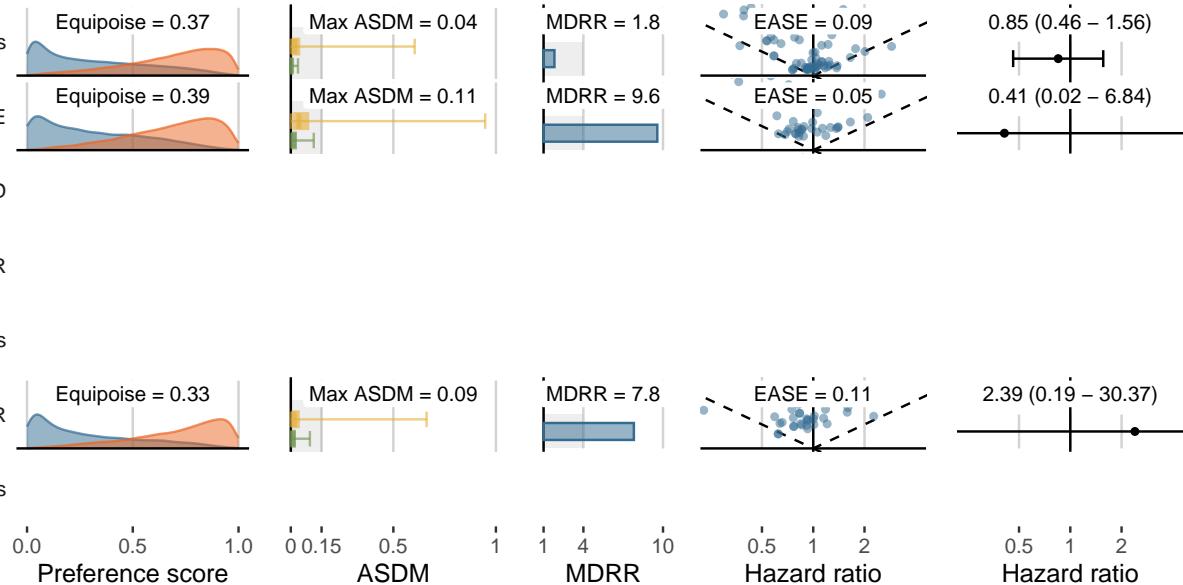
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

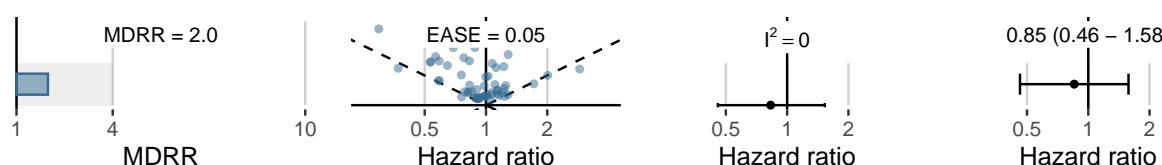
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



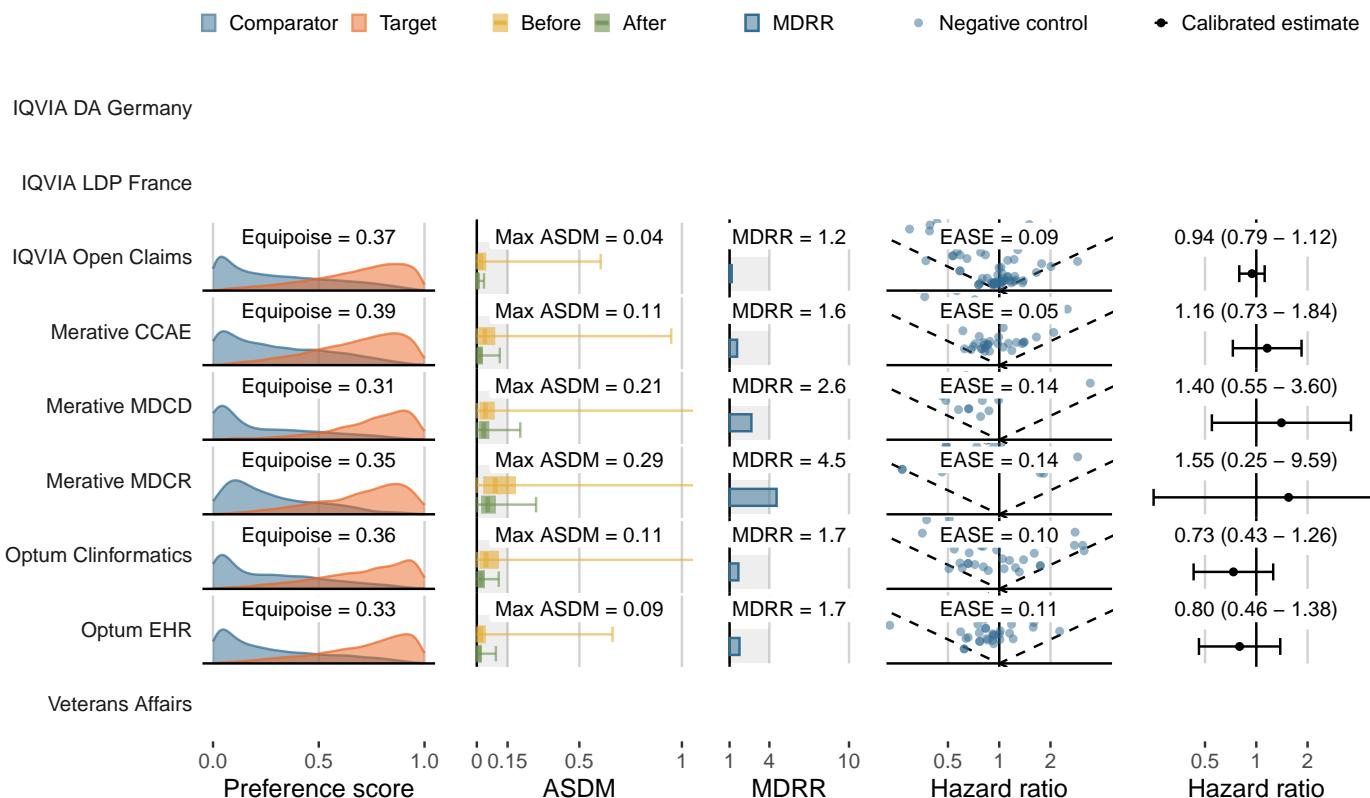
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Bone fracture**

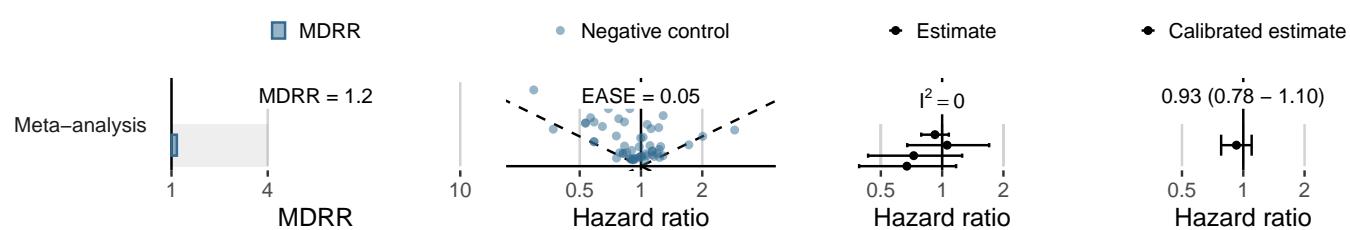
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	137,922	107,192	1,403	13.09
Merative CCAE	14,012	10,946	208	19.00
Merative MDCD	2,166	1,251	41	32.78
Merative MDCR	932	637	16	25.12
Optum Clininformatics	10,366	7,077	194	27.41
Optum EHR	12,875	6,363	95	14.93
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



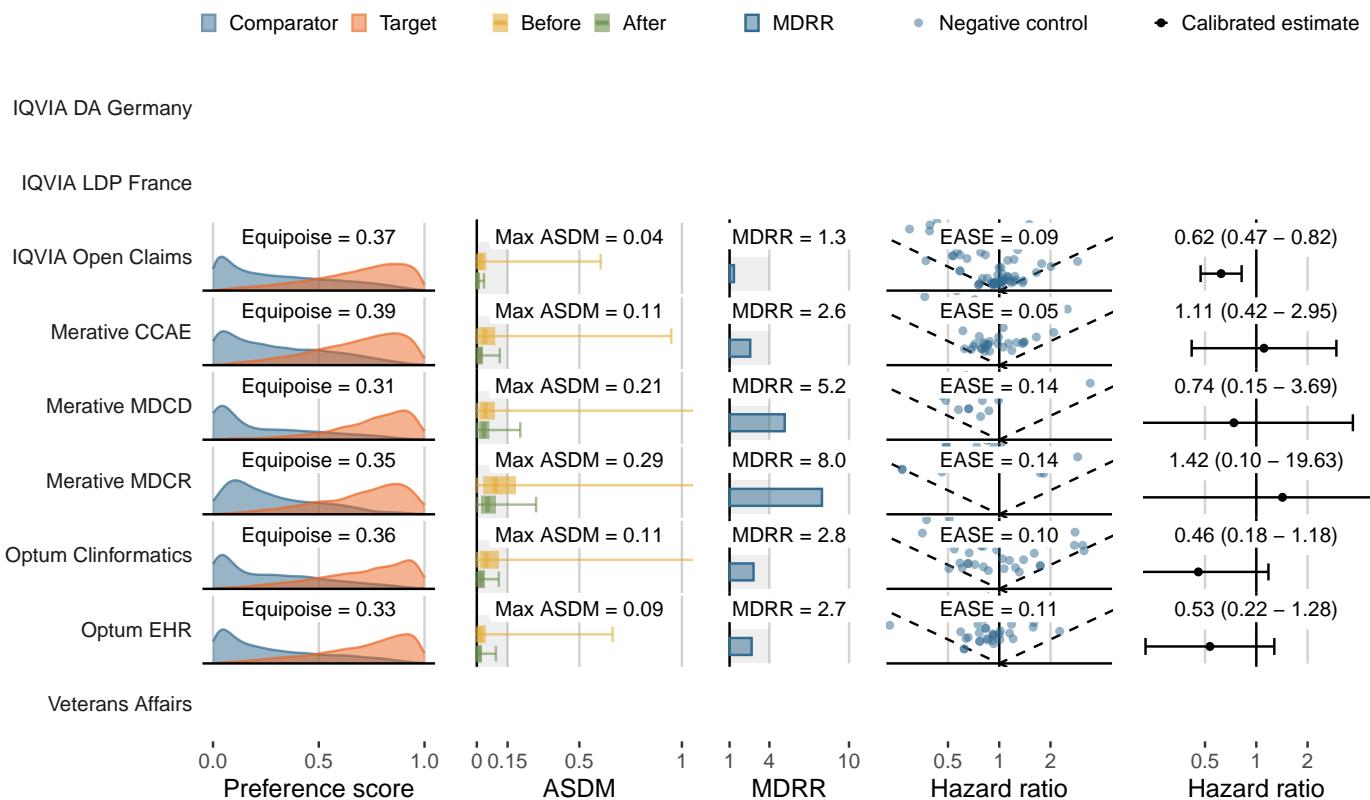
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

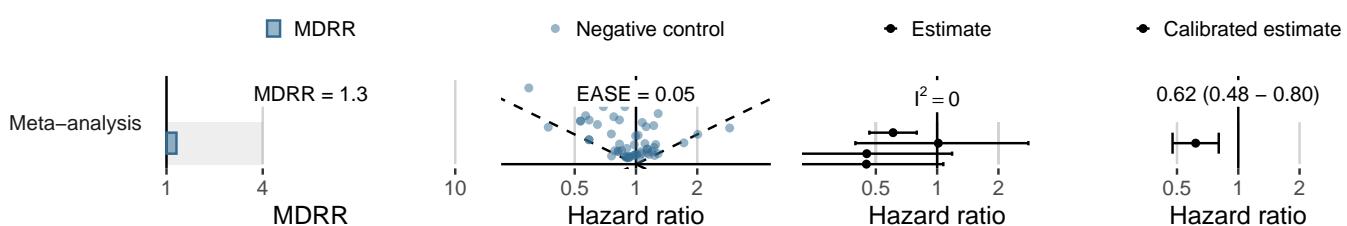
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	157,848	123,441	319	2.58
Merative CCAE	15,348	12,219	45	3.68
Merative MDCD	2,453	1,432	13	9.08
Merative MDCR	1,021	715	6	8.39
Optum Clininformatics	11,226	7,813	40	5.12
Optum EHR	13,856	6,929	25	3.61
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



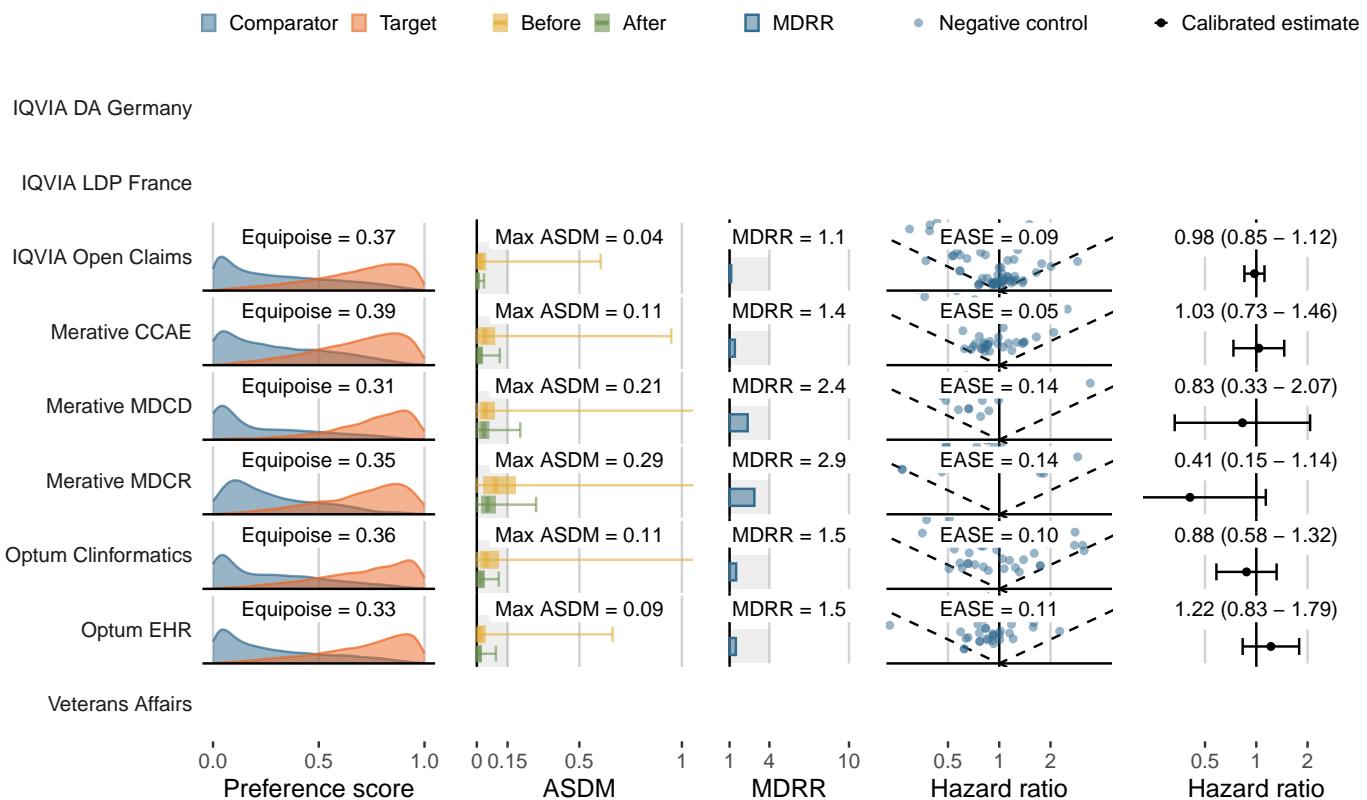
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Genitourinary infection**

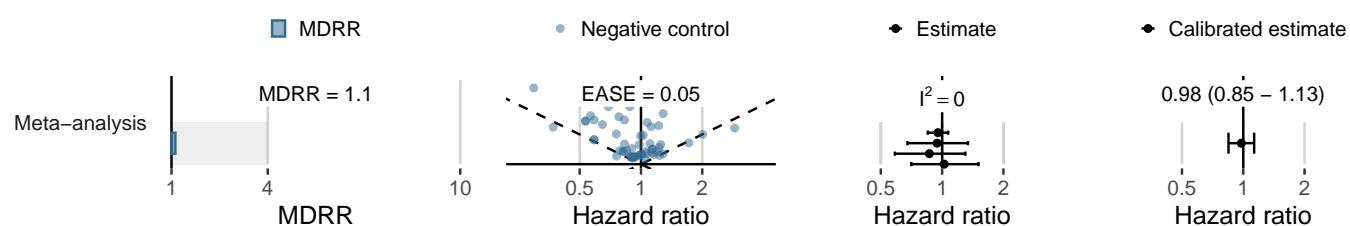
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	119,473	93,651	2,388	25.50
Merative CCAE	12,179	9,506	363	38.19
Merative MDCD	1,793	1,019	49	48.10
Merative MDCR	819	546	30	54.96
Optum Clininformatics	8,744	5,898	306	51.88
Optum EHR	11,472	5,642	212	37.58
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



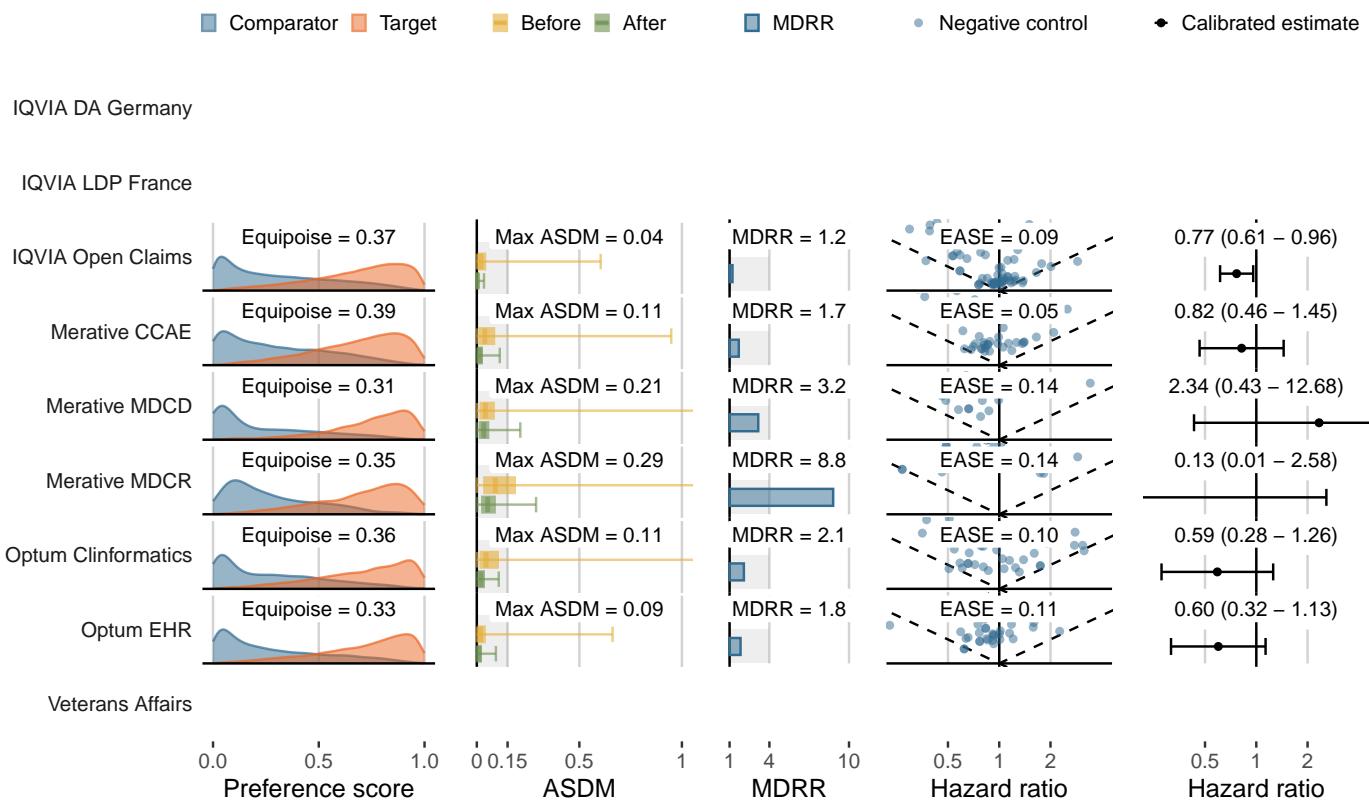
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Joint pain**

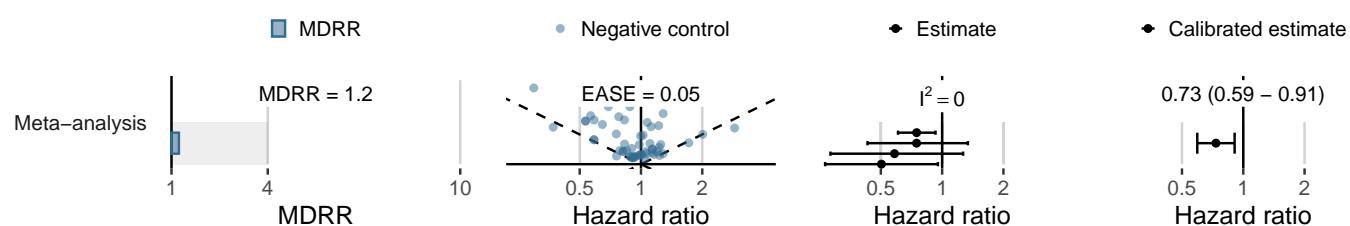
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	148,560	116,102	780	6.72
Merative CCAE	14,337	11,290	146	12.93
Merative MDCD	2,026	1,155	31	26.85
Merative MDCR	911	639	<5	<7.83
Optum Clininformatics	9,940	6,733	95	14.11
Optum EHR	12,951	6,399	77	12.03
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



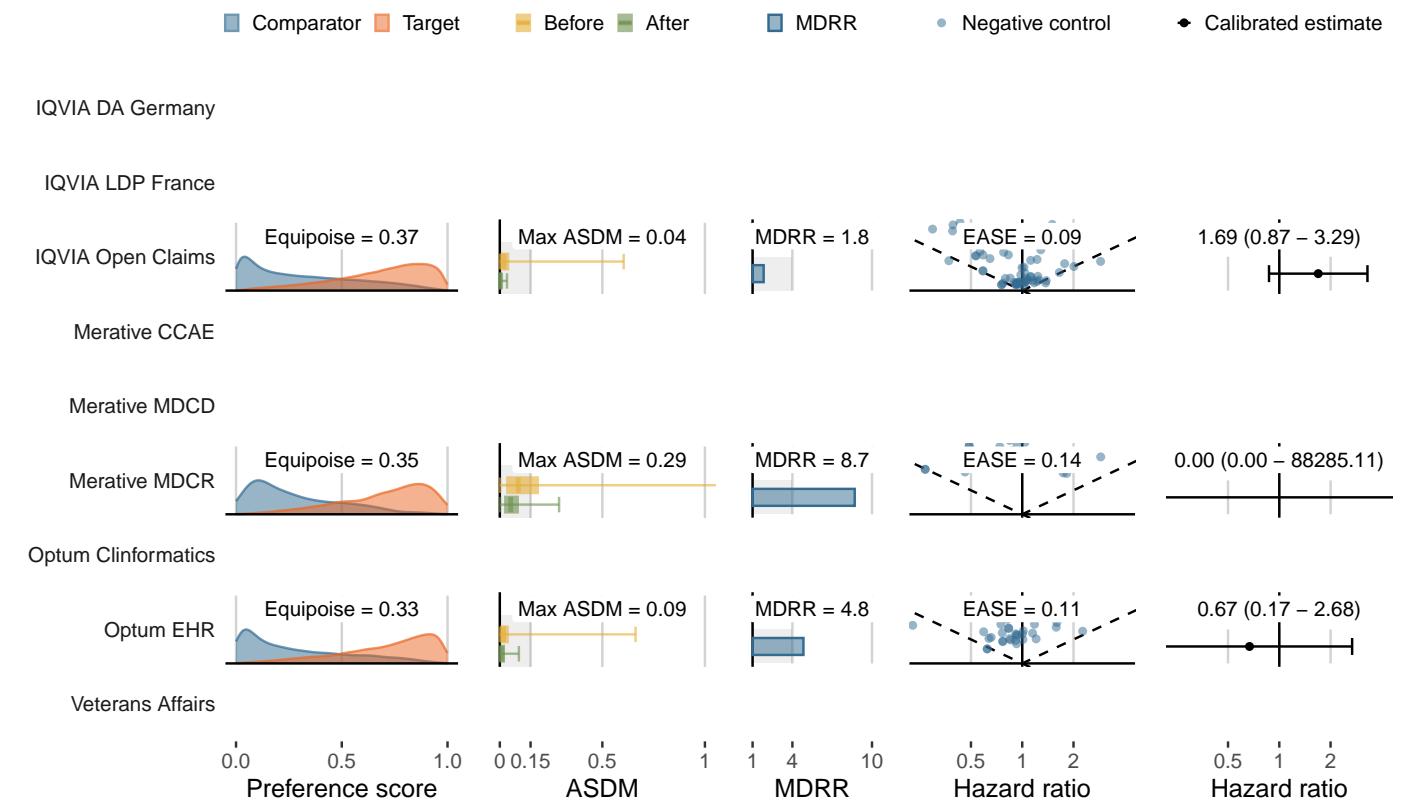
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Renal cancer**

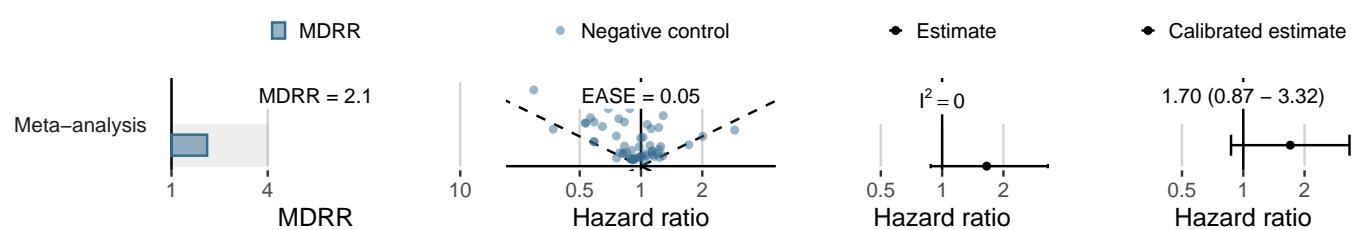
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	160,842	125,697	90	0.72
Merative CCAE	15,574	12,401	10	0.81
Merative MDCD	2,518	1,476	-	0.00
Merative MDCR	1,037	726	<5	<6.89
Optum Clininformatics	11,454	7,951	5	0.63
Optum EHR	13,973	6,999	12	1.71
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



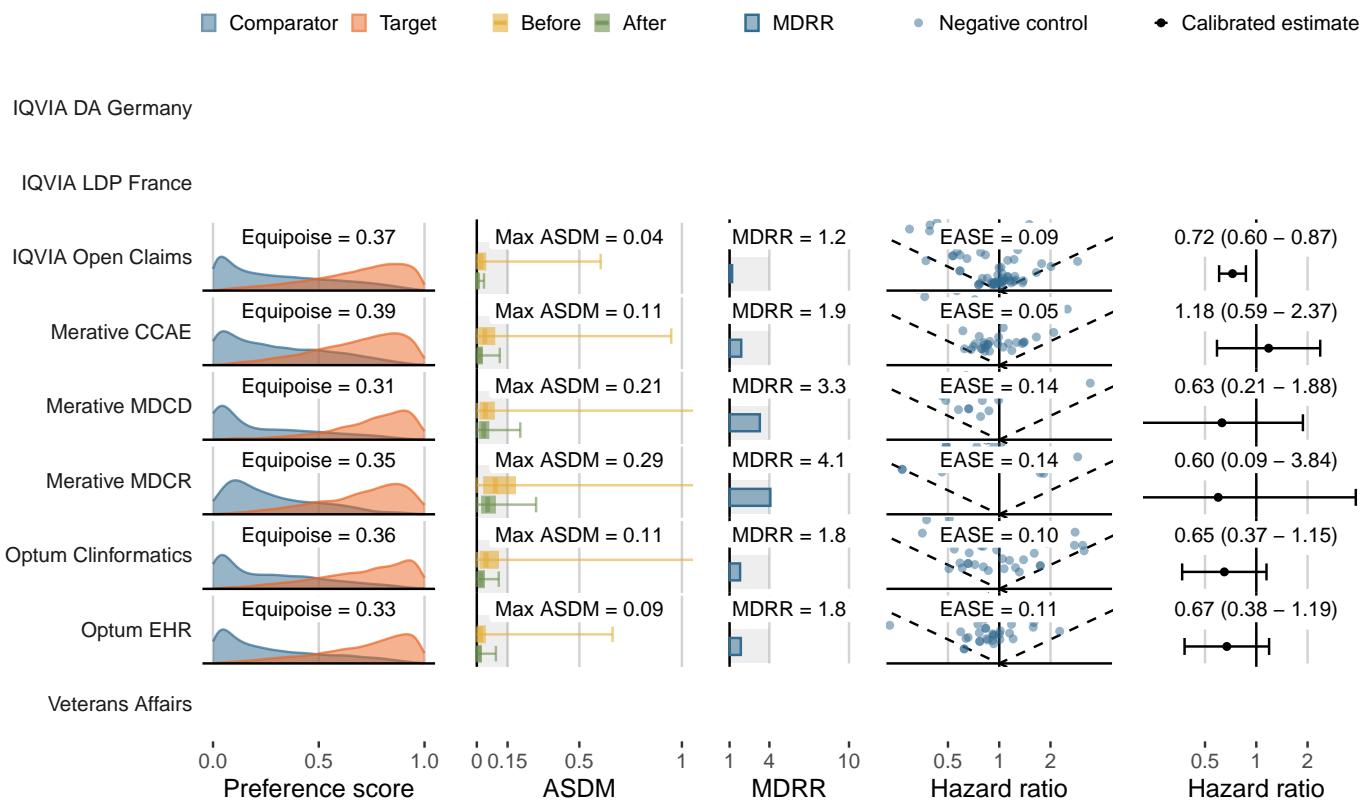
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute renal failure**

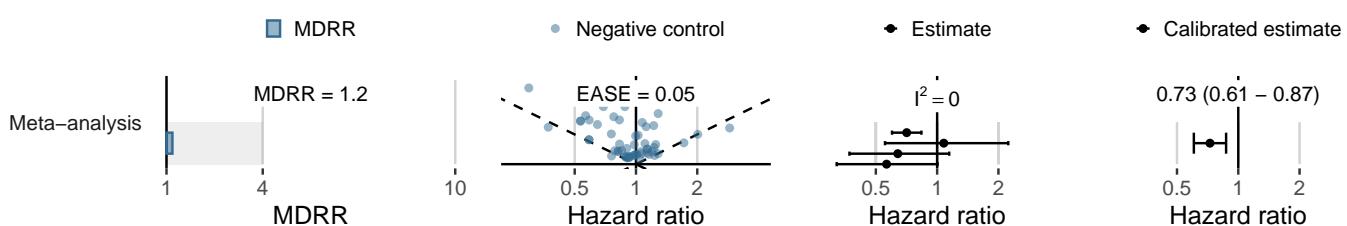
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	156,536	122,231	932	7.62
Merative CCAE	15,307	12,176	105	8.62
Merative MDCD	2,360	1,353	20	14.78
Merative MDCR	1,002	700	19	27.15
Optum Clininformatics	11,046	7,626	143	18.75
Optum EHR	13,823	6,867	81	11.80
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Thyroid tumor**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	159,932	124,976	110	0.88
Merative CCAE	15,513	12,358	19	1.54
Merative MDCD	2,509	1,468	<5	<3.41
Merative MDCR	1,042	730	<5	<6.85
Optum Clininformatics	11,447	7,943	12	1.51
Optum EHR	13,933	6,985	7	1.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

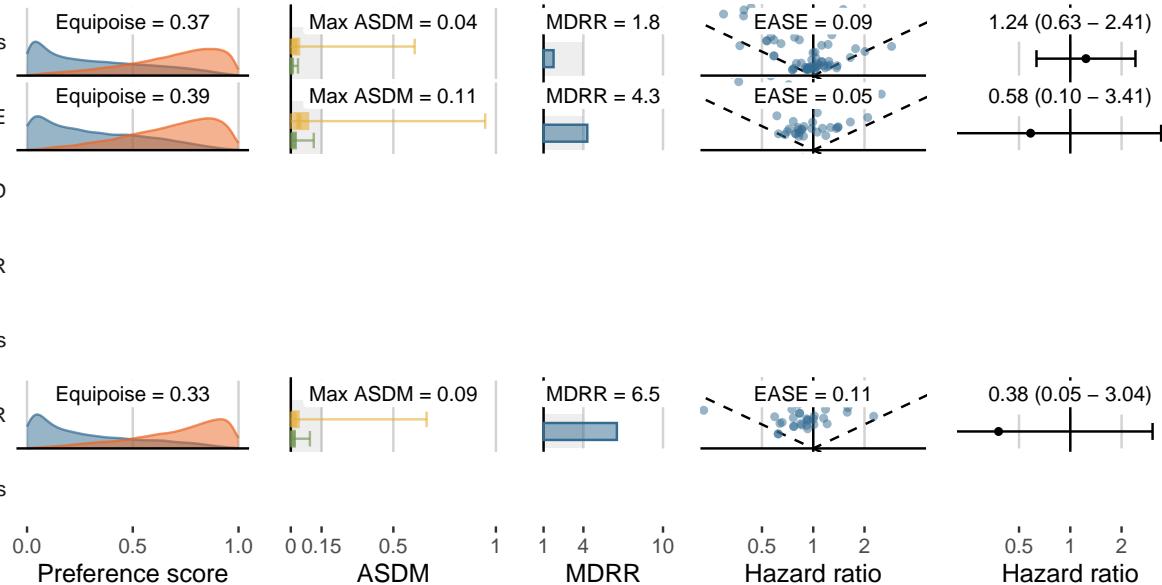
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

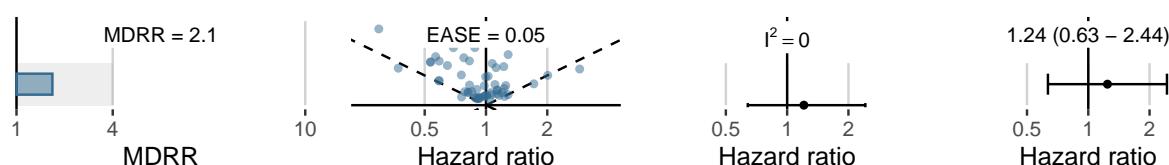
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



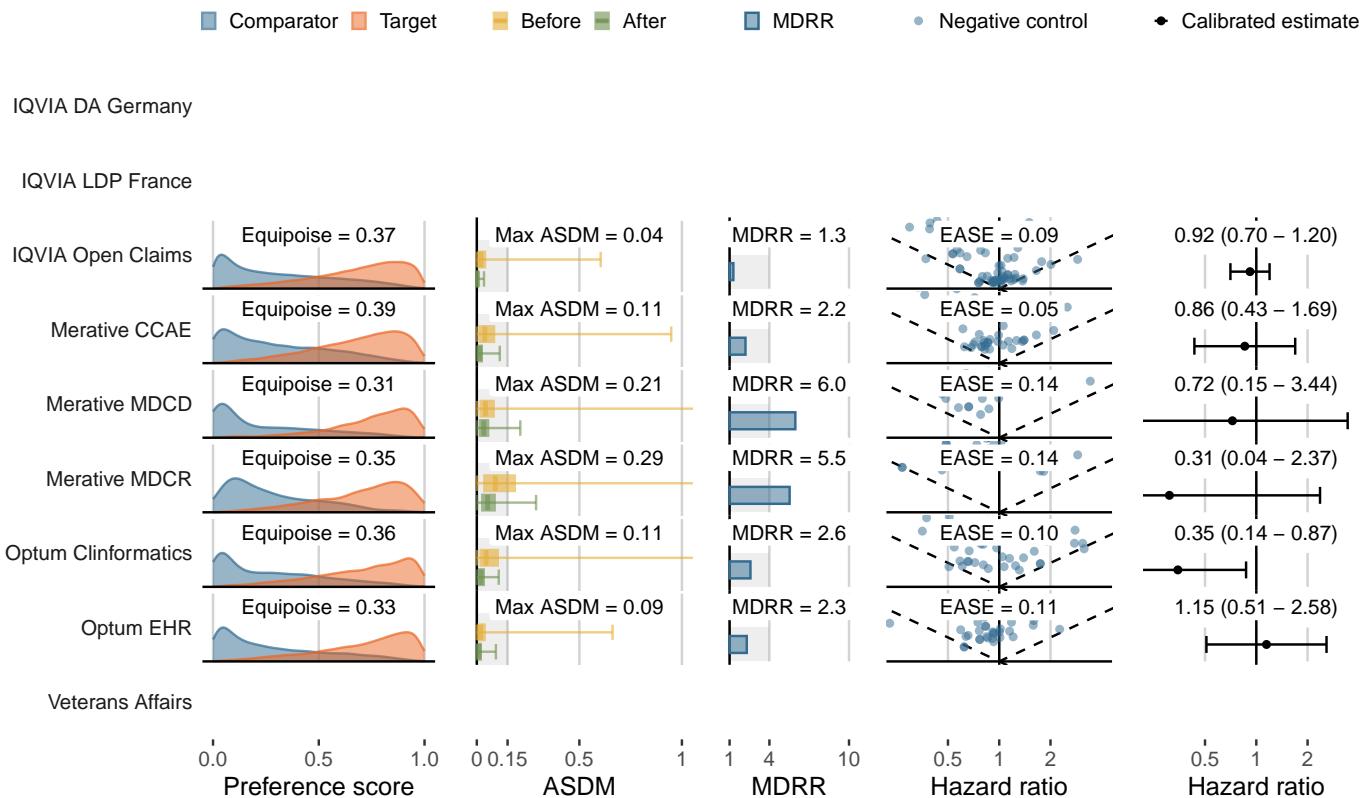
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

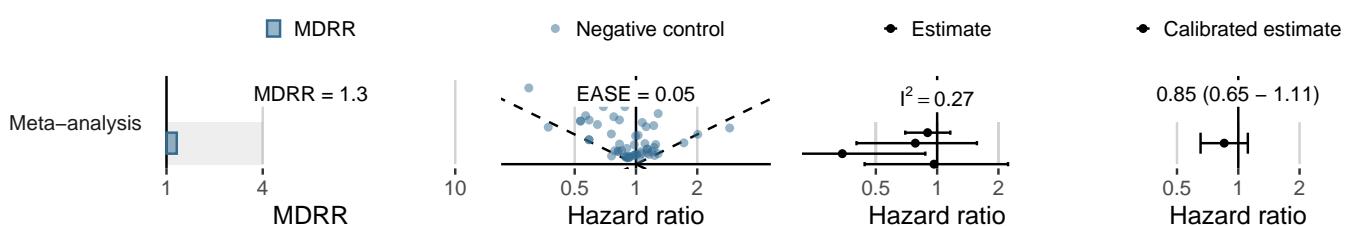
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	155,163	121,270	478	3.94
Merative CCAE	15,137	12,015	64	5.33
Merative MDCD	2,370	1,393	10	7.18
Merative MDCR	999	688	10	14.54
Optum Clininformatics	11,039	7,654	54	7.06
Optum EHR	13,600	6,798	45	6.62
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



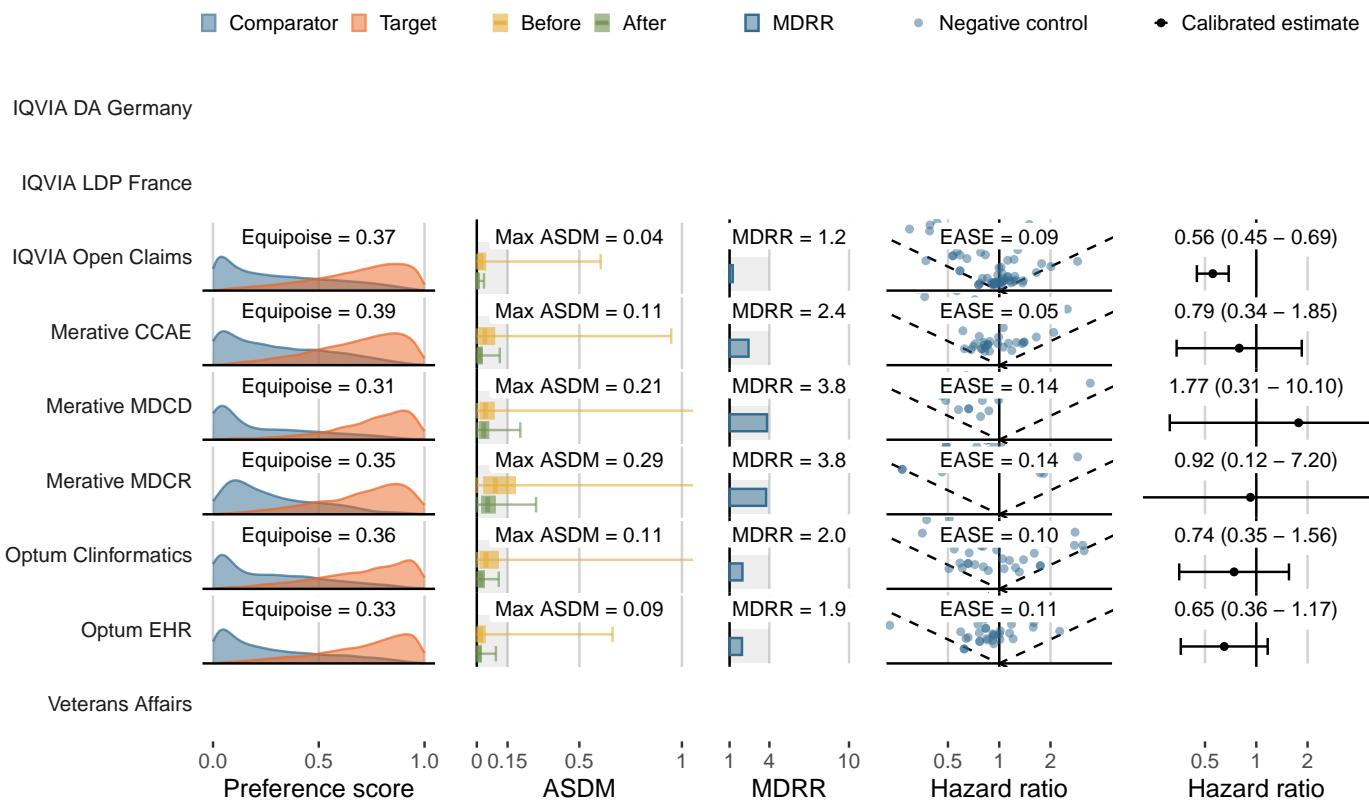
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

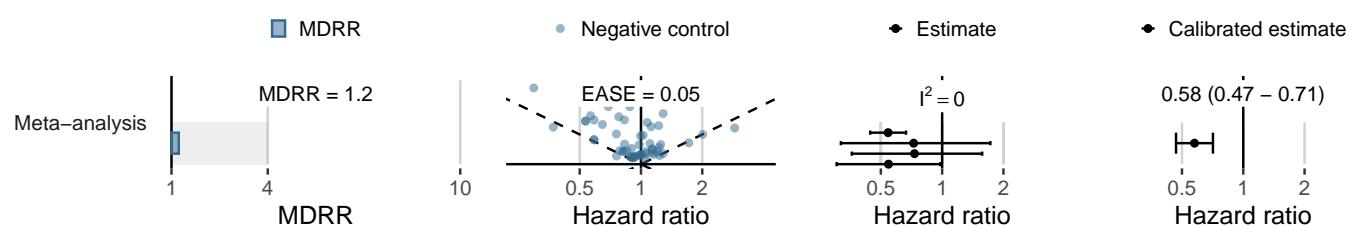
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	156,265	122,299	586	4.79
Merative CCAE	15,286	12,180	48	3.94
Merative MDCD	2,338	1,359	20	14.72
Merative MDCR	982	689	21	30.47
Optum Clininformatics	11,011	7,617	107	14.05
Optum EHR	13,790	6,863	62	9.03
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



