

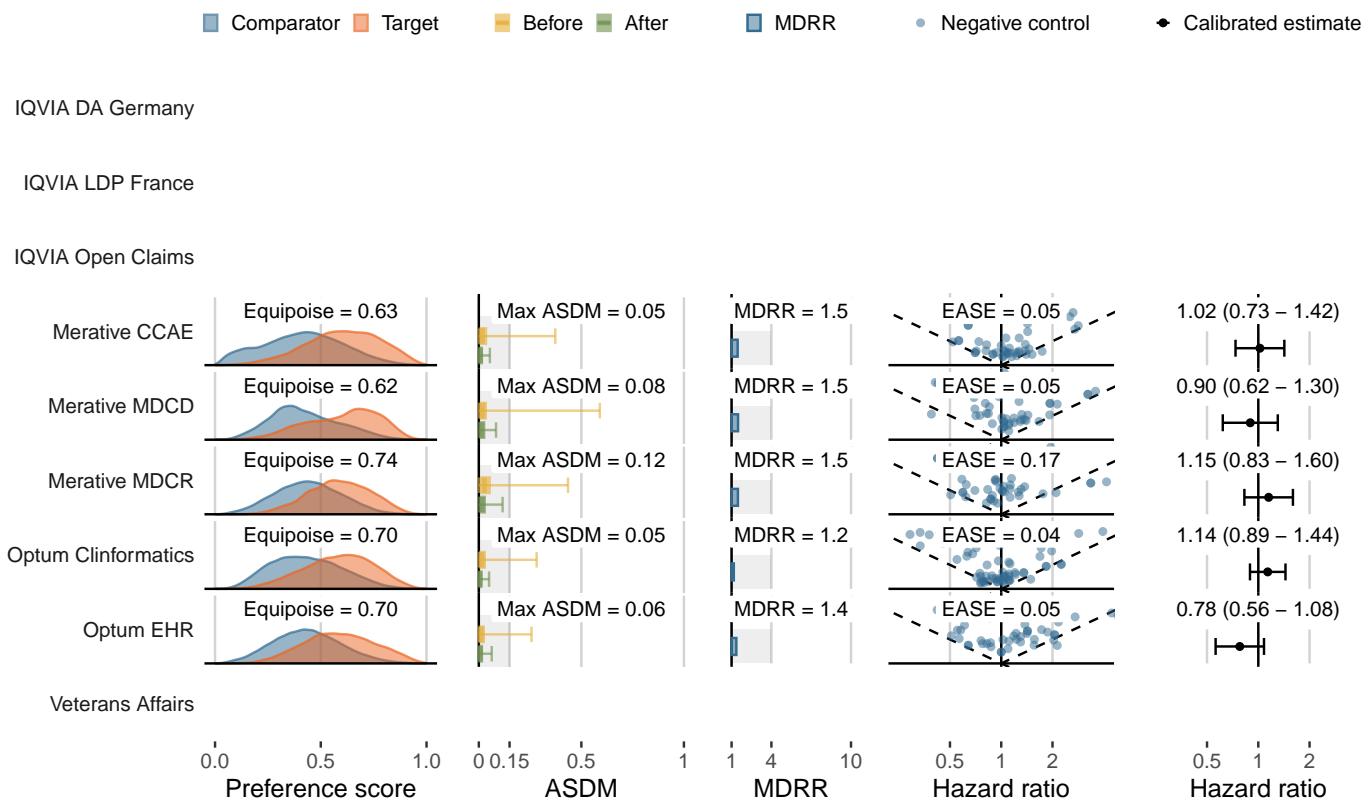
LEGEND-T2DM Evidence Dissemination Summary

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

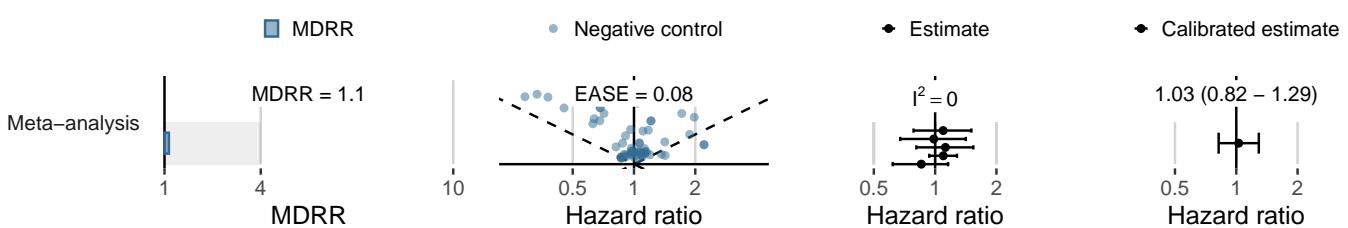
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	7,115	5,010	65	12.98
Merative MDCD	2,400	1,601	59	36.85
Merative MDCR	1,654	1,577	80	50.72
Optum Clininformatics	11,296	8,858	309	34.88
Optum EHR	8,496	1,748	61	34.89
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



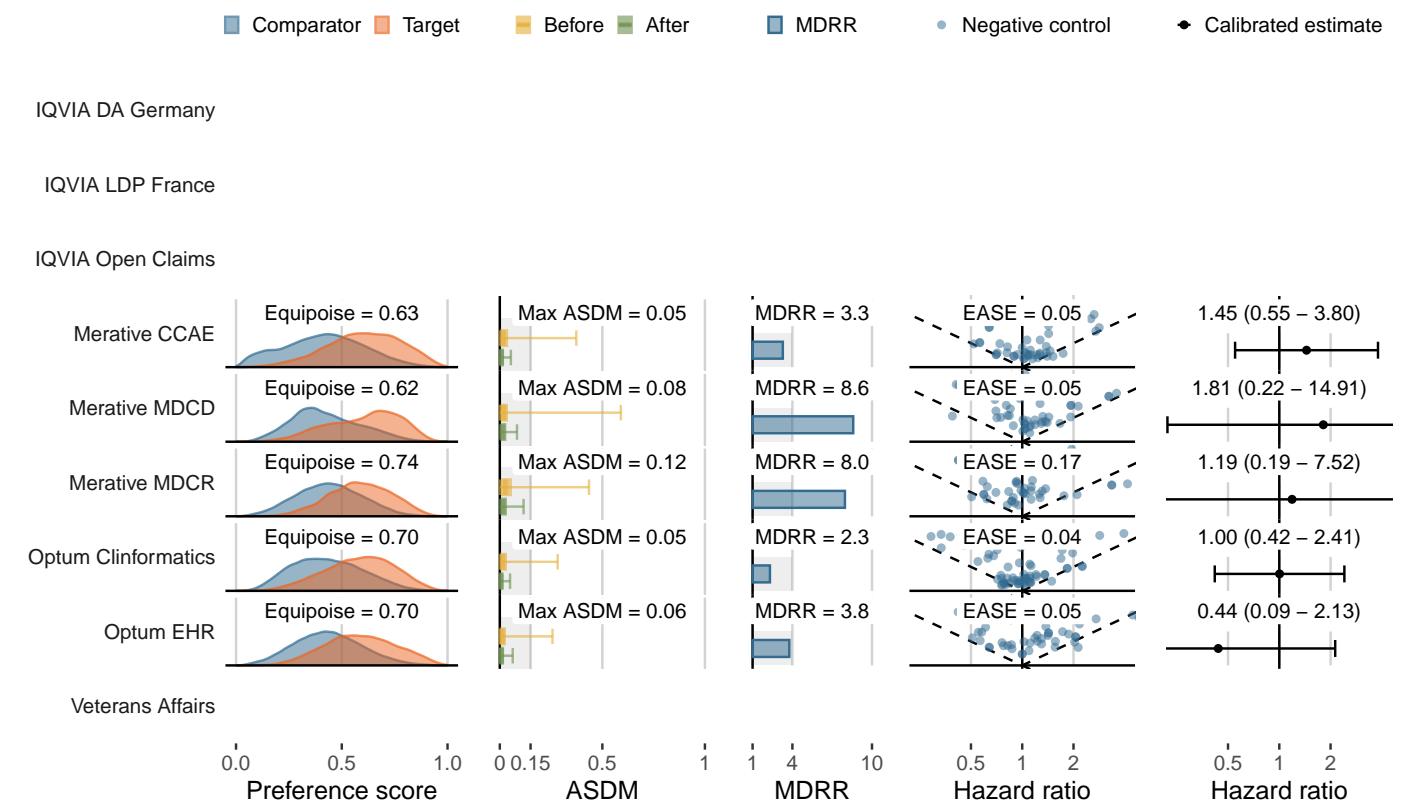
LEGEND-T2DM Evidence Dissemination Summary

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

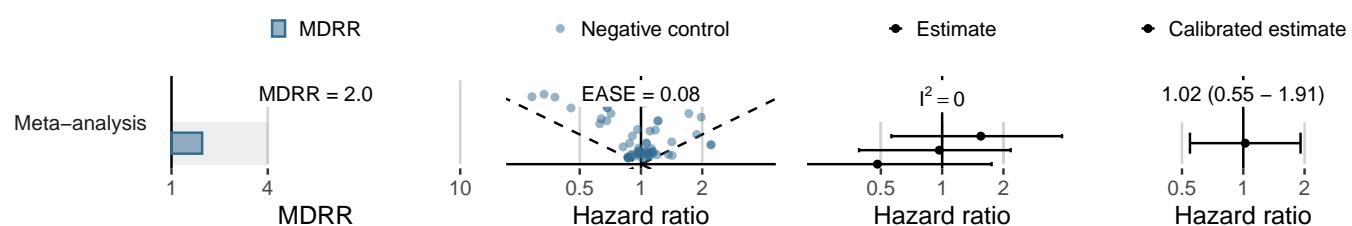
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	7,254	5,135	10	1.95
Merative MDCD	2,586	1,752	<5	<2.85
Merative MDCR	1,830	1,783	<5	<2.80
Optum Clininformatics	12,173	9,741	16	1.64
Optum EHR	8,730	1,821	<5	<2.75
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