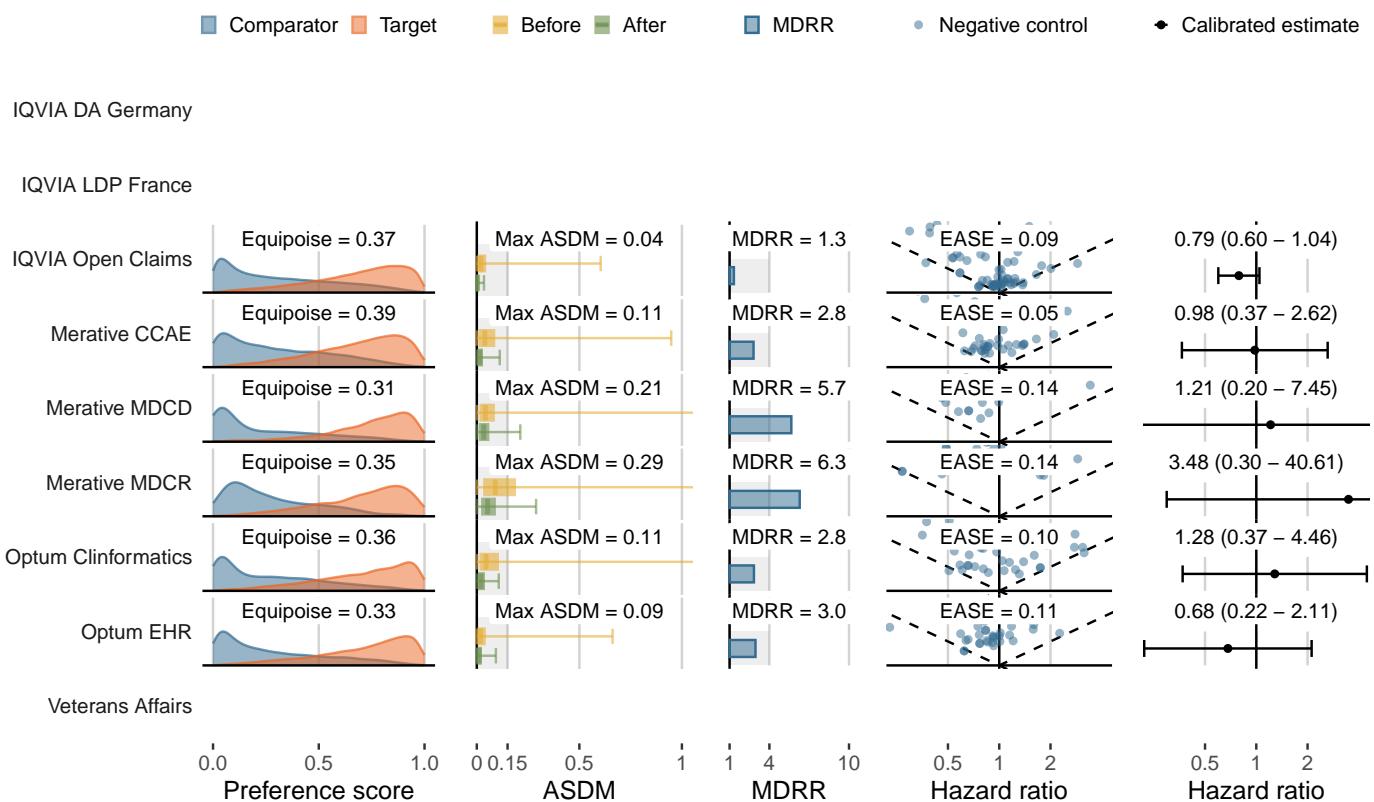
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Stroke**

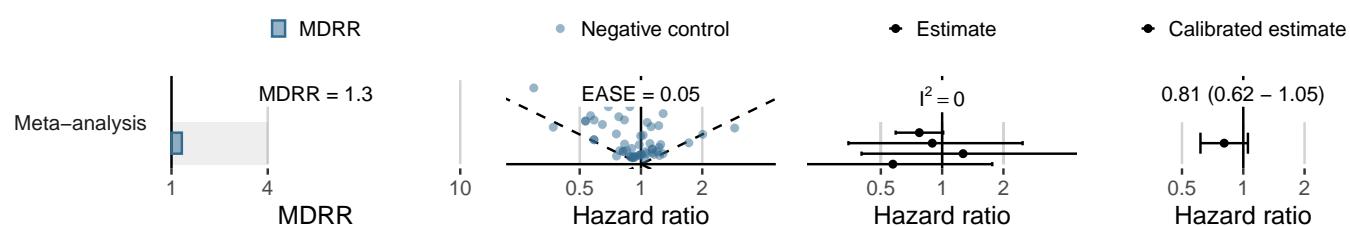
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	158,101	123,749	358	2.89
Merative CCAE	15,398	12,258	37	3.02
Merative MDCD	2,439	1,431	11	7.69
Merative MDCR	1,012	705	9	12.77
Optum Clininformatics	11,299	7,833	47	6.00
Optum EHR	13,898	6,954	20	2.88
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



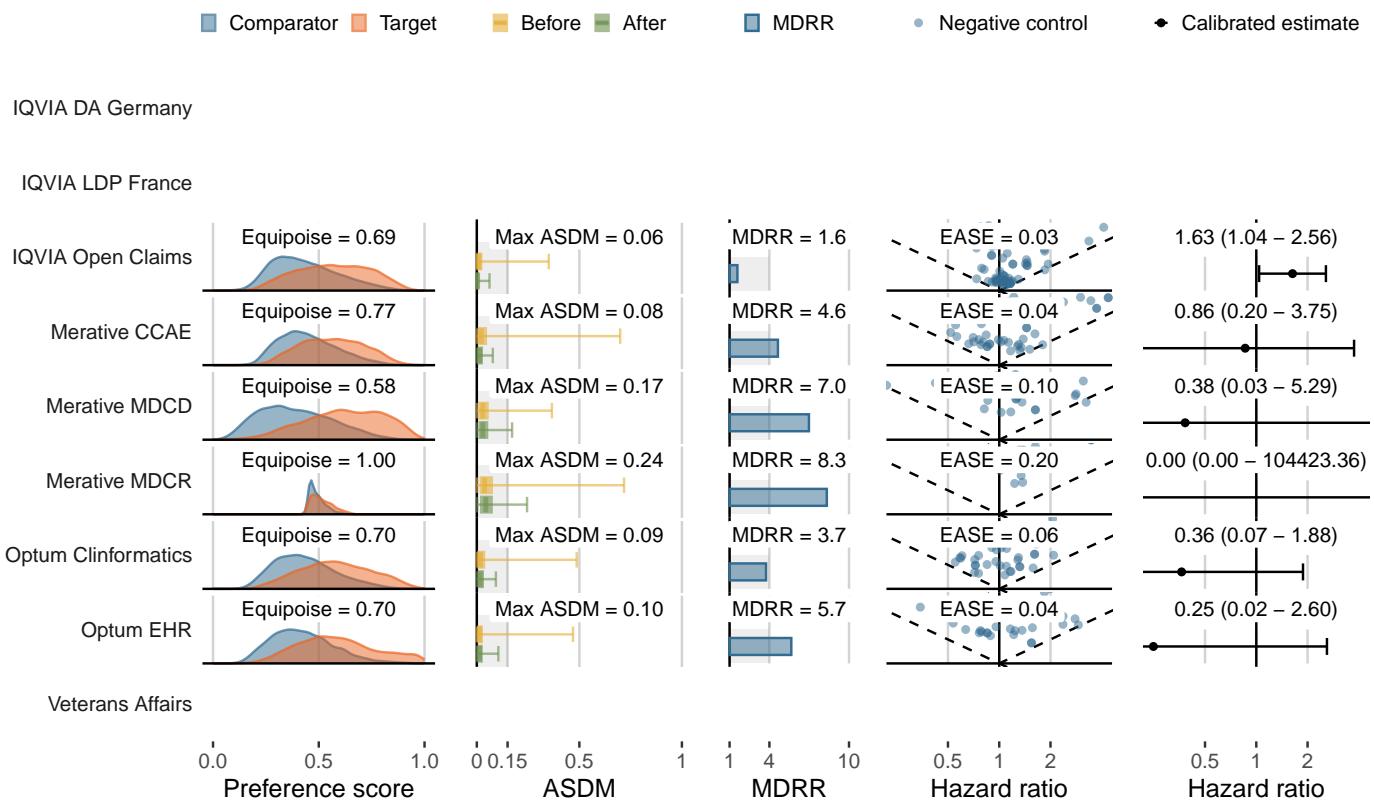
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

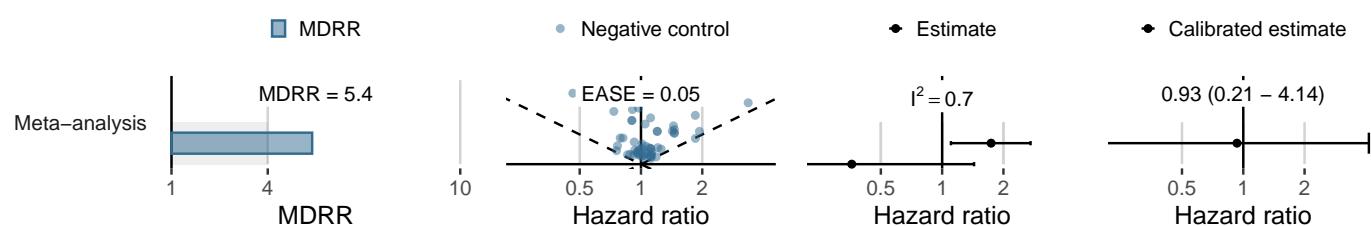
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	40,968	23,053	54	2.34
Merative CCAE	3,519	1,976	<5	<2.53
Merative MDCD	801	418	<5	<11.97
Merative MDCR	324	144	<5	<34.80
Optum Clininformatics	2,301	1,458	<5	<3.43
Optum EHR	3,599	1,483	<5	<3.37
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	41,274	23,230	16	0.69
Merative CCAE	3,543	1,985	<5	<2.52
Merative MDCD	815	425	-	0.00
Merative MDCR	326	146	-	0.00
Optum Clininformatics	2,319	1,462	-	0.00
Optum EHR	3,605	1,485	-	0.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

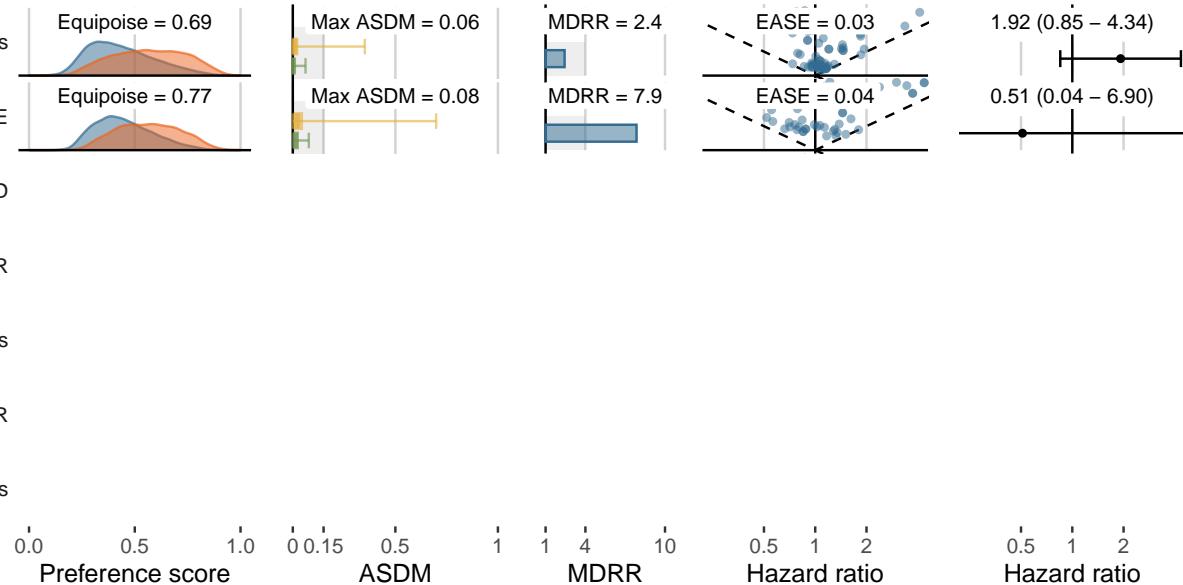
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

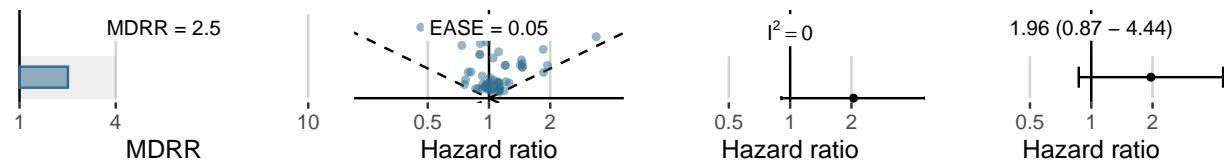
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate

Meta-analysis



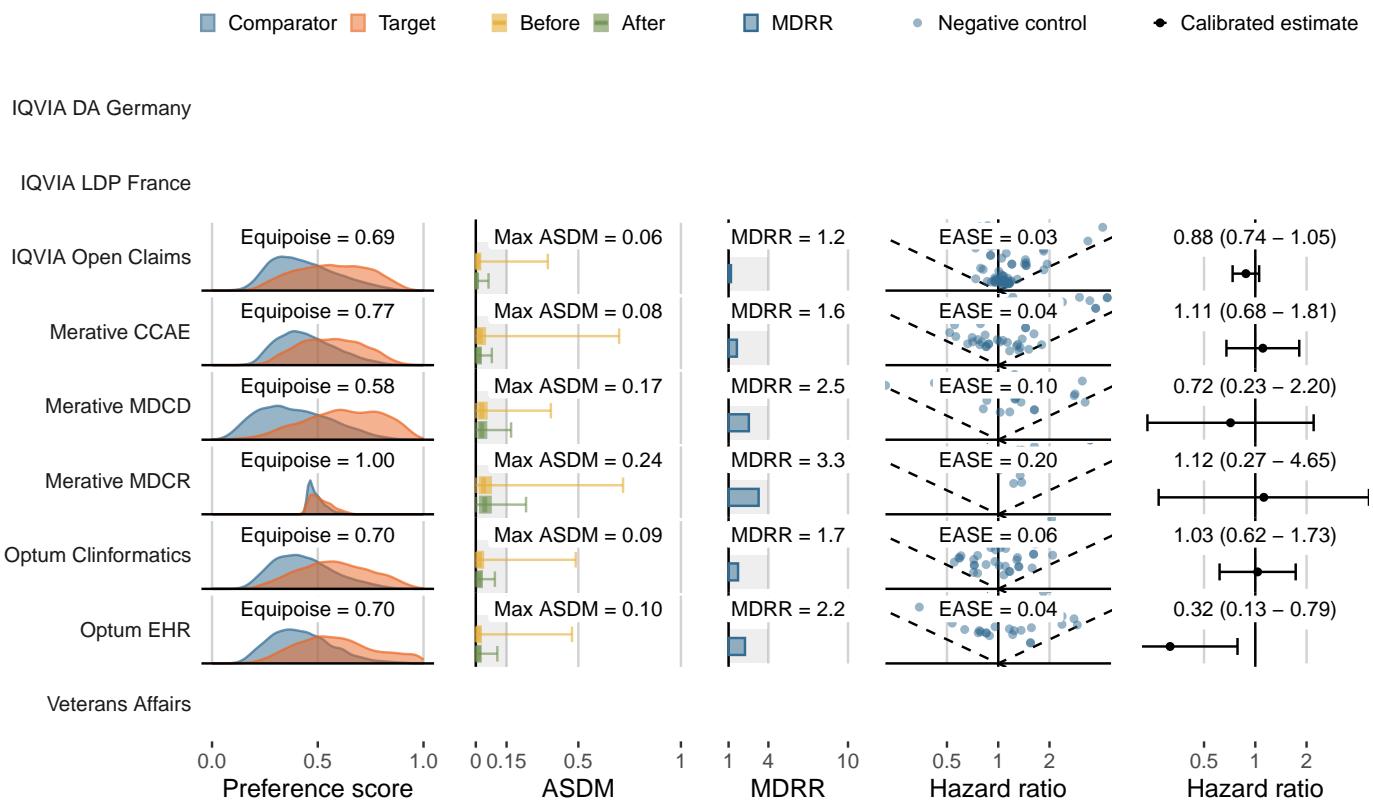
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

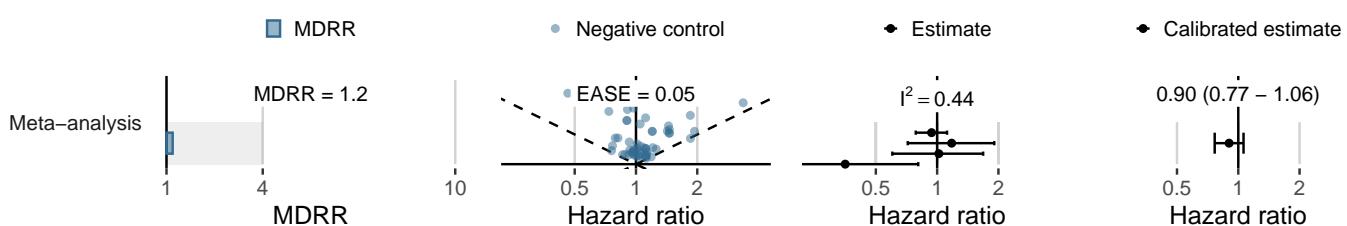
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,287	20,156	315	15.63
Merative CCAE	3,189	1,721	39	22.66
Merative MDCD	714	371	9	24.24
Merative MDCR	279	117	<5	<42.92
Optum Clininformatics	2,082	1,269	33	26.01
Optum EHR	3,365	1,376	15	10.90
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



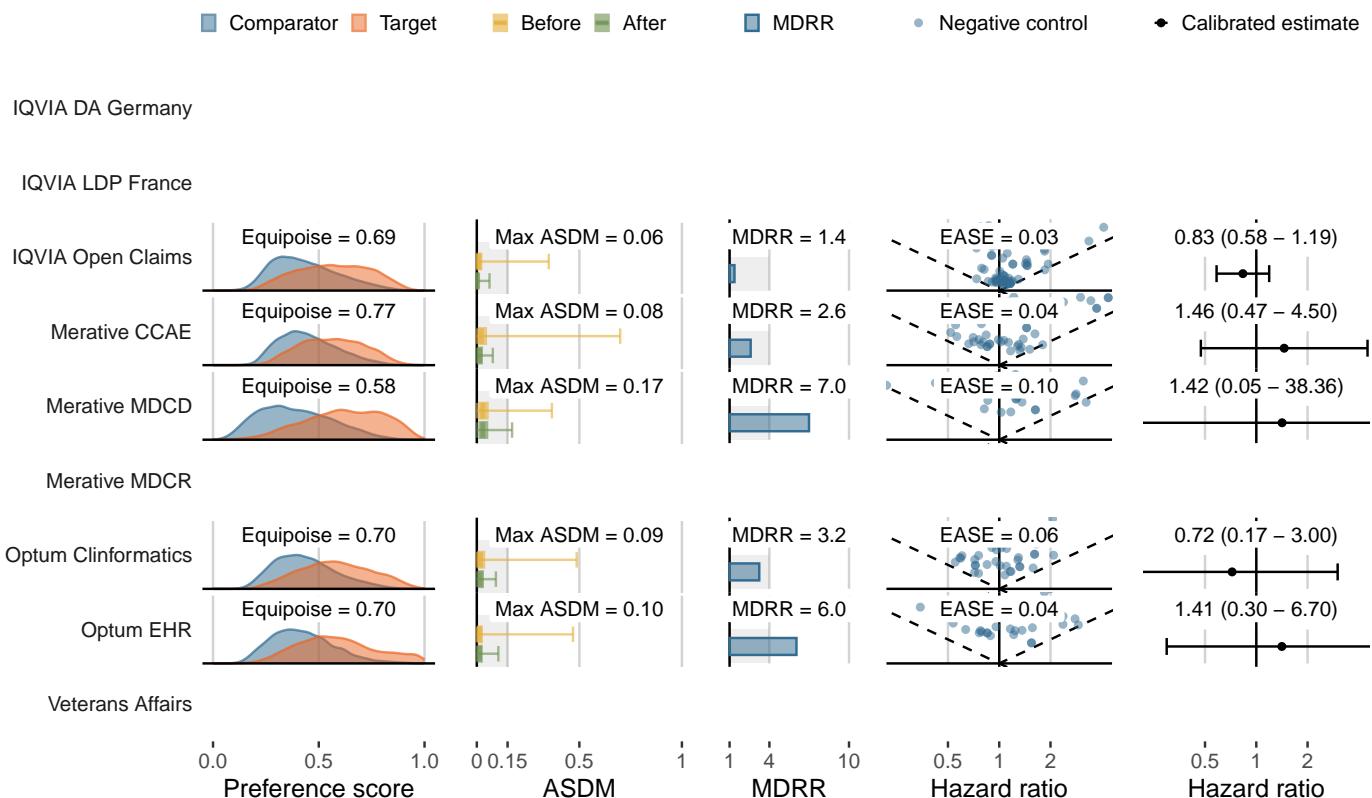
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

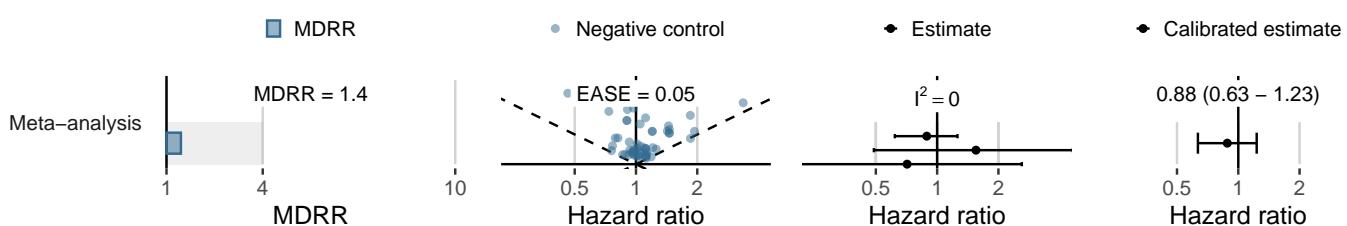
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	40,552	22,781	78	3.42
Merative CCAE	3,490	1,958	9	4.60
Merative MDCD	792	415	<5	<12.04
Merative MDCR	323	146	<5	<34.18
Optum Clininformatics	2,273	1,434	<5	<3.49
Optum EHR	3,576	1,476	6	4.06
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



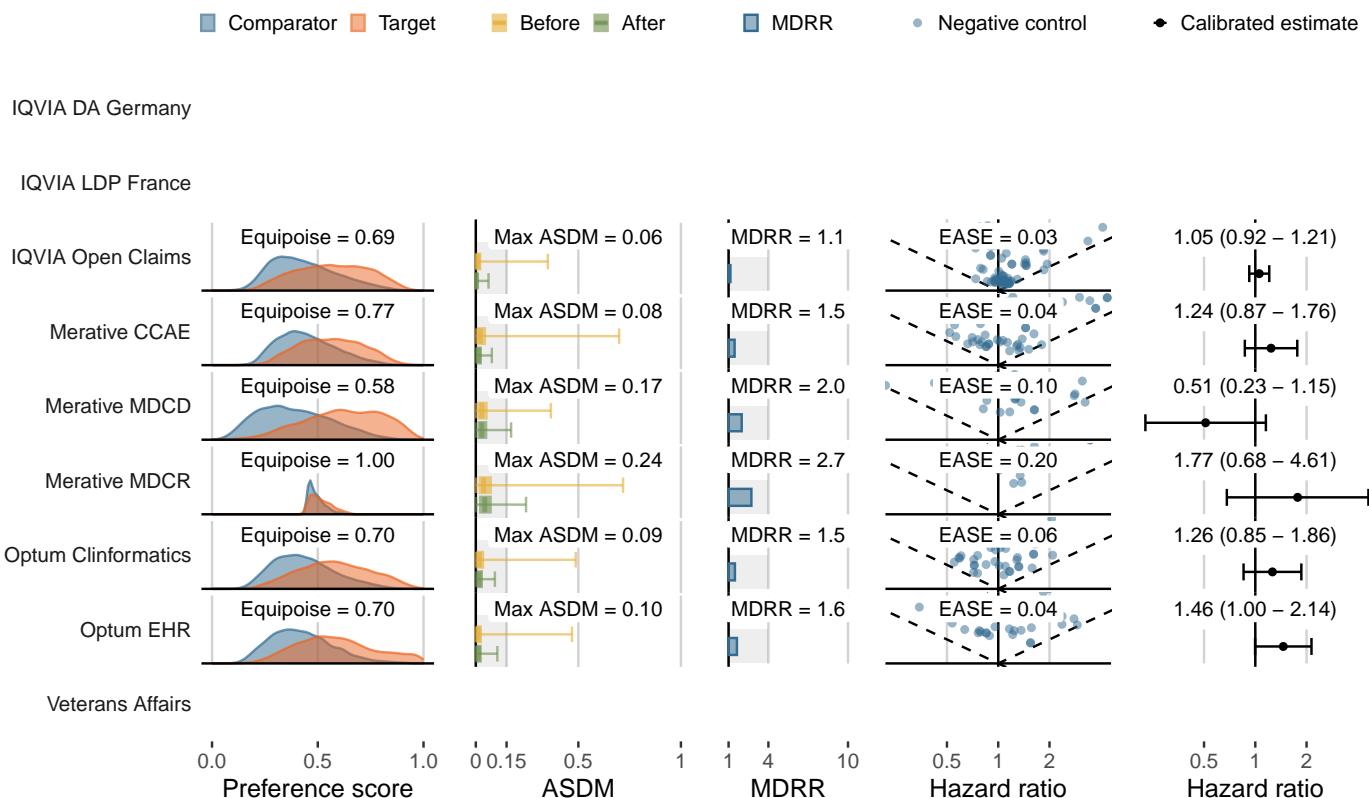
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

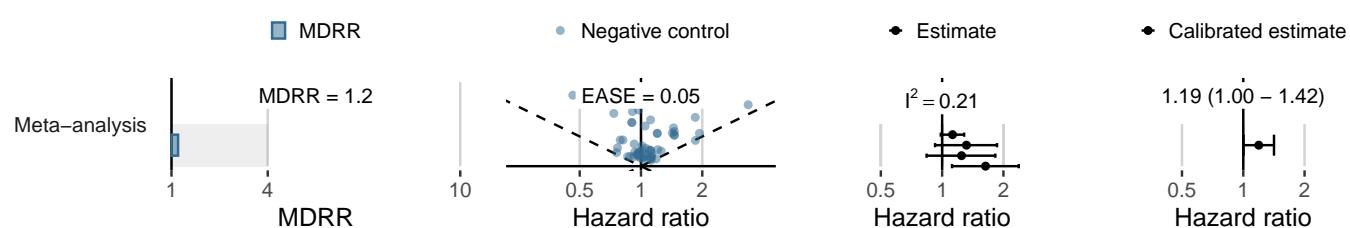
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	31,688	17,607	576	32.71
Merative CCAE	2,728	1,466	80	54.57
Merative MDCD	618	325	21	64.57
Merative MDCR	250	109	8	73.57
Optum Clininformatics	1,822	1,105	72	65.18
Optum EHR	3,028	1,198	77	64.26
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



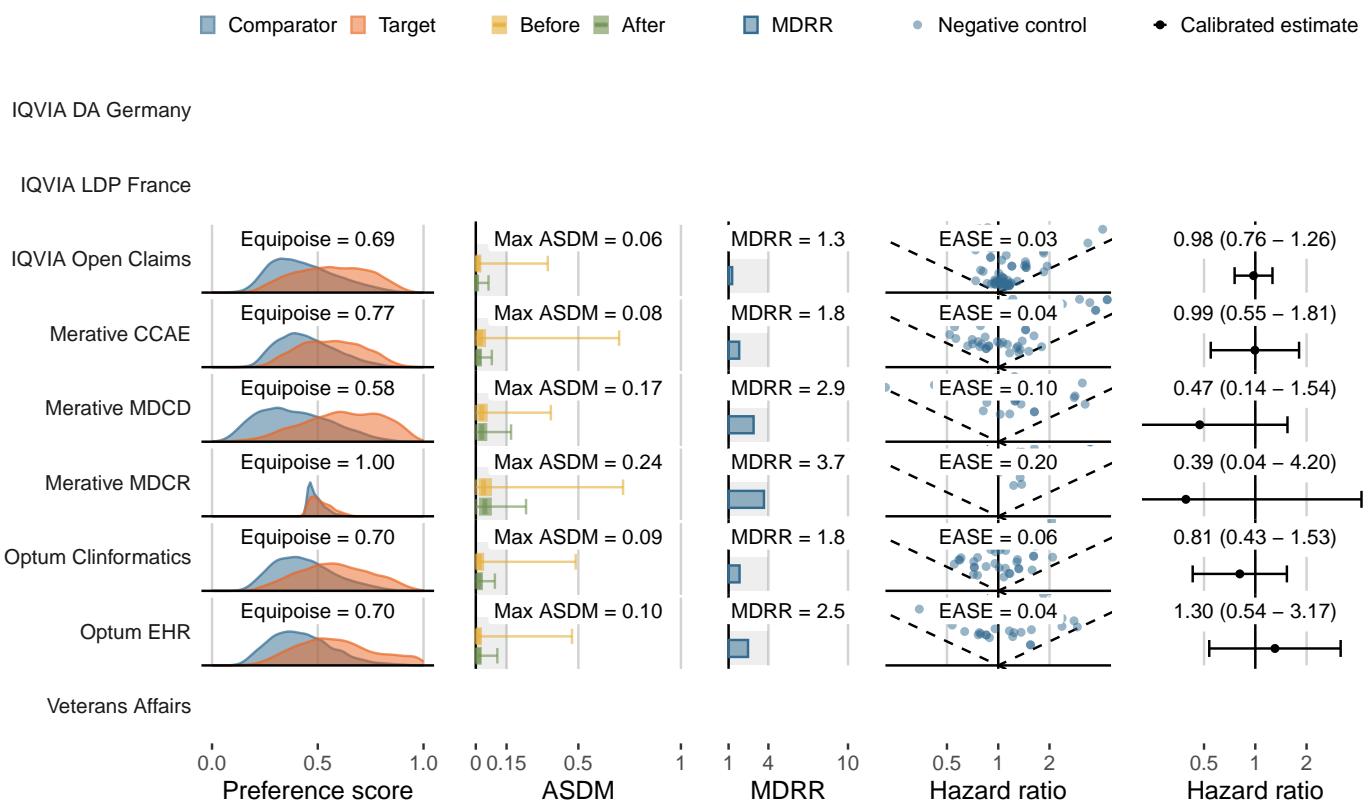
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

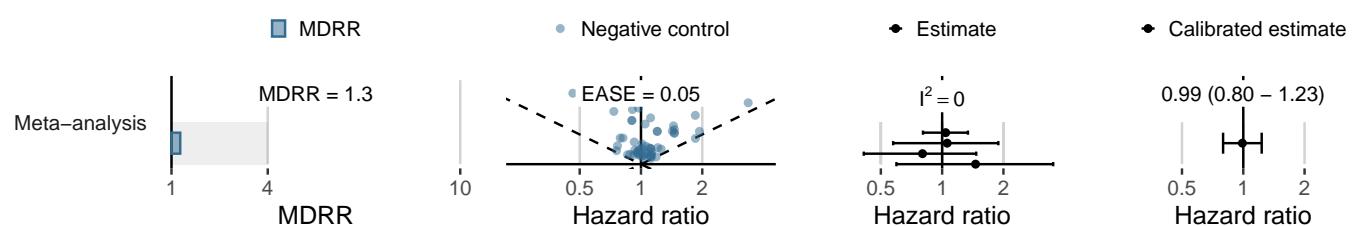
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,725	21,766	144	6.62
Merative CCAE	3,273	1,839	29	15.77
Merative MDCD	597	297	8	26.93
Merative MDCR	242	110	<5	<45.43
Optum Clininformatics	1,862	1,166	32	27.45
Optum EHR	3,375	1,379	24	17.41
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	41,256	23,206	21	0.90
Merative CCAE	3,539	1,990	<5	<2.51
Merative MDCD	815	426	-	0.00
Merative MDCR	326	147	-	0.00
Optum Clininformatics	2,317	1,462	-	0.00
Optum EHR	3,615	1,490	<5	<3.36
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims



Merative CCAE

Merative MDCD

Merative MDCR

Optum Clininformatics



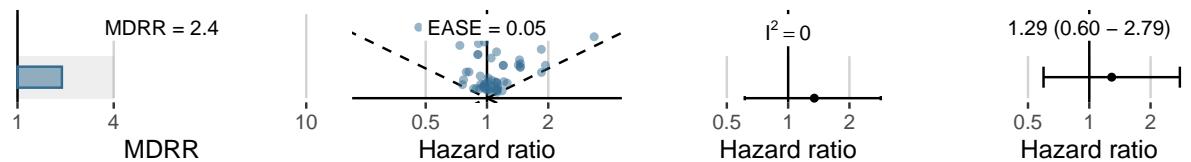
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



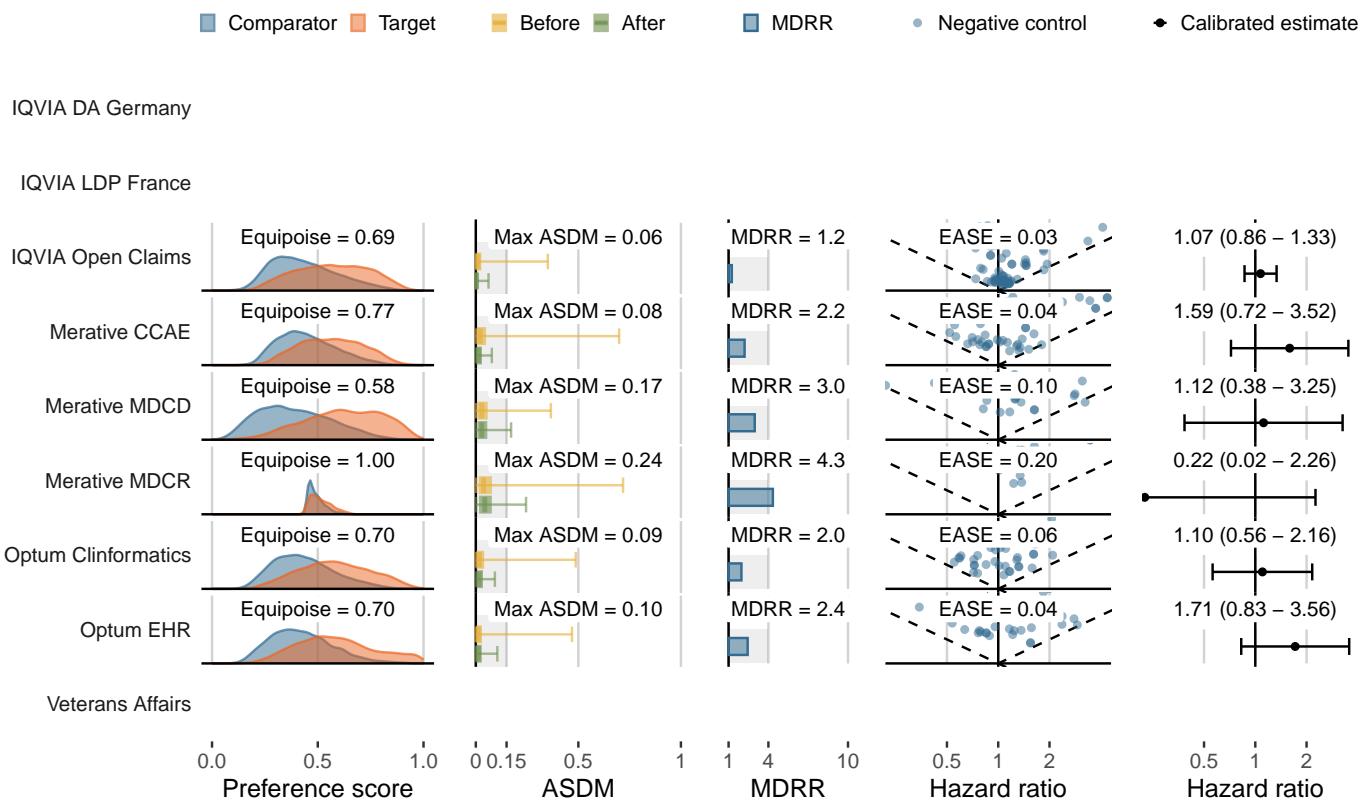
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

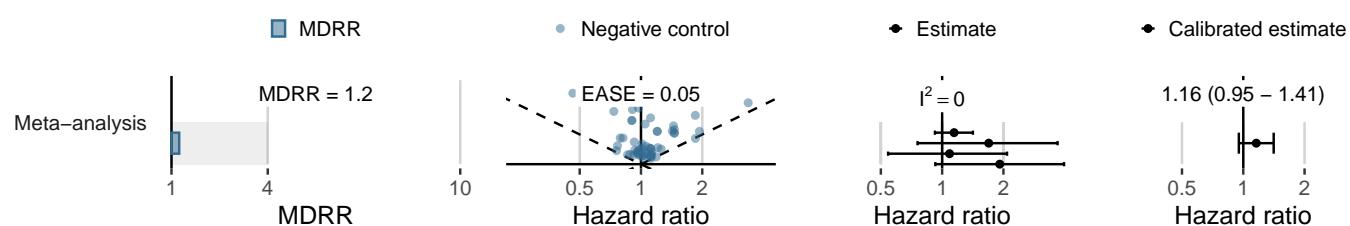
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	40,435	22,641	205	9.05
Merative CCAE	3,494	1,953	13	6.66
Merative MDCD	770	387	15	38.74
Merative MDCR	315	137	<5	<36.58
Optum Clininformatics	2,258	1,422	23	16.17
Optum EHR	3,574	1,464	26	17.76
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	41,038	23,101	18	0.78
Merative CCAE	3,521	1,978	<5	<2.53
Merative MDCD	815	425	-	0.00
Merative MDCR	325	145	-	0.00
Optum Clininformatics	2,307	1,455	<5	<3.44
Optum EHR	3,599	1,482	<5	<3.37
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Equipoise = 0.69

Equipoise = 0.77

Max ASDM = 0.06

Max ASDM = 0.08

MDRR = 1.8

MDRR = 3.9

EASE = 0.03

EASE = 0.04

0.51 (0.26 – 0.99)

0.42 (0.11 – 1.64)

Merative MDCD

Merative MDCR

Optum Clininformatics

Equipoise = 0.70

Equipoise = 0.70

Max ASDM = 0.09

Max ASDM = 0.10

MDRR = 7.0

MDRR = 7.1

EASE = 0.06

EASE = 0.04

0.85 (0.06 – 11.89)

0.00 (0.00 – 102603.34)

Veterans Affairs

Preference score
0.0 0.5 1.0

ASDM
0 0.15 0.5

MDRR
1 4 10

Hazard ratio
0.5 1 2

Hazard ratio
0.5 1 2

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis

MDRR = 2.0

Negative control

EASE = 0.05

Estimate

I² = 0

Calibrated estimate

0.50 (0.27 – 0.91)

1

4

10

0.5 1 2

0.5 1 2

0.5 1 2

Hazard ratio

Hazard ratio

Hazard ratio

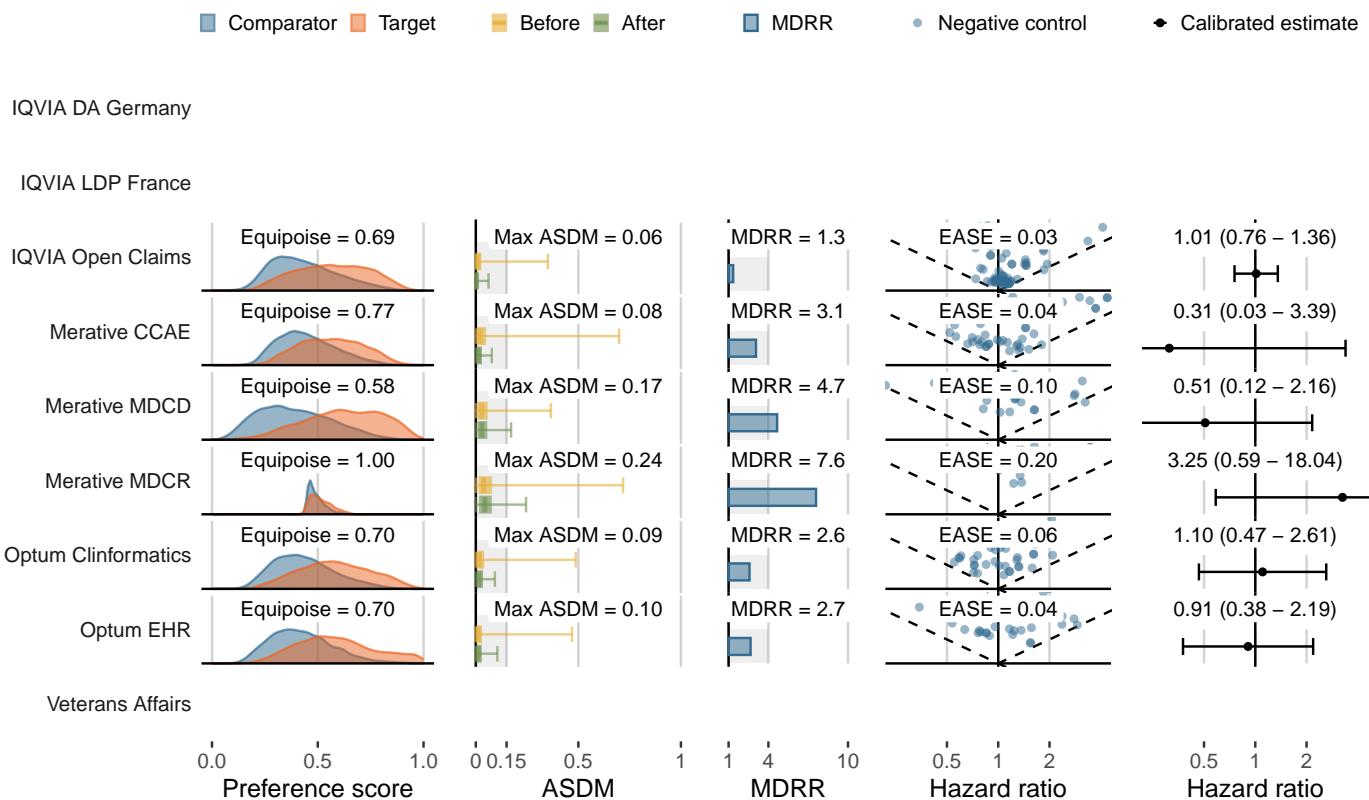
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

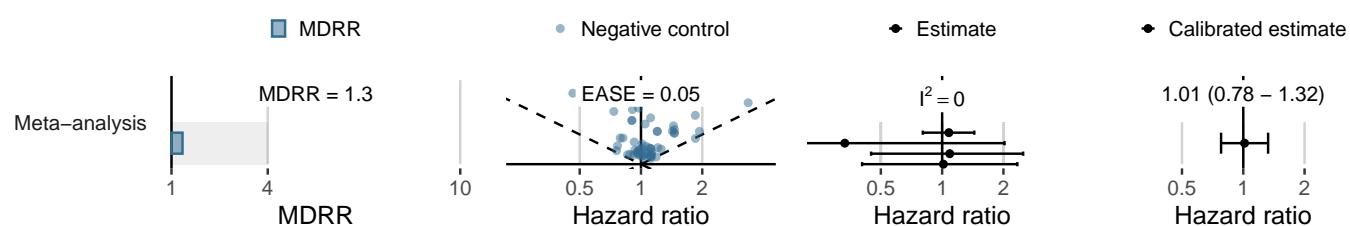
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	39,994	22,502	105	4.67
Merative CCAE	3,438	1,915	<5	<2.61
Merative MDCD	782	407	5	12.30
Merative MDCR	311	139	<5	<35.87
Optum Clininformatics	2,238	1,417	12	8.47
Optum EHR	3,534	1,456	14	9.61
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



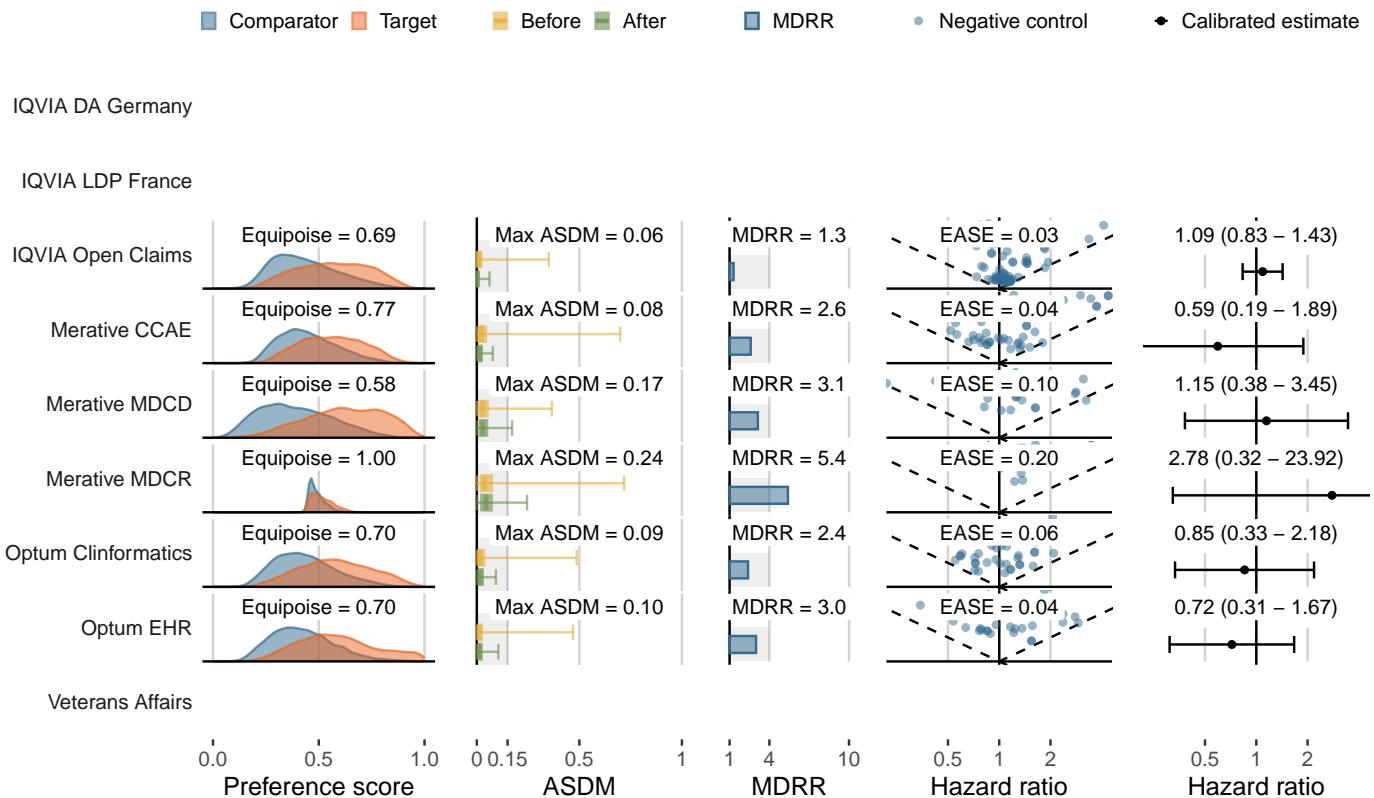
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

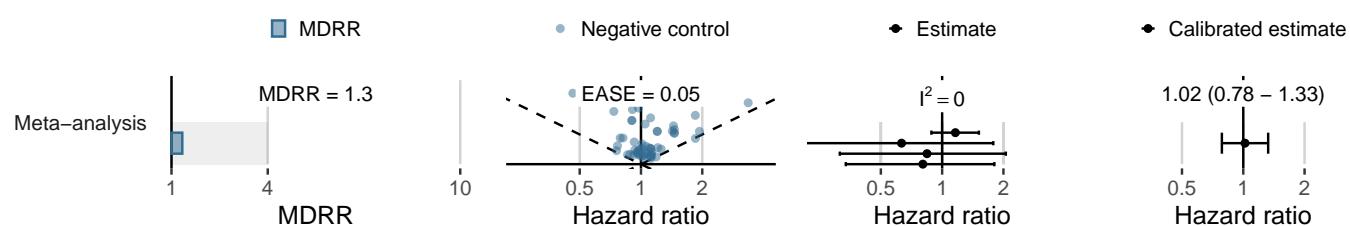
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	40,179	22,550	142	6.30
Merative CCAE	3,480	1,952	7	3.59
Merative MDCD	761	400	9	22.50
Merative MDCR	303	139	<5	<35.95
Optum Clininformatics	2,229	1,415	13	9.19
Optum EHR	3,554	1,463	12	8.20
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



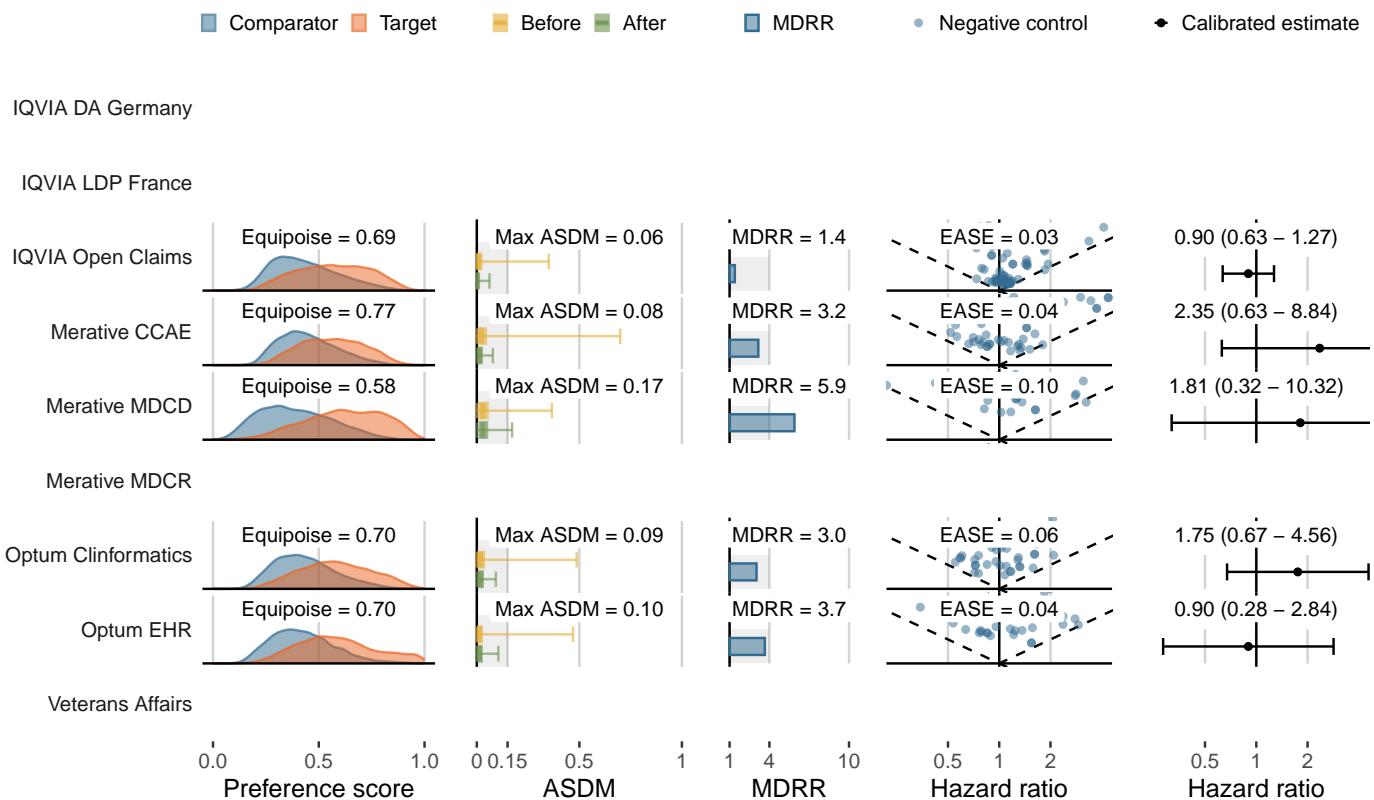
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

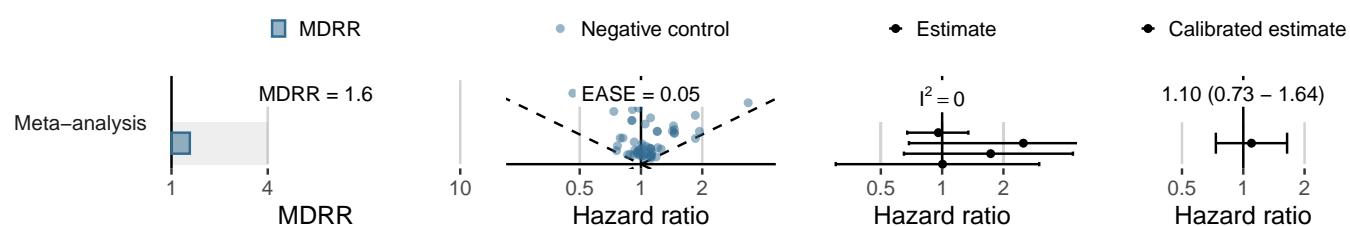
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	40,668	22,825	83	3.64
Merative CCAE	3,510	1,957	7	3.58
Merative MDCD	799	419	<5	<11.95
Merative MDCR	319	145	-	0.00
Optum Clininformatics	2,282	1,437	11	7.65
Optum EHR	3,595	1,478	8	5.41
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,681	20,580	46	2.24
Merative CCAE	3,043	1,722	<5	<2.90
Merative MDCD	524	267	<5	<18.74
Merative MDCR	185	85	-	0.00
Optum Clininformatics	1,368	891	-	0.00
Optum EHR	2,990	1,251	<5	<4.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

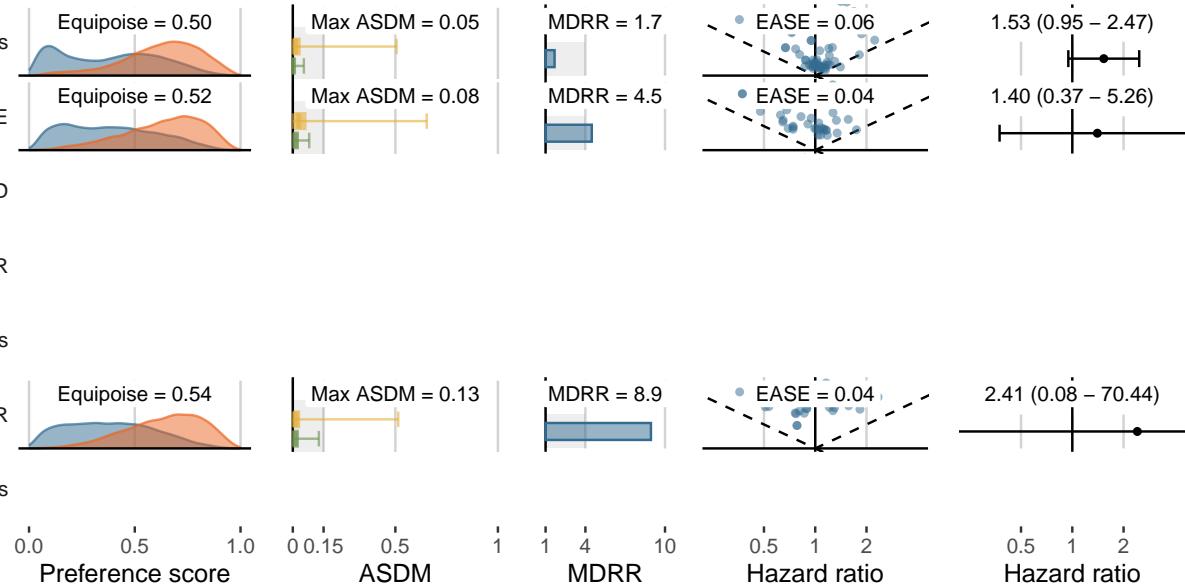
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

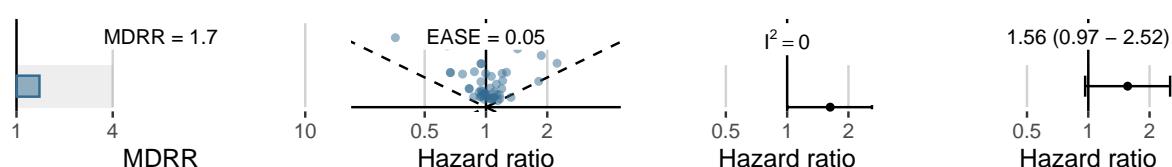
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,976	20,736	14	0.68
Merative CCAE	3,060	1,726	<5	<2.90
Merative MDCD	534	276	-	0.00
Merative MDCR	186	88	-	0.00
Optum Clininformatics	1,383	891	-	0.00
Optum EHR	2,993	1,249	-	0.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

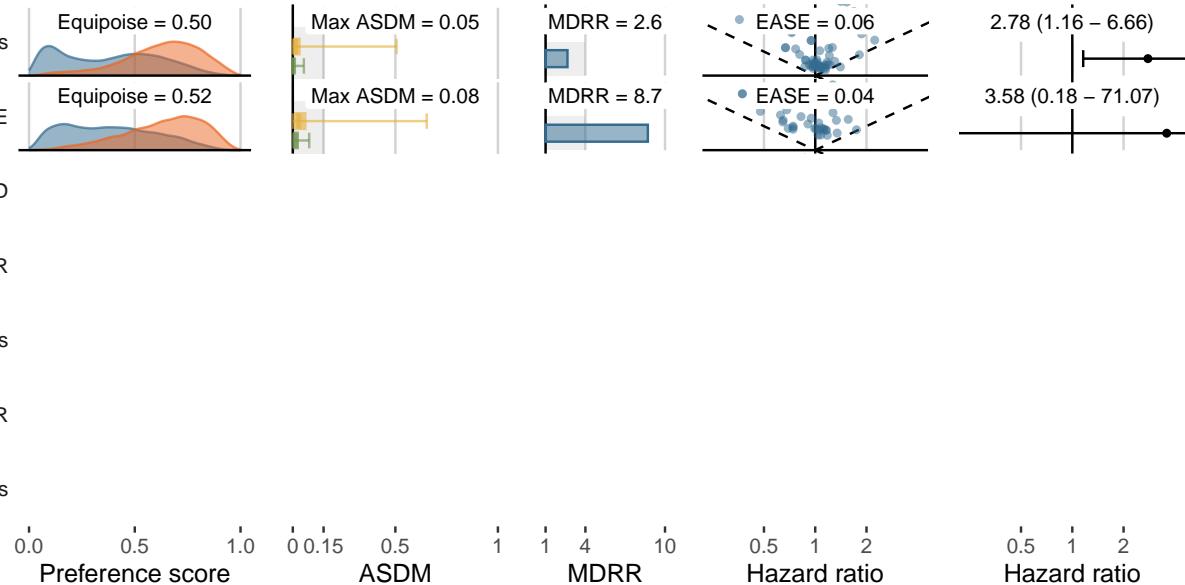
Merative MDCD

Merative MDCR

Optum Clininformatics

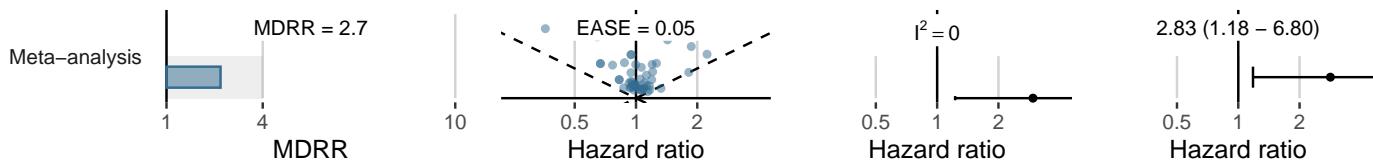
Optum EHR

Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



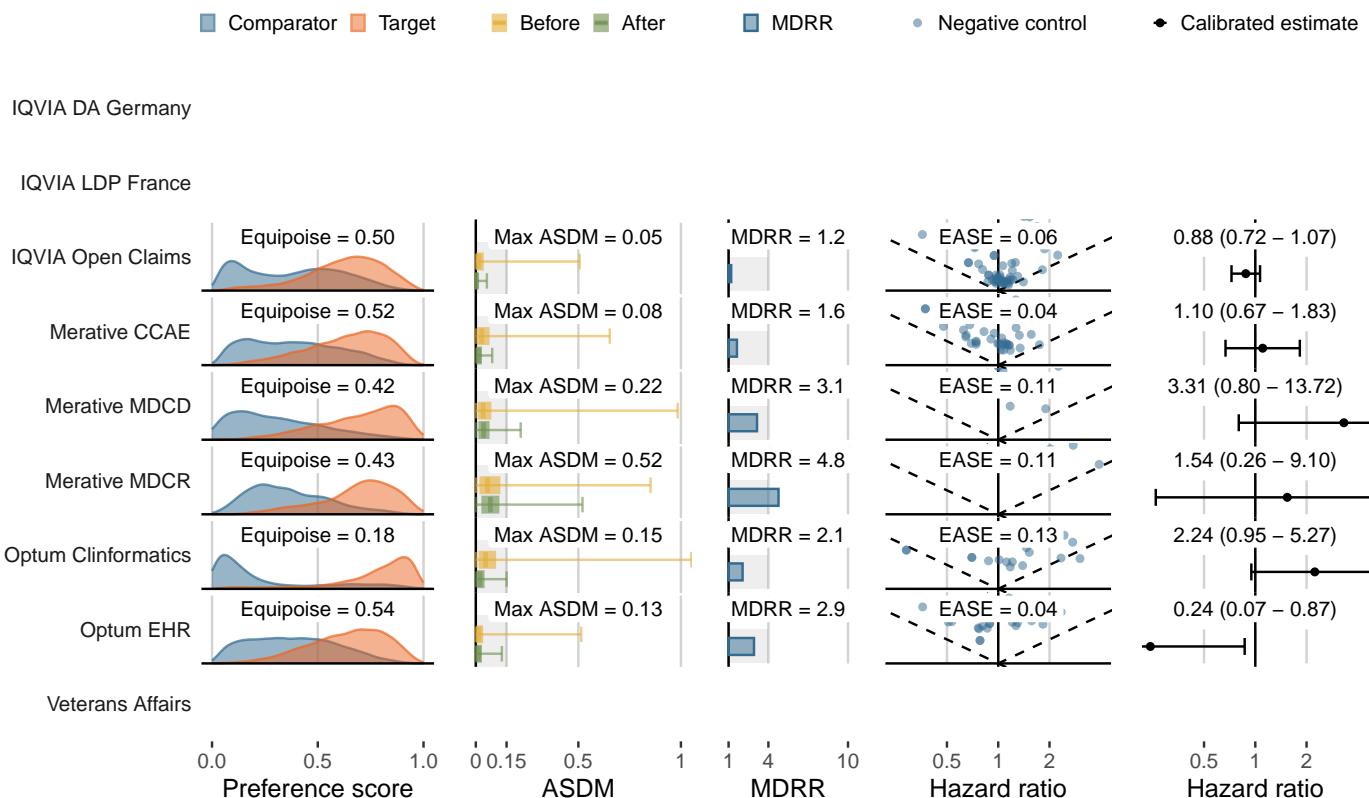
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

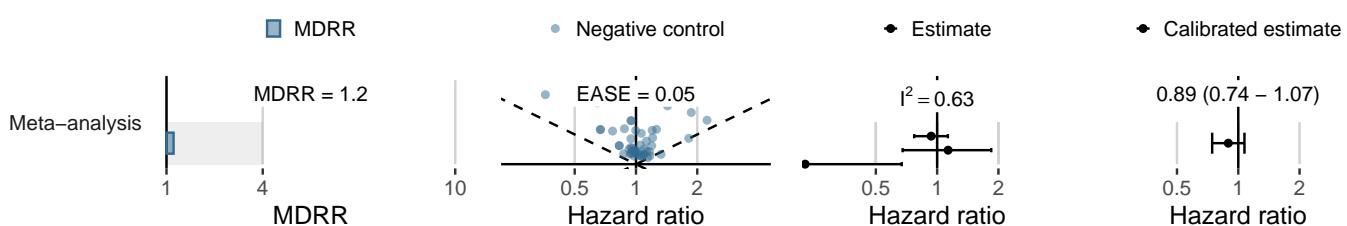
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	32,421	17,928	263	14.67
Merative CCAE	2,785	1,526	36	23.59
Merative MDCD	453	218	11	50.46
Merative MDCR	166	71	<5	<70.25
Optum Clininformatics	1,262	760	24	31.58
Optum EHR	2,798	1,160	13	11.21
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



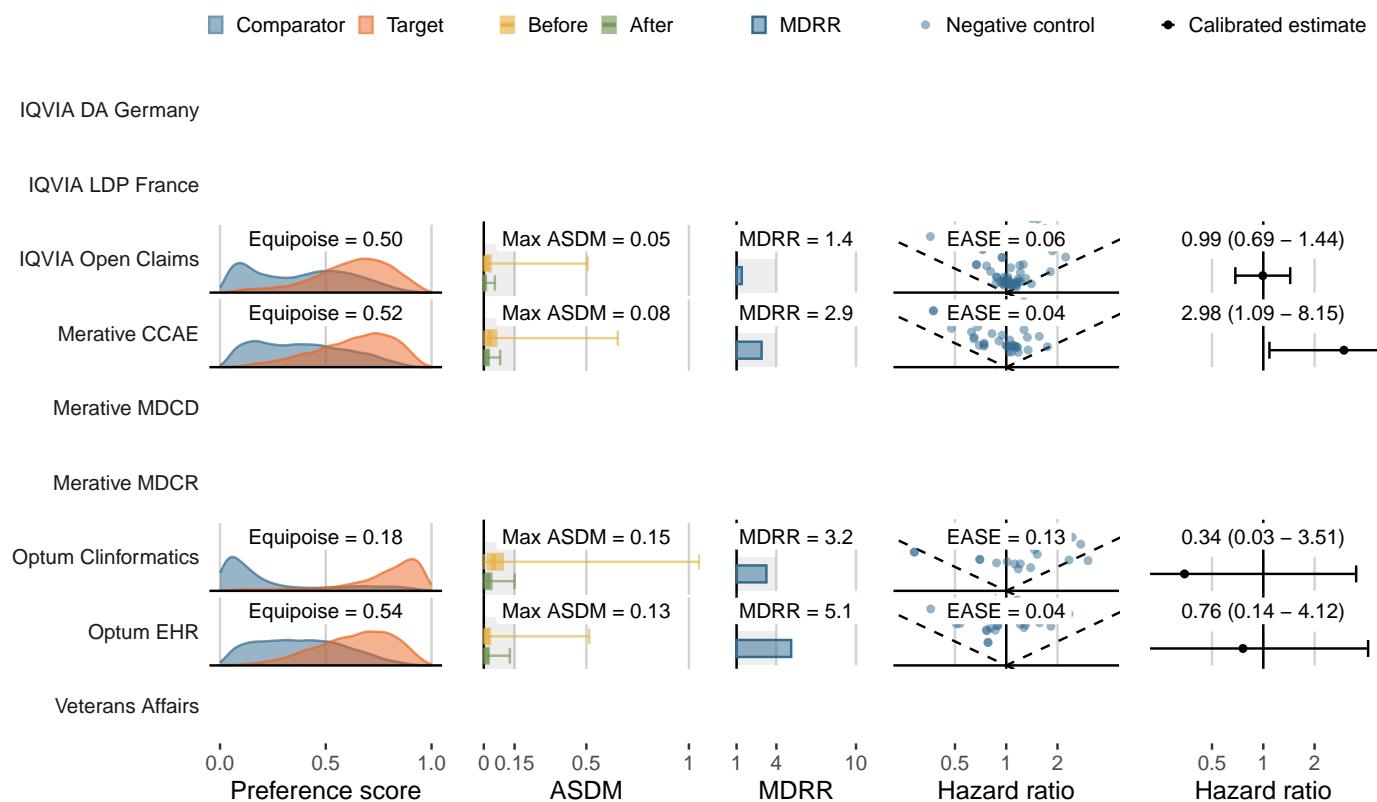
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

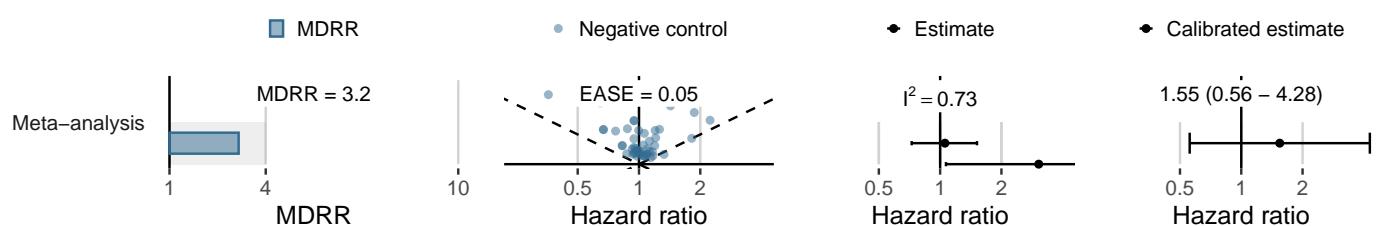
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,336	20,334	73	3.59
Merative CCAE	3,022	1,710	10	5.85
Merative MDCD	516	265	-	0.00
Merative MDCR	183	87	-	0.00
Optum Clininformatics	1,361	880	<5	<5.68
Optum EHR	2,961	1,237	5	4.04
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



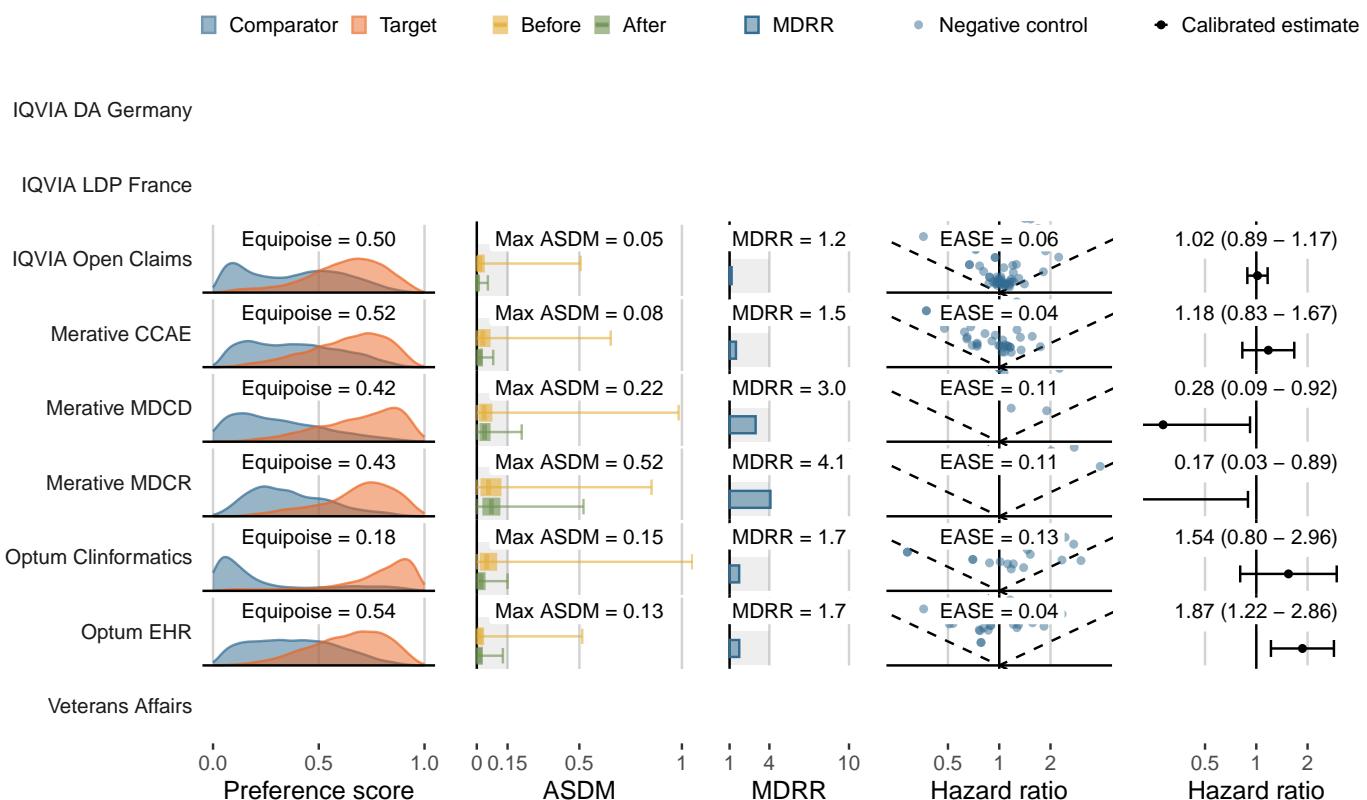
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

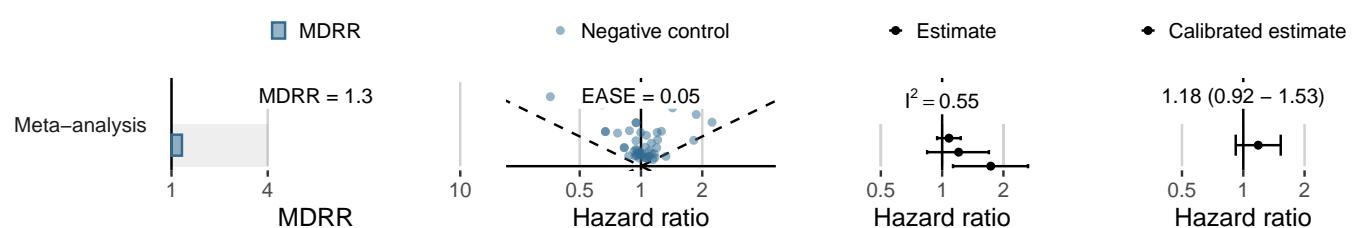
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	28,131	15,599	513	32.89
Merative CCAE	2,351	1,269	66	52.01
Merative MDCD	406	200	12	60.07
Merative MDCR	143	67	<5	<74.83
Optum Clininformatics	1,100	677	40	59.06
Optum EHR	2,541	1,004	61	60.77
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



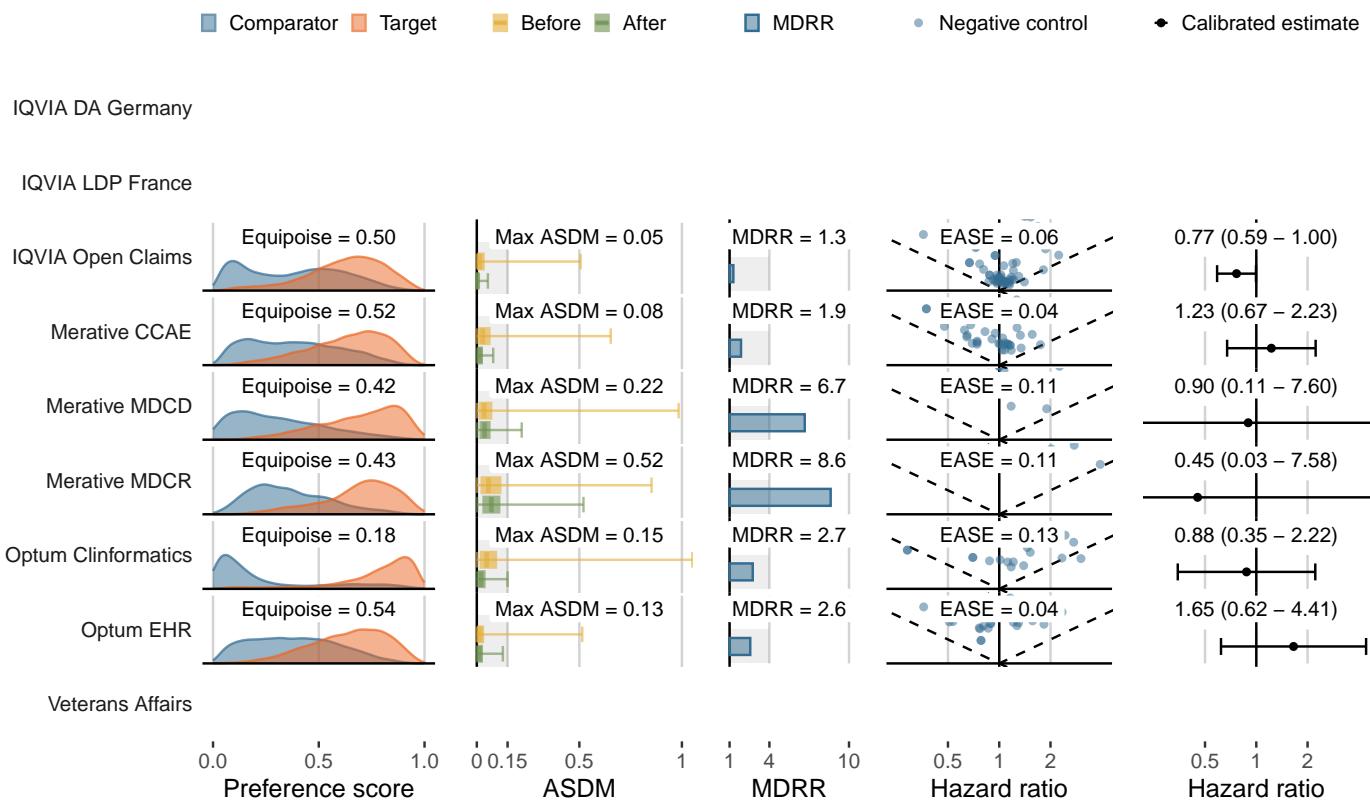
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

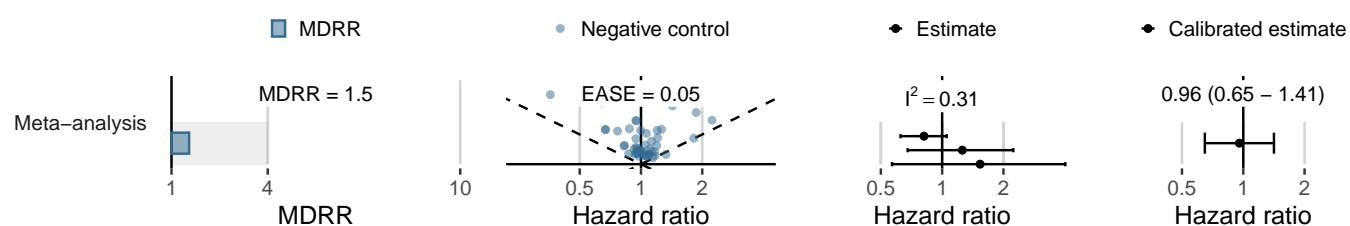
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	34,636	19,421	129	6.64
Merative CCAE	2,842	1,595	28	17.56
Merative MDCD	420	202	5	24.79
Merative MDCR	161	75	<5	<66.56
Optum Clininformatics	1,132	713	18	25.25
Optum EHR	2,801	1,158	21	18.14
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,947	20,715	17	0.82
Merative CCAE	3,061	1,733	<5	<2.89
Merative MDCD	535	277	-	0.00
Merative MDCR	186	88	-	0.00
Optum Clininformatics	1,385	892	-	0.00
Optum EHR	3,000	1,252	<5	<4.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

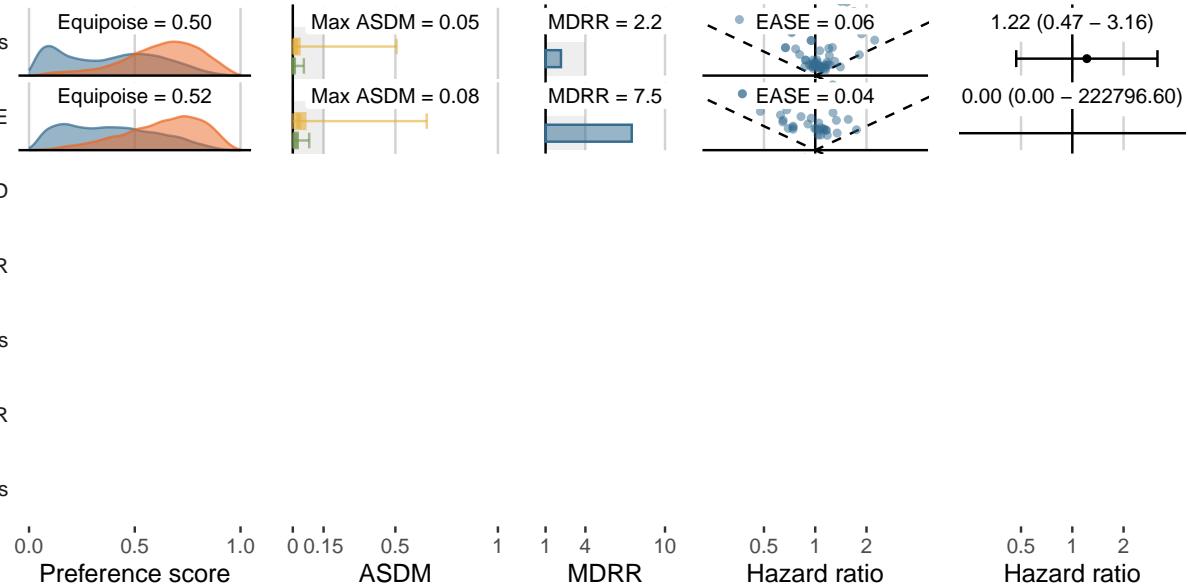
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

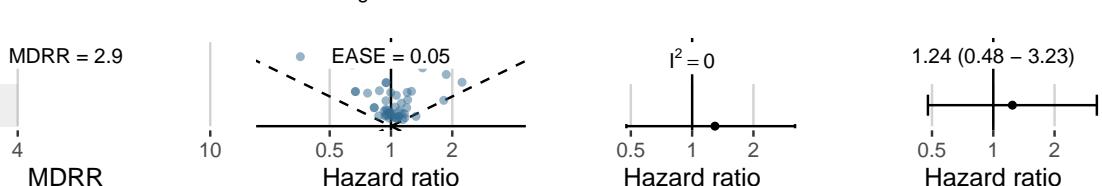
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate

Meta-analysis



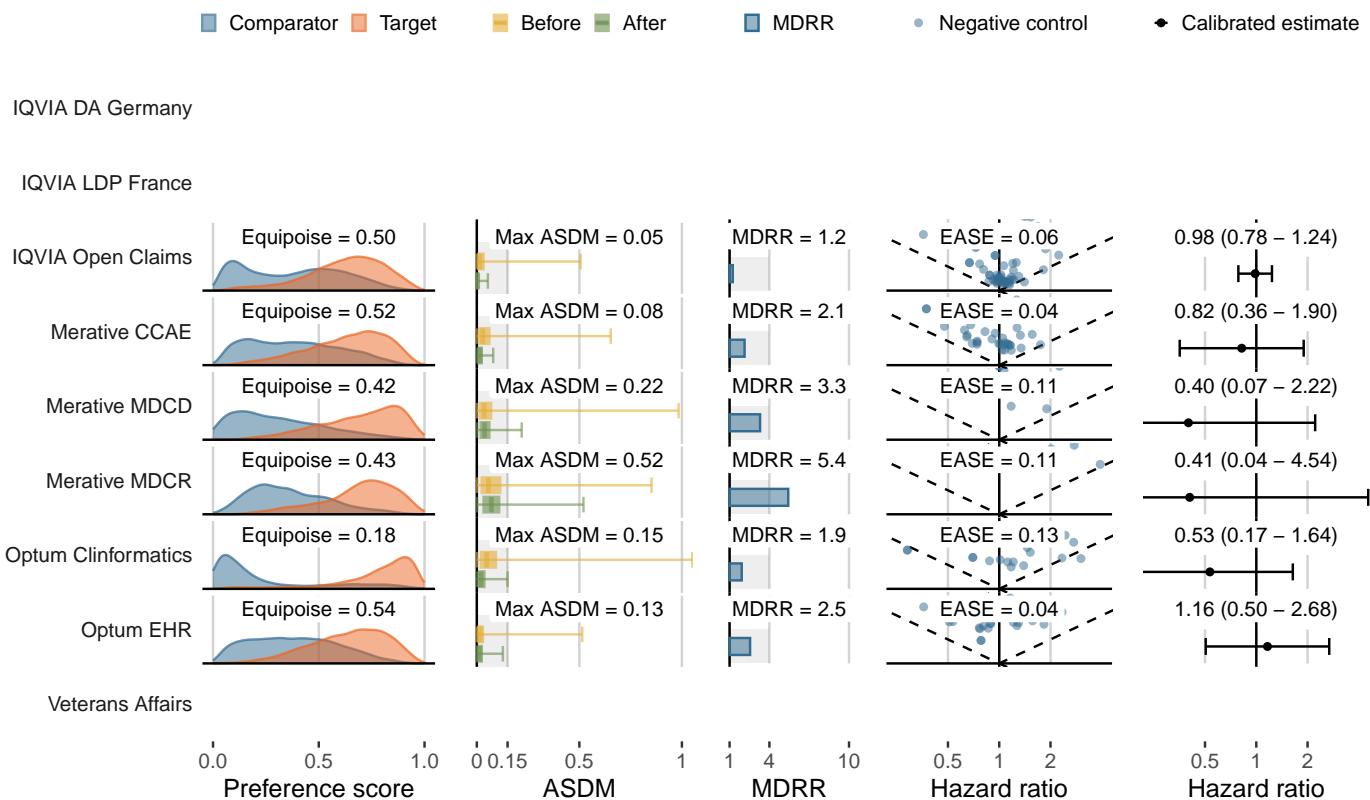
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

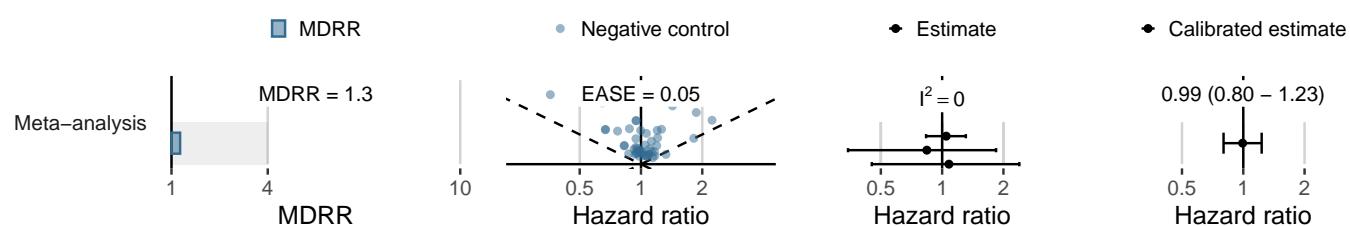
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,191	20,180	185	9.17
Merative CCAE	3,018	1,693	11	6.50
Merative MDCD	505	252	8	31.80
Merative MDCR	180	78	<5	<64.05
Optum Clininformatics	1,341	862	11	12.76
Optum EHR	2,968	1,237	18	14.55
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



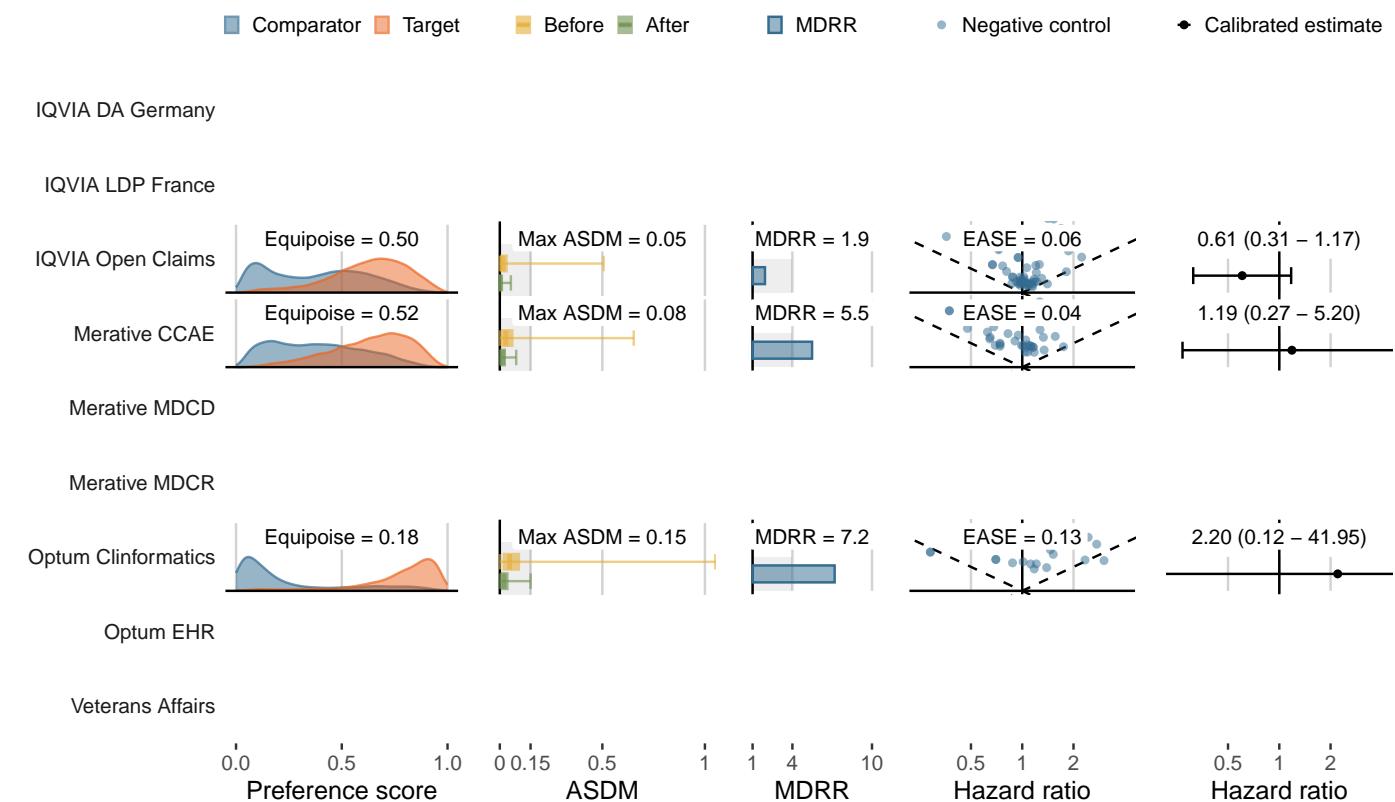
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