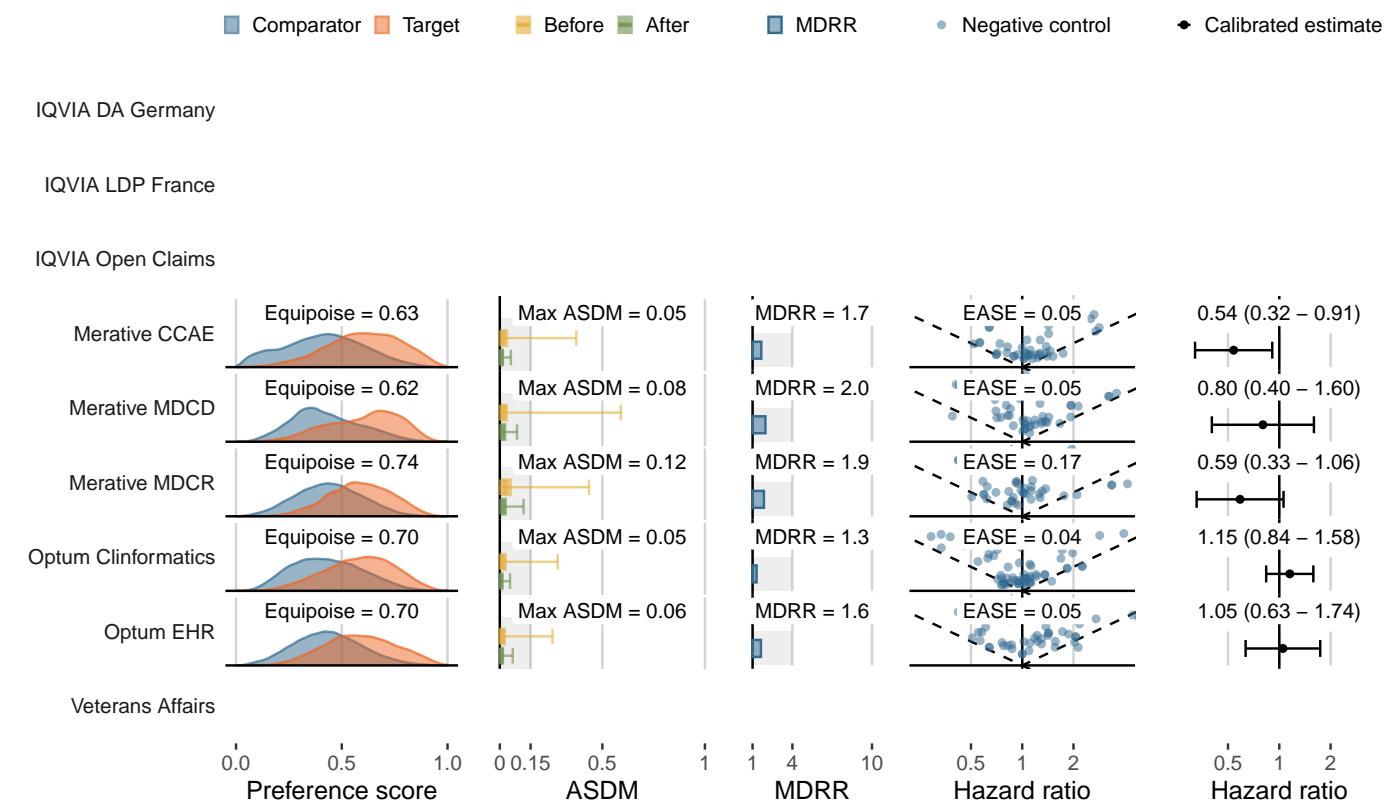
LEGEND-T2DM Evidence Dissemination Summary

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

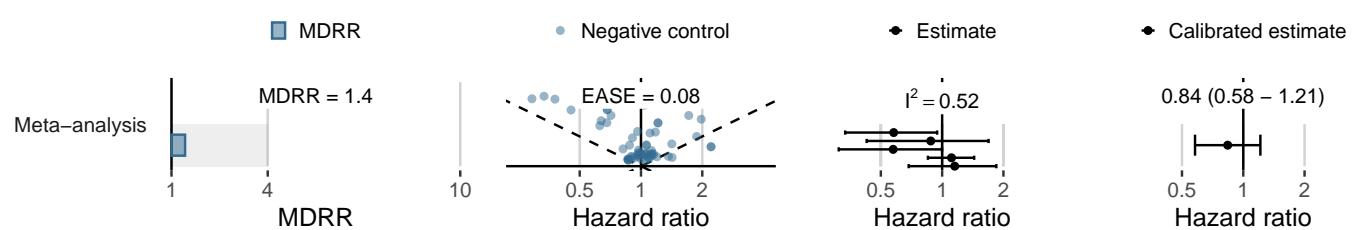
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	7,088	5,009	31	6.19
Merative MDCD	2,485	1,676	18	10.74
Merative MDCR	1,746	1,693	25	14.77
Optum Clininformatics	11,801	9,377	101	10.77
Optum EHR	8,527	1,746	25	14.32
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



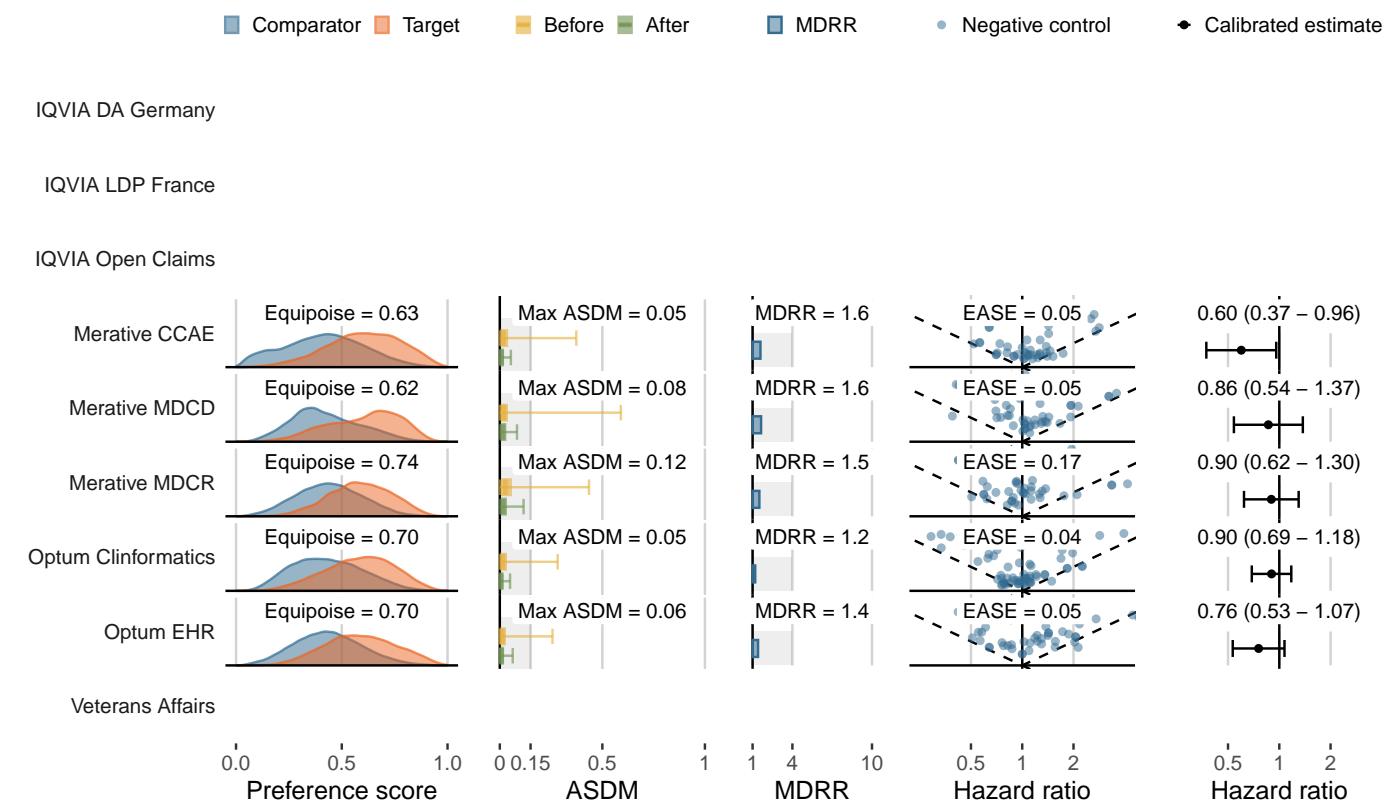
LEGEND-T2DM Evidence Dissemination Summary

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

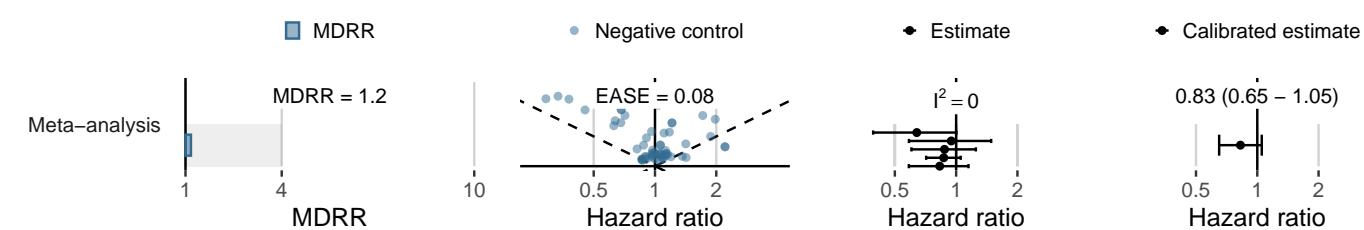
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	7,082	5,017	30	5.98
Merative MDCD	2,328	1,543	38	24.62
Merative MDCR	1,635	1,582	60	37.92
Optum Clininformatics	11,400	9,013	190	21.08
Optum EHR	8,470	1,727	51	29.53
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



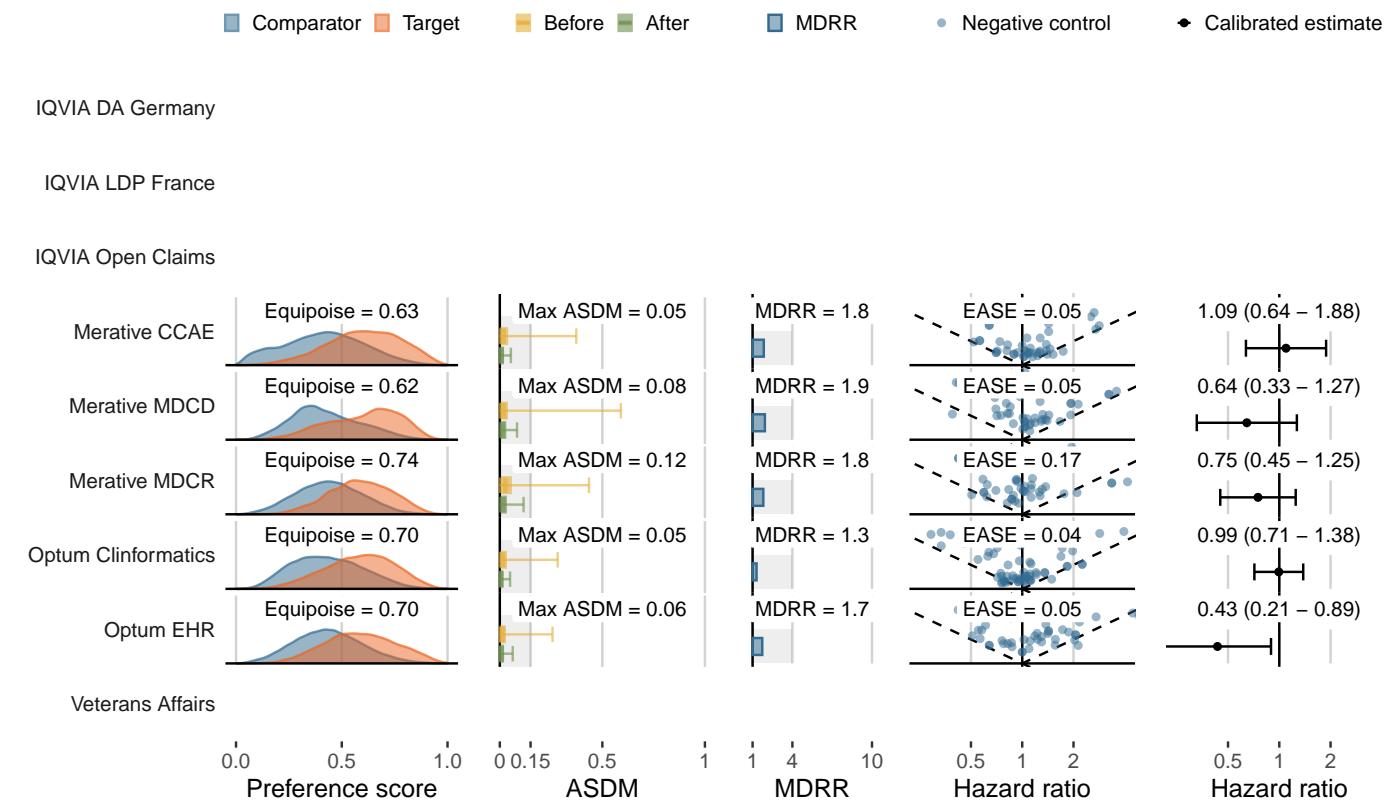
LEGEND-T2DM Evidence Dissemination Summary

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

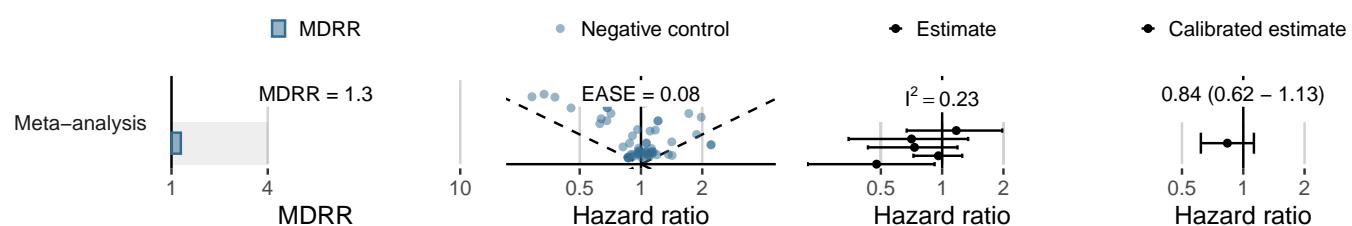
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	7,187	5,052	27	5.34
Merative MDCD	2,491	1,680	25	14.88
Merative MDCR	1,749	1,710	25	14.62
Optum Clininformatics	11,825	9,468	92	9.72
Optum EHR	8,645	1,795	12	6.68
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



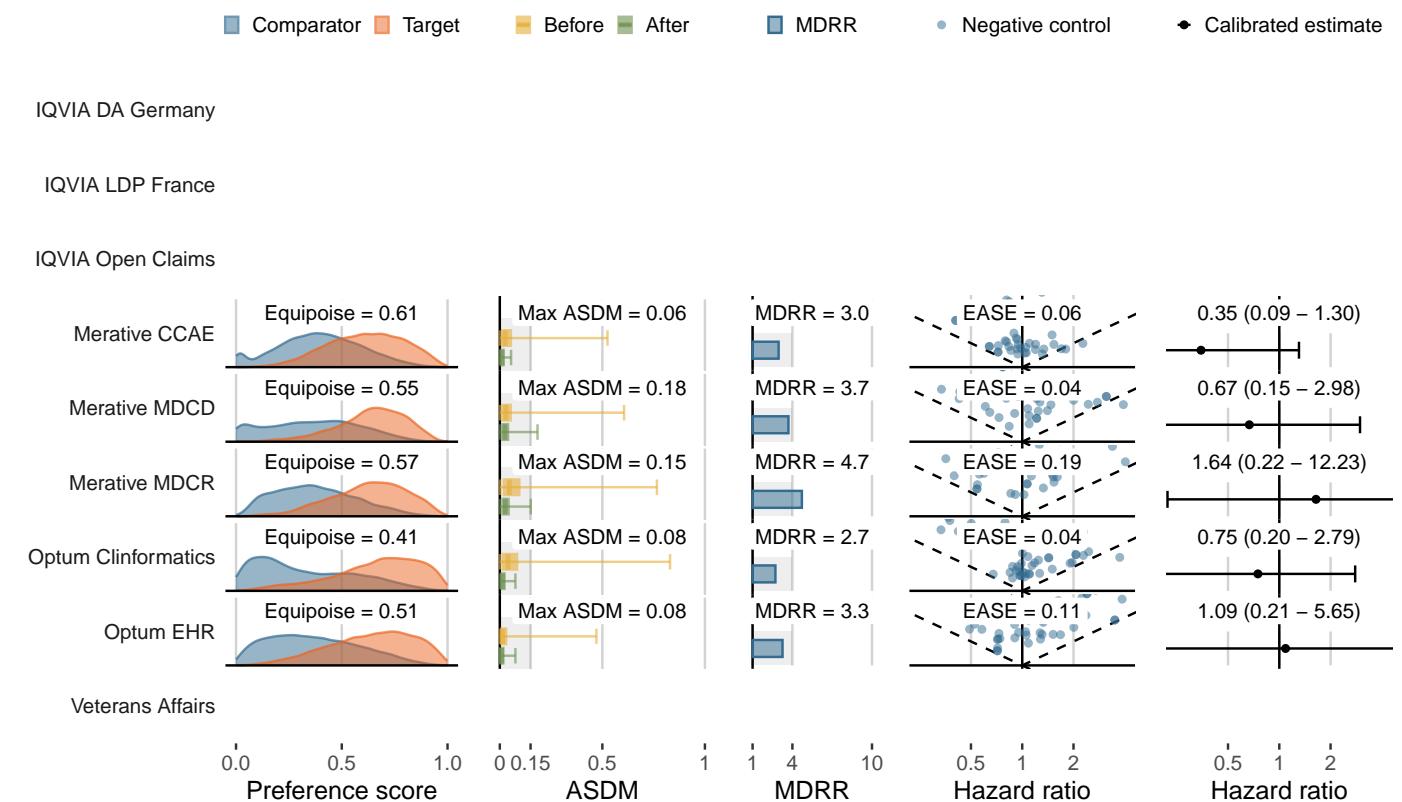
LEGEND-T2DM Evidence Dissemination Summary

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

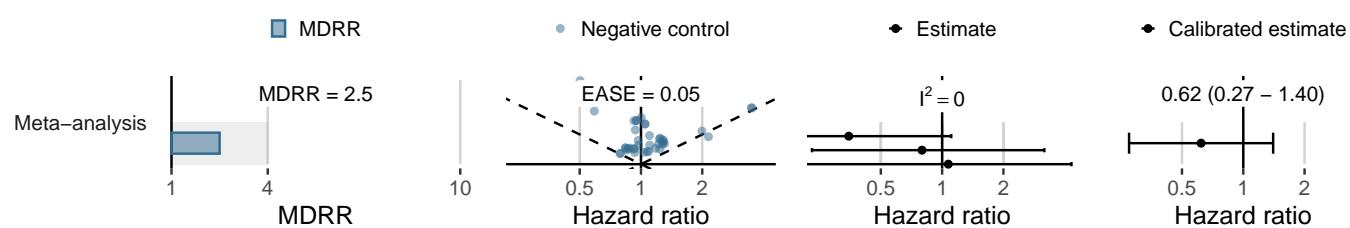
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,609	3,828	9	2.35
Merative MDCD	2,707	1,848	14	7.57
Merative MDCR	1,009	935	<5	<5.35
Optum Clininformatics	12,263	9,840	35	3.56
Optum EHR	6,405	1,266	<5	<3.95
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



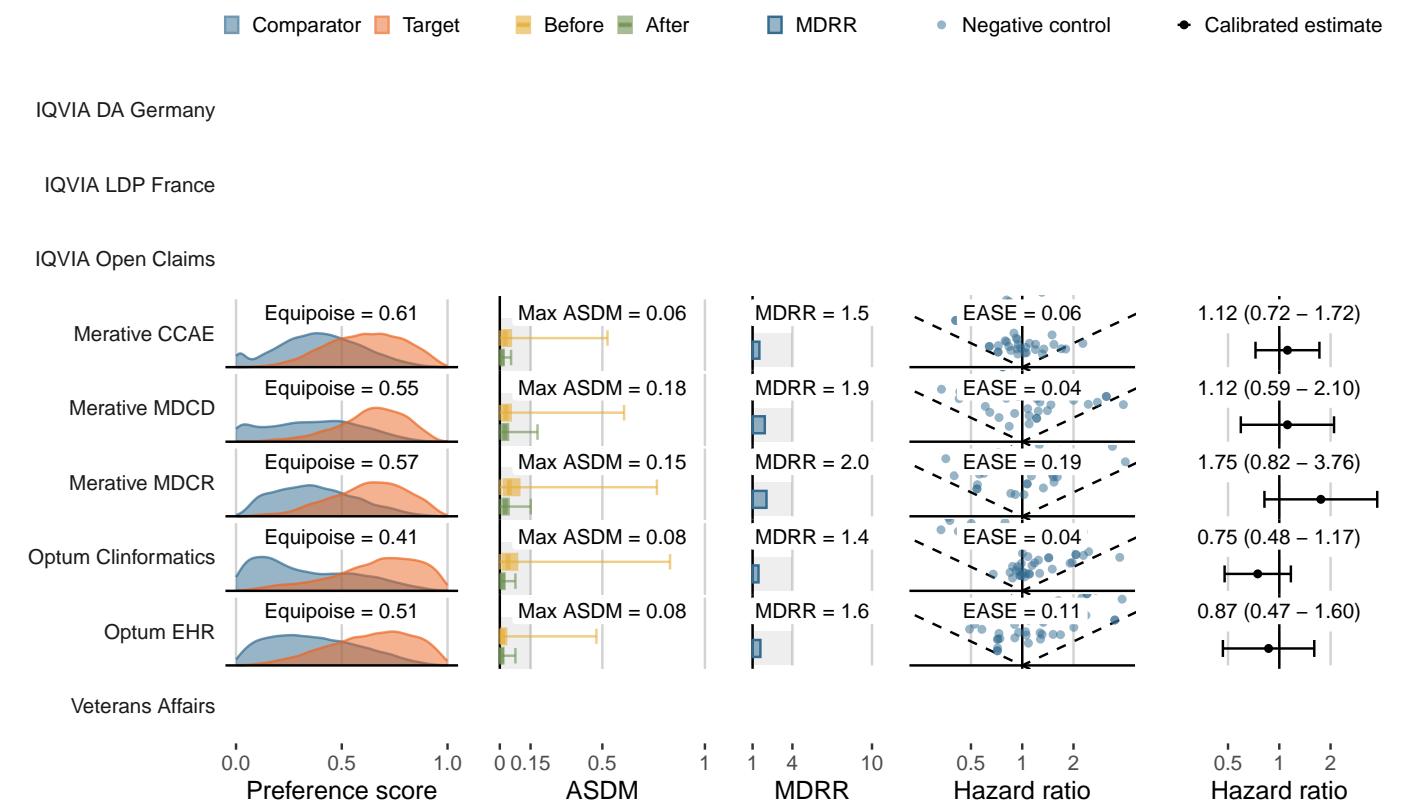
LEGEND-T2DM Evidence Dissemination Summary