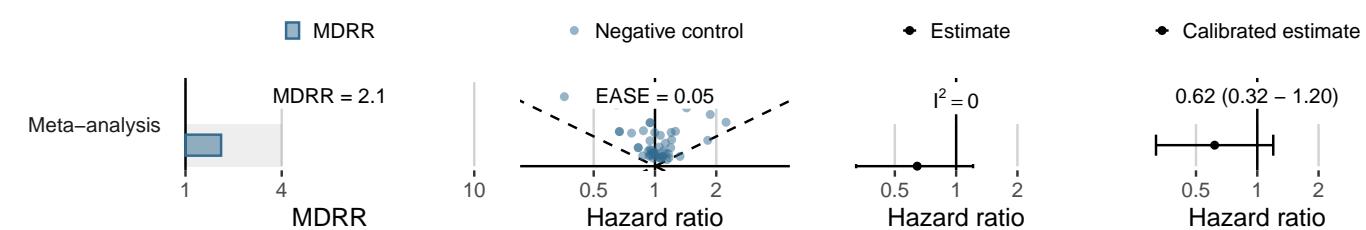
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,781	20,622	19	0.92
Merative CCAE	3,049	1,728	<5	<2.89
Merative MDCD	535	278	-	0.00
Merative MDCR	185	88	-	0.00
Optum Clininformatics	1,377	886	<5	<5.64
Optum EHR	2,977	1,245	<5	<4.02
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



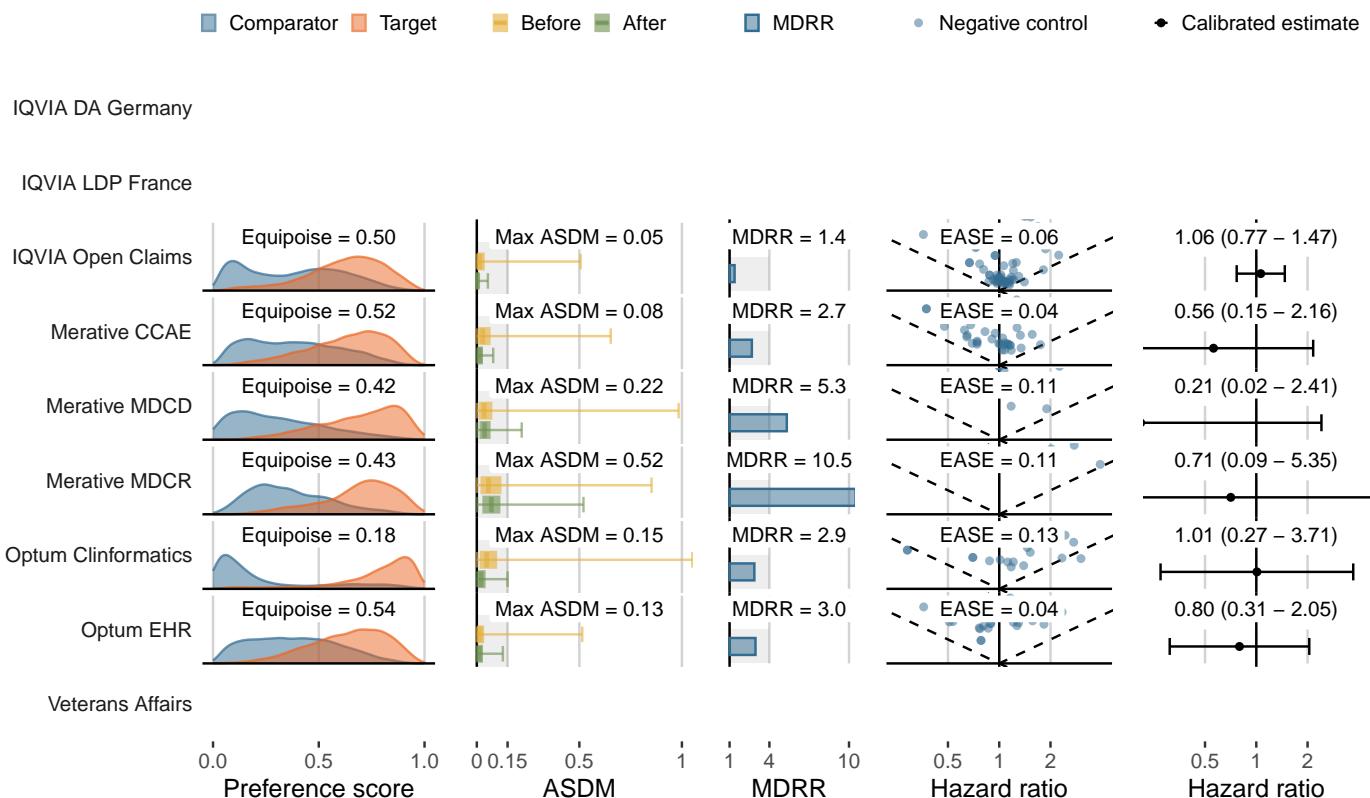
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

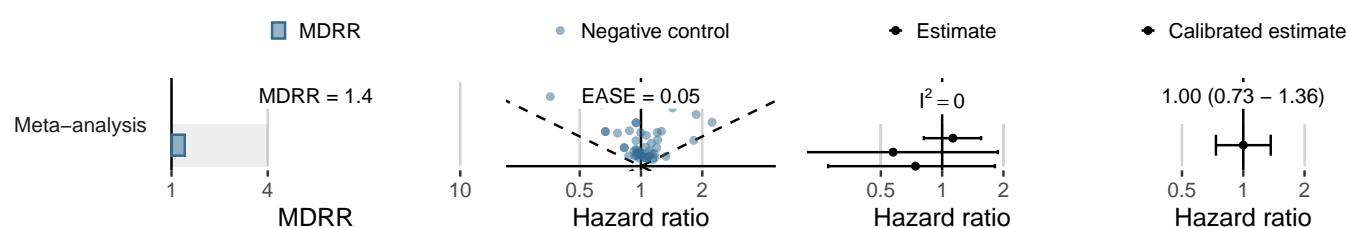
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	35,794	20,061	84	4.19
Merative CCAE	2,979	1,678	<5	<2.98
Merative MDCD	510	265	<5	<18.89
Merative MDCR	178	82	<5	<60.92
Optum Clininformatics	1,342	868	7	8.06
Optum EHR	2,928	1,219	13	10.66
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



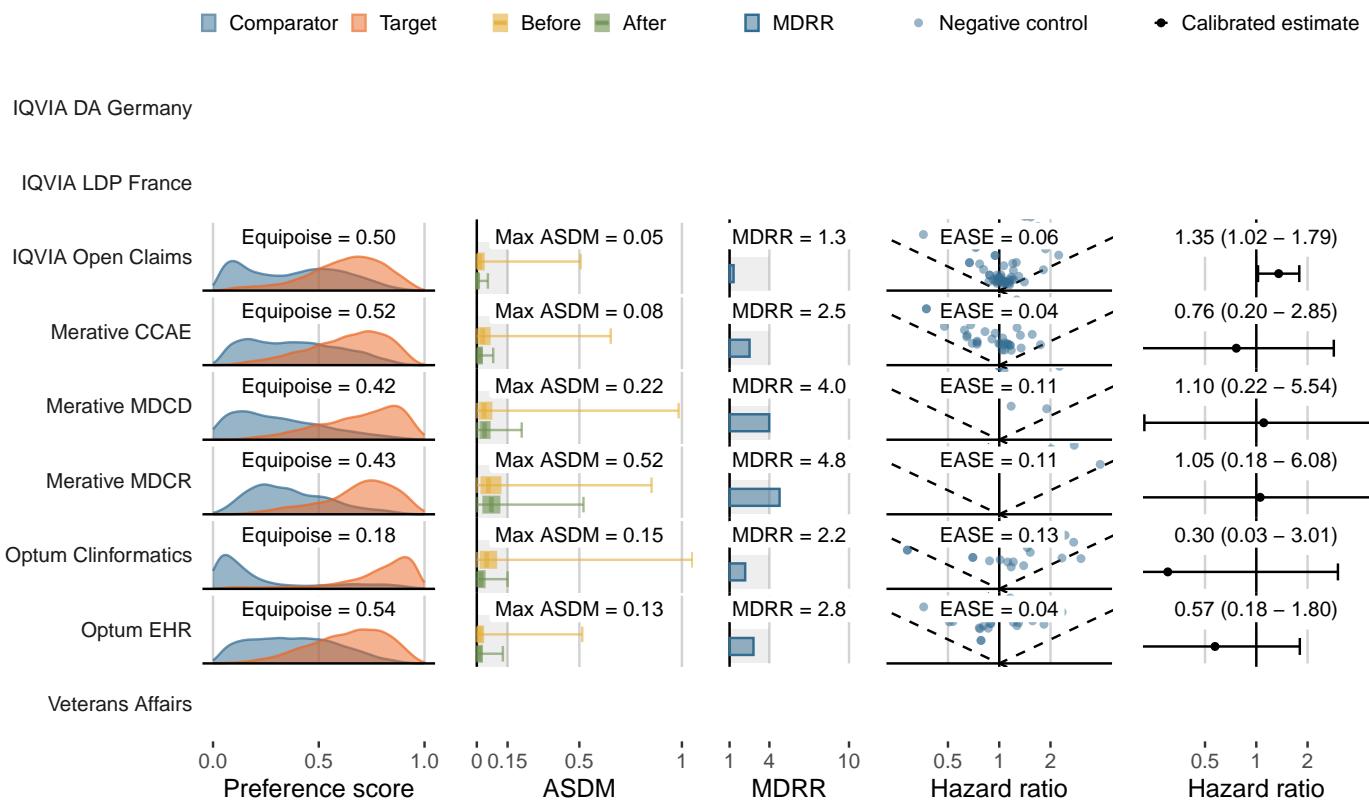
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

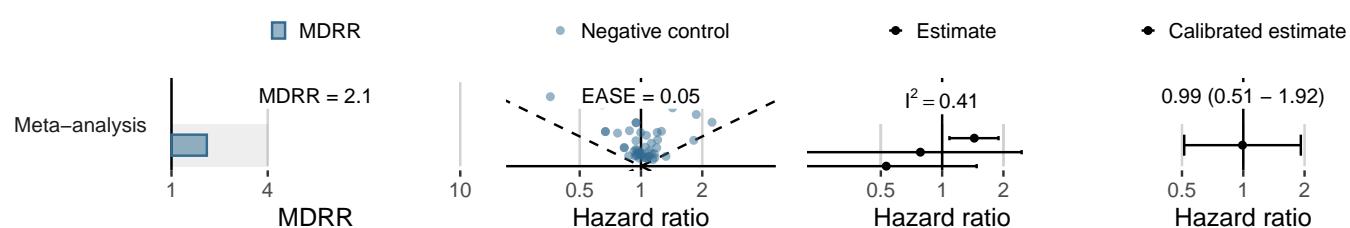
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	35,989	20,115	125	6.21
Merative CCAE	3,008	1,705	5	2.93
Merative MDCD	484	237	9	37.91
Merative MDCR	177	81	<5	<61.82
Optum Clininformatics	1,332	870	7	8.04
Optum EHR	2,957	1,232	8	6.49
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,389	20,355	73	3.59
Merative CCAE	3,027	1,702	6	3.52
Merative MDCD	519	265	-	.00
Merative MDCR	183	88	-	.00
Optum Clininformatics	1,366	875	8	9.14
Optum EHR	2,977	1,243	7	5.63
Veterans Affairs	-	-	-	-

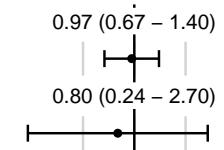
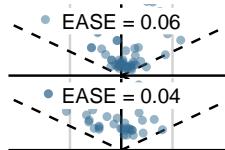
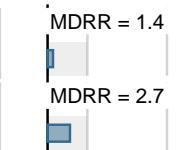
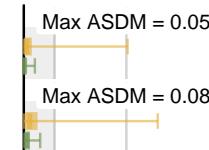
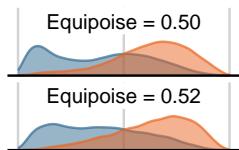
How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

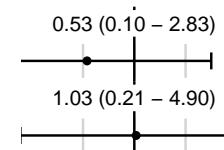
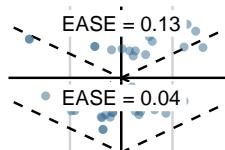
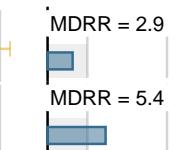
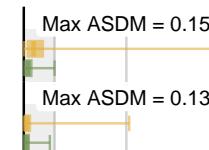
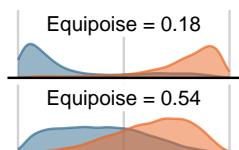
IQVIA Open Claims



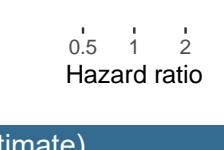
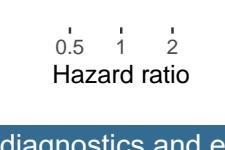
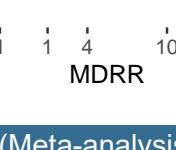
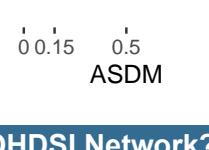
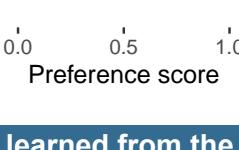
Merative MDCD

Merative MDCR

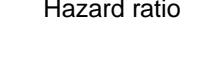
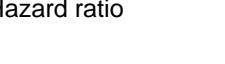
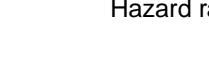
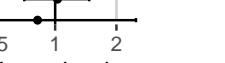
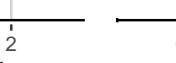
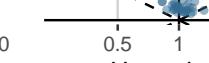
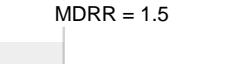
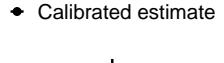
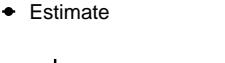
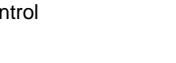
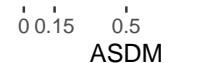
Optum Clininformatics



Optum EHR



Veterans Affairs



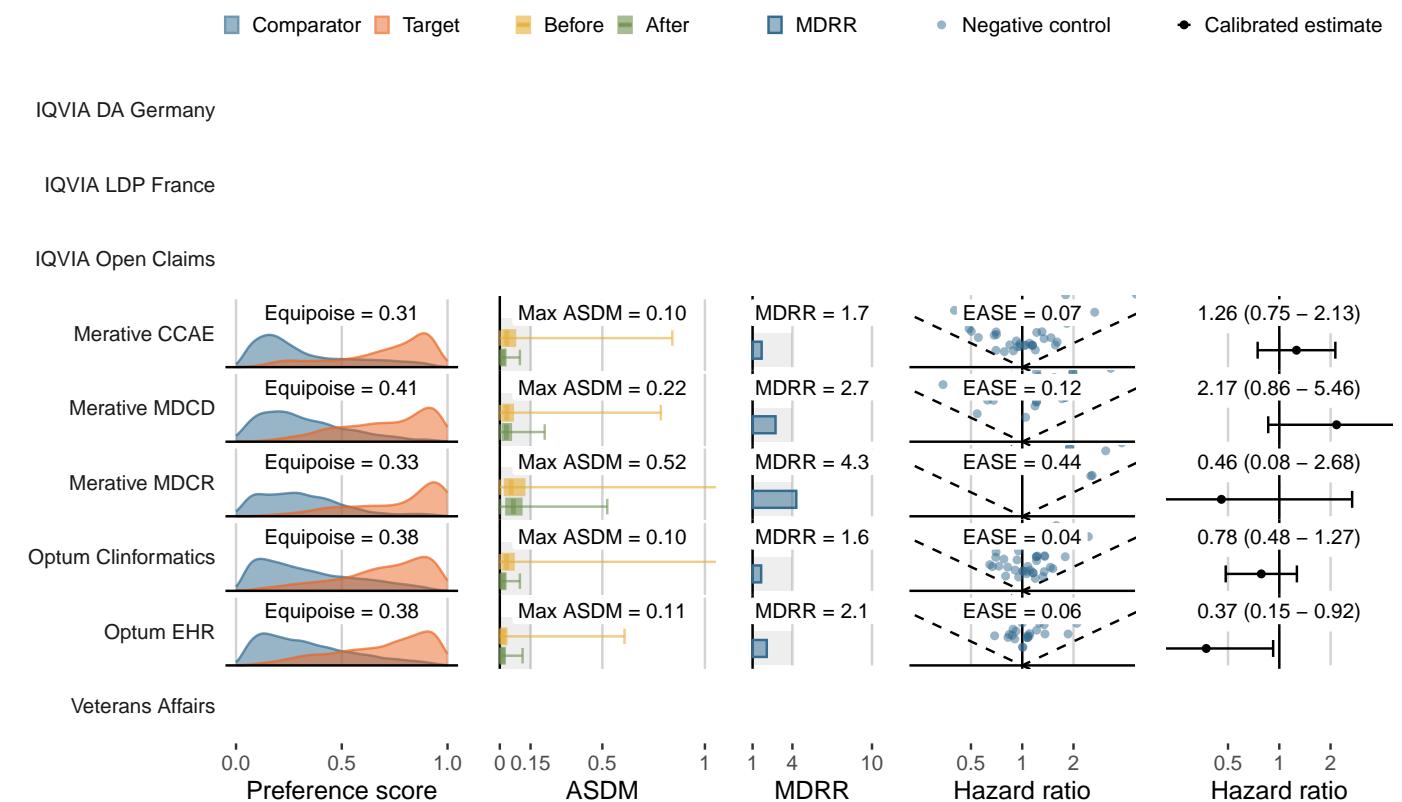
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

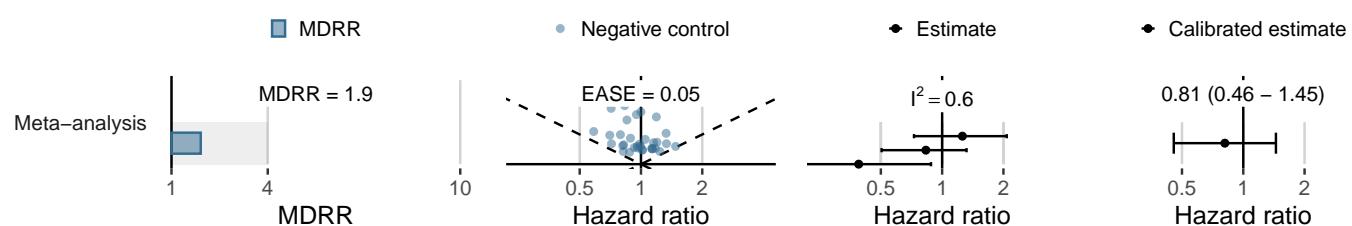
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,290	1,280	27	21.09
Merative MDCD	596	291	12	41.27
Merative MDCR	161	59	<5	<84.55
Optum Clininformatics	1,876	1,133	33	29.11
Optum EHR	2,664	1,108	12	10.83
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,487	1,442	9	6.24
Merative MDCD	666	323	-	0.00
Merative MDCR	178	67	-	0.00
Optum Clininformatics	2,047	1,275	<5	<3.92
Optum EHR	2,839	1,199	6	5.01
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

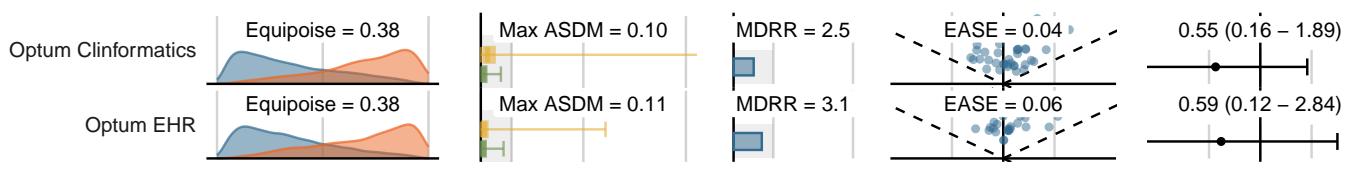
IQVIA LDP France

IQVIA Open Claims



Merative MDCD

Merative MDCR

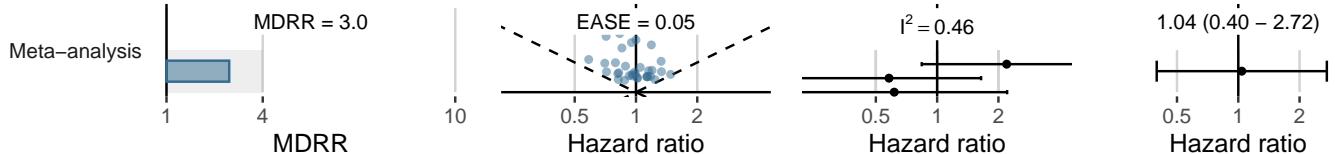


Veterans Affairs

0.0 0.5 1.0 0 0.15 0.5 1 1 4 10 0.5 1 2 0.5 1 2
Preference score ASDM MDRR Hazard ratio Hazard ratio

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



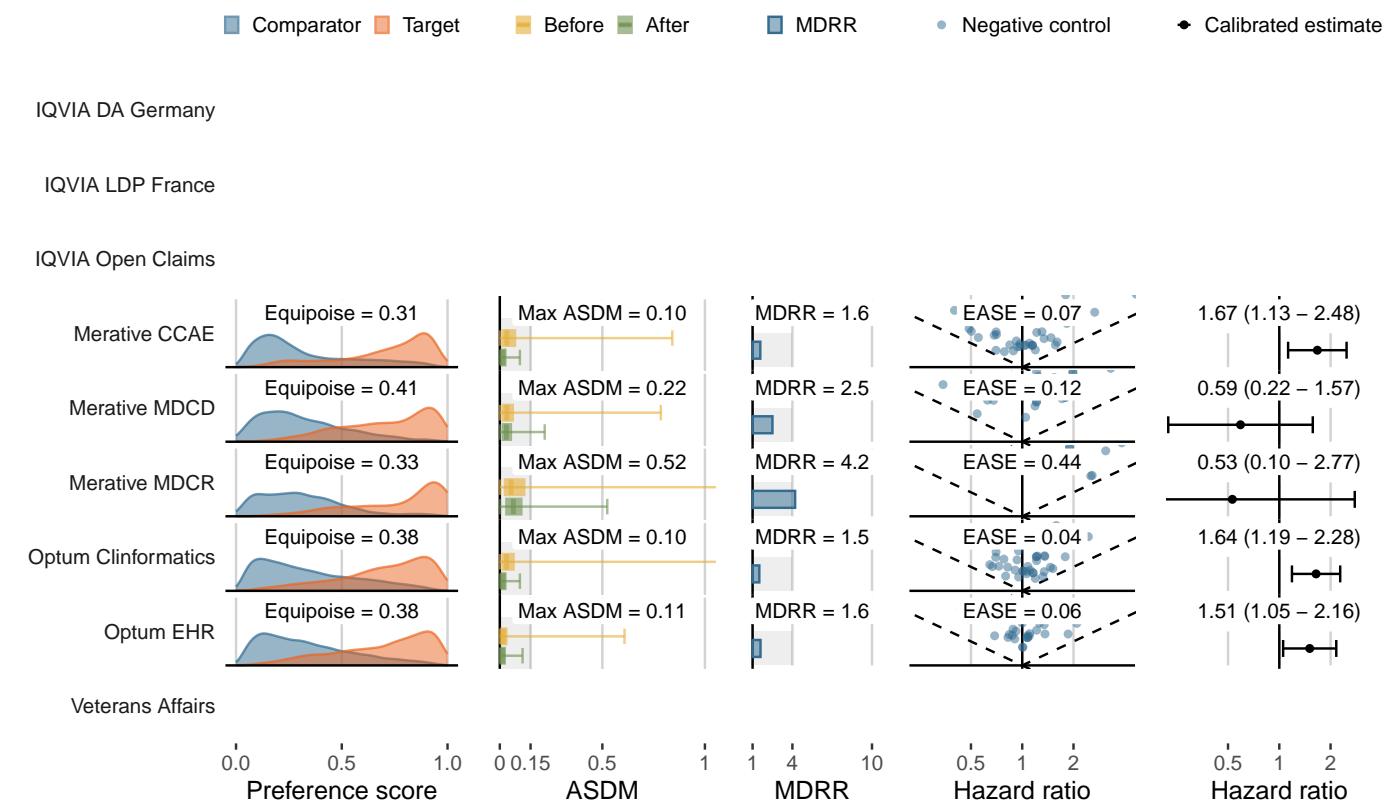
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

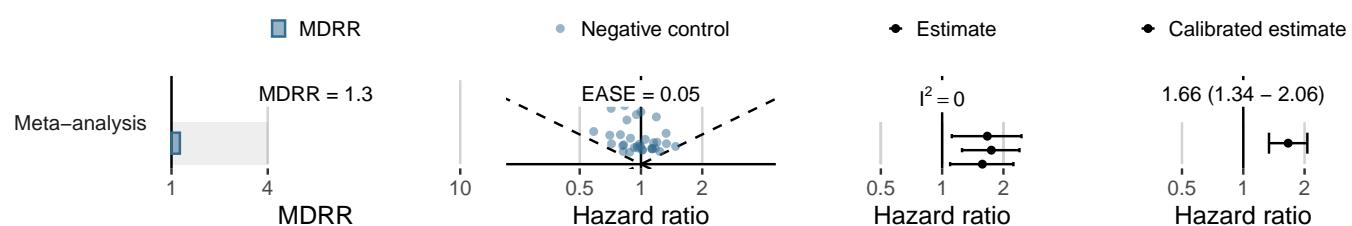
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	1,946	1,081	57	52.74
Merative MDCD	488	225	13	57.70
Merative MDCR	150	54	5	93.29
Optum Clininformatics	1,643	985	72	73.06
Optum EHR	2,388	962	63	65.46
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



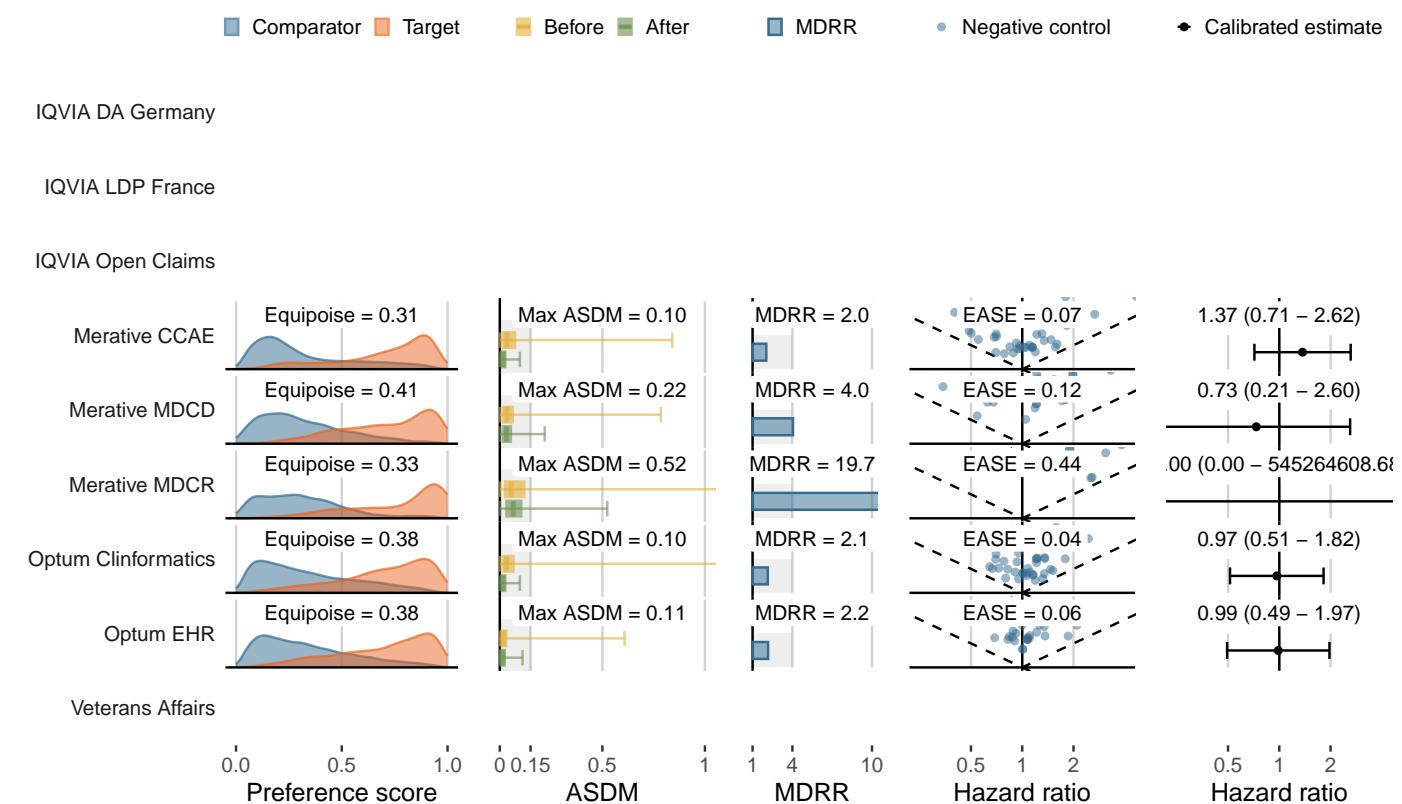
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

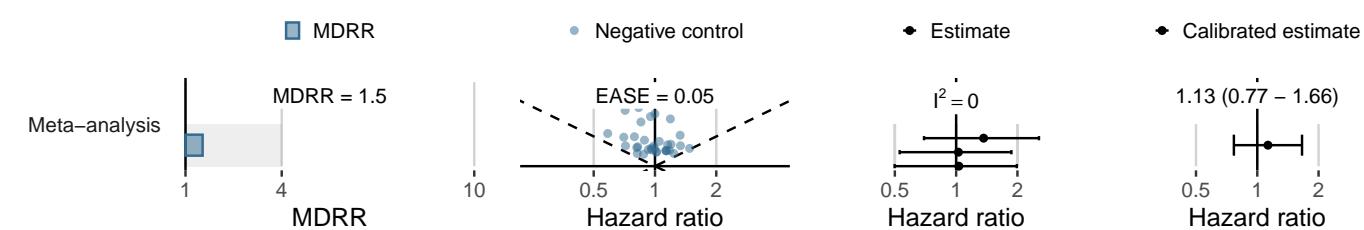
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,342	1,358	24	17.68
Merative MDCD	551	266	6	22.55
Merative MDCR	158	60	<5	<83.47
Optum Clininformatics	1,729	1,065	20	18.78
Optum EHR	2,683	1,115	20	17.94
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



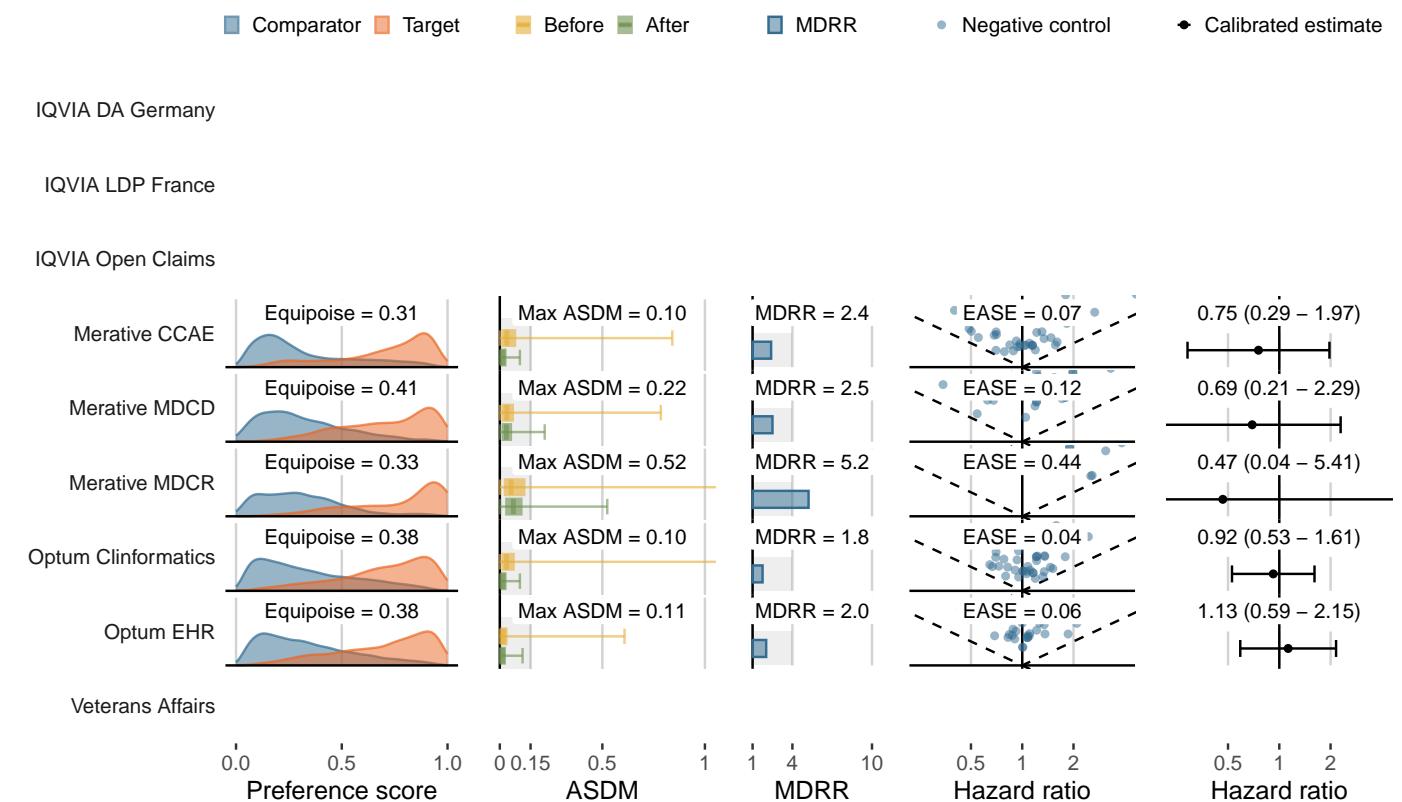
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

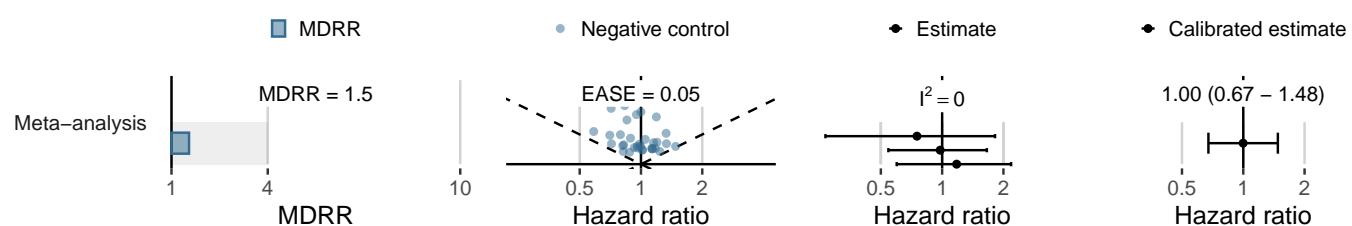
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,482	1,433	9	6.28
Merative MDCD	660	321	7	21.81
Merative MDCR	174	58	<5	<85.74
Optum Clininformatics	2,023	1,266	20	15.80
Optum EHR	2,840	1,193	17	14.25
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



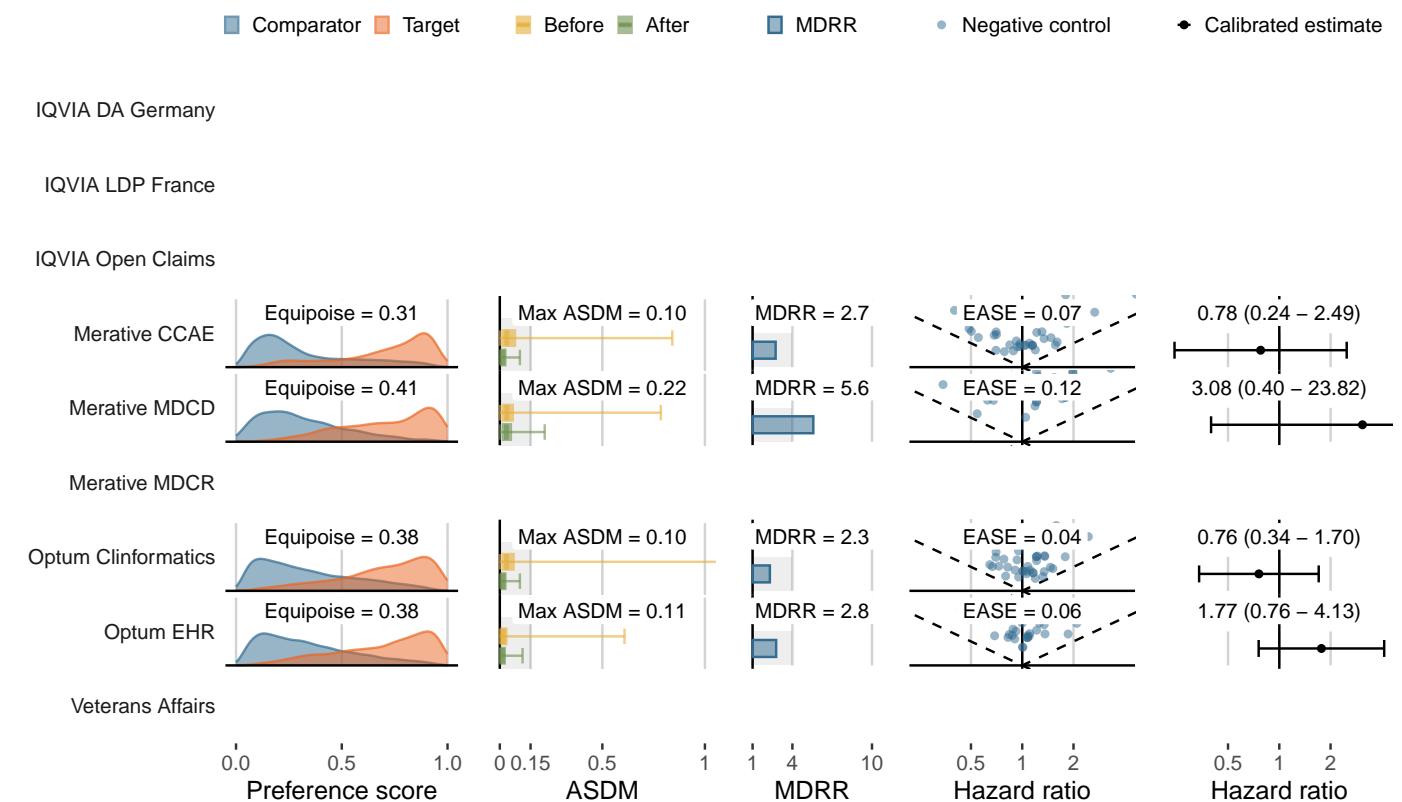
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

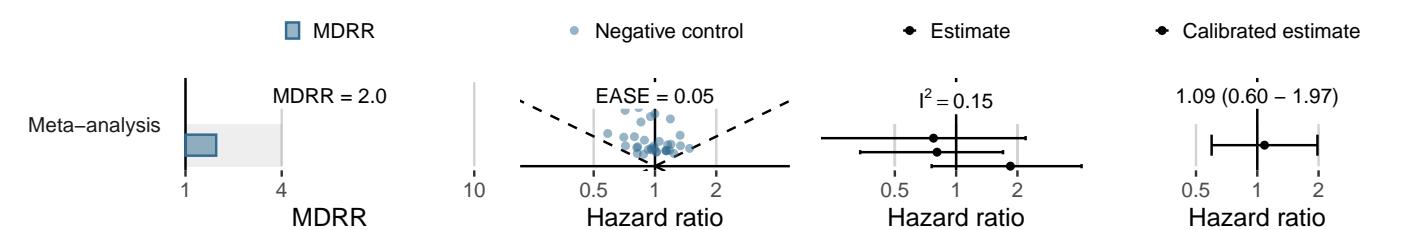
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,452	1,421	5	3.52
Merative MDCD	654	325	<5	<15.39
Merative MDCR	170	63	<5	<79.15
Optum Clininformatics	2,019	1,271	11	8.66
Optum EHR	2,803	1,175	10	8.51
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



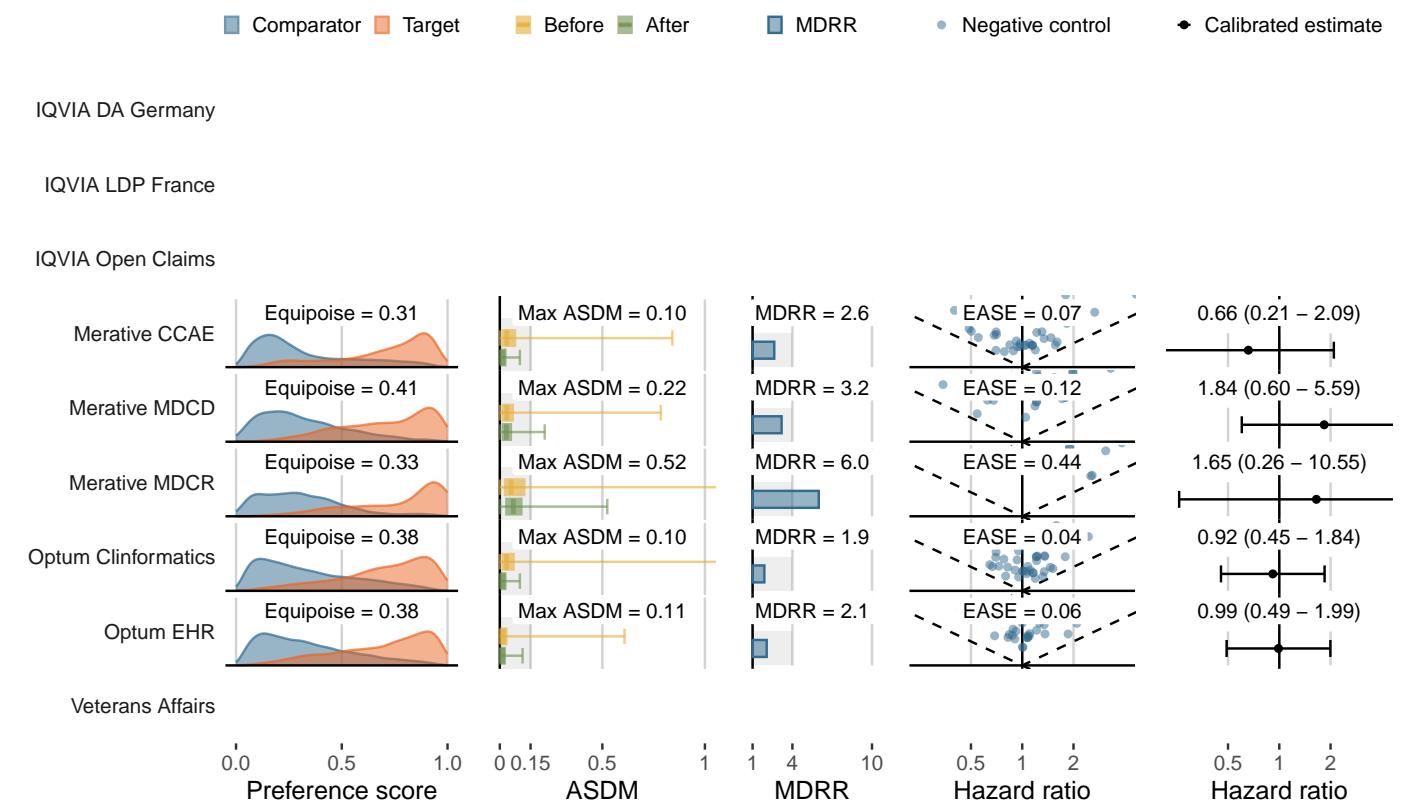
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

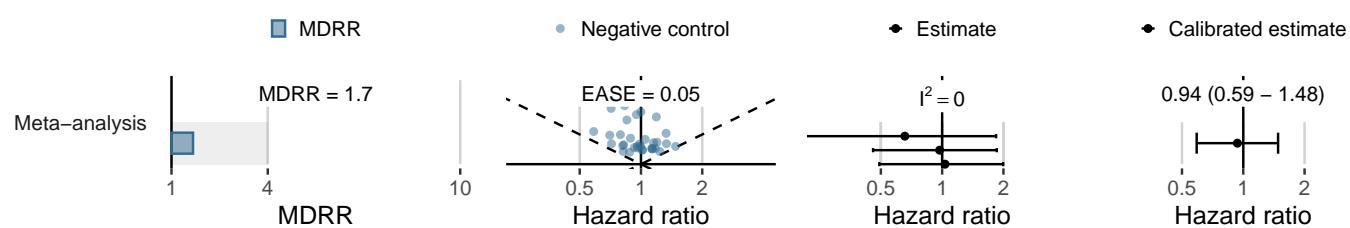
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,470	1,437	<5	<3.48
Merative MDCD	629	297	8	26.90
Merative MDCR	173	66	<5	<75.88
Optum Clininformatics	2,004	1,259	11	8.74
Optum EHR	2,829	1,189	12	10.09
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	2,492	1,445	5	3.46
Merative MDCD	670	329	<5	<15.20
Merative MDCR	177	67	-	0.00
Optum Clininformatics	2,052	1,279	9	7.04
Optum EHR	2,847	1,198	<5	<4.17
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