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

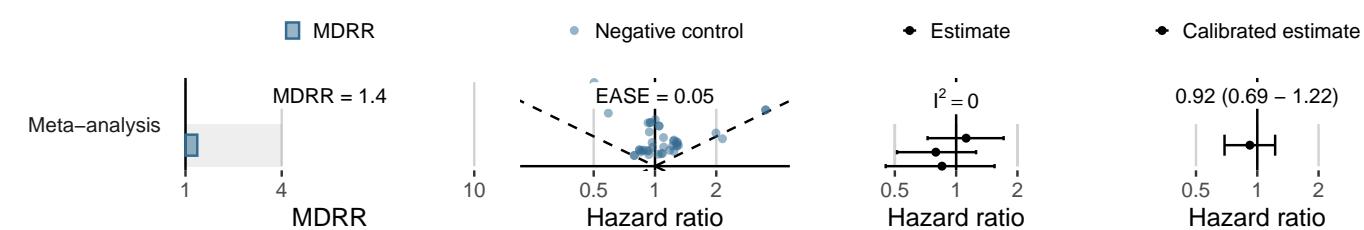
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,243	3,511	63	17.94
Merative MDCD	1,161	718	36	50.17
Merative MDCR	905	825	32	38.80
Optum Clininformatics	11,153	8,711	232	26.63
Optum EHR	6,012	1,189	26	21.87
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



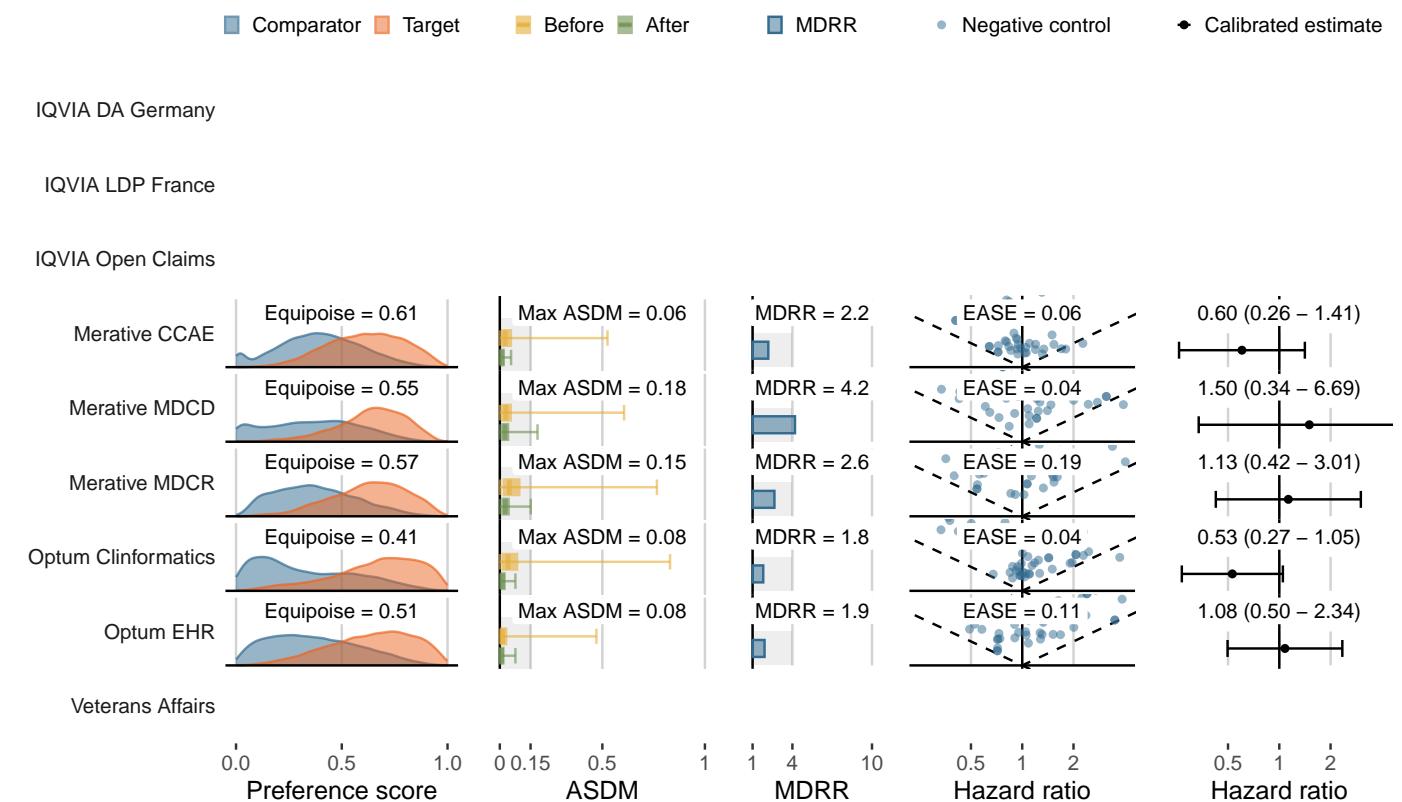
LEGEND-T2DM Evidence Dissemination Summary

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

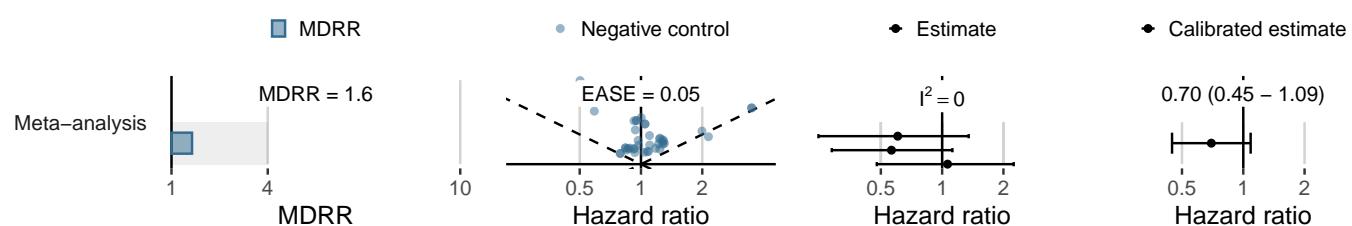
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,539	3,764	13	3.45
Merative MDCD	1,267	785	7	8.91
Merative MDCR	980	910	14	15.39
Optum Clininformatics	11,995	9,566	90	9.41
Optum EHR	6,353	1,253	14	11.18
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



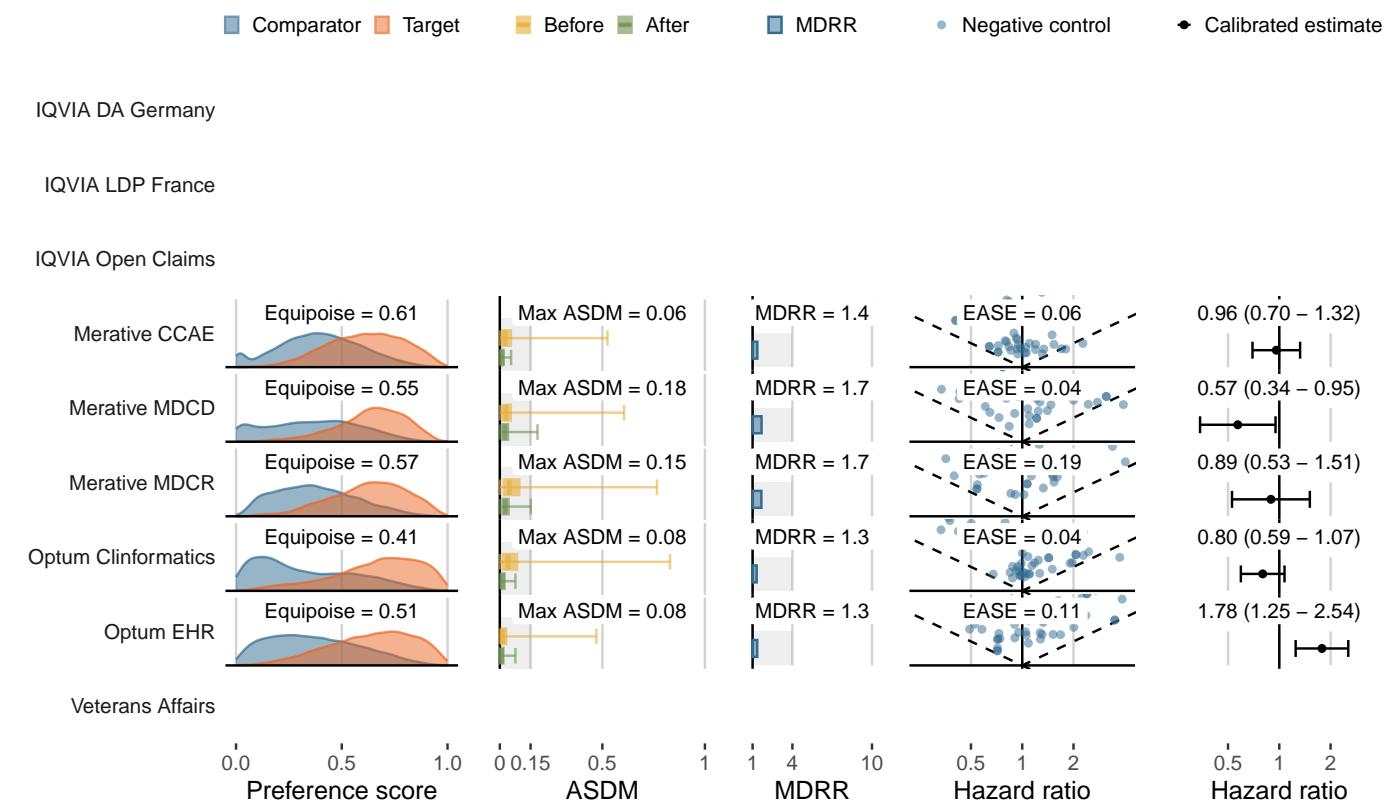
LEGEND-T2DM Evidence Dissemination Summary

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

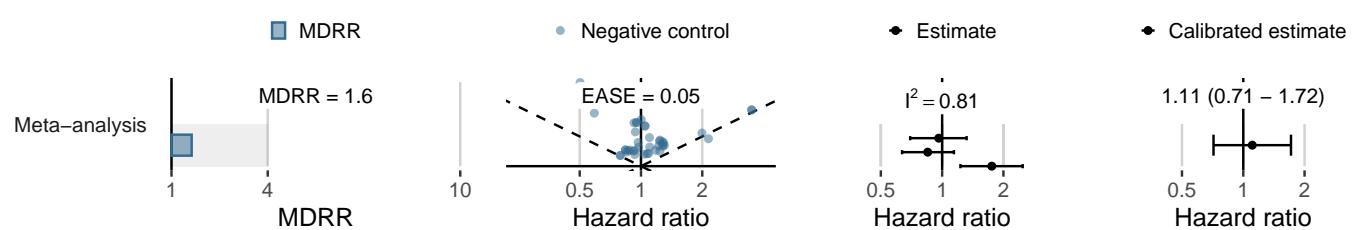
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	4,597	3,098	113	36.48
Merative MDCD	2,102	1,384	88	63.56
Merative MDCR	782	698	50	71.68
Optum Clininformatics	9,328	7,064	426	60.31
Optum EHR	5,537	1,068	79	73.95
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



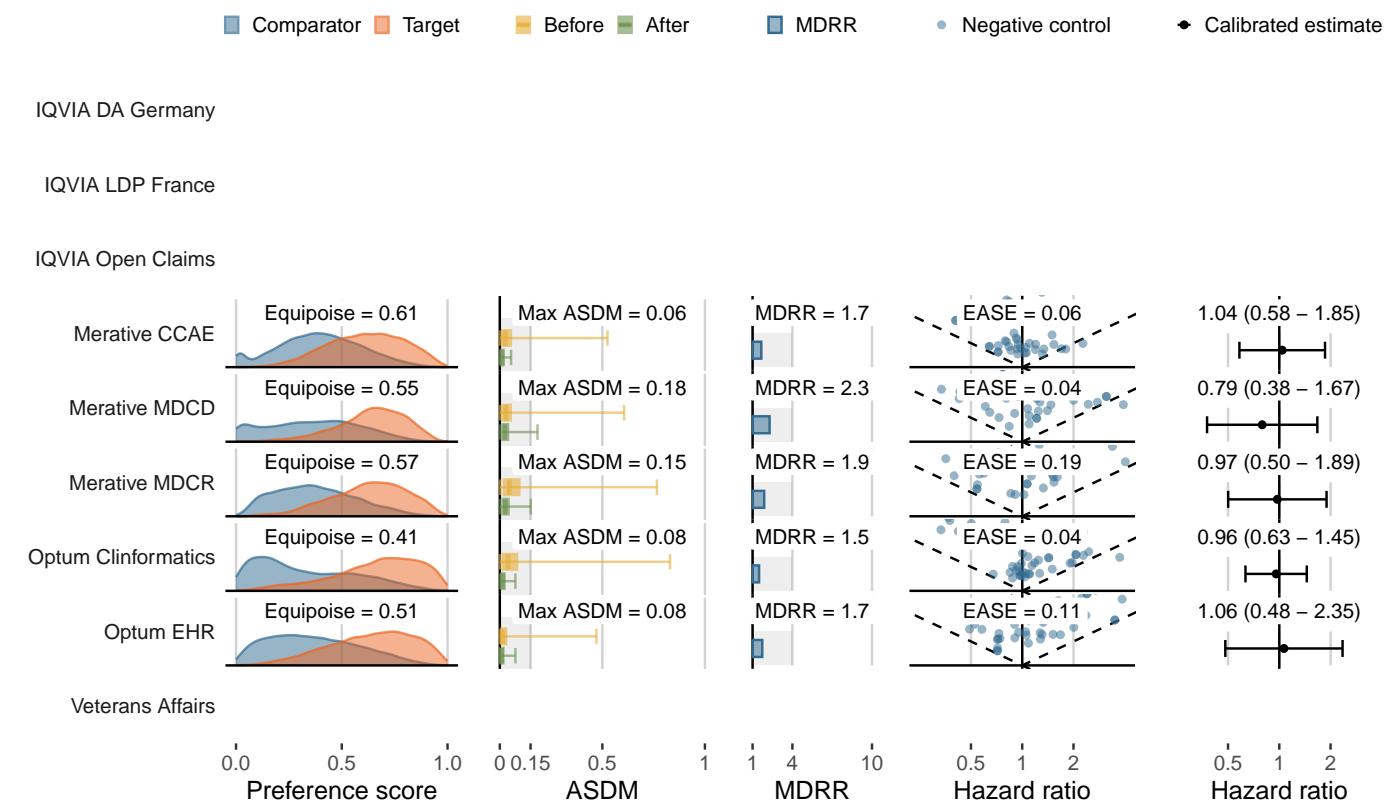
LEGEND-T2DM Evidence Dissemination Summary

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

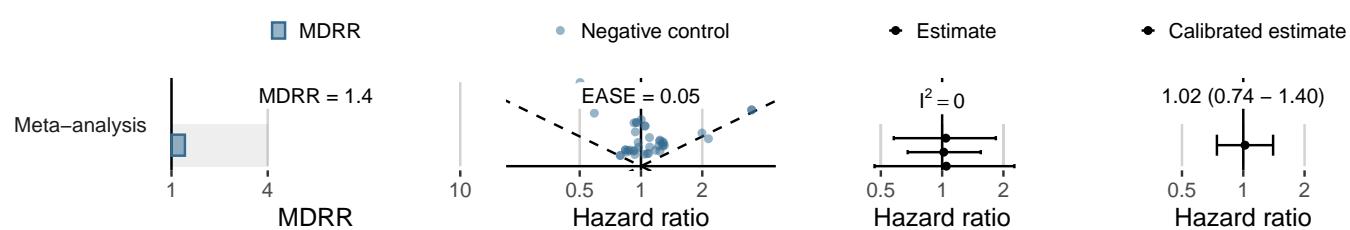
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,364	3,665	46	12.55
Merative MDCD	2,096	1,389	37	26.63
Merative MDCR	822	745	30	40.28
Optum Clininformatics	10,220	7,873	186	23.63
Optum EHR	6,134	1,218	19	15.60
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



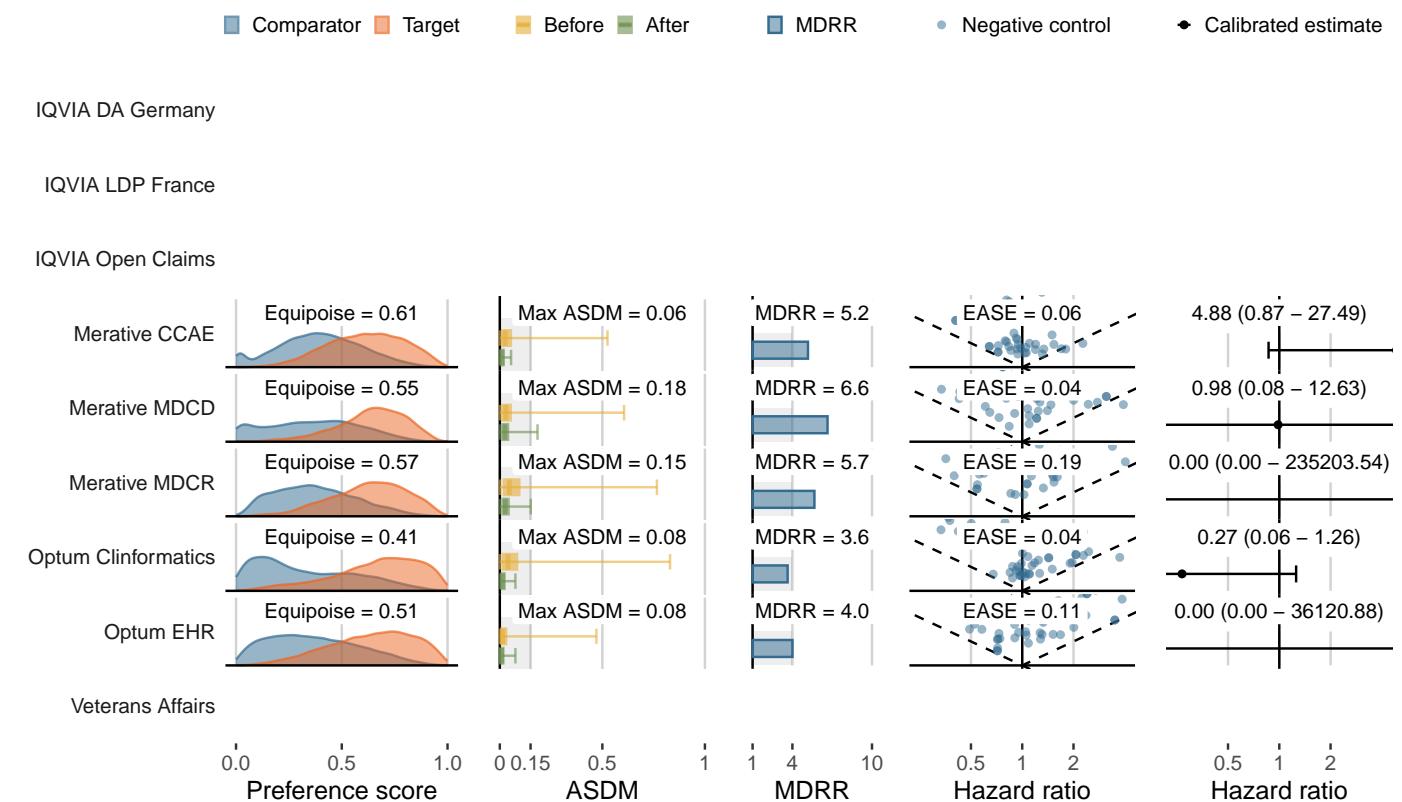
LEGEND-T2DM Evidence Dissemination Summary

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

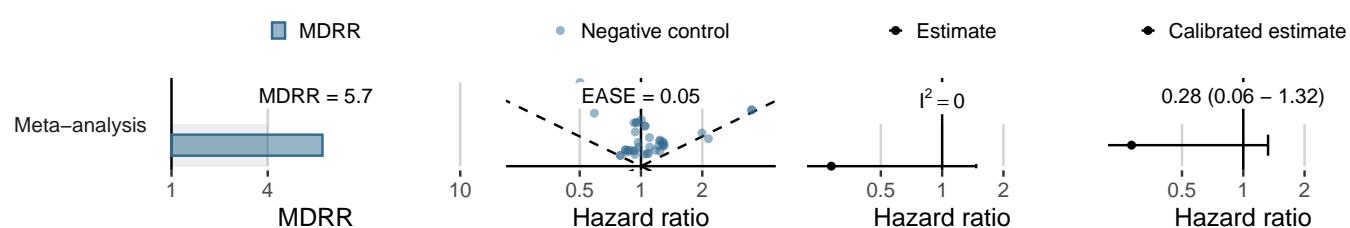
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,630	3,838	9	2.35
Merative MDCD	2,750	1,873	<5	<2.67
Merative MDCR	1,020	932	<5	<5.36
Optum Clininformatics	12,298	9,870	19	1.93
Optum EHR	6,425	1,263	<5	<3.96
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