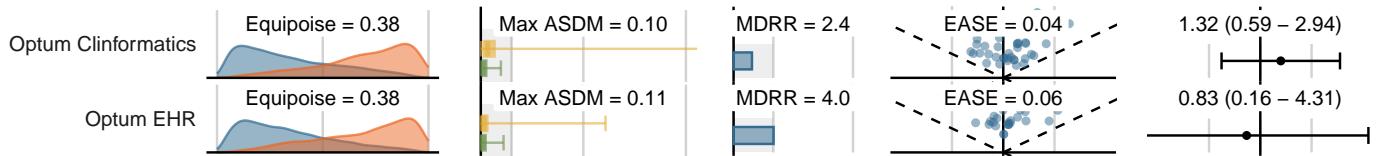
IQVIA LDP France

IQVIA Open Claims



Merative MDCD

Merative MDCR

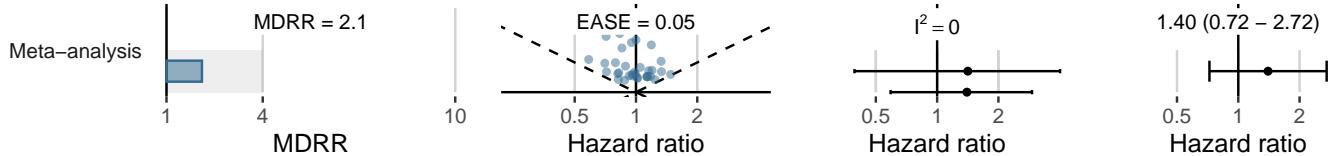


Veterans Affairs

0.0 0.5 1.0 0.015 0.5 1 1 4 10 0.5 1 2 0.5 1 2
Preference score ASDM MDRR Hazard ratio Hazard ratio

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



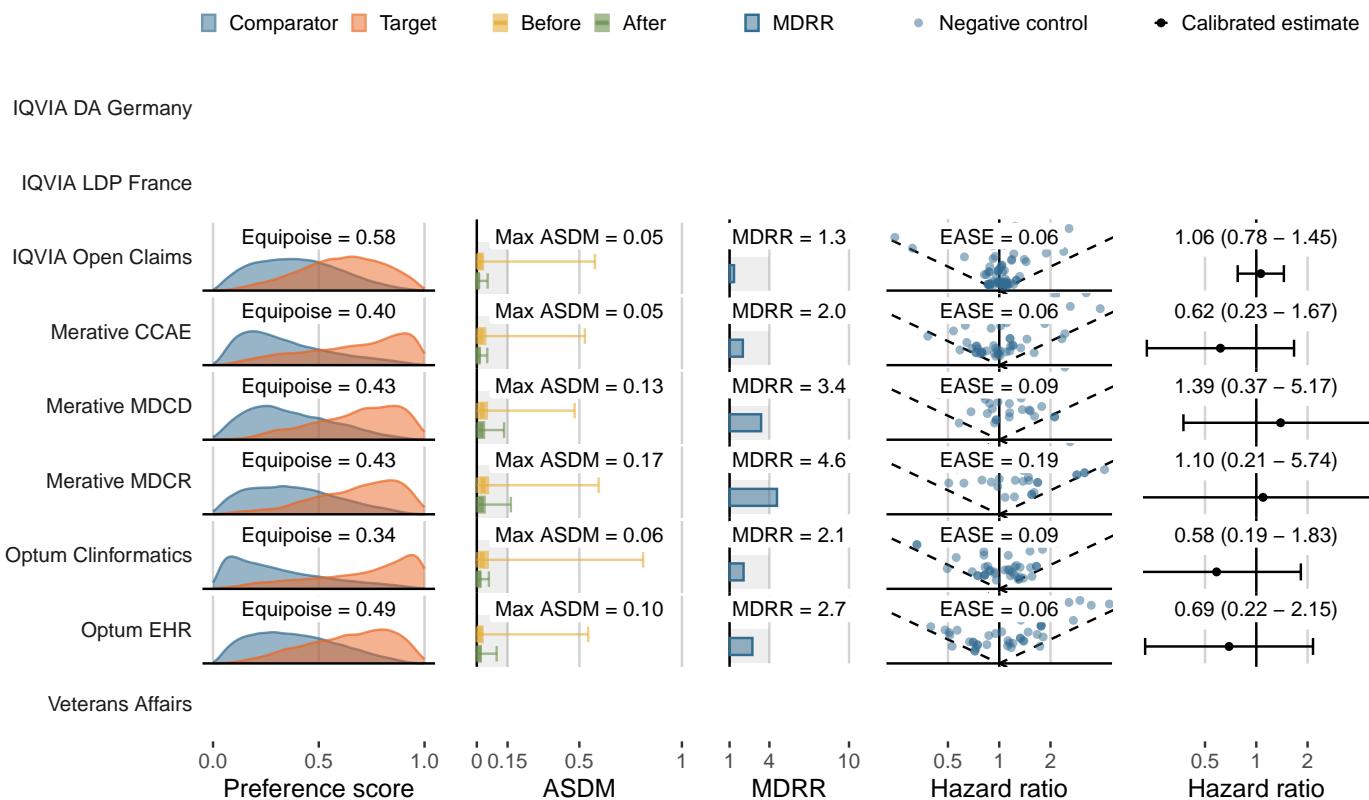
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

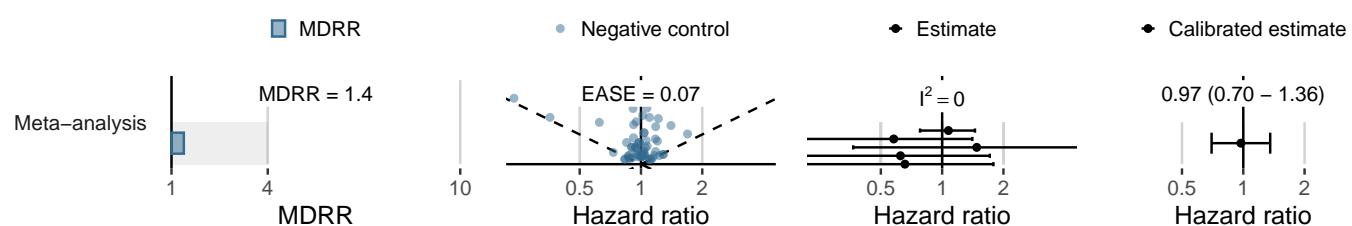
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,339	24,813	56	2.26
Merative CCAE	10,036	5,478	8	1.46
Merative MDCD	1,325	665	5	7.51
Merative MDCR	947	572	<5	<8.74
Optum Clininformatics	5,404	3,132	5	1.60
Optum EHR	5,126	2,082	<5	<2.40
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



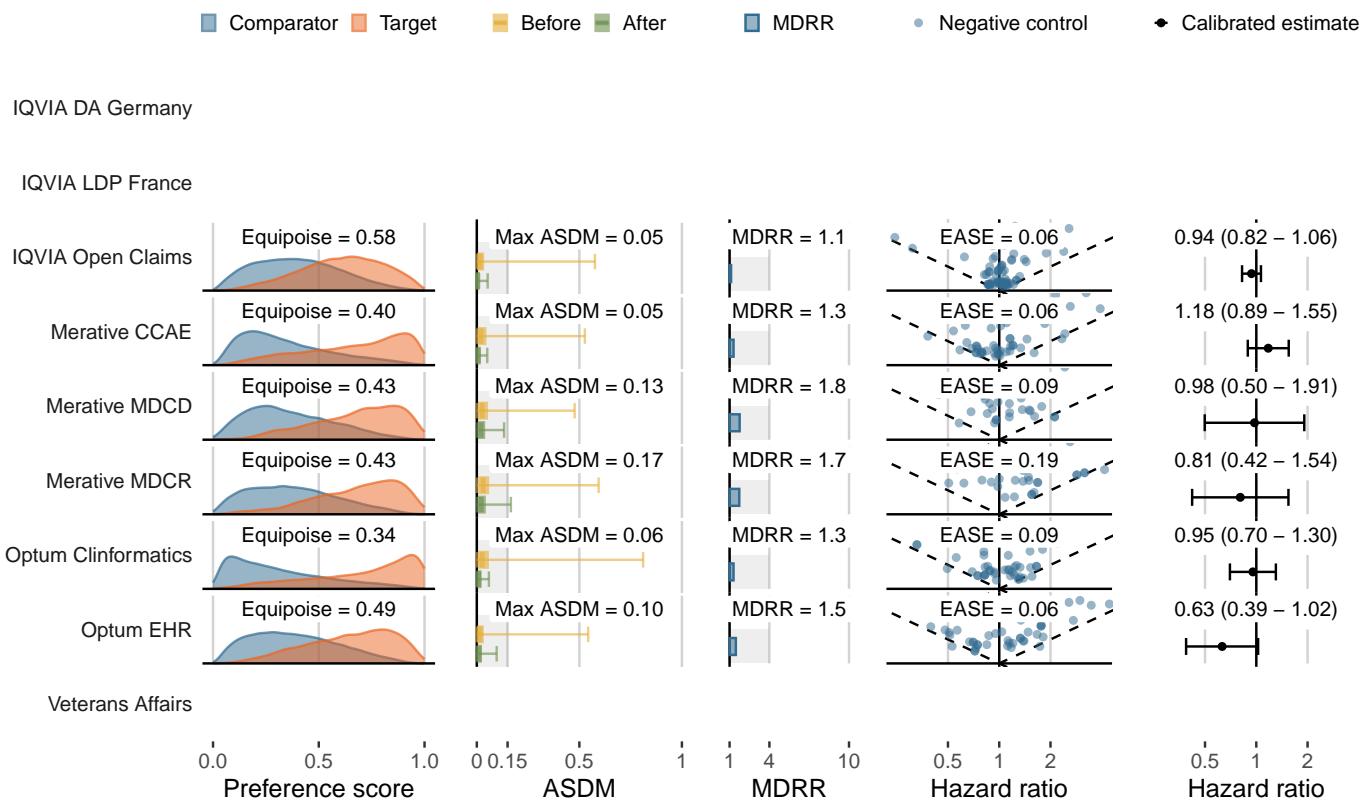
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Bone fracture**

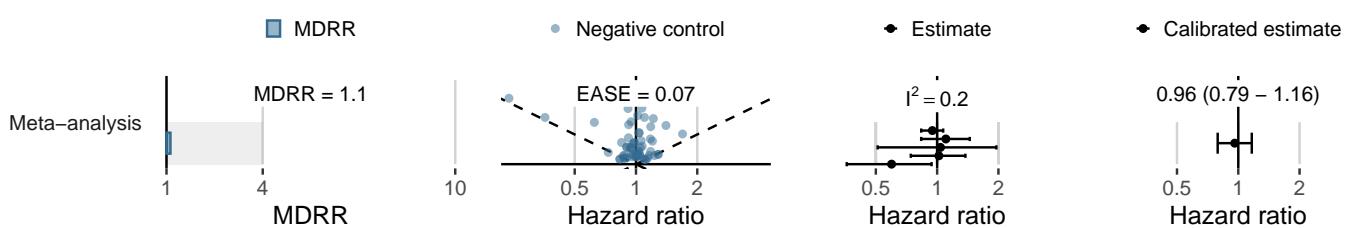
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	39,118	21,594	345	15.98
Merative CCAE	9,248	4,956	110	22.19
Merative MDCD	1,162	579	15	25.91
Merative MDCR	846	495	13	26.26
Optum Clininformatics	4,936	2,765	72	26.04
Optum EHR	4,834	1,944	25	12.86
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



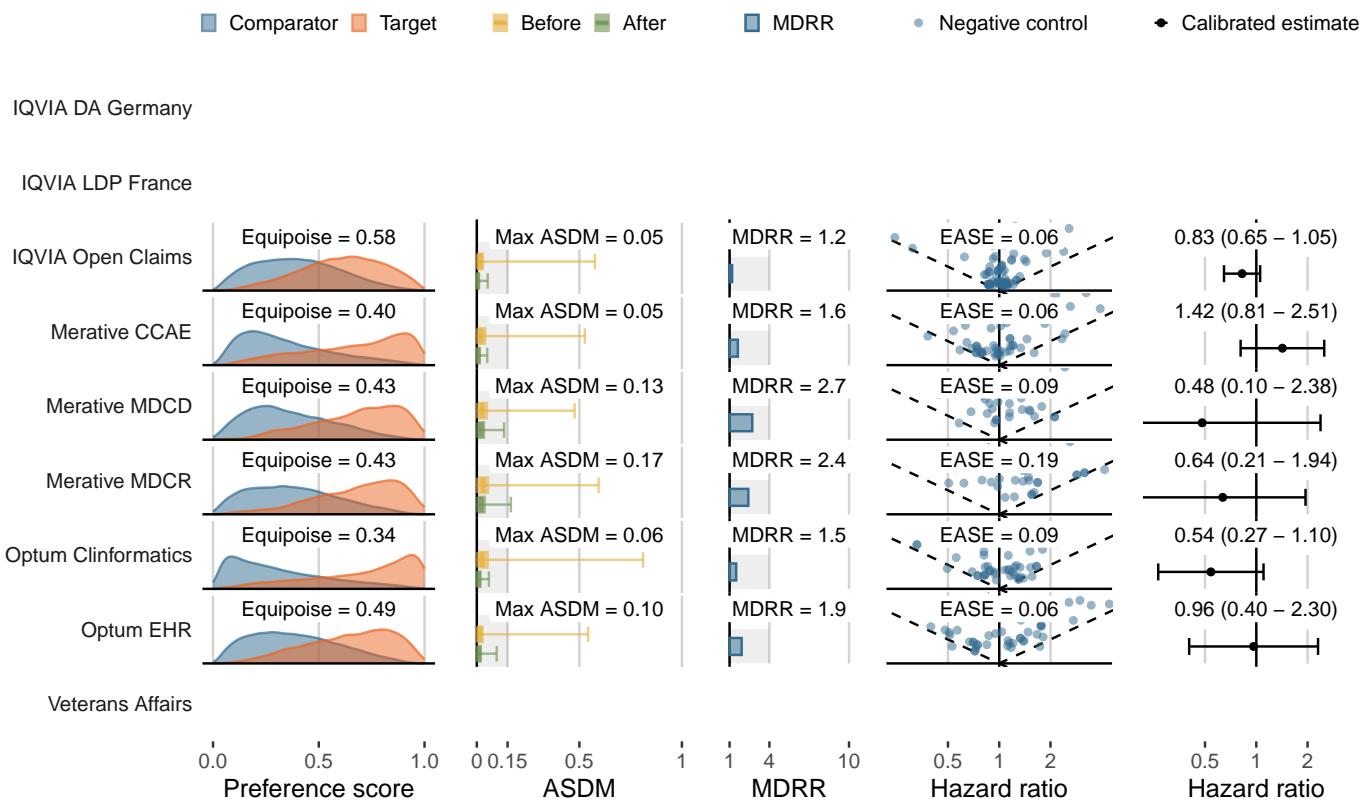
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

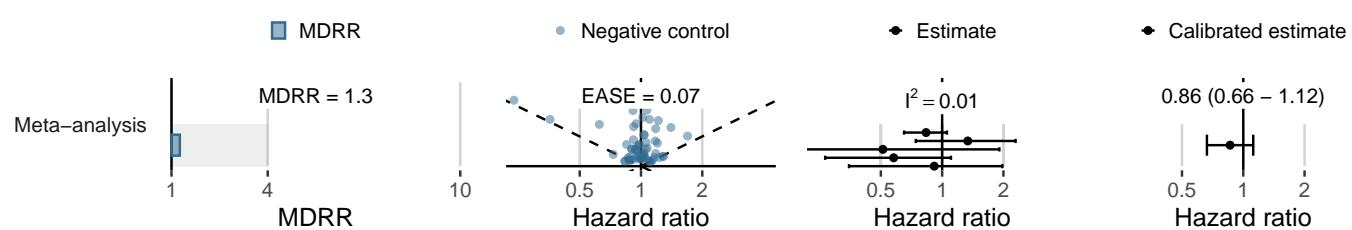
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,935	24,540	87	3.55
Merative CCAE	9,945	5,438	22	4.05
Merative MDCD	1,311	659	<5	<7.59
Merative MDCR	938	564	5	8.86
Optum Clininformatics	5,358	3,085	11	3.57
Optum EHR	5,096	2,070	9	4.35
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



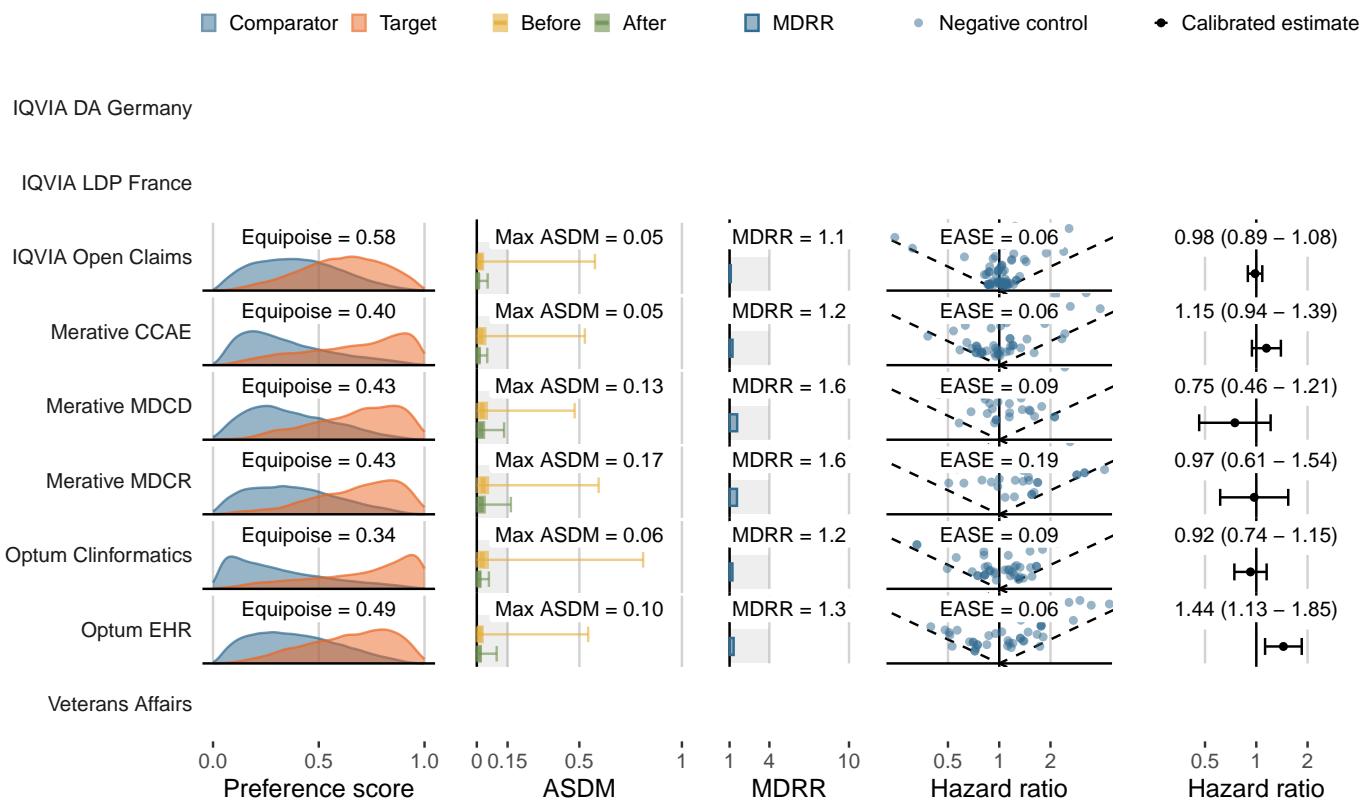
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Genitourinary infection**

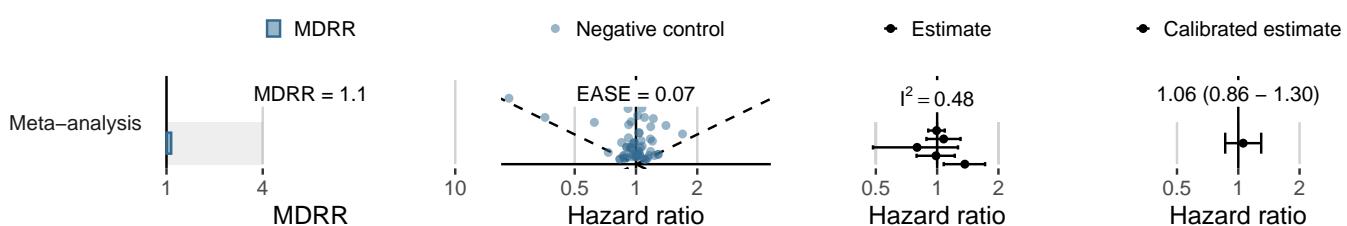
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	33,870	18,736	637	34.00
Merative CCAE	7,899	4,133	232	56.14
Merative MDCD	964	475	36	75.76
Merative MDCR	759	425	31	73.01
Optum Clininformatics	4,234	2,373	151	63.63
Optum EHR	4,368	1,691	111	65.64
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



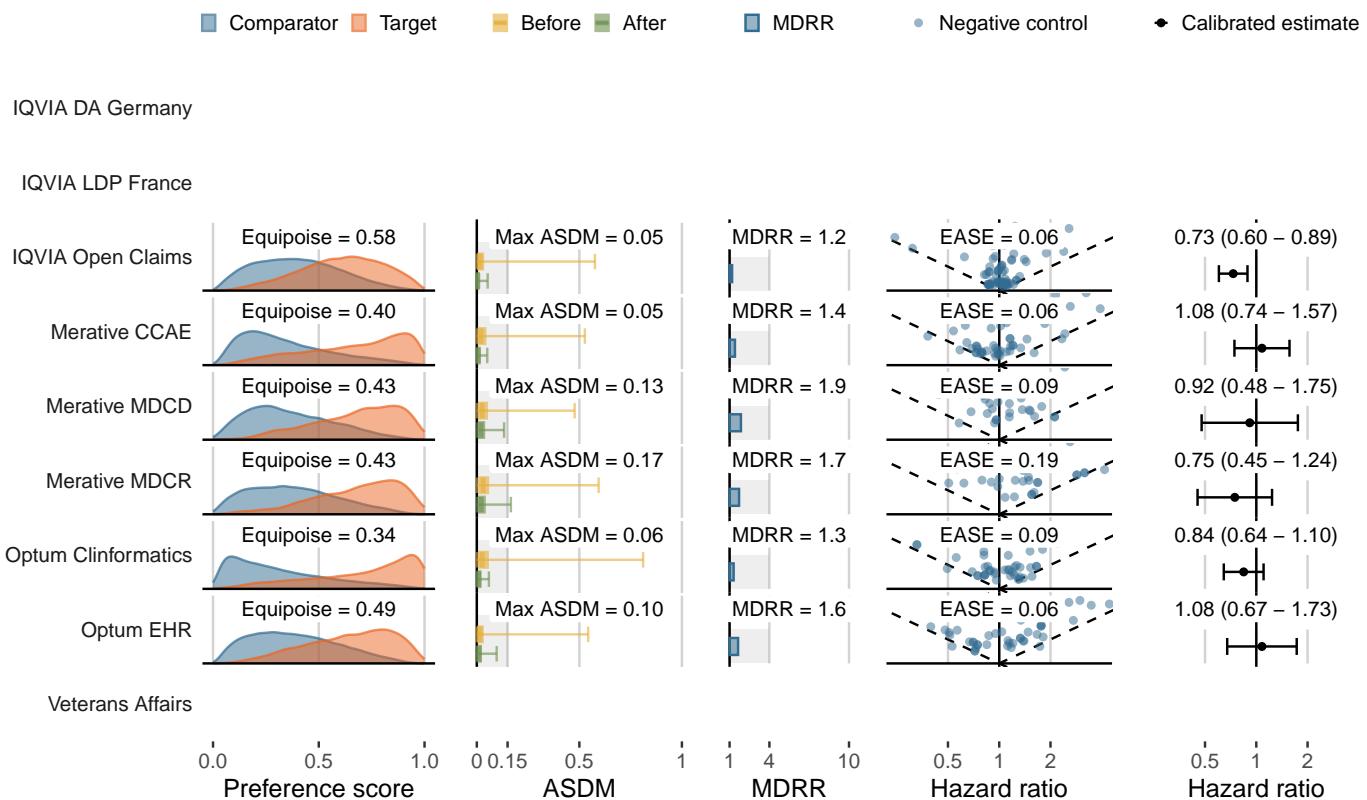
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Joint pain**

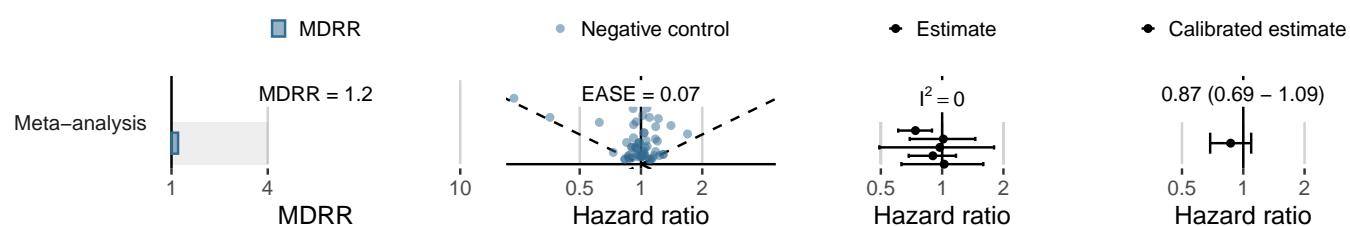
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	41,810	23,411	155	6.62
Merative CCAE	9,531	5,159	60	11.63
Merative MDCD	955	466	16	34.33
Merative MDCR	729	420	24	57.15
Optum Clininformatics	4,319	2,417	117	48.41
Optum EHR	4,842	1,942	31	15.96
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



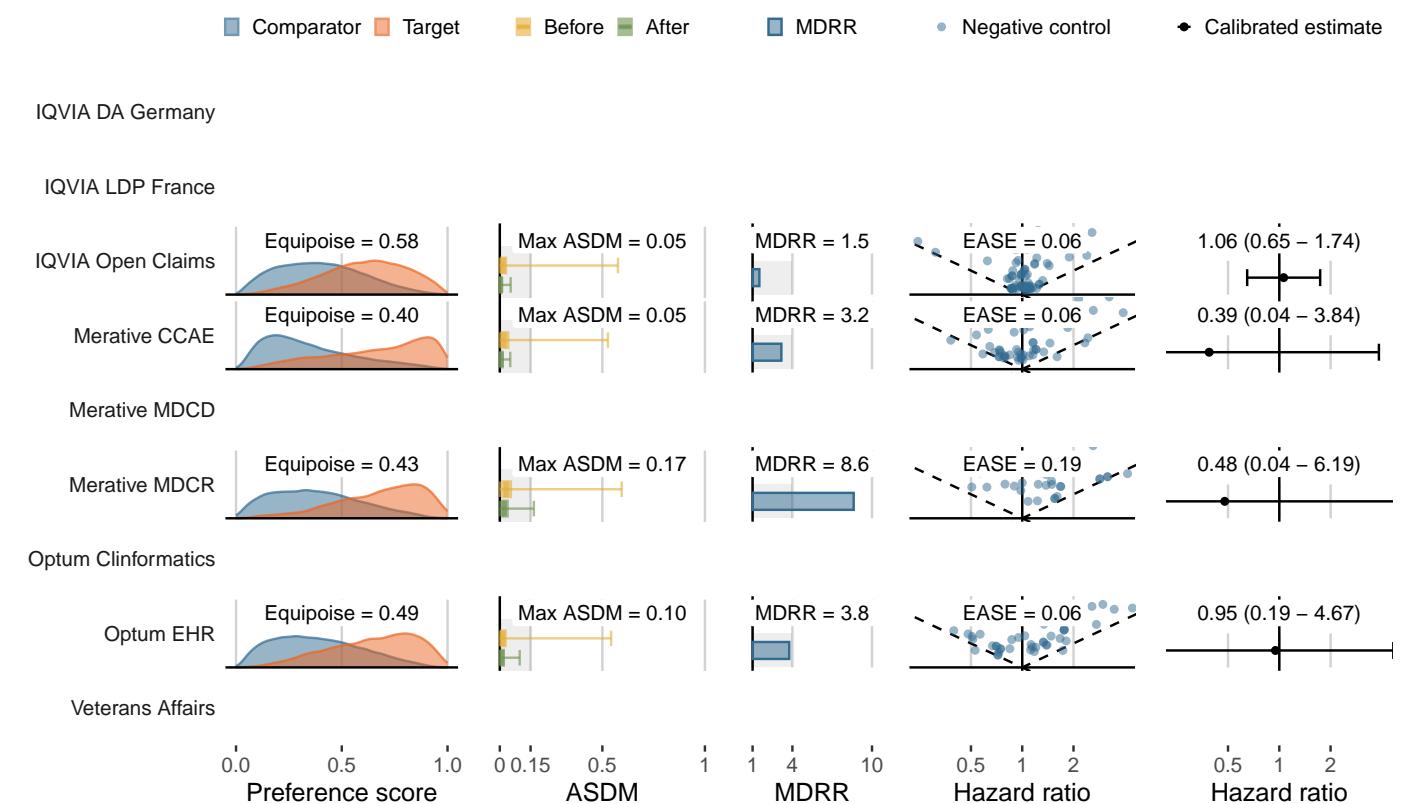
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Renal cancer**

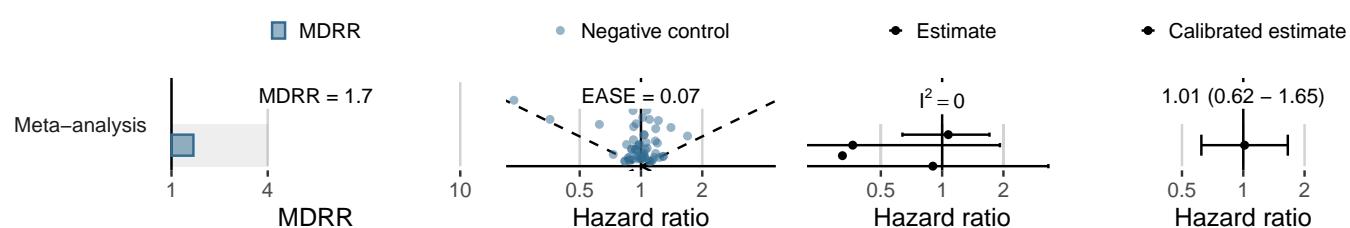
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,637	24,971	22	0.88
Merative CCAE	10,098	5,520	<5	<0.91
Merative MDCD	1,343	682	-	0.00
Merative MDCR	951	576	<5	<8.68
Optum Clininformatics	5,432	3,137	-	0.00
Optum EHR	5,137	2,086	<5	<2.40
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



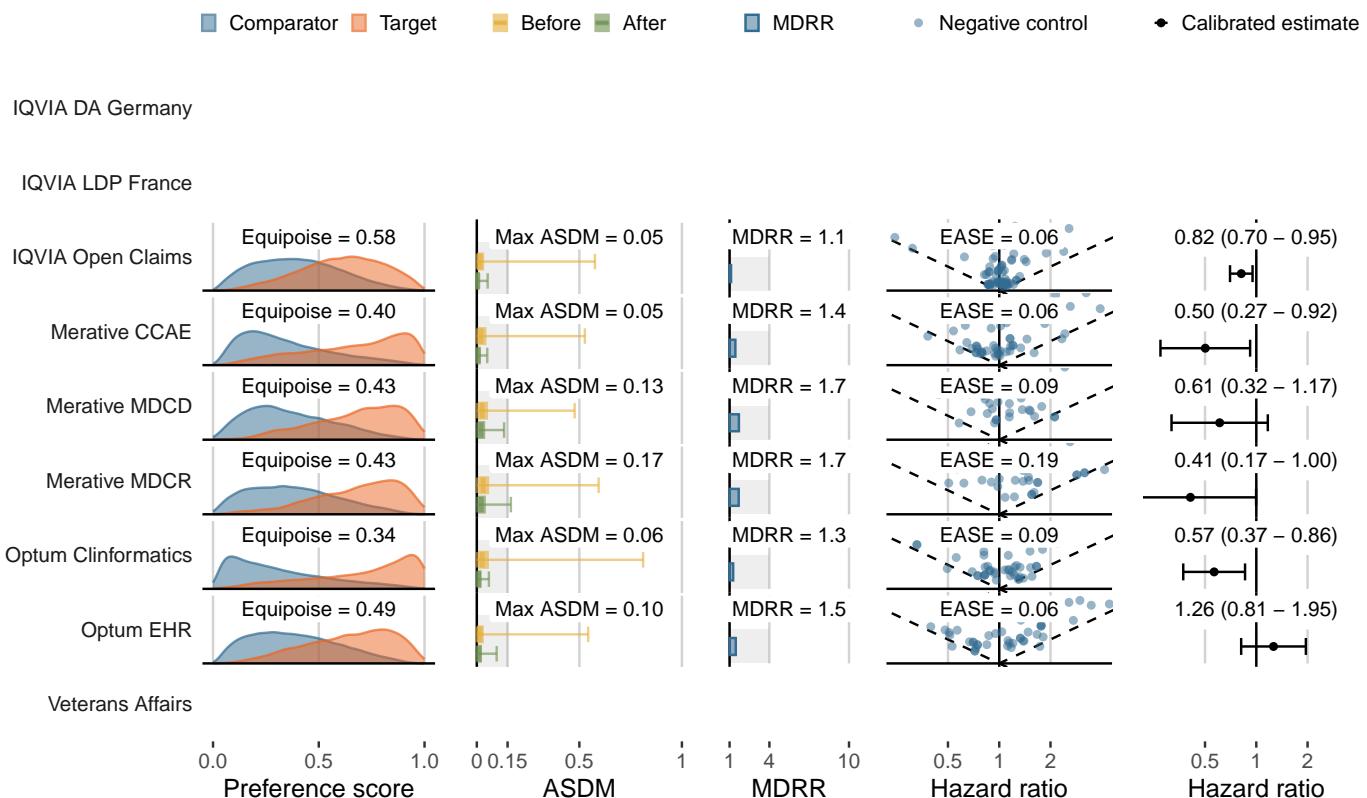
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute renal failure**

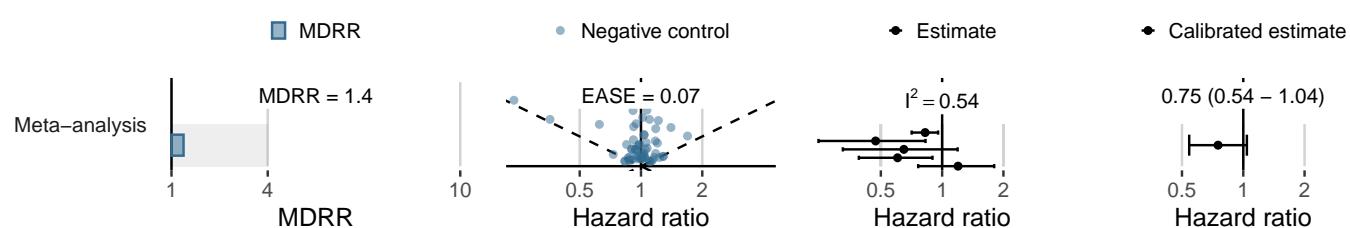
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,748	24,331	226	9.29
Merative CCAE	10,010	5,458	18	3.30
Merative MDCD	1,279	630	16	25.40
Merative MDCR	930	557	9	16.16
Optum Clininformatics	5,341	3,077	33	10.73
Optum EHR	5,093	2,057	33	16.04
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



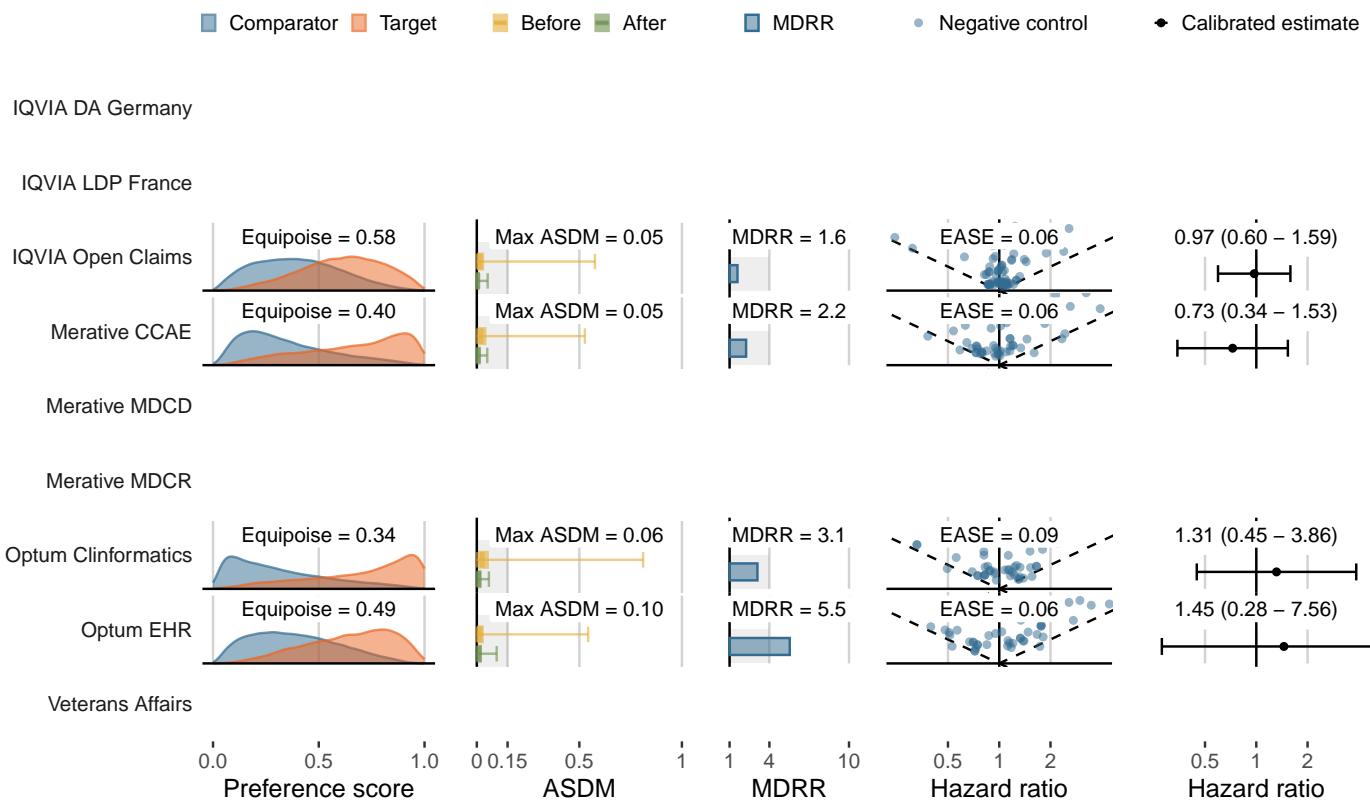
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Thyroid tumor**

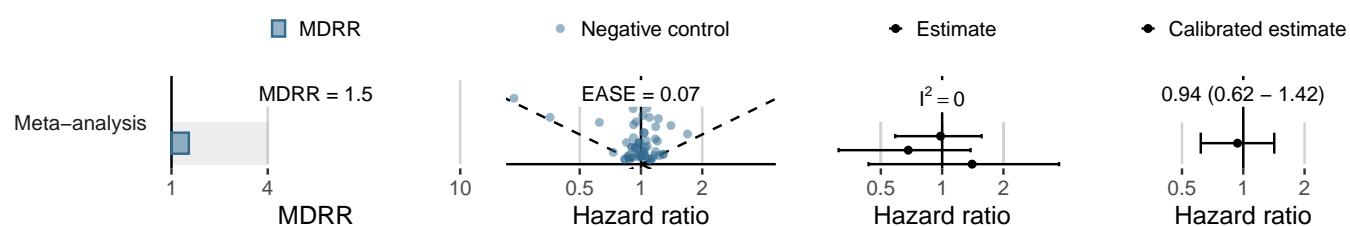
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,430	24,863	26	1.05
Merative CCAE	10,039	5,484	14	2.55
Merative MDCD	1,338	679	-	0.00
Merative MDCR	946	572	-	0.00
Optum Clininformatics	5,400	3,114	6	1.93
Optum EHR	5,119	2,082	<5	<2.40
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



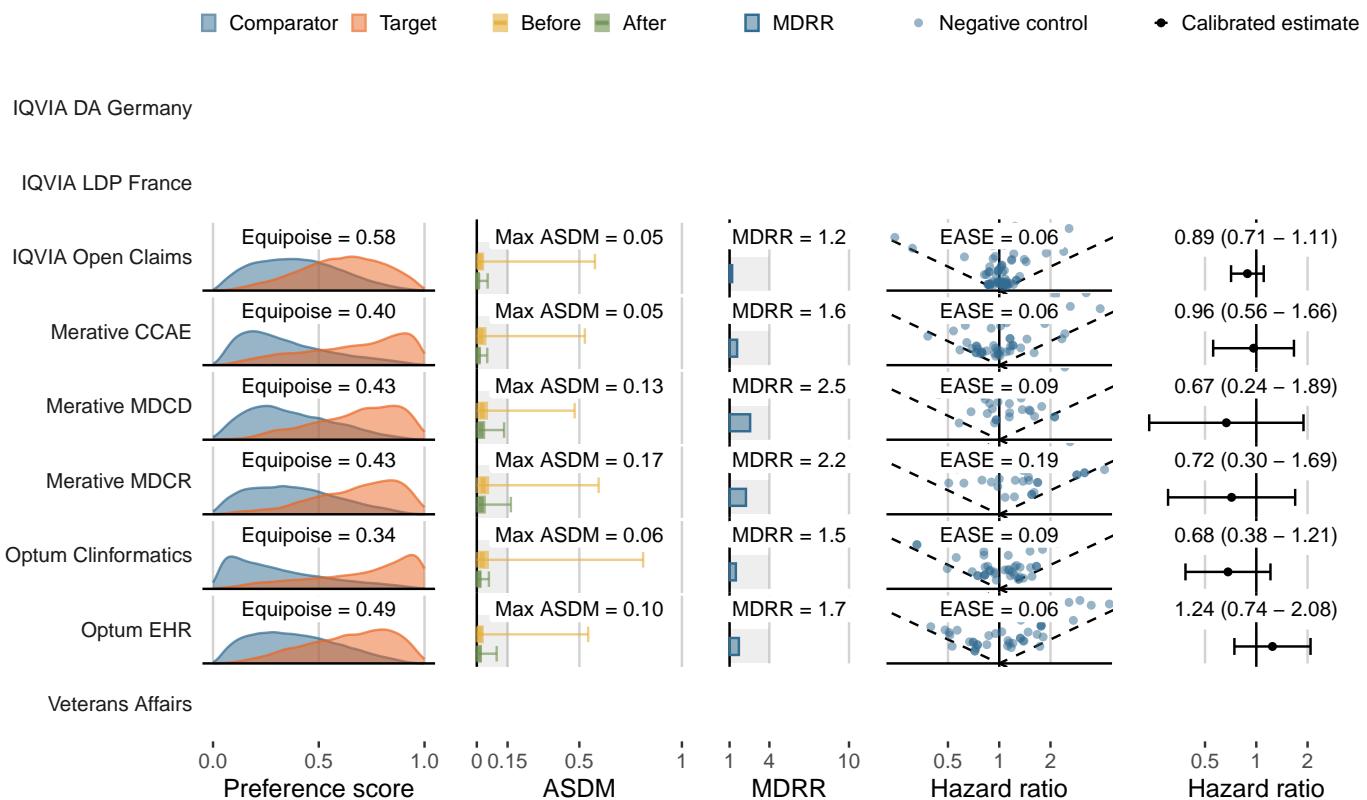
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

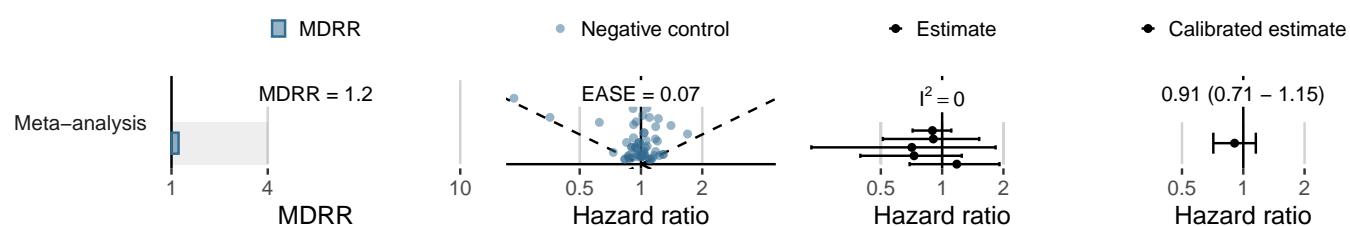
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,206	24,180	110	4.55
Merative CCAE	9,869	5,345	24	4.49
Merative MDCD	1,274	637	8	12.56
Merative MDCR	920	561	8	14.26
Optum Clininformatics	5,287	3,059	20	6.54
Optum EHR	5,024	2,035	23	11.30
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