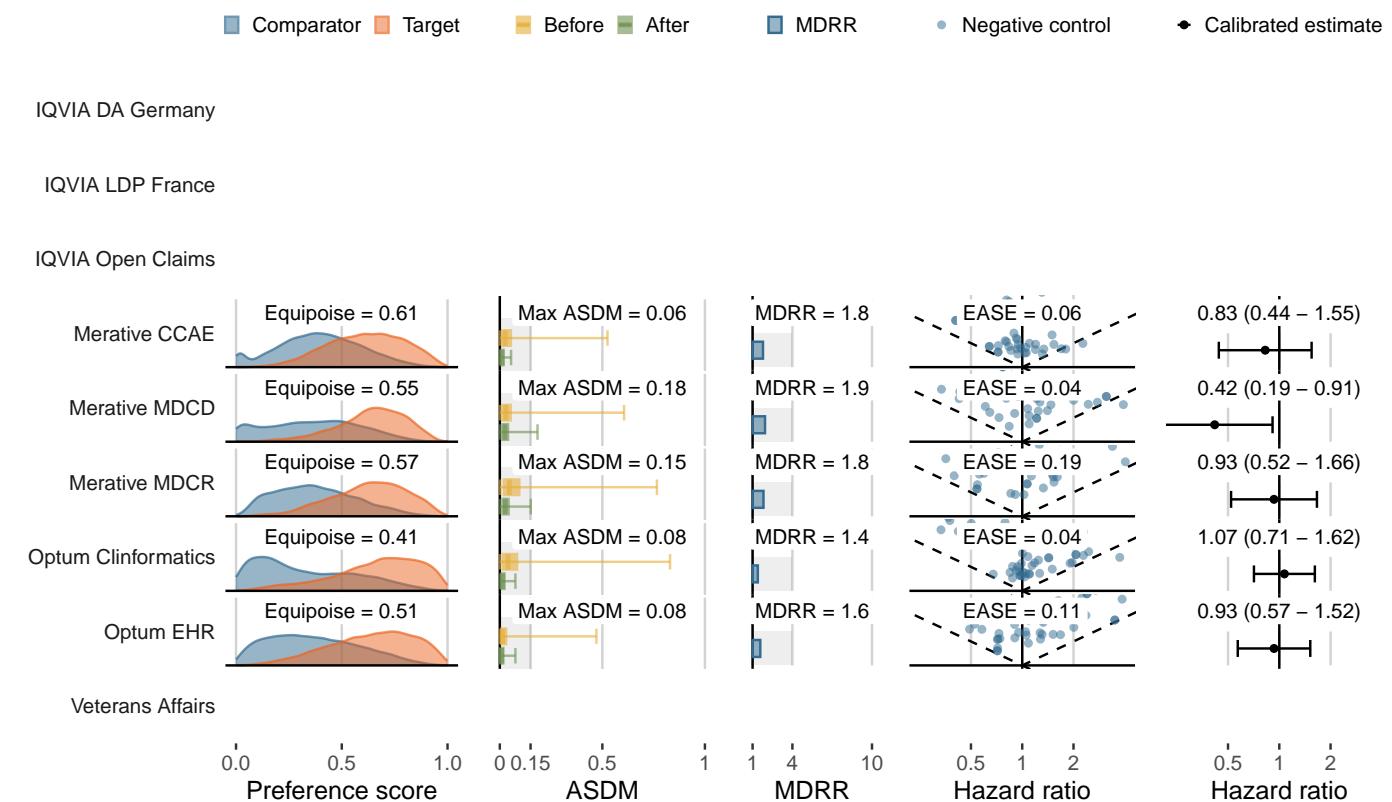
LEGEND-T2DM Evidence Dissemination Summary

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

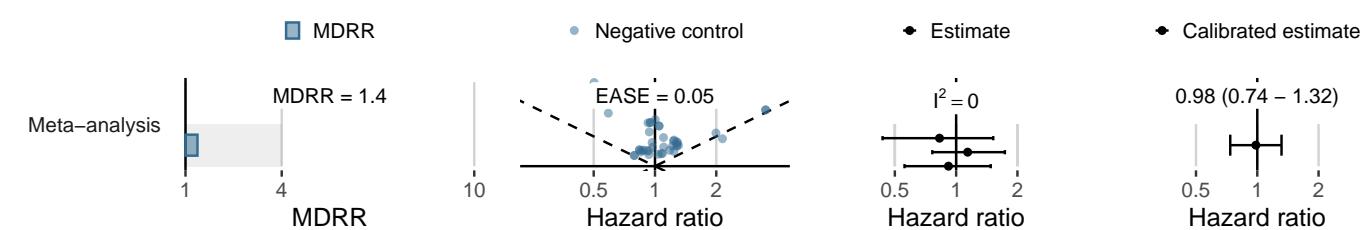
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,524	3,743	36	9.62
Merative MDCD	1,235	764	26	34.04
Merative MDCR	934	826	35	42.37
Optum Clininformatics	11,402	8,952	300	33.51
Optum EHR	6,324	1,238	34	27.46
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



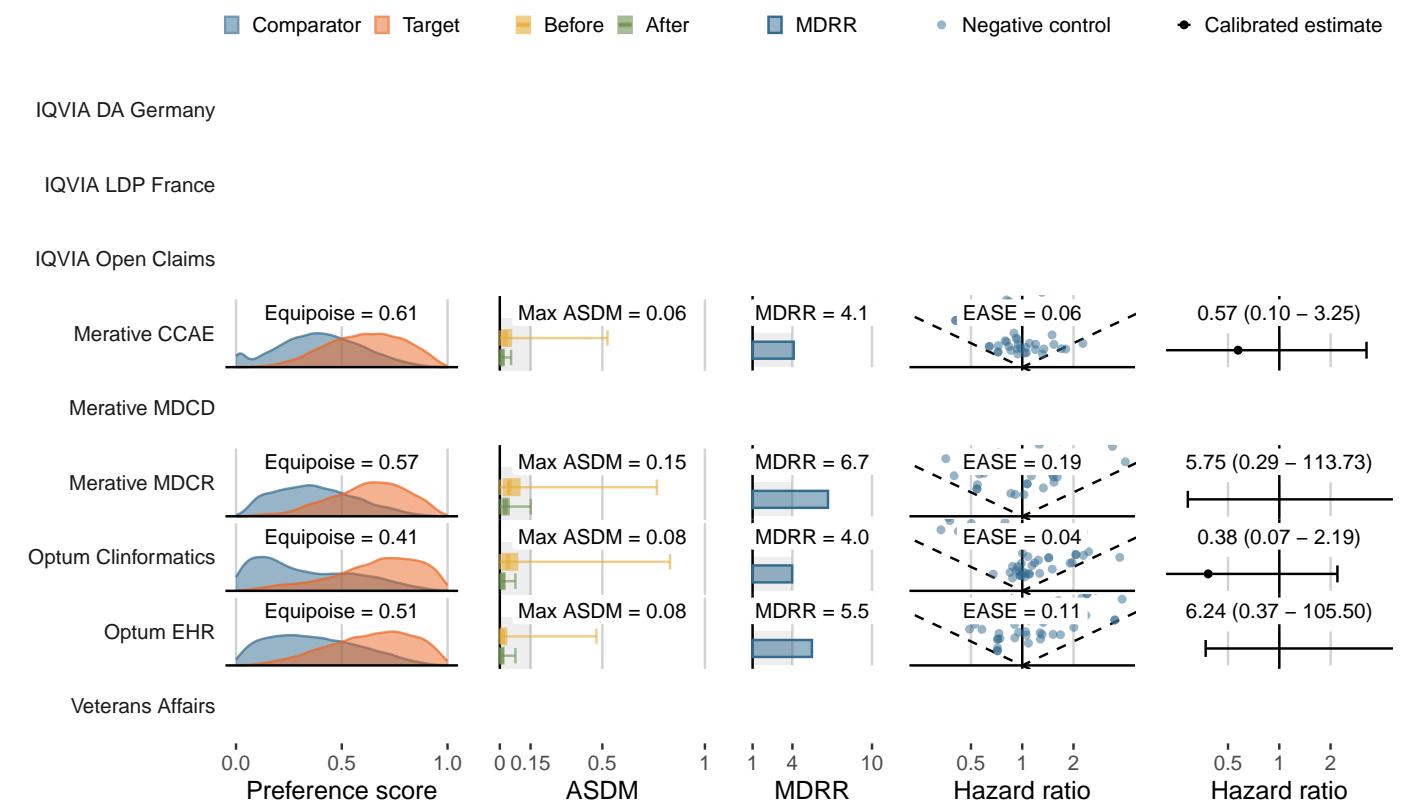
LEGEND-T2DM Evidence Dissemination Summary

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

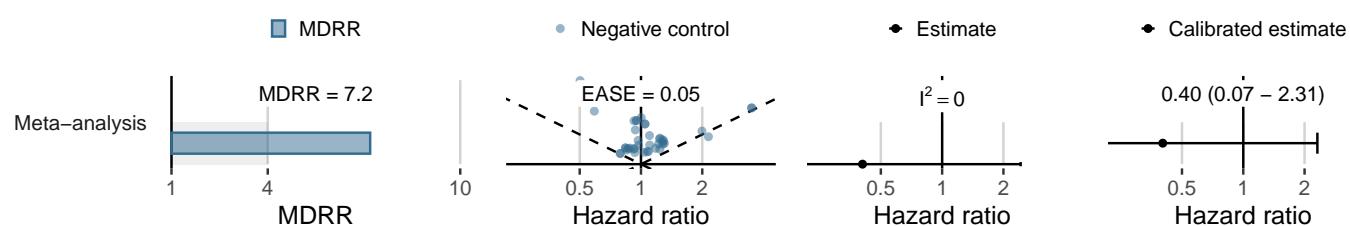
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,624	3,849	5	1.30
Merative MDCD	2,739	1,873	<5	<2.67
Merative MDCR	1,019	943	<5	<5.30
Optum Clininformatics	12,291	9,864	16	1.62
Optum EHR	6,417	1,270	<5	<3.94
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



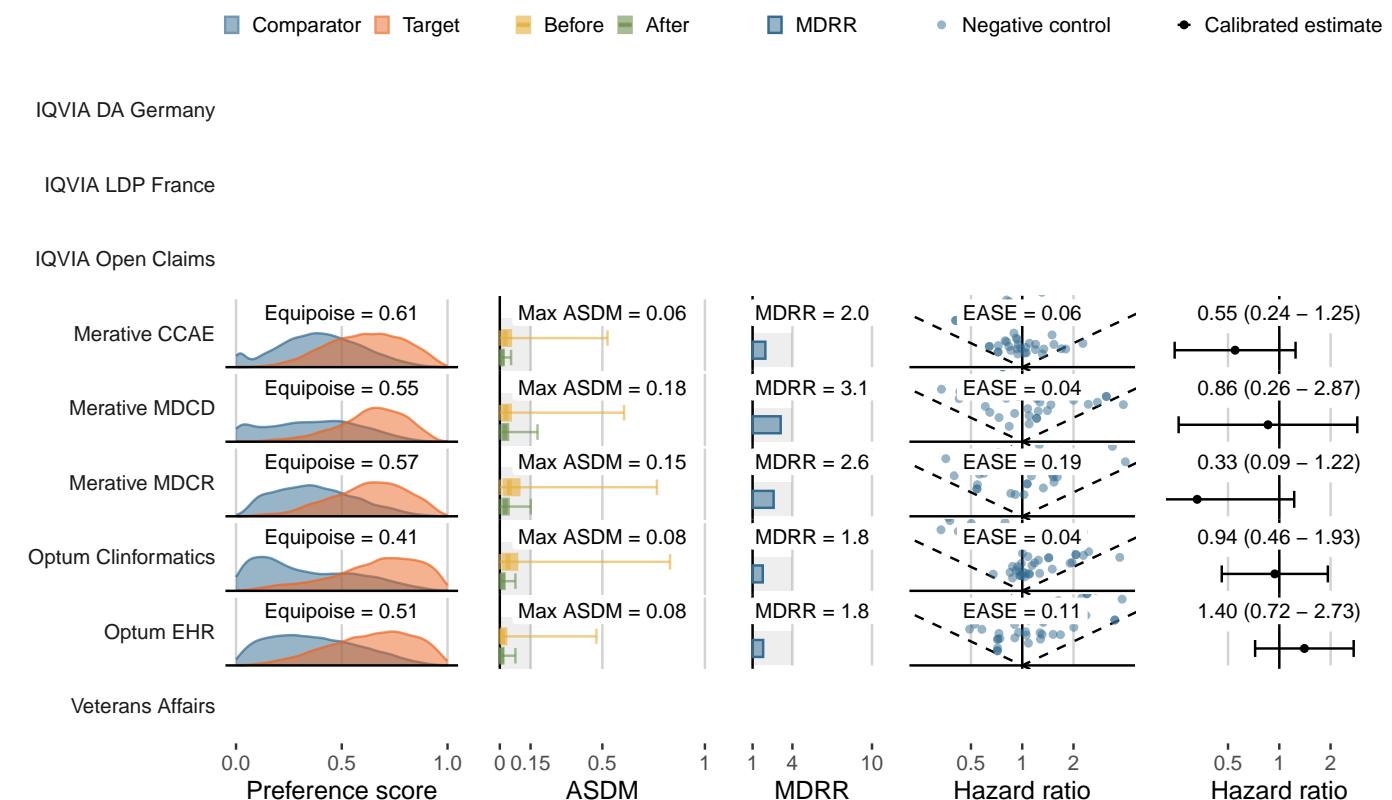
LEGEND-T2DM Evidence Dissemination Summary

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

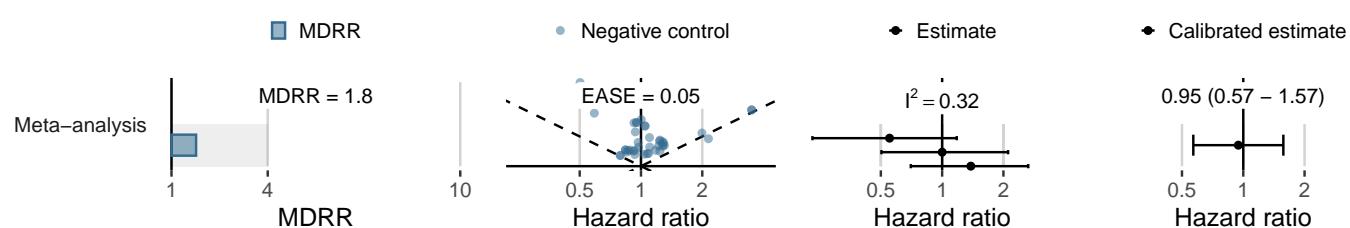
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,512	3,756	18	4.79
Merative MDCD	1,265	793	9	11.36
Merative MDCR	975	903	7	7.75
Optum Clininformatics	11,931	9,497	102	10.74
Optum EHR	6,284	1,221	19	15.56
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



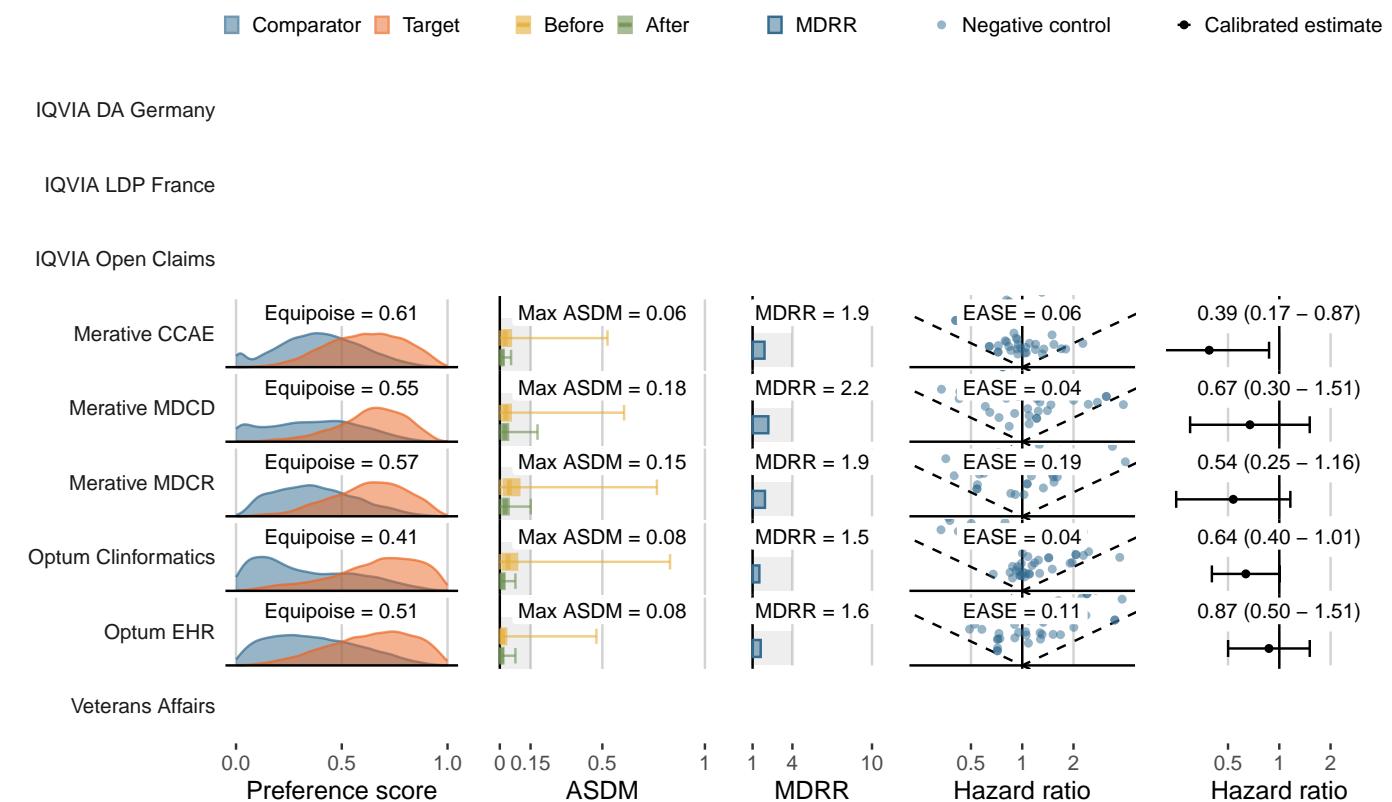
LEGEND-T2DM Evidence Dissemination Summary

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

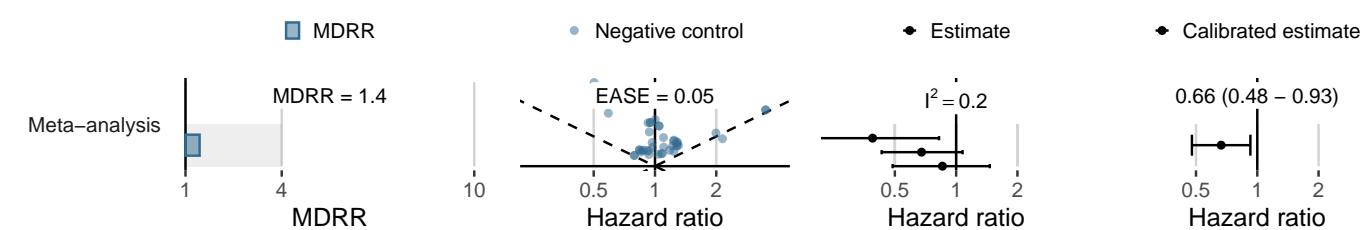
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,521	3,774	19	5.03
Merative MDCD	1,204	743	18	24.23
Merative MDCR	919	839	30	35.76
Optum Clininformatics	11,503	9,109	186	20.42
Optum EHR	6,277	1,221	26	21.29
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



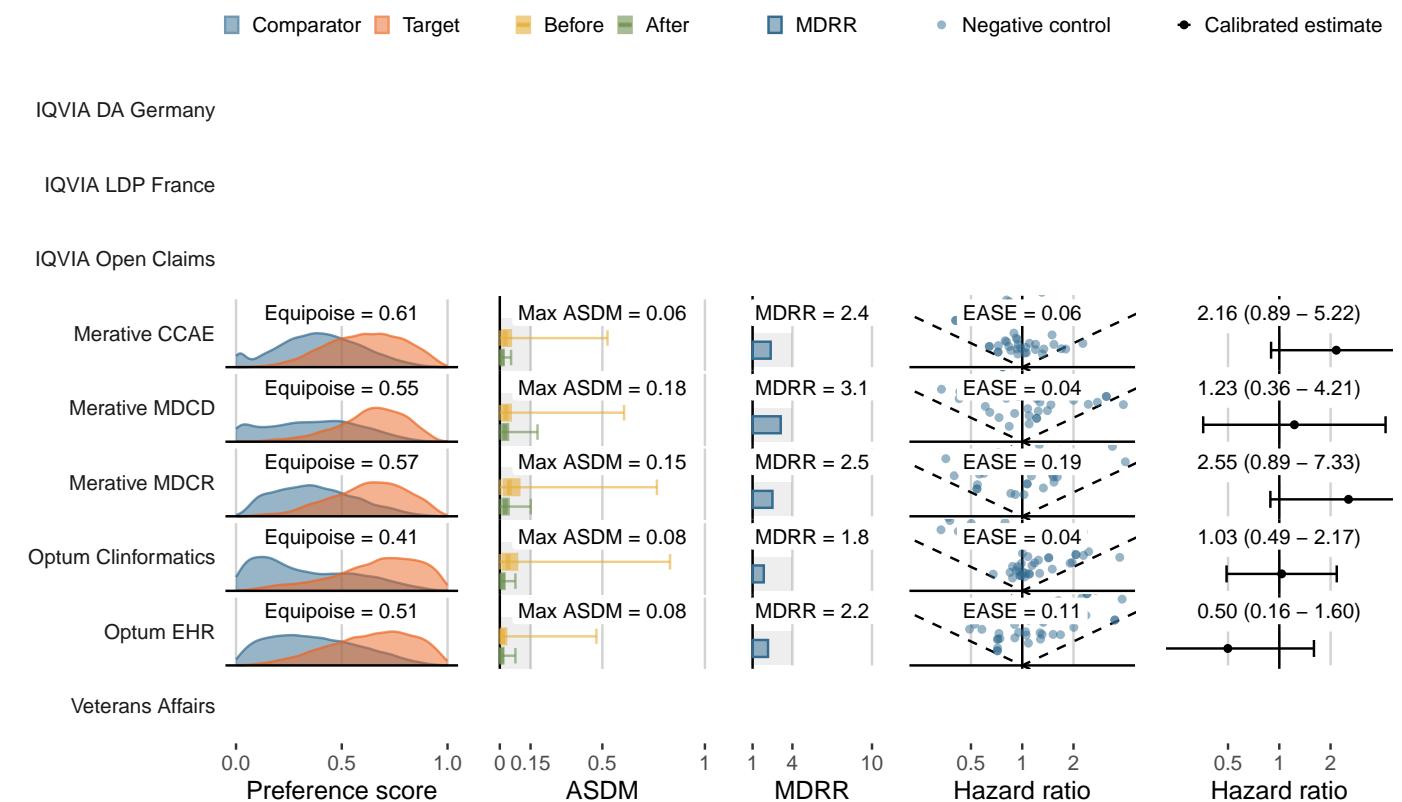
LEGEND-T2DM Evidence Dissemination Summary