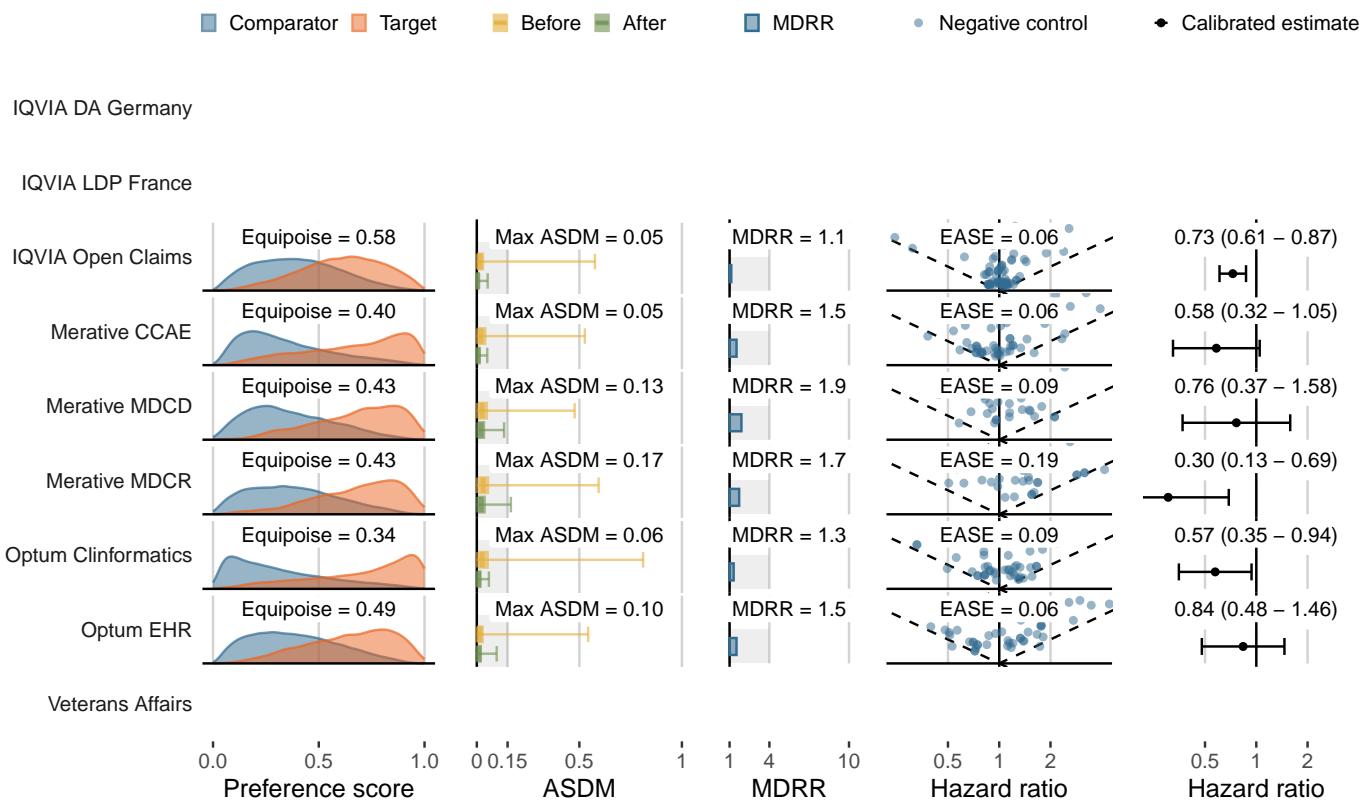
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

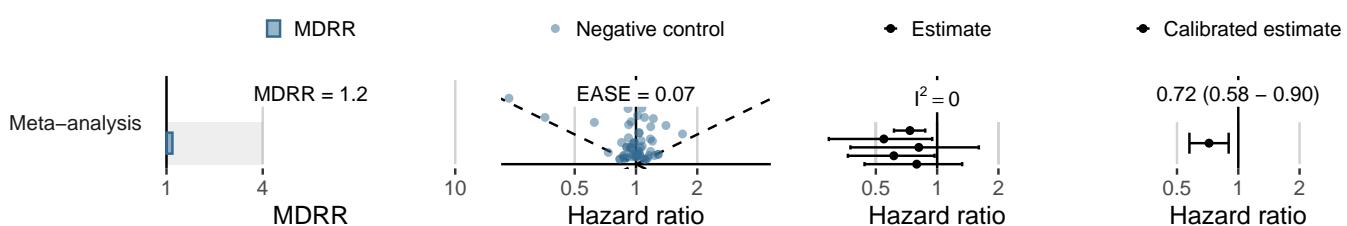
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,465	24,253	157	6.47
Merative CCAE	9,919	5,427	18	3.32
Merative MDCD	1,220	604	14	23.16
Merative MDCR	898	546	9	16.50
Optum Clininformatics	5,267	3,032	23	7.58
Optum EHR	5,070	2,053	16	7.79
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



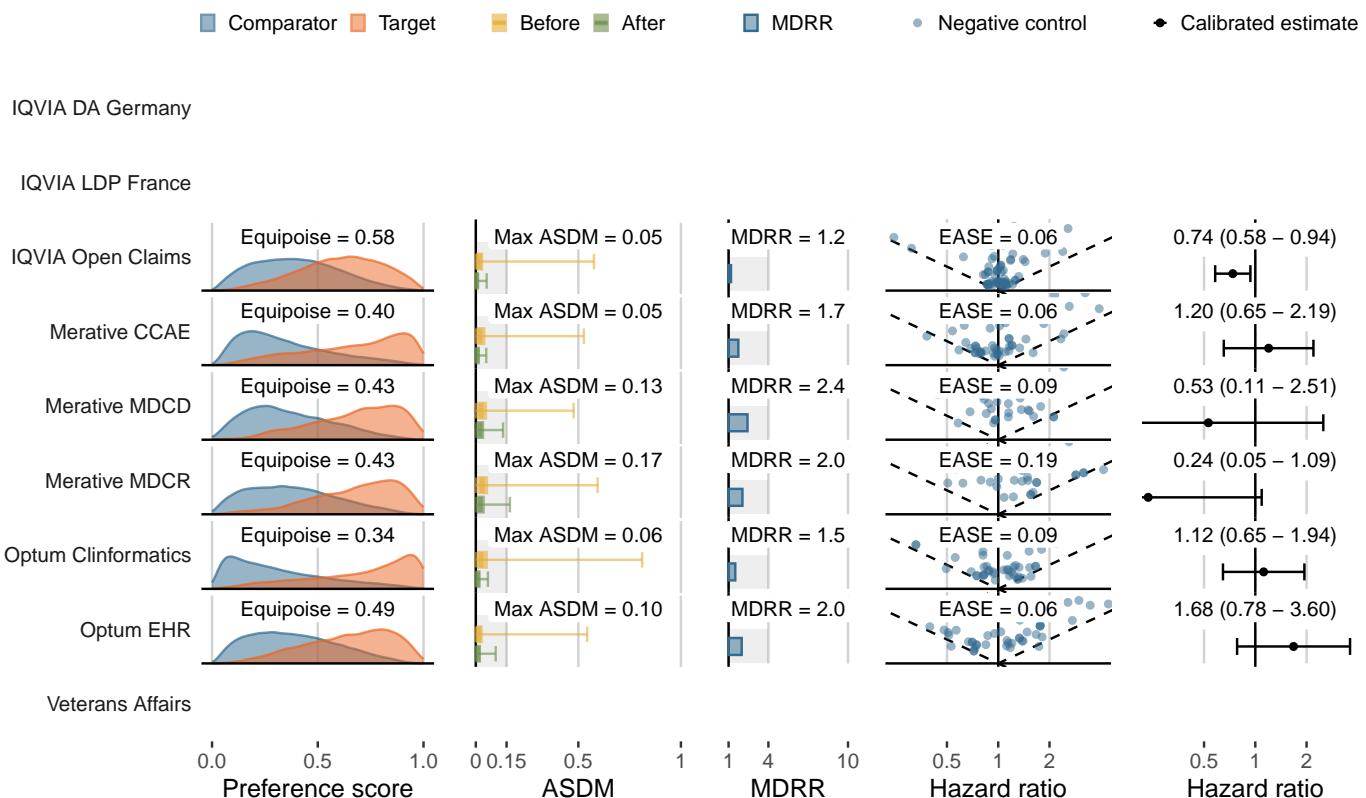
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Stroke**

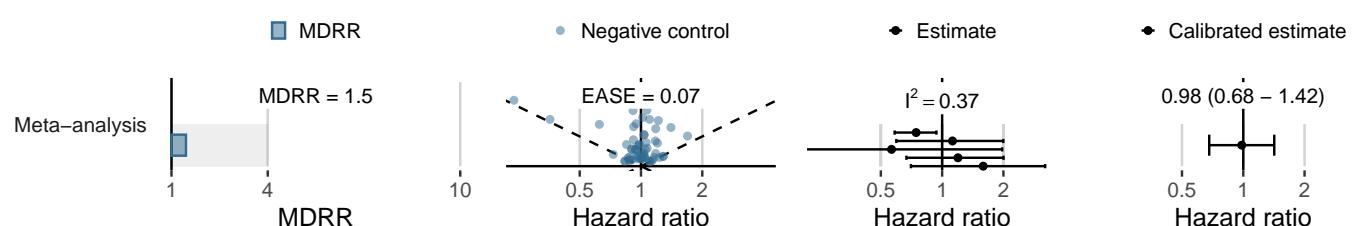
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,011	24,557	87	3.54
Merative CCAE	10,022	5,465	18	3.29
Merative MDCD	1,310	661	<5	<7.56
Merative MDCR	931	565	<5	<8.85
Optum Clininformatics	5,372	3,085	19	6.16
Optum EHR	5,115	2,071	10	4.83
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



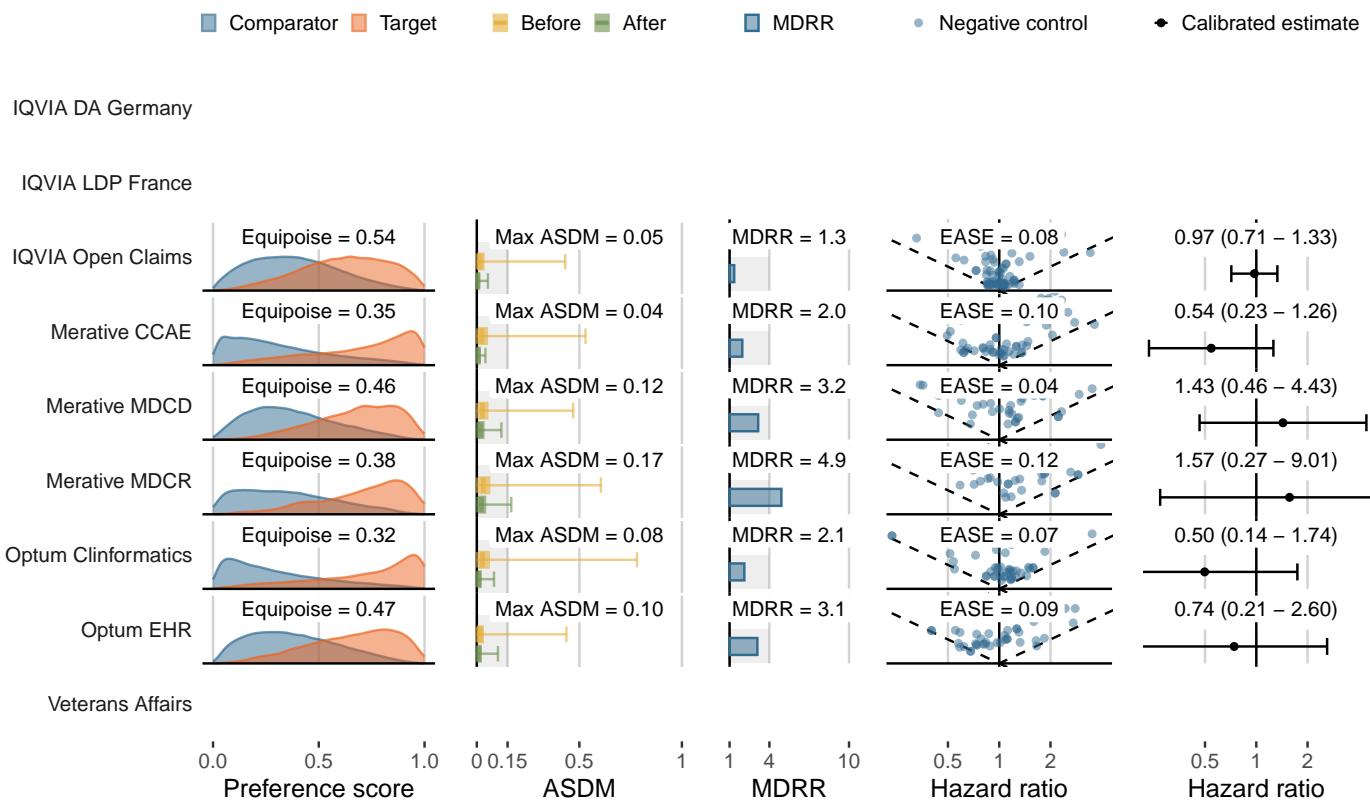
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

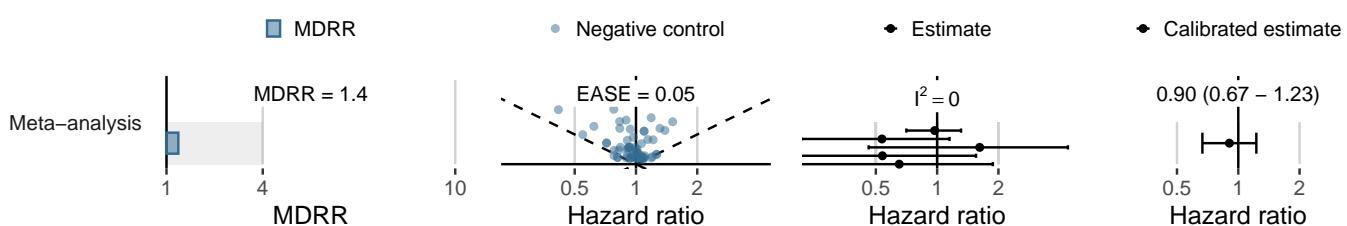
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,351	24,809	56	2.26
Merative CCAE	10,006	5,478	9	1.64
Merative MDCD	1,509	738	5	6.77
Merative MDCR	938	564	<5	<8.86
Optum Clininformatics	5,503	3,178	<5	<1.57
Optum EHR	5,202	2,110	<5	<2.37
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



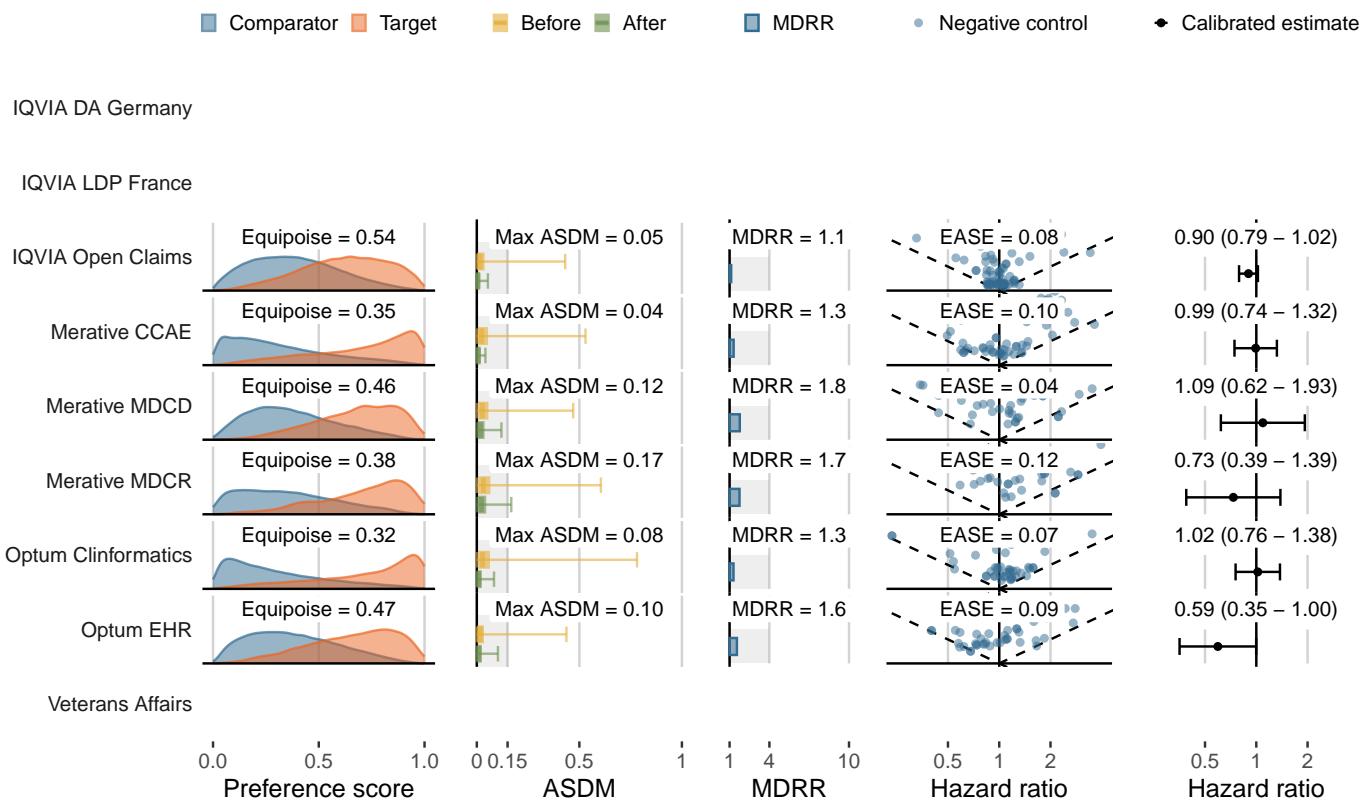
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Bone fracture**

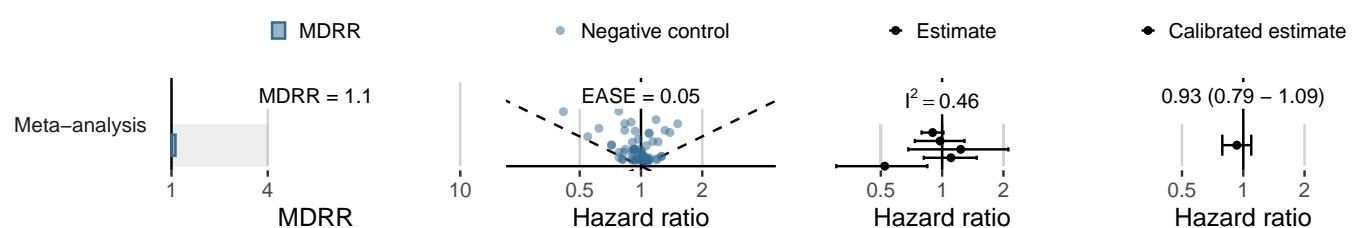
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	39,141	21,590	346	16.03
Merative CCAE	9,233	4,963	107	21.56
Merative MDCD	1,326	635	18	28.36
Merative MDCR	833	479	16	33.43
Optum Clininformatics	5,035	2,806	72	25.66
Optum EHR	4,908	1,971	25	12.68
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



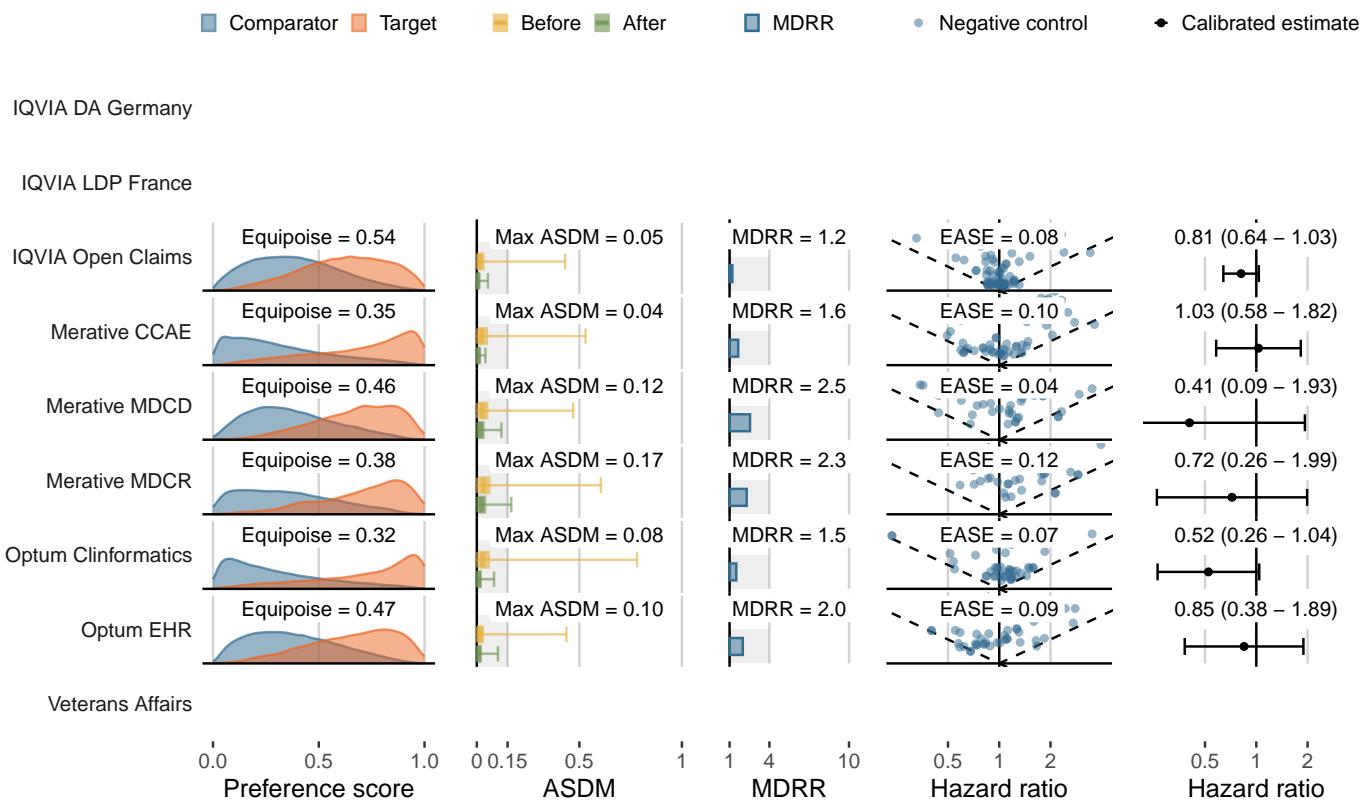
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

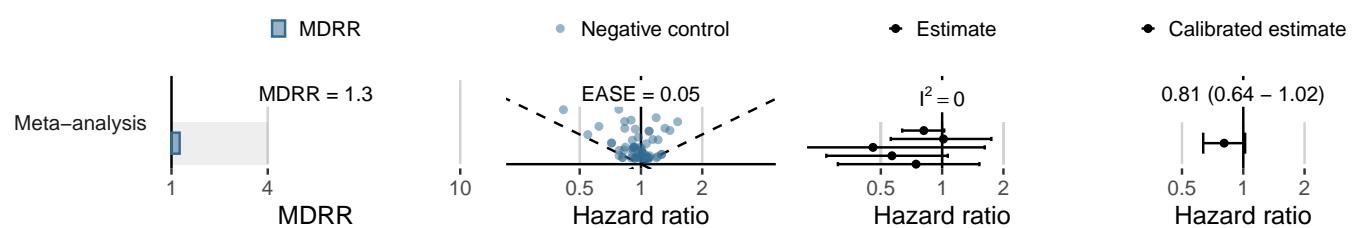
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,953	24,538	87	3.55
Merative CCAE	9,920	5,435	22	4.05
Merative MDCD	1,489	732	<5	<6.83
Merative MDCR	928	553	5	9.04
Optum Clininformatics	5,445	3,127	11	3.52
Optum EHR	5,172	2,099	9	4.29
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



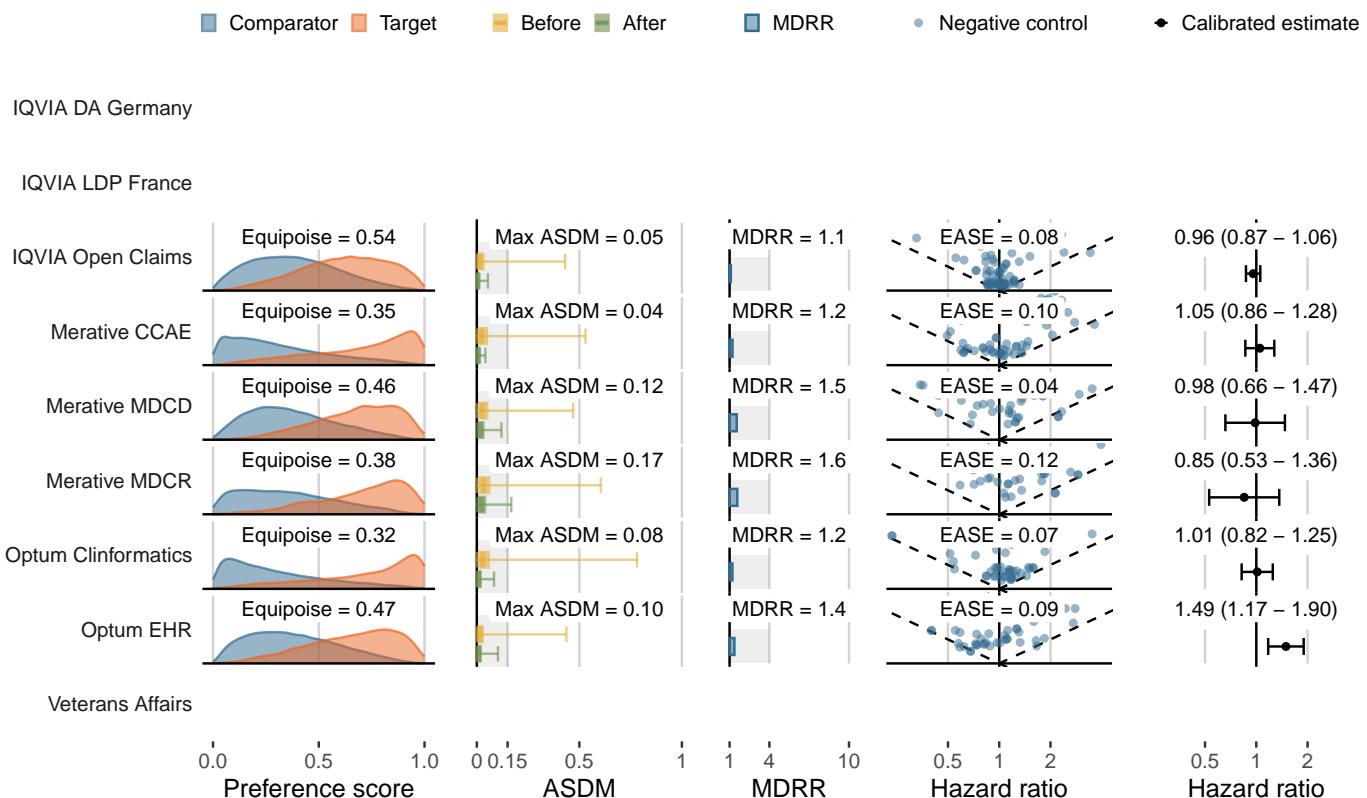
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Genitourinary infection**

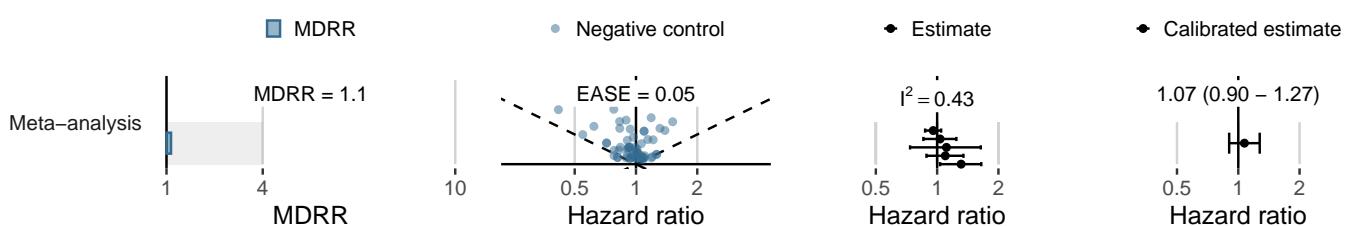
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	33,869	18,729	637	34.01
Merative CCAE	7,922	4,166	222	53.28
Merative MDCD	1,105	537	49	91.27
Merative MDCR	750	415	29	69.84
Optum Clininformatics	4,327	2,420	151	62.39
Optum EHR	4,436	1,712	117	68.33
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



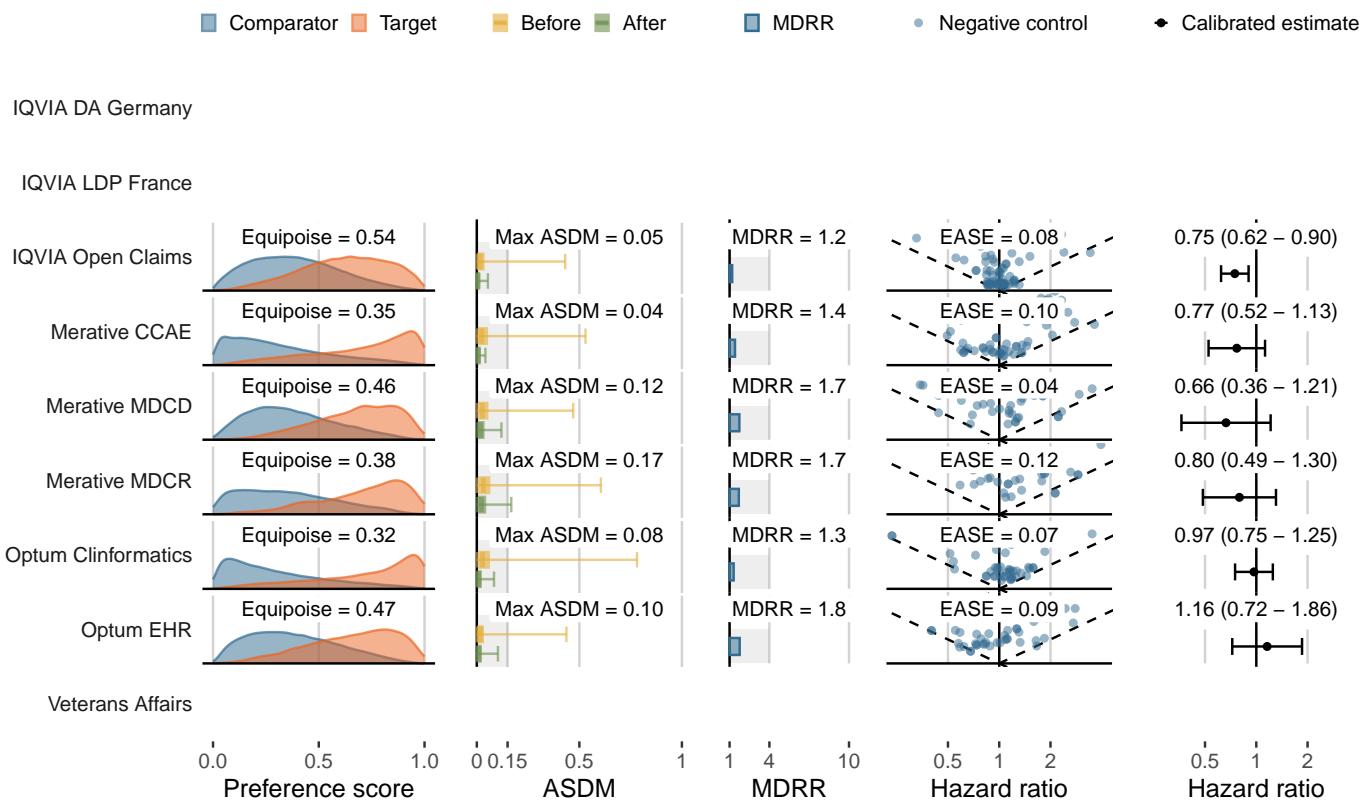
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Joint pain**

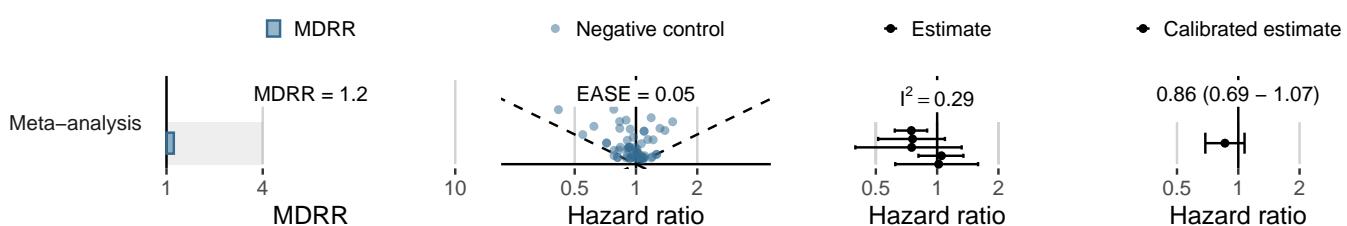
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	41,828	23,408	157	6.71
Merative CCAE	9,505	5,176	61	11.78
Merative MDCD	1,091	523	16	30.59
Merative MDCR	724	426	26	61.02
Optum Clininformatics	4,396	2,462	118	47.93
Optum EHR	4,907	1,964	32	16.29
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



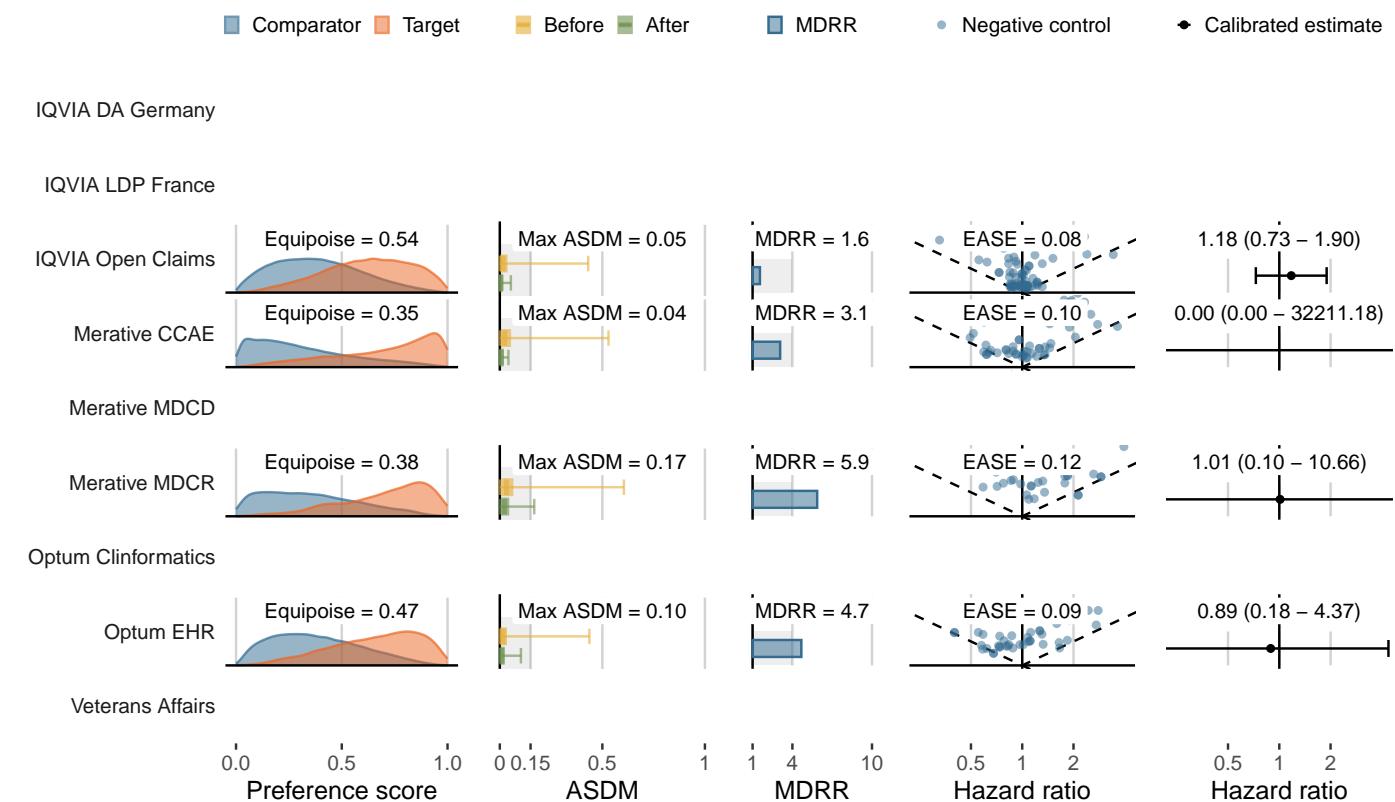
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Renal cancer**

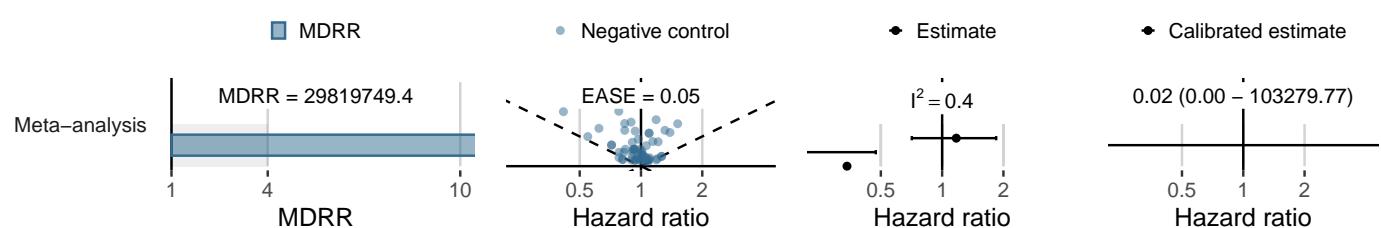
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,660	24,971	22	0.88
Merative CCAE	10,066	5,517	<5	<0.91
Merative MDCD	1,528	753	-	0.00
Merative MDCR	941	568	<5	<8.81
Optum Clininformatics	5,534	3,186	-	0.00
Optum EHR	5,214	2,114	<5	<2.36
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



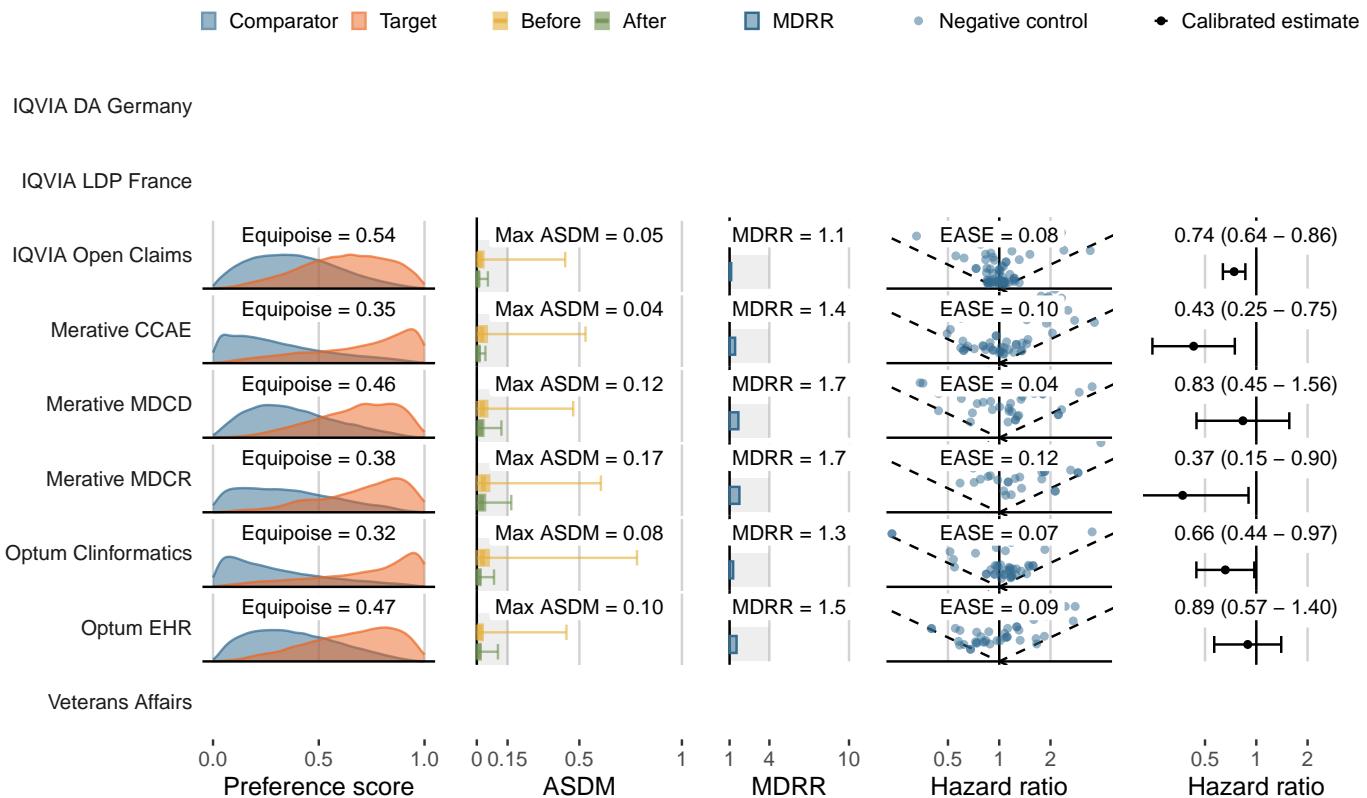
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Acute renal failure**

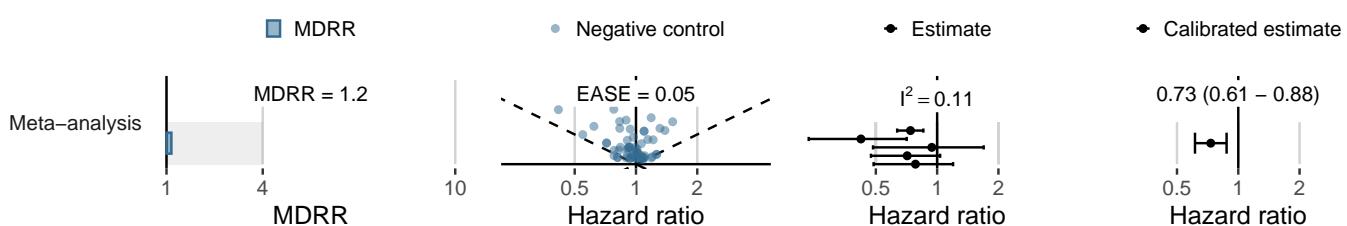
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,766	24,327	226	9.29
Merative CCAE	9,989	5,456	21	3.85
Merative MDCD	1,458	705	16	22.69
Merative MDCR	924	553	8	14.46
Optum Clininformatics	5,433	3,114	34	10.92
Optum EHR	5,168	2,085	33	15.83
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



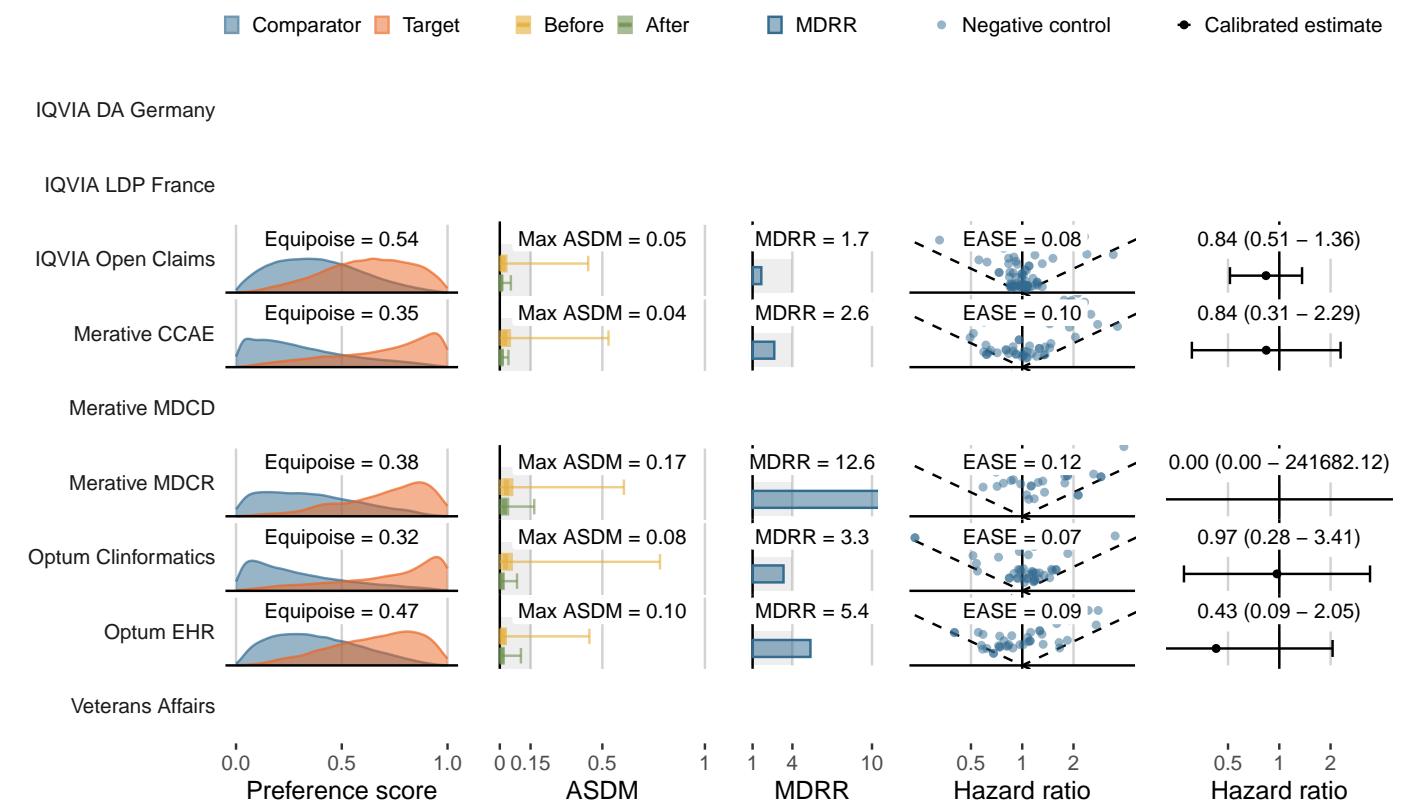
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Thyroid tumor**

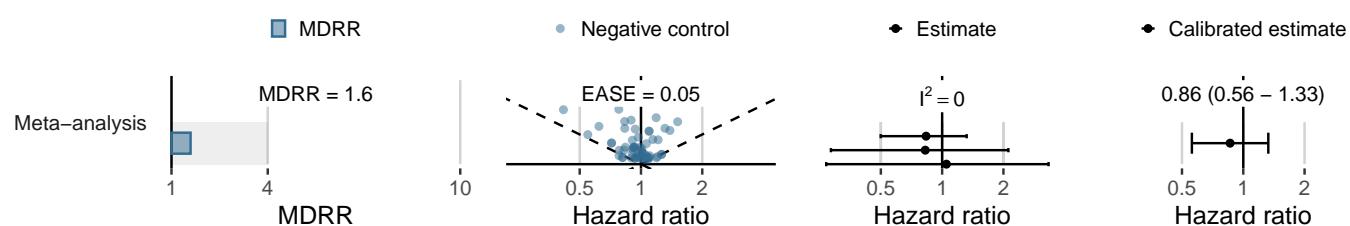
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,461	24,867	26	1.05
Merative CCAE	10,020	5,489	12	2.19
Merative MDCD	1,525	751	-	0.00
Merative MDCR	938	563	<5	<8.89
Optum Clininformatics	5,503	3,167	<5	<1.58
Optum EHR	5,193	2,107	<5	<2.37
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



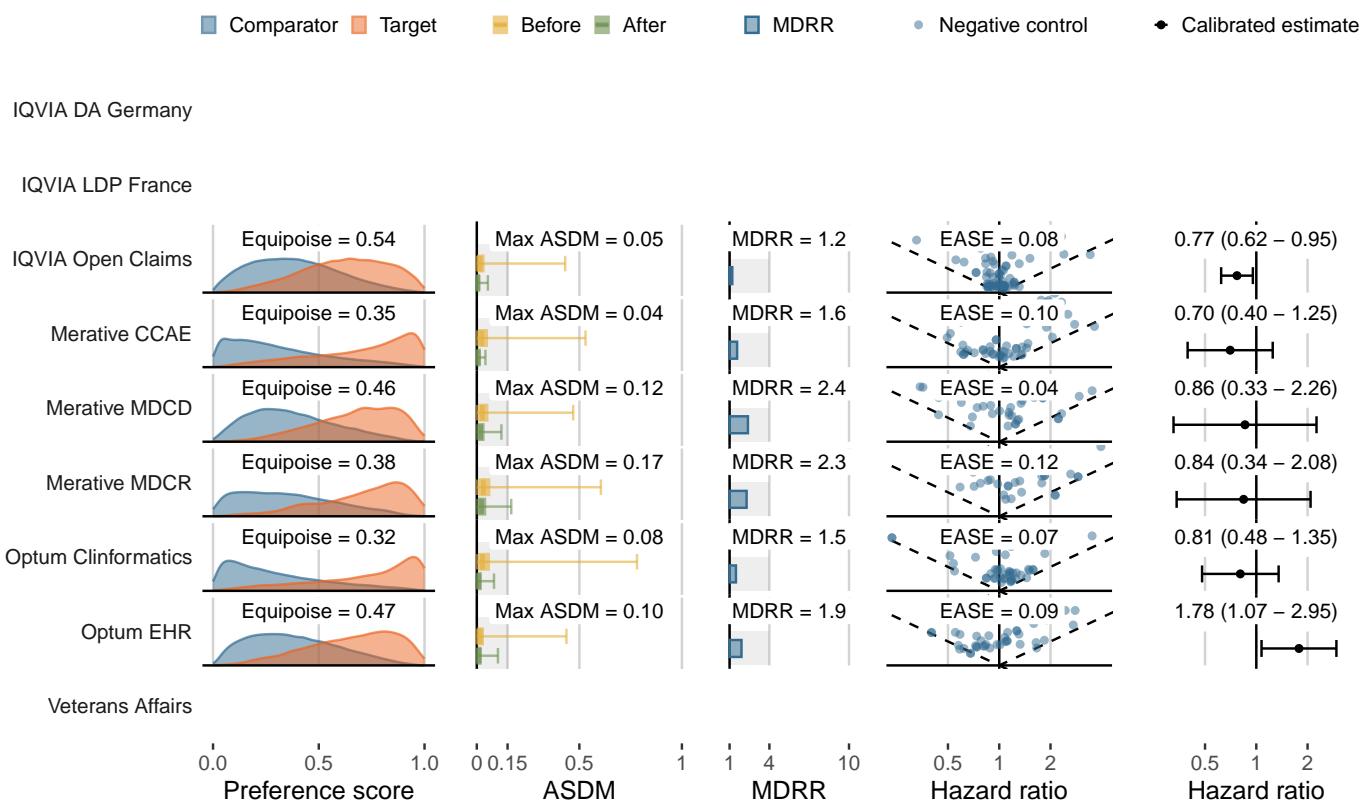
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

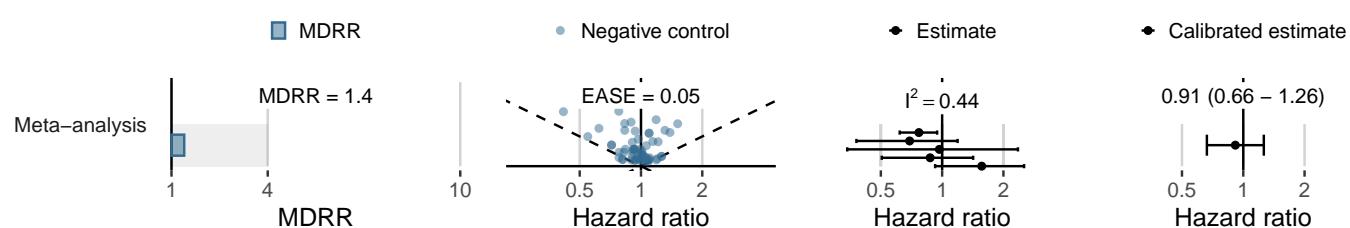
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,246	24,185	110	4.55
Merative CCAE	9,846	5,341	24	4.49
Merative MDCD	1,458	713	9	12.63
Merative MDCR	911	555	7	12.61
Optum Clininformatics	5,378	3,099	22	7.10
Optum EHR	5,099	2,062	24	11.64
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



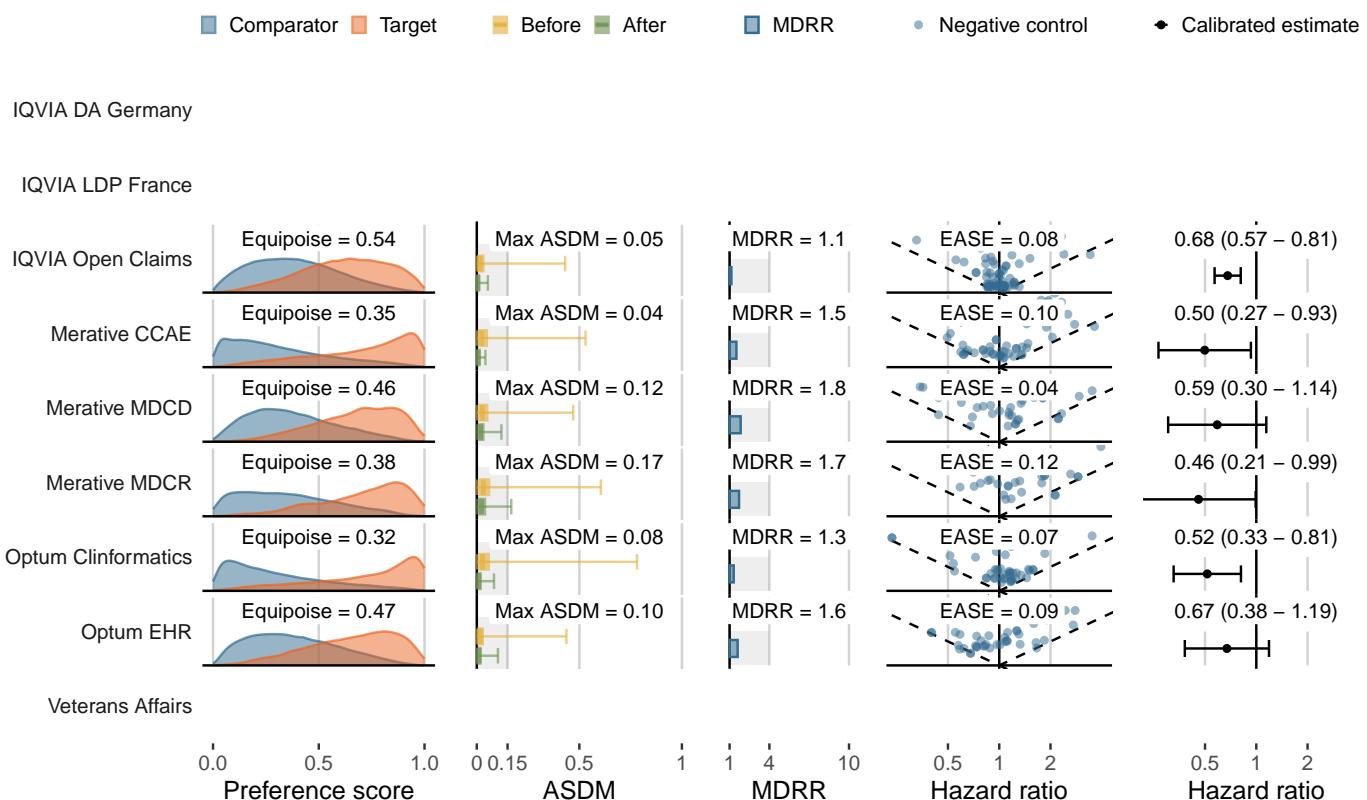
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

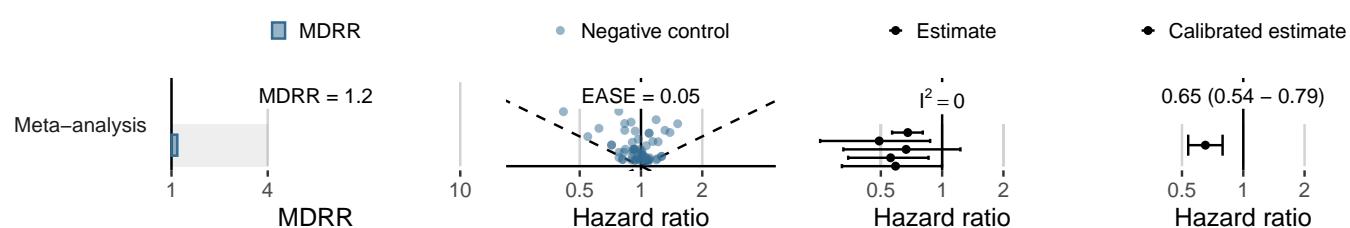
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	43,478	24,248	157	6.47
Merative CCAE	9,888	5,414	16	2.96
Merative MDCD	1,393	677	15	22.16
Merative MDCR	886	536	10	18.65
Optum Clininformatics	5,368	3,082	25	8.11
Optum EHR	5,149	2,081	16	7.69
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



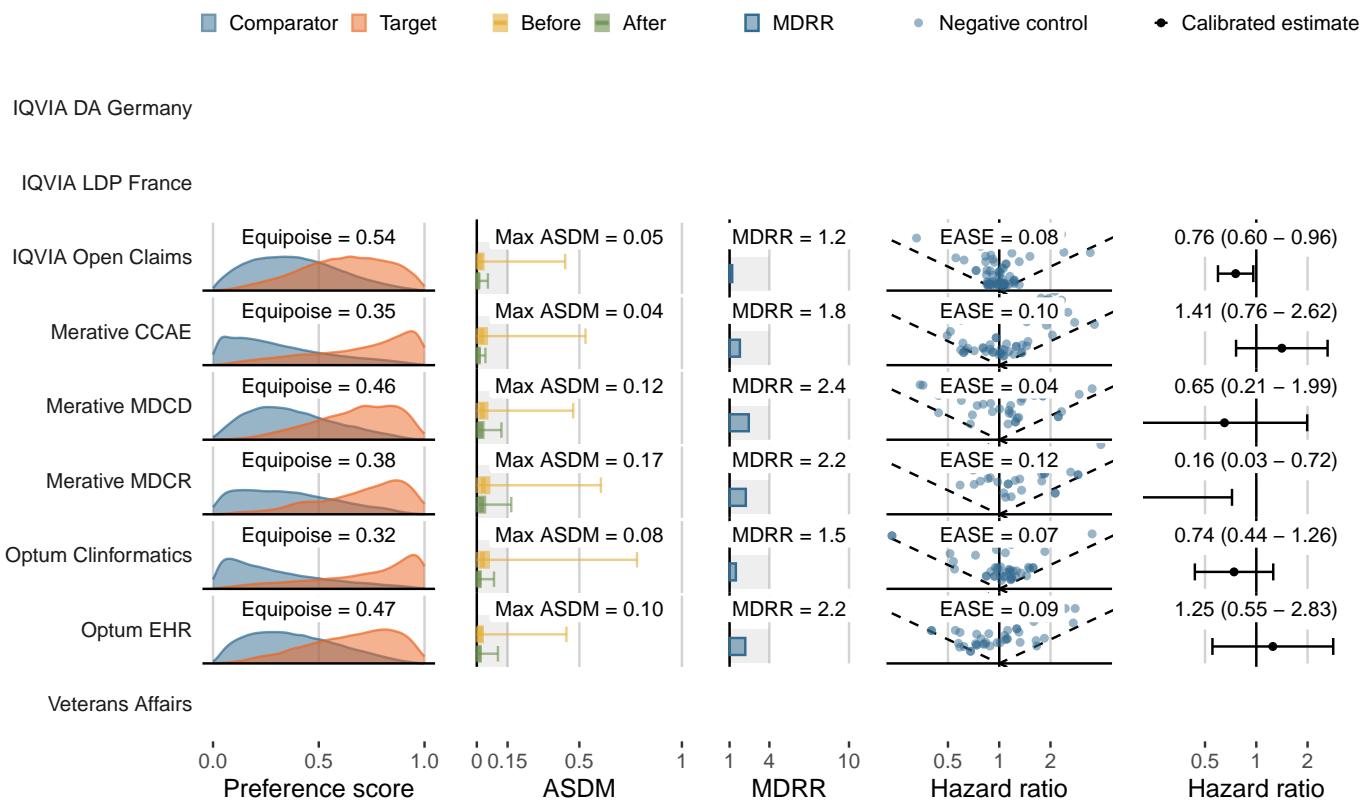
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glipizide** (Sulfonylureas)
- Outcome: **Stroke**

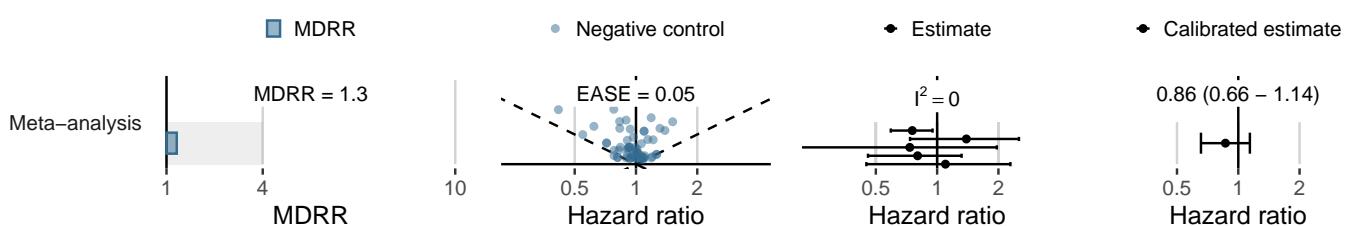
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,030	24,557	87	3.54
Merative CCAE	9,989	5,450	18	3.30
Merative MDCD	1,491	730	<5	<6.85
Merative MDCR	920	554	<5	<9.02
Optum Clininformatics	5,470	3,130	18	5.75
Optum EHR	5,190	2,099	9	4.29
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



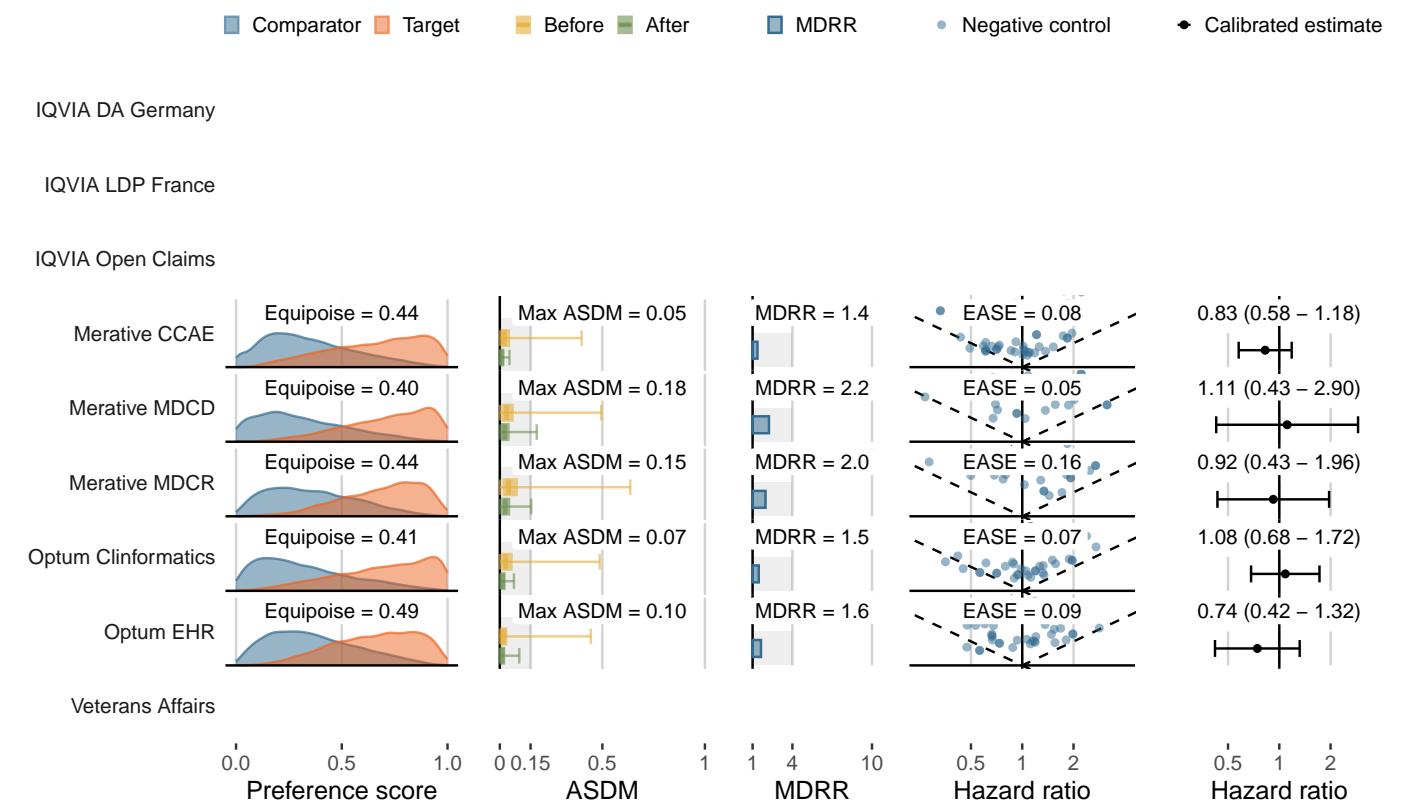
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Bone fracture**

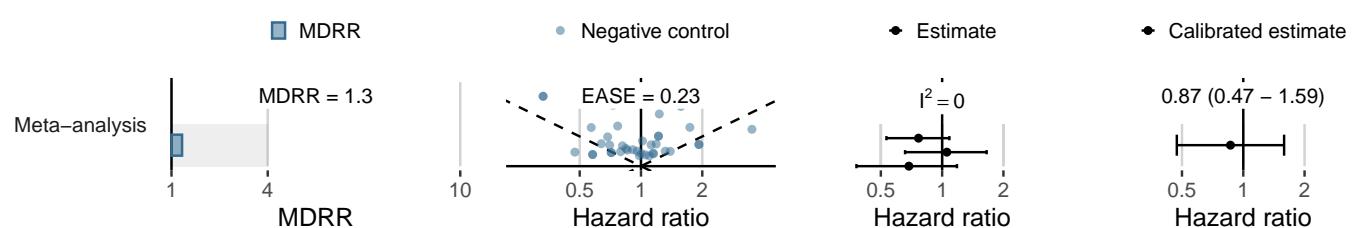
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,016	4,324	92	21.28
Merative MDCD	833	419	13	31.06
Merative MDCR	758	458	15	32.73
Optum Clininformatics	4,127	2,258	51	22.59
Optum EHR	4,272	1,703	24	14.09
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



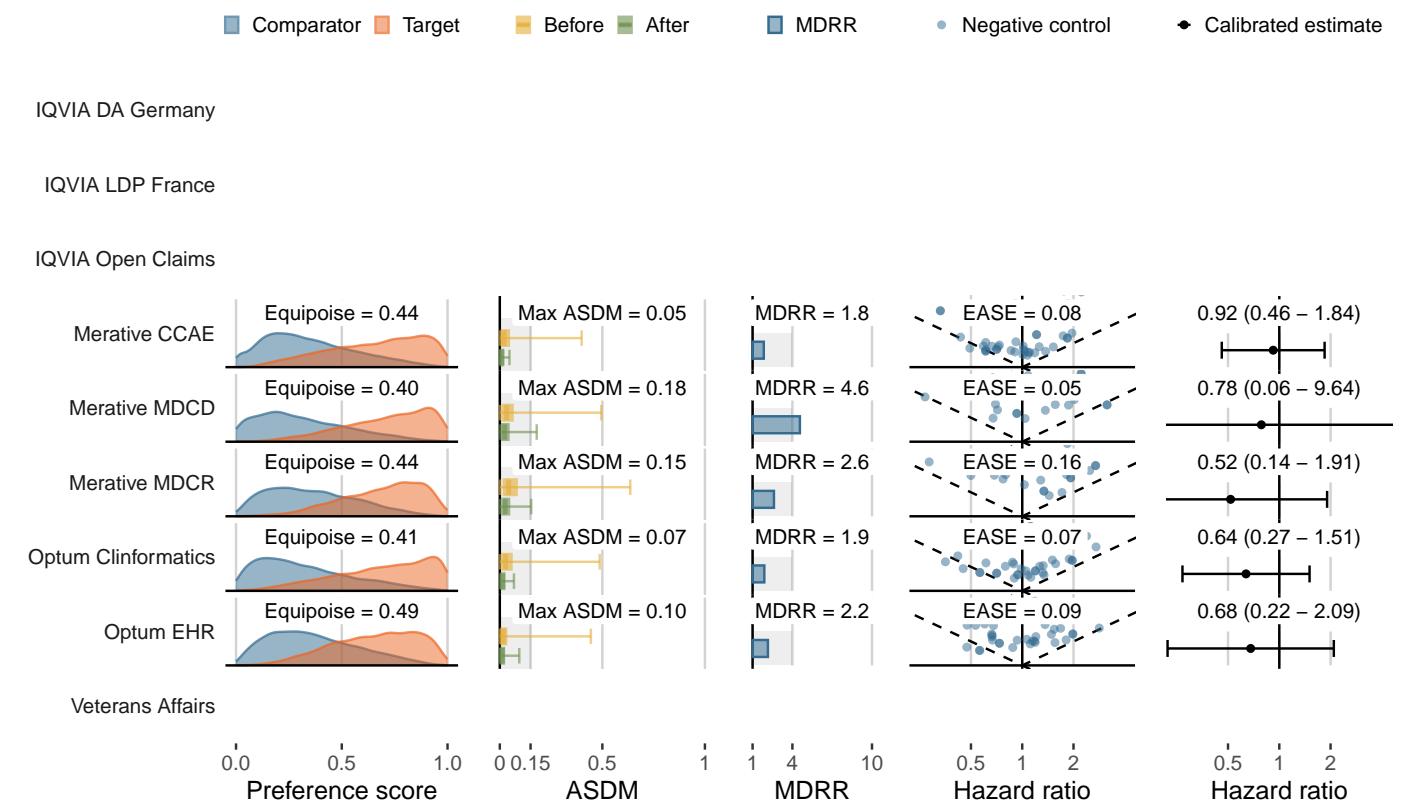
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute myocardial infarction**

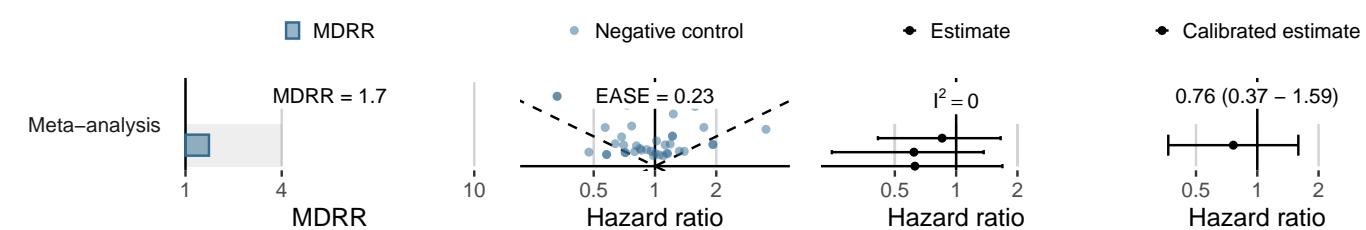
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,572	4,713	18	3.82
Merative MDCD	926	469	<5	<10.66
Merative MDCR	825	526	<5	<9.51
Optum Clininformatics	4,418	2,501	10	4.00
Optum EHR	4,487	1,803	8	4.44
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



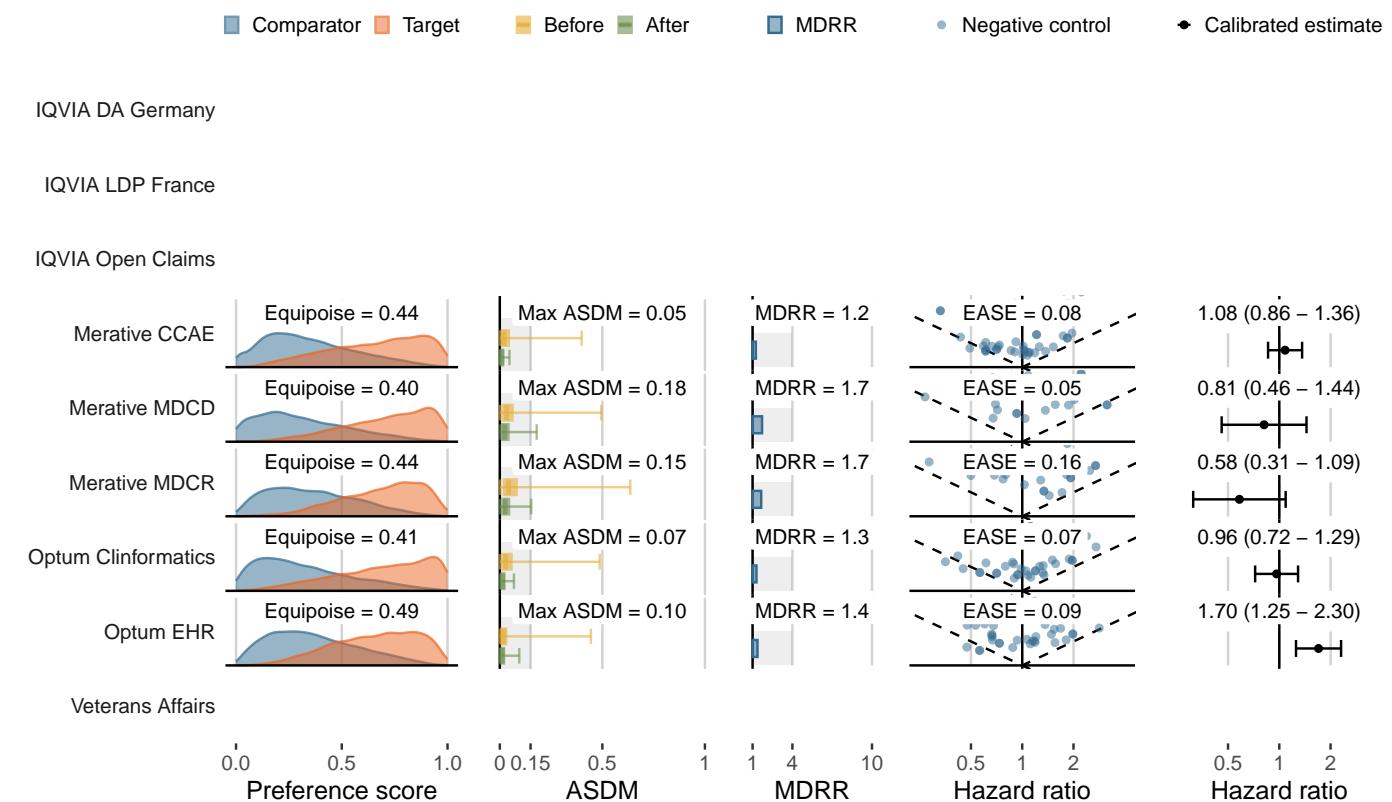
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Genitourinary infection**

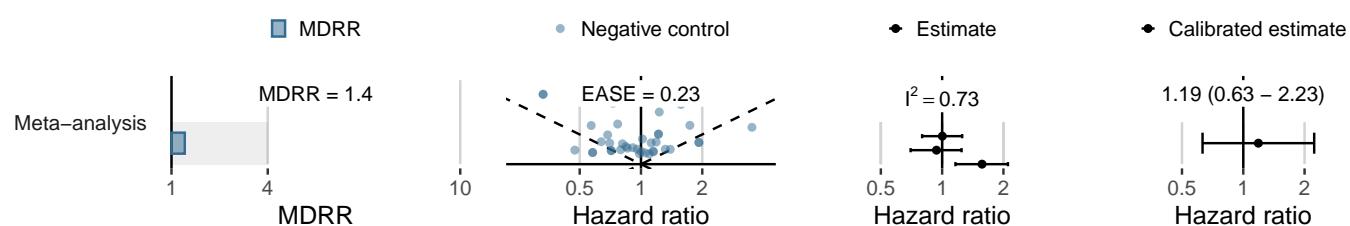
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	6,941	3,673	205	55.82
Merative MDCD	684	341	31	90.90
Merative MDCR	671	391	23	58.78
Optum Clininformatics	3,528	1,963	117	59.61
Optum EHR	3,898	1,501	96	63.94
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



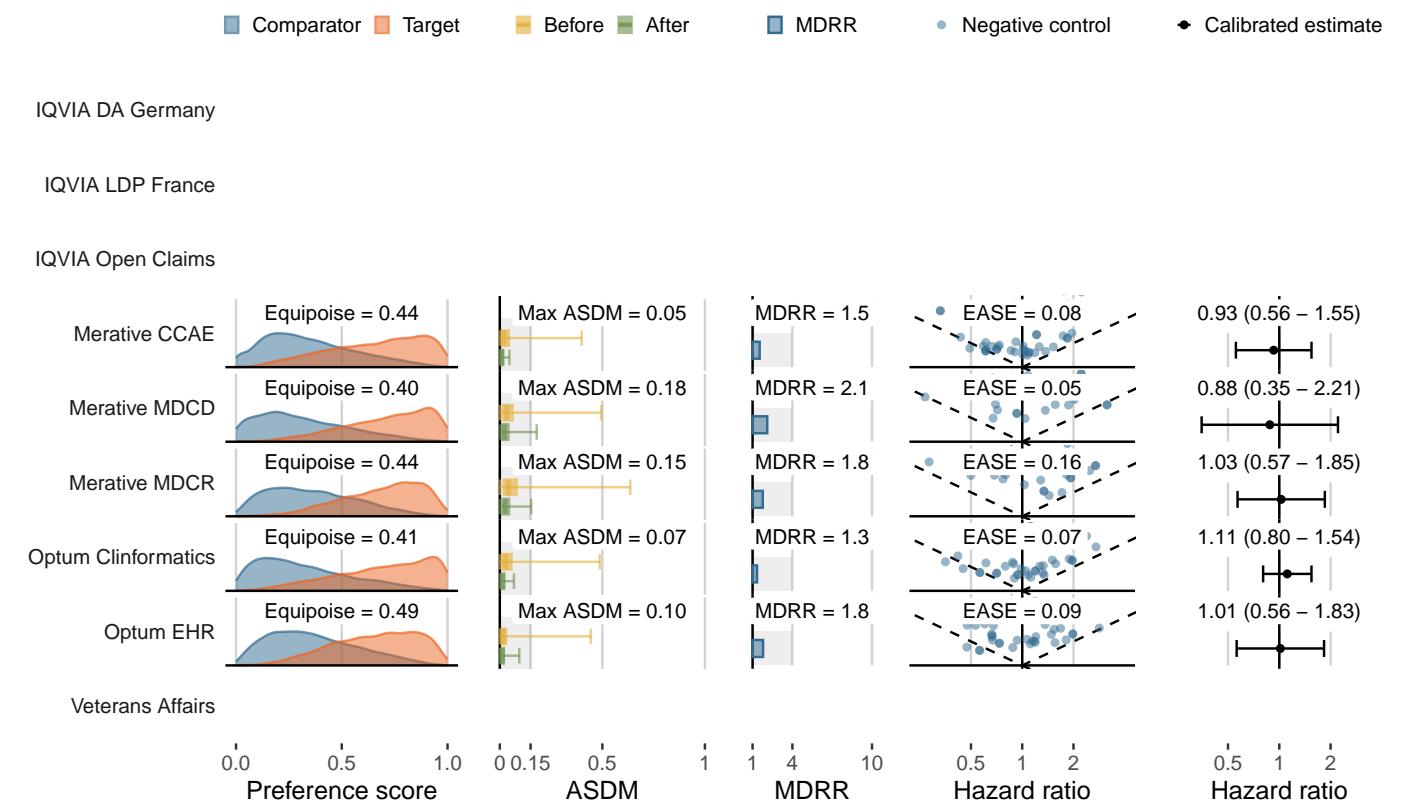
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Joint pain**

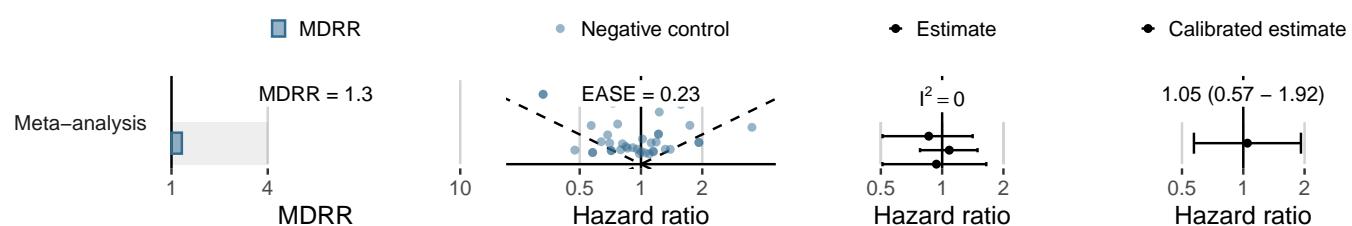
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,246	4,491	45	10.02
Merative MDCD	699	333	13	39.07
Merative MDCR	647	400	23	57.57
Optum Clininformatics	3,557	1,940	101	52.06
Optum EHR	4,295	1,709	26	15.21
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



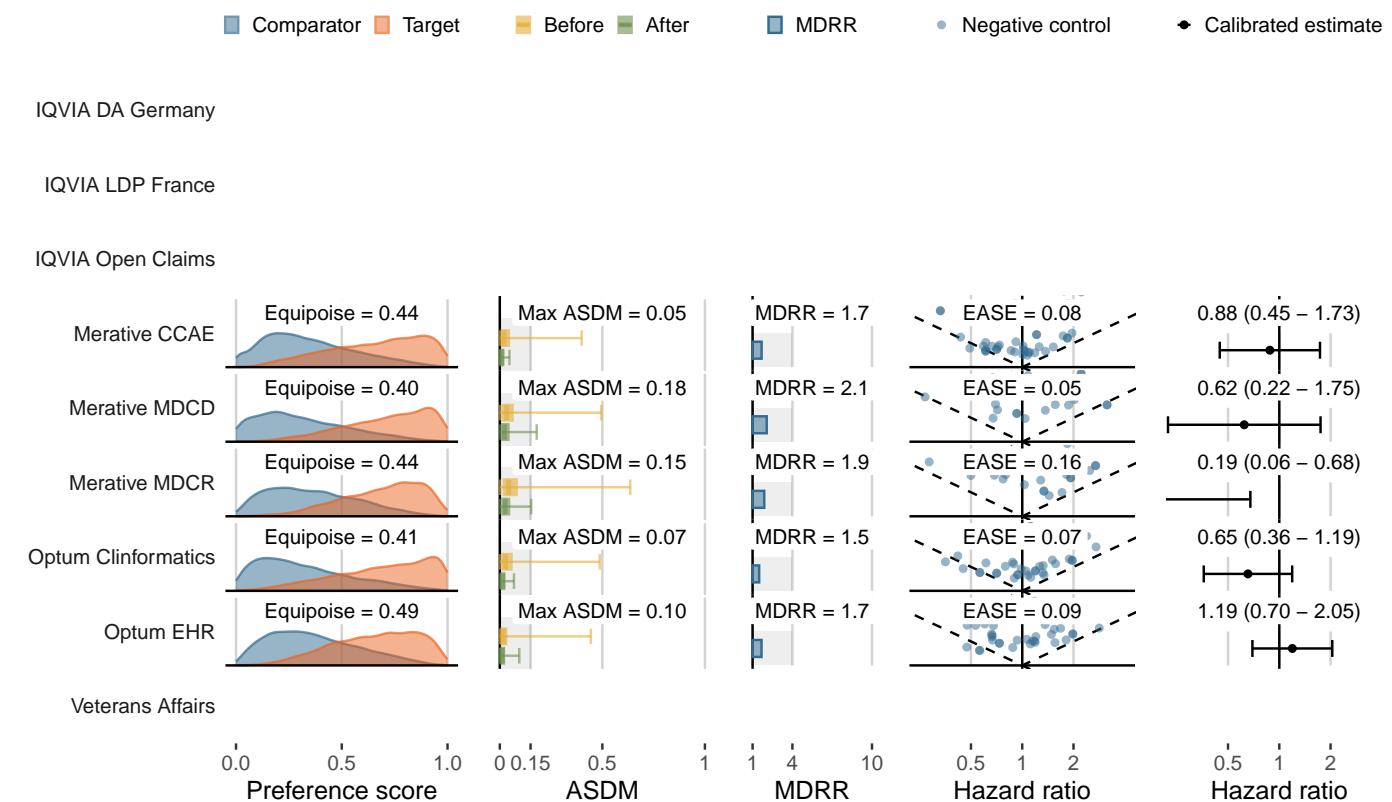
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Acute renal failure**

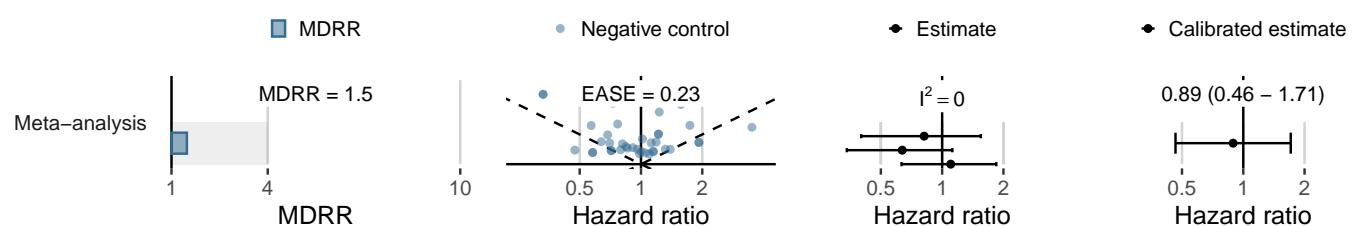
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,646	4,737	18	3.80
Merative MDCD	910	451	10	22.16
Merative MDCR	818	519	5	9.63
Optum Clininformatics	4,400	2,499	22	8.80
Optum EHR	4,484	1,791	29	16.19
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



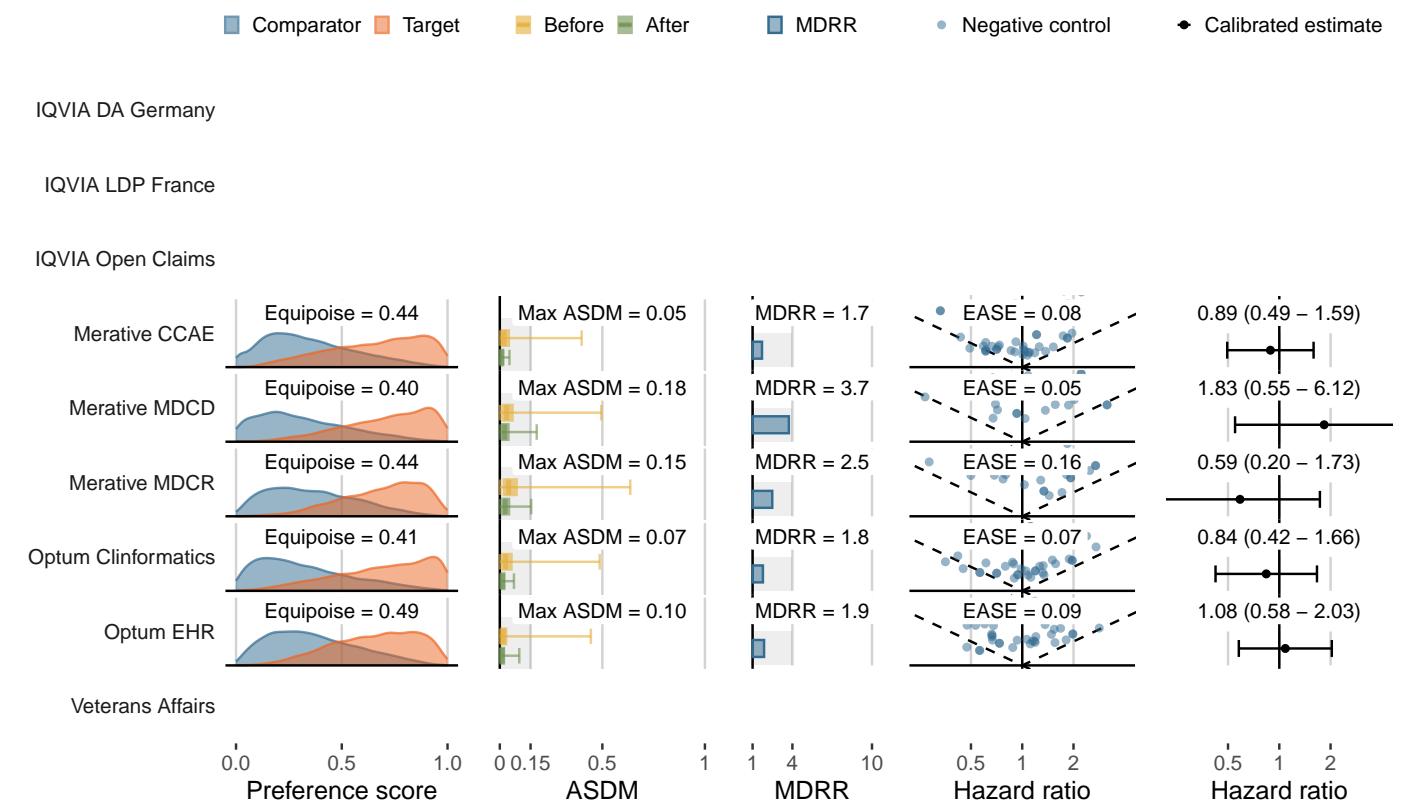
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Venous thromboembolic events**

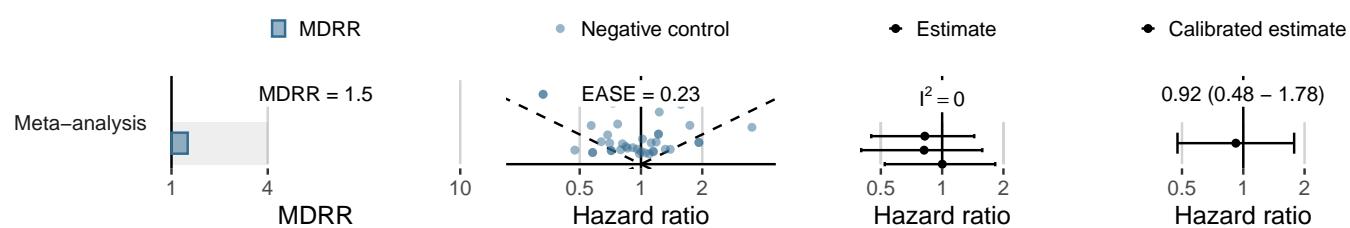
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,546	4,651	23	4.94
Merative MDCD	911	459	8	17.43
Merative MDCR	805	524	7	13.35
Optum Clininformatics	4,377	2,488	19	7.64
Optum EHR	4,432	1,767	20	11.32
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



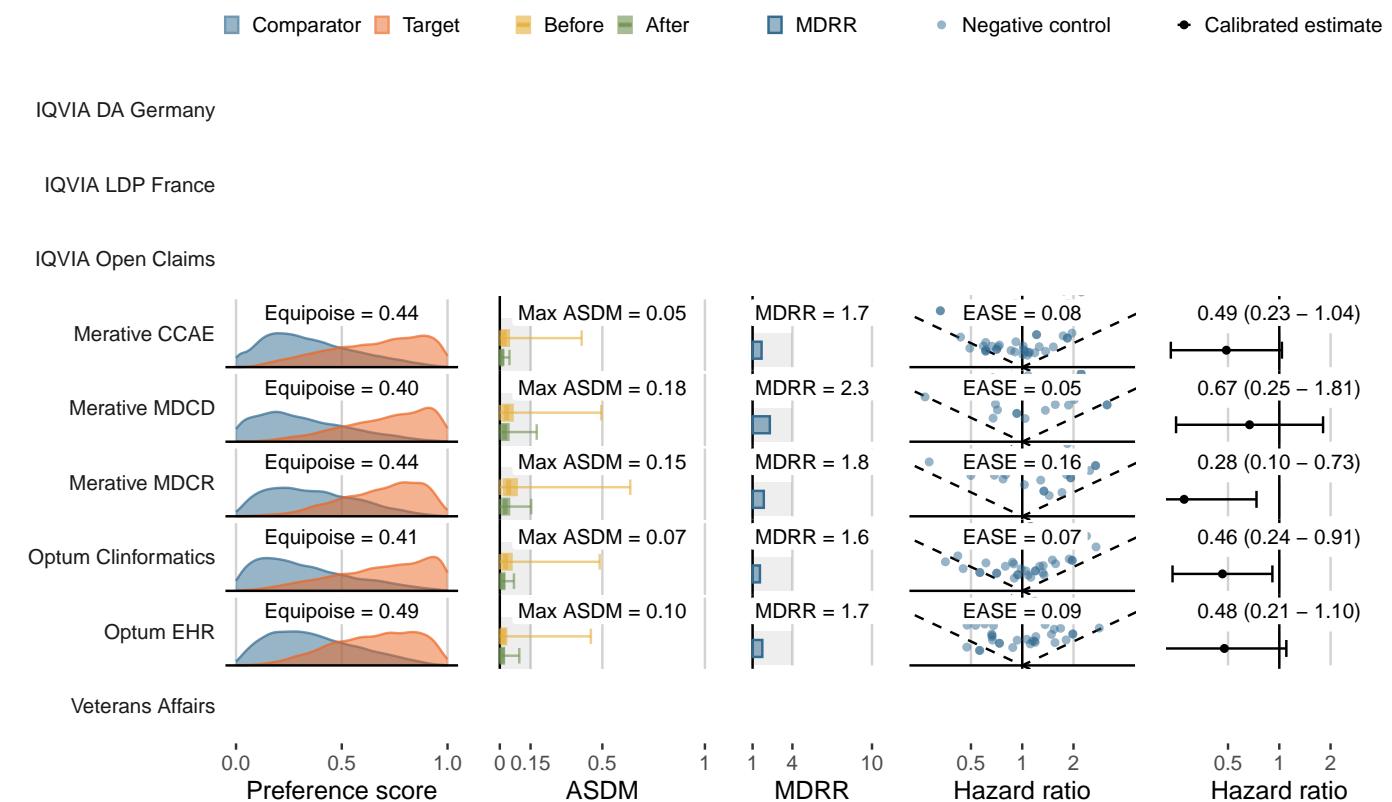
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Hospitalization with heart failure**

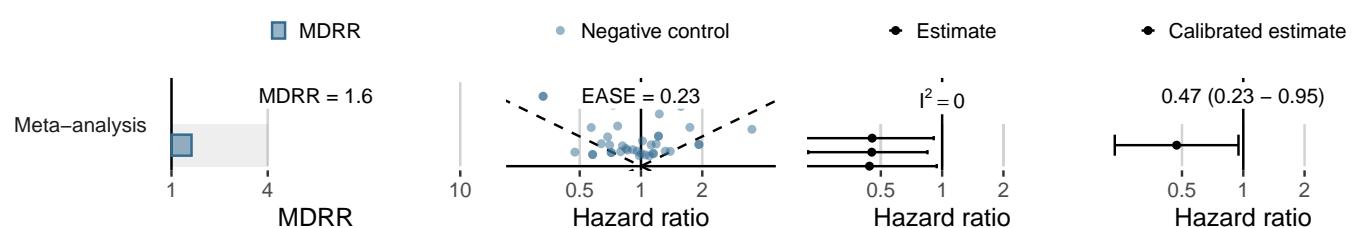
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,569	4,713	16	3.39
Merative MDCD	874	445	8	17.98
Merative MDCR	788	507	10	19.72
Optum Clininformatics	4,356	2,465	18	7.30
Optum EHR	4,467	1,788	12	6.71
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



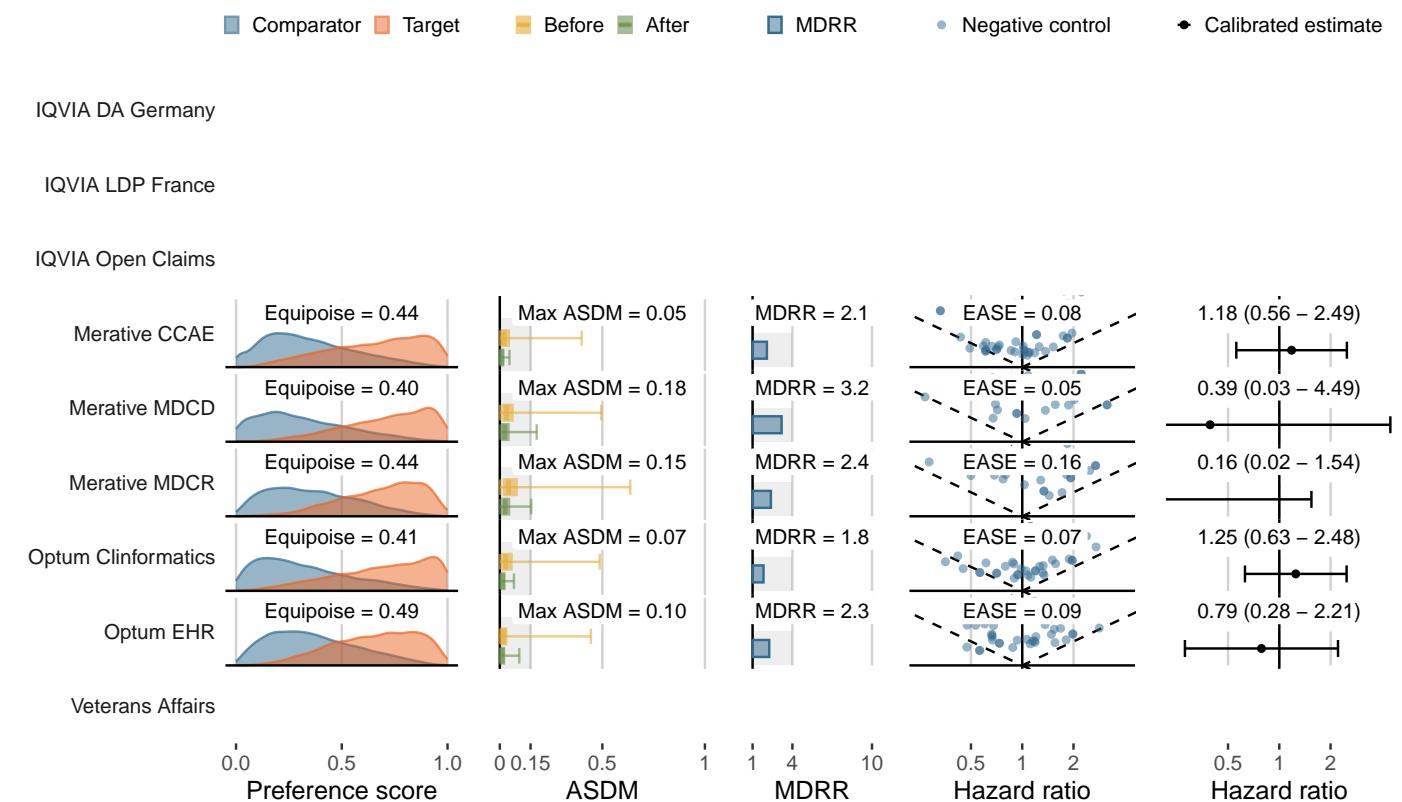
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Exenatide** (GLP-1 Receptor Agonists)
- Comparator (class): **Glyburide** (Sulfonylureas)
- Outcome: **Stroke**

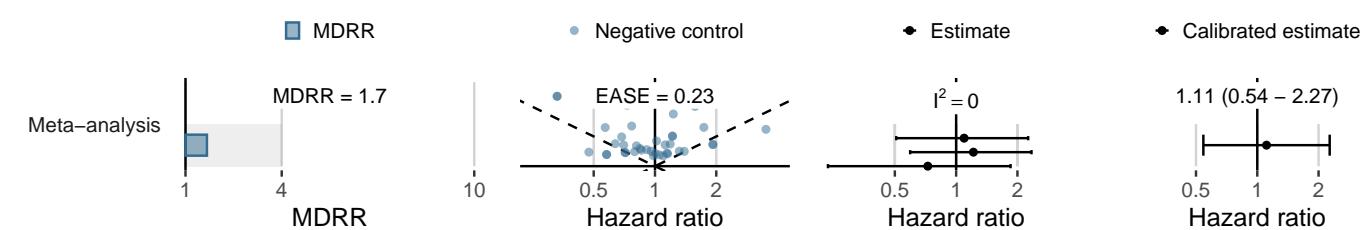
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	8,650	4,736	16	3.38
Merative MDCD	926	465	<5	<10.75
Merative MDCR	820	529	<5	<9.46
Optum Clininformatics	4,443	2,515	14	5.57
Optum EHR	4,505	1,803	9	4.99
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	160,147	78,020	86	1.10
Merative CCAE	14,503	7,834	9	1.15
Merative MDCD	-	-	-	-
Merative MDCR	1,111	441	<5	<11.35
Optum Clininformatics	9,867	5,005	7	1.40
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ■ Negative control ■ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France



Merative CCAE

Merative MDCD

Merative MDCR



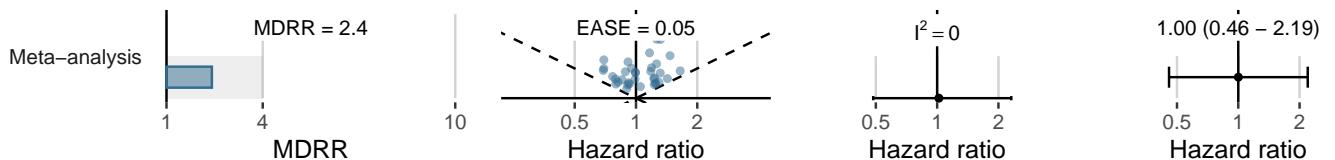
Optum EHR

Veterans Affairs

0.0 0.5 1.0 0 0.15 0.5 1 1 4 10 0.5 1 2 0.5 1 2
Preference score ASDM MDRR Hazard ratio Hazard ratio

What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate



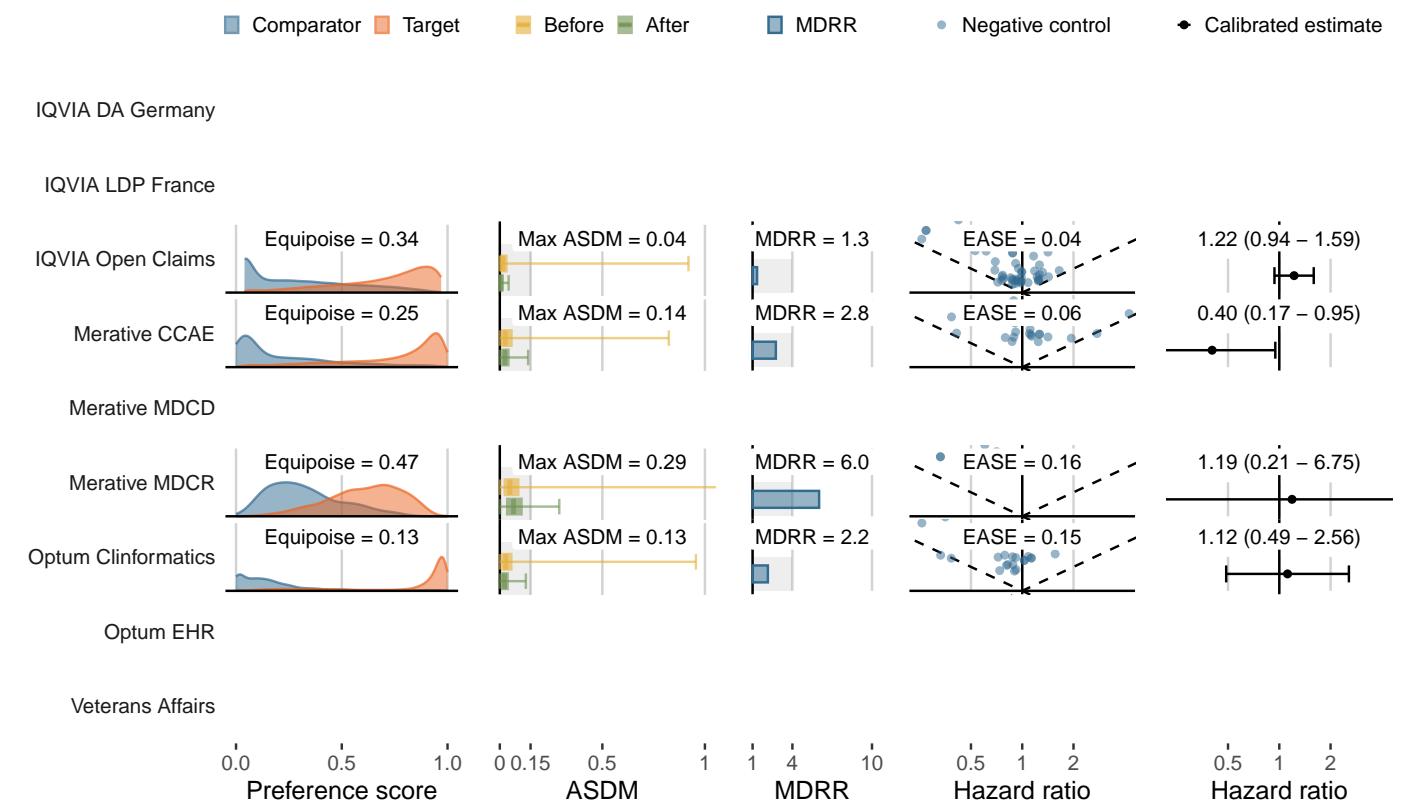
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

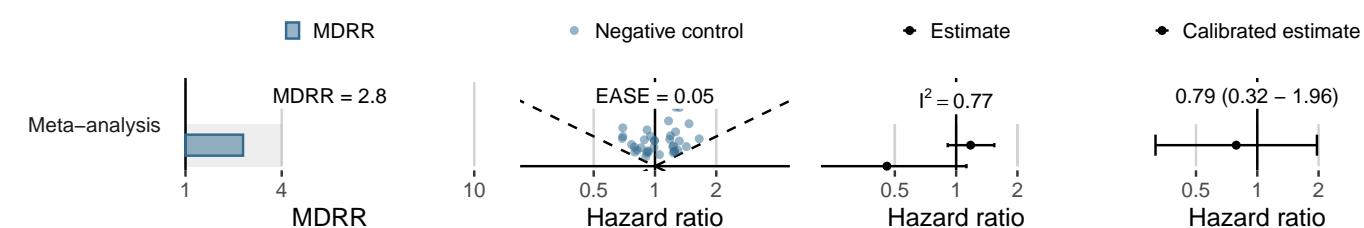
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	137,065	66,484	766	11.52
Merative CCAE	13,409	7,100	96	13.52
Merative MDCD	-	-	-	-
Merative MDCR	1,008	401	15	37.37
Optum Clininformatics	8,730	4,409	102	23.13
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



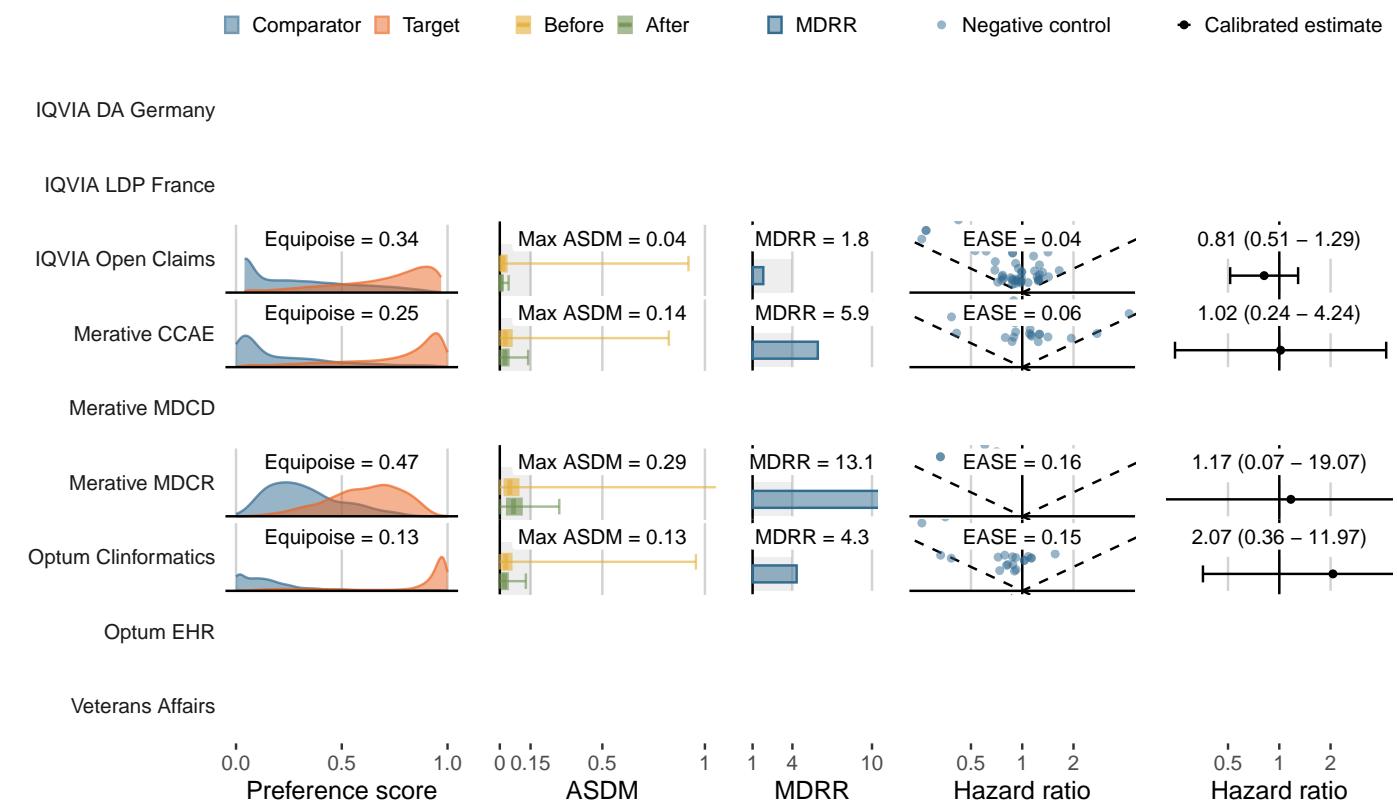
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

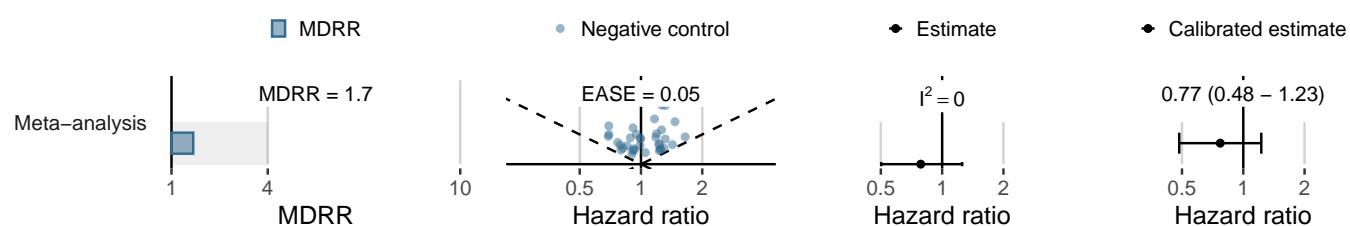
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	157,936	76,965	174	2.26
Merative CCAE	14,496	7,820	30	3.84
Merative MDCD	-	-	-	-
Merative MDCR	1,091	436	<5	<11.48
Optum Clininformatics	9,764	4,922	28	5.69
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



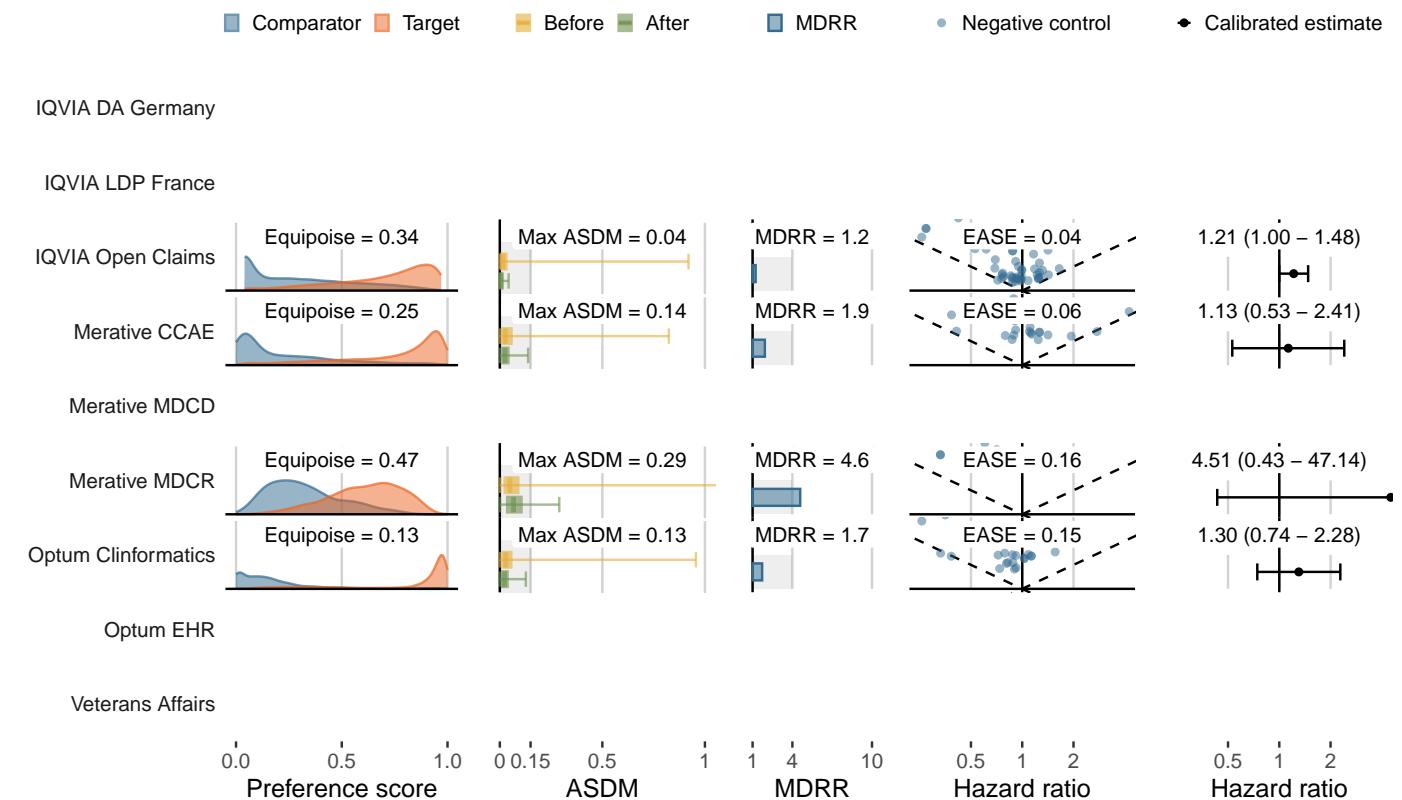
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

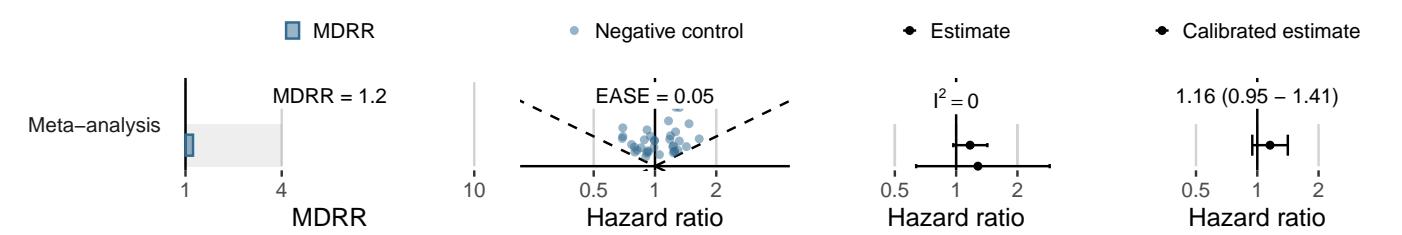
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	117,498	56,935	1,514	26.59
Merative CCAE	11,381	5,987	238	39.75
Merative MDCD	-	-	-	-
Merative MDCR	930	367	23	62.60
Optum Clininformatics	7,597	3,749	199	53.08
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



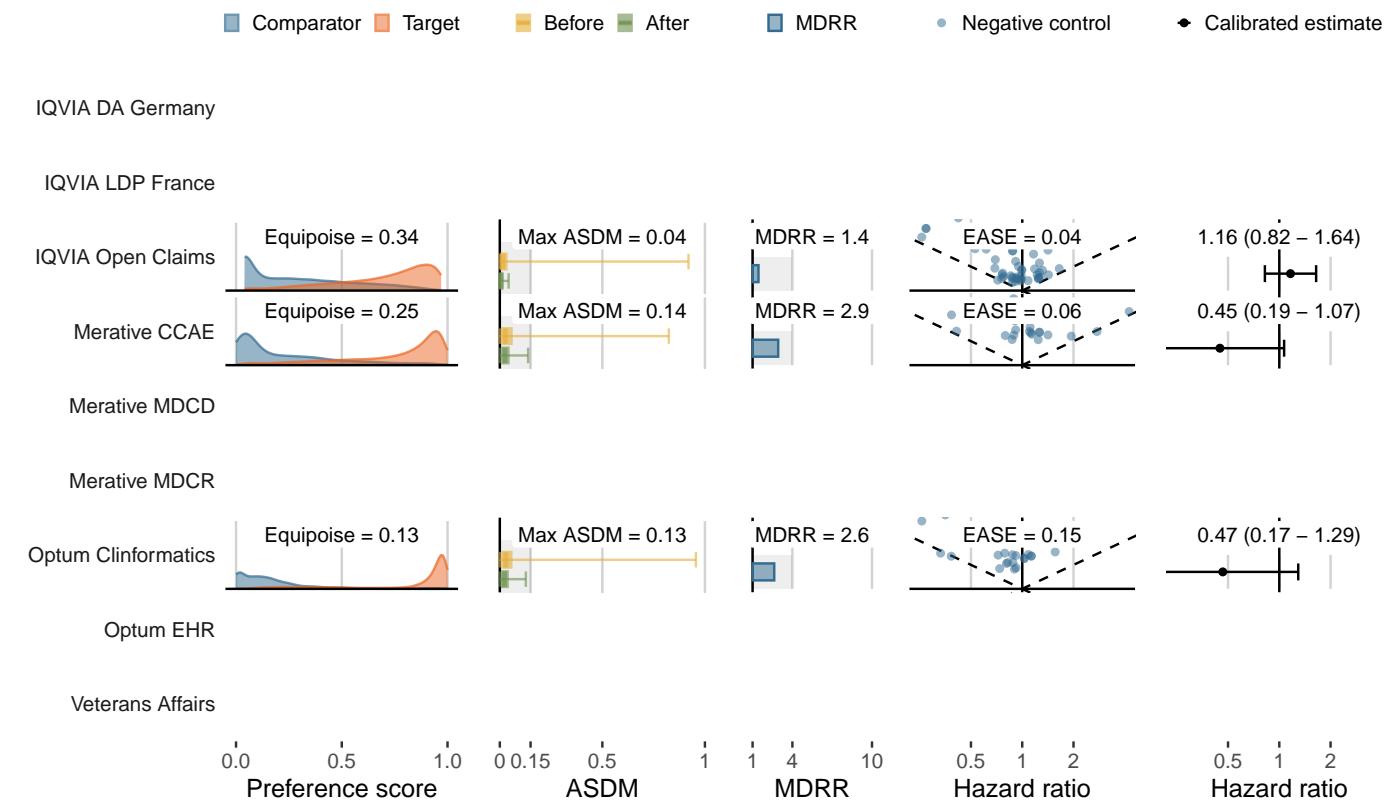
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

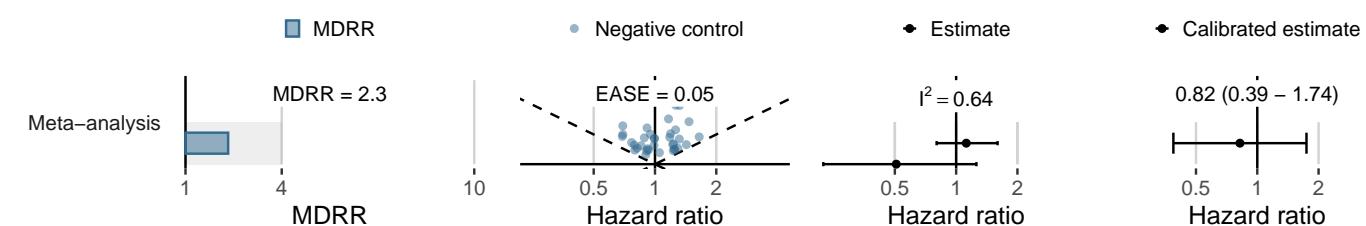
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	147,657	71,797	497	6.92
Merative CCAE	13,515	7,206	84	11.66
Merative MDCD	-	-	-	-
Merative MDCR	1,029	404	<5	<12.36
Optum Clininformatics	8,748	4,317	61	14.13
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	161,113	78,402	47	0.60
Merative CCAE	14,748	7,934	9	1.13
Merative MDCD	-	-	-	-
Merative MDCR	1,110	440	<5	<11.36
Optum Clininformatics	9,968	5,045	<5	<0.99
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

■ Comparator ■ Target ■ Before ■ After ■ MDRR ● Negative control ◆ Calibrated estimate

IQVIA DA Germany

IQVIA LDP France

IQVIA Open Claims

Merative CCAE

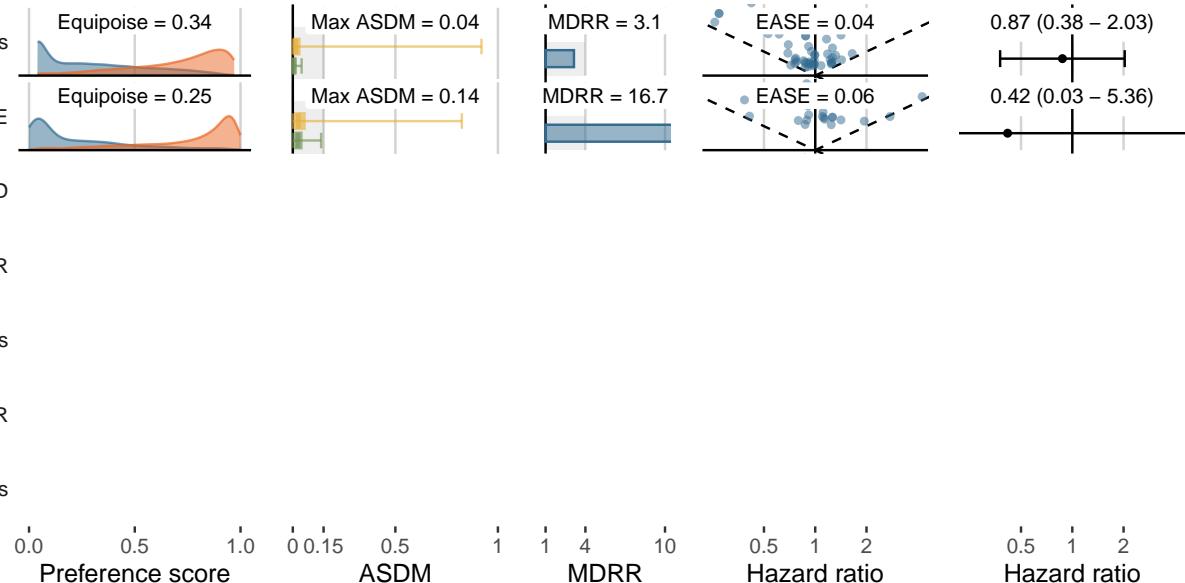
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

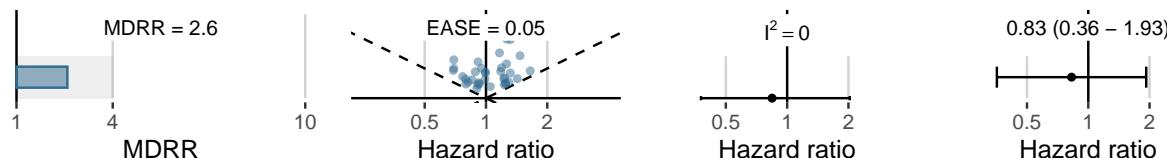
Veterans Affairs



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

■ MDRR ● Negative control ◆ Estimate ● Calibrated estimate

Meta-analysis



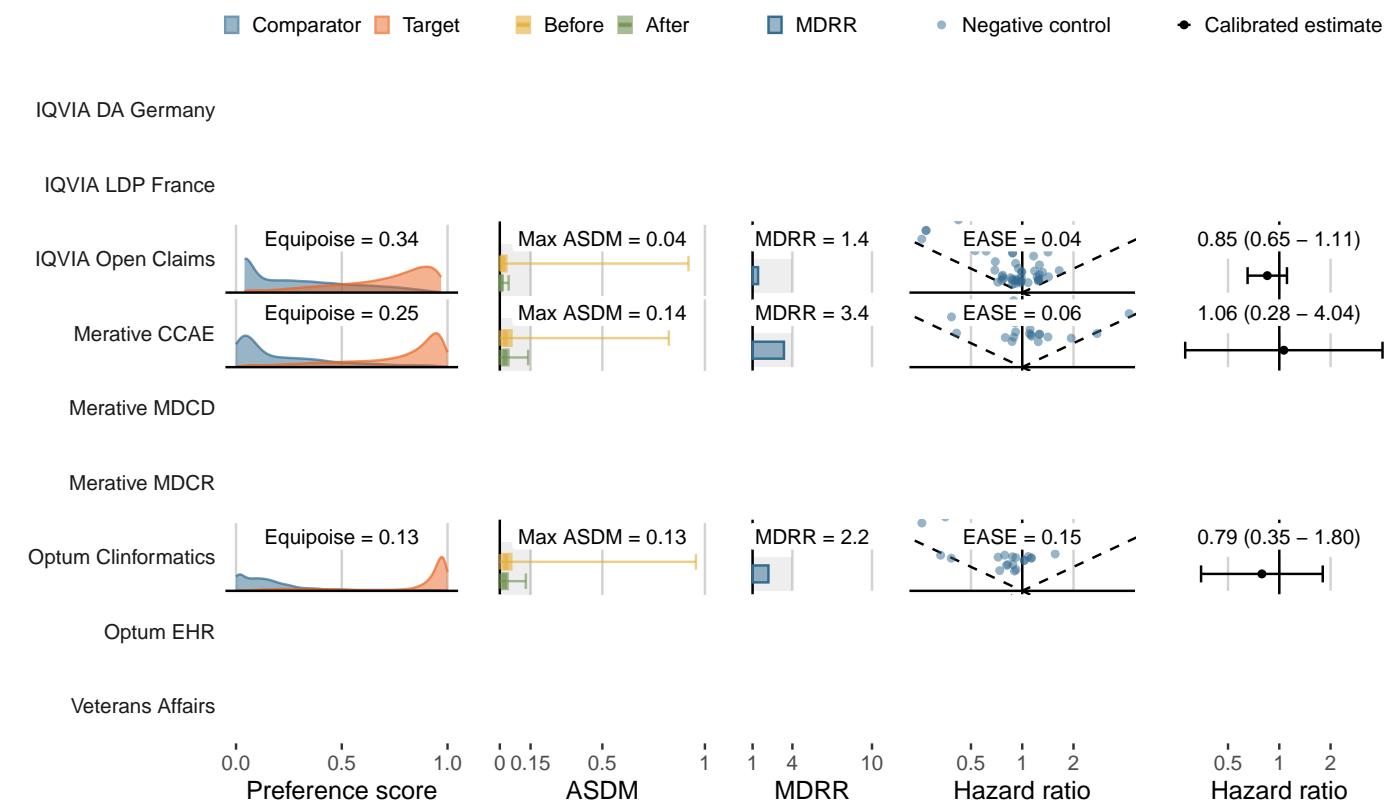
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

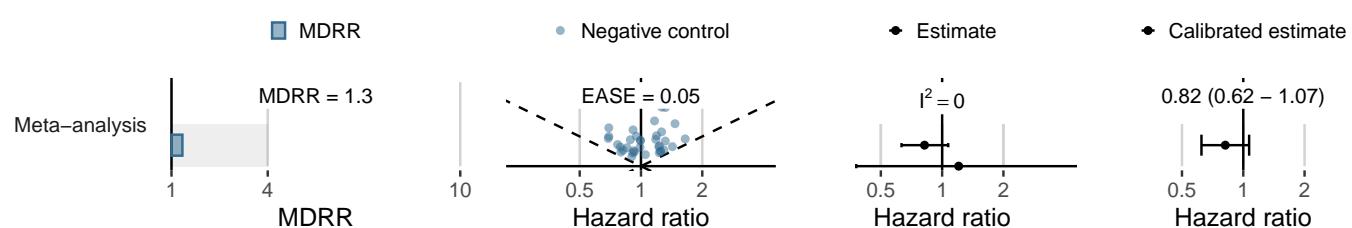
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	156,402	76,235	535	7.02
Merative CCAE	14,490	7,795	70	8.98
Merative MDCD	-	-	-	-
Merative MDCR	1,059	422	8	18.94
Optum Clininformatics	9,196	4,682	97	20.72
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)



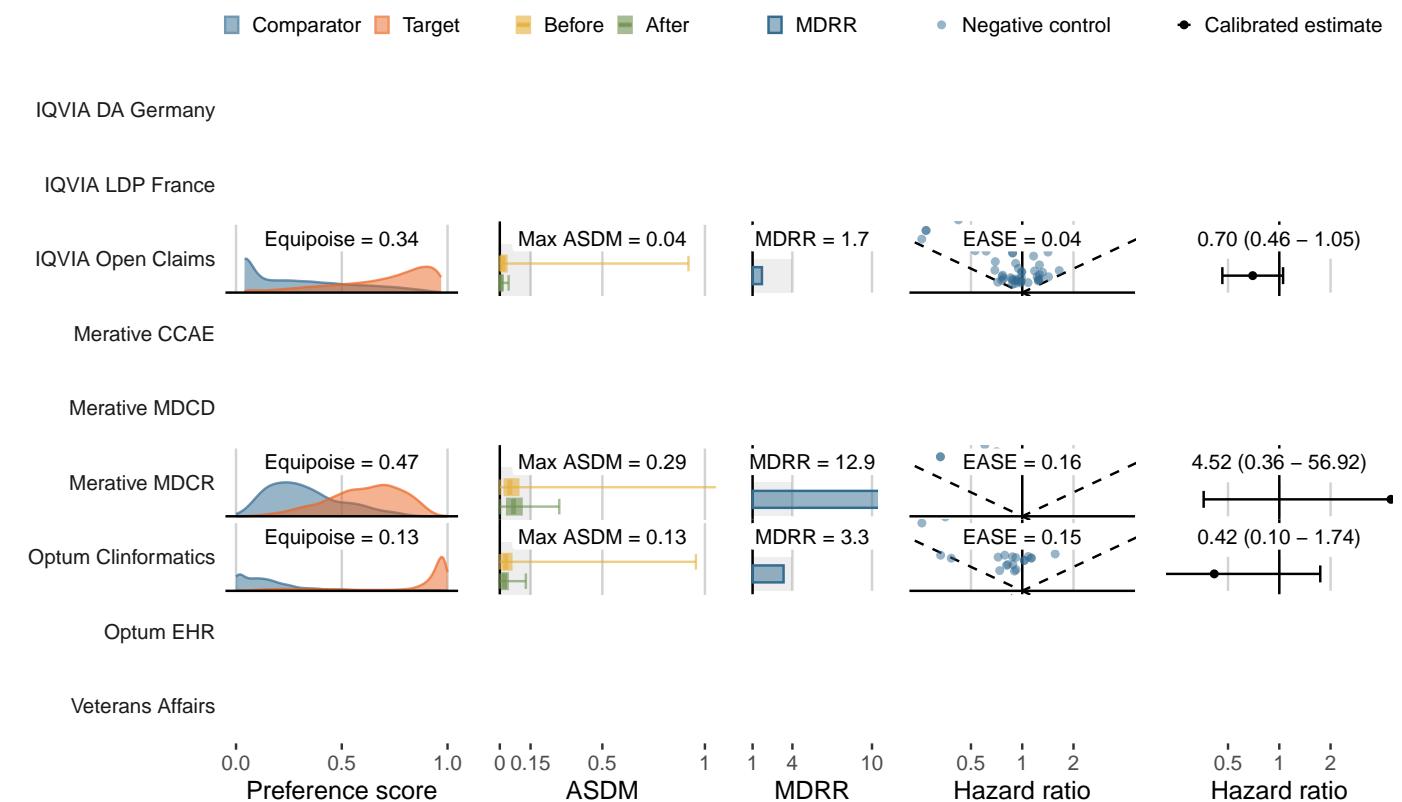
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	155,198	75,499	222	2.94
Merative CCAE	14,265	7,667	27	3.52
Merative MDCD	-	-	-	-
Merative MDCR	1,075	426	<5	<11.73
Optum Clininformatics	9,501	4,809	42	8.73
Optum EHR	-	-	-	-
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



What have we learned from the OHDSI Network? (Meta-analysis diagnostics and estimate)