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

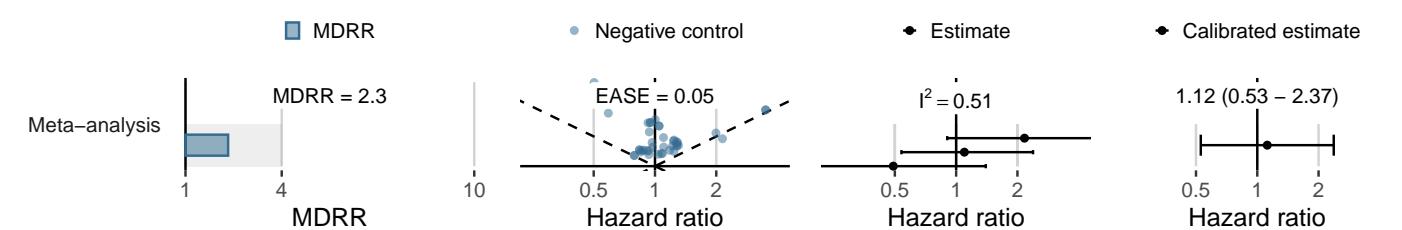
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	-	-	-	-
Merative CCAE	5,576	3,779	20	5.29
Merative MDCD	1,269	795	10	12.58
Merative MDCR	975	883	17	19.25
Optum Clininformatics	11,893	9,544	91	9.54
Optum EHR	6,380	1,260	7	5.55
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



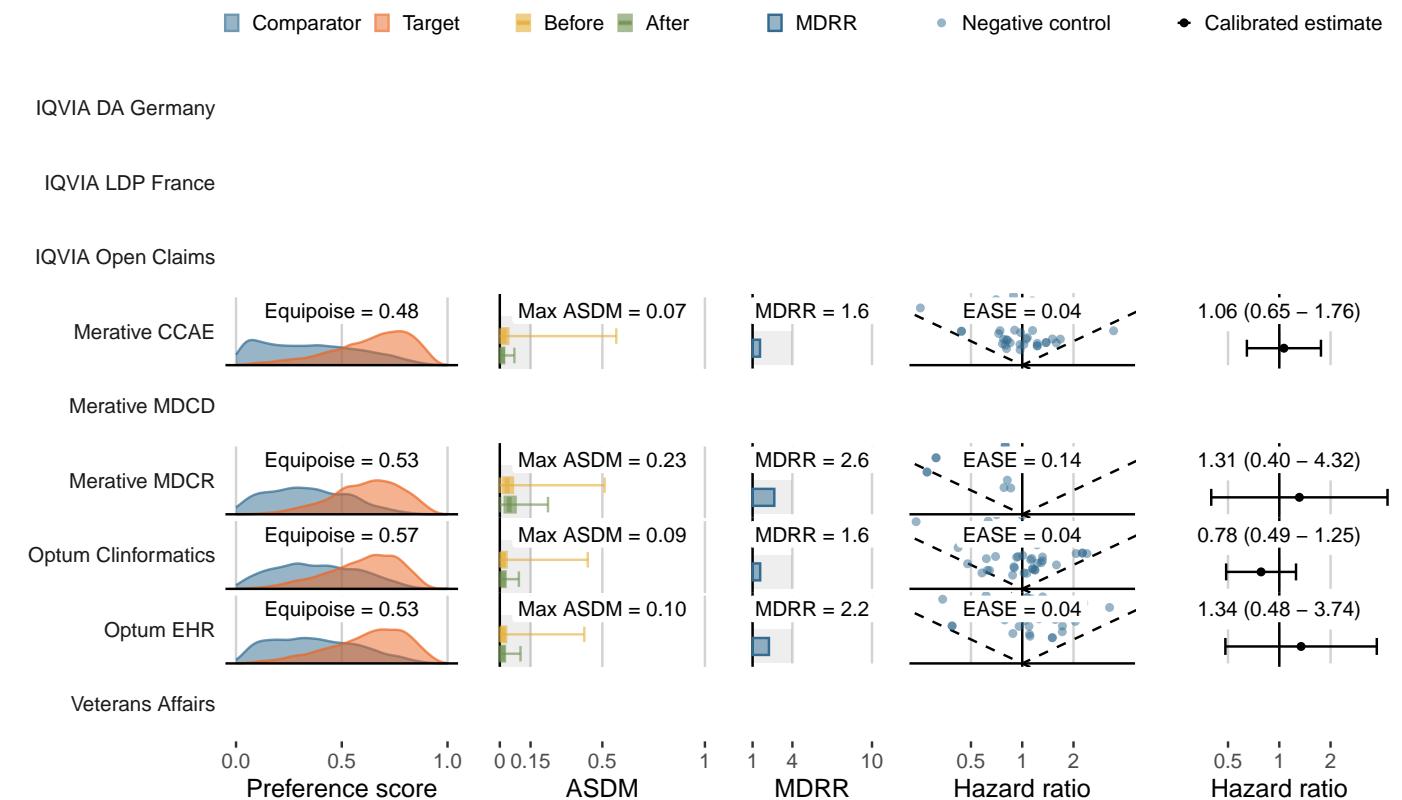
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Bone fracture**

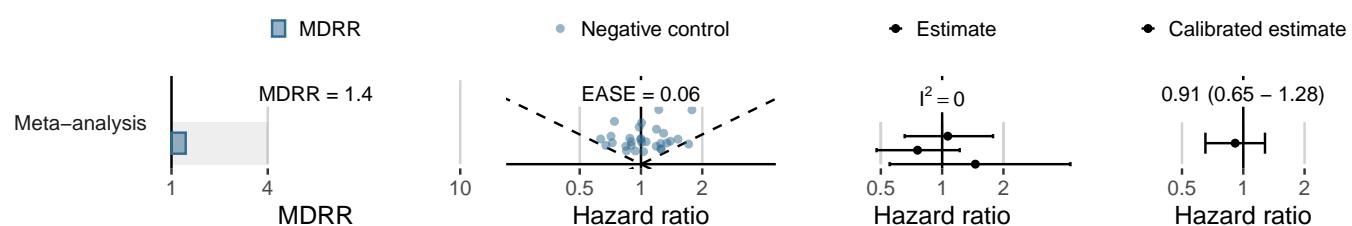
How Often? (Incidence rates in the PS-matched target cohorts)

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	10,670	8,130	157	19.31
Merative MDCD	-	-	-	-
Merative MDCR	1,484	1,398	50	35.77
Optum Clininformatics	9,101	7,894	169	21.41
Optum EHR	5,938	2,100	42	20.00
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



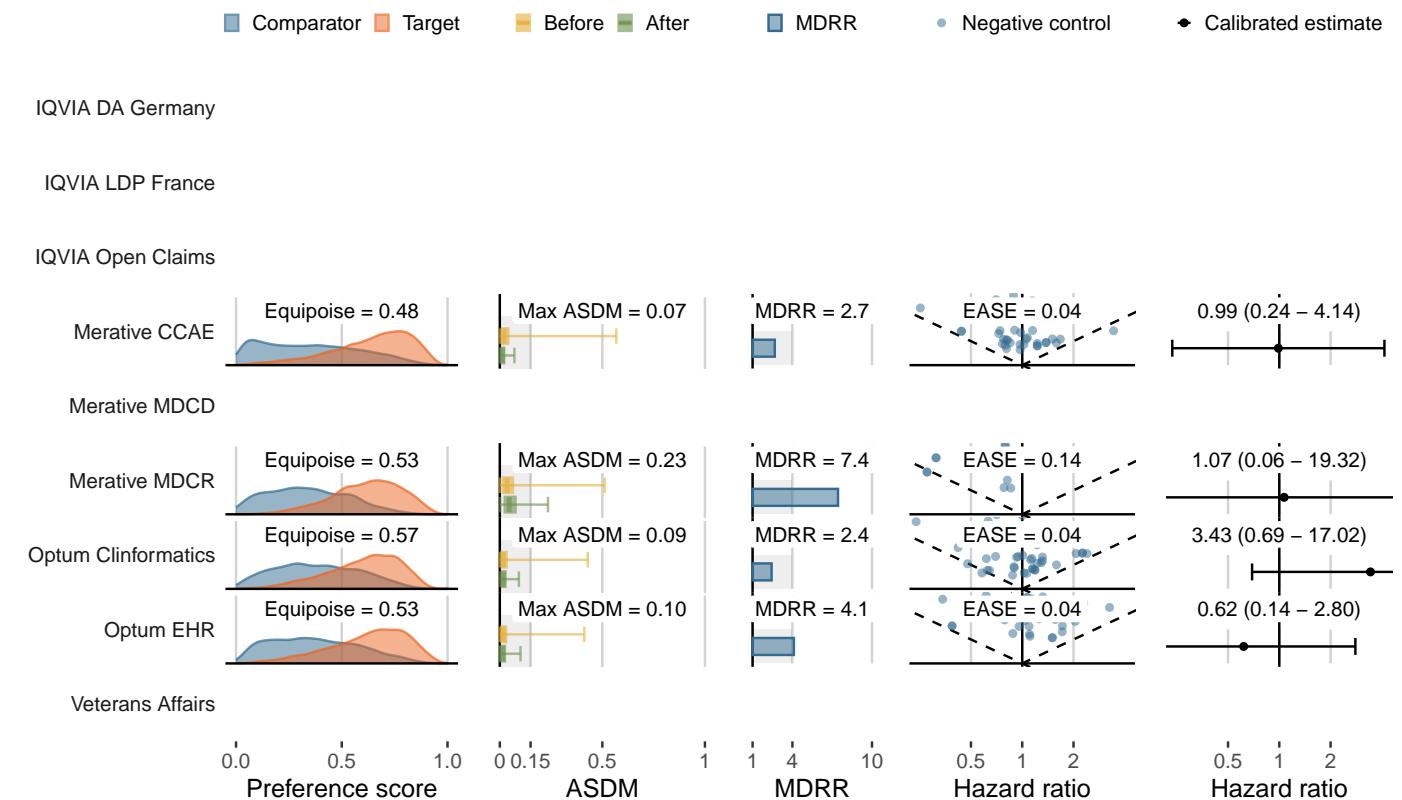
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Acute myocardial infarction**

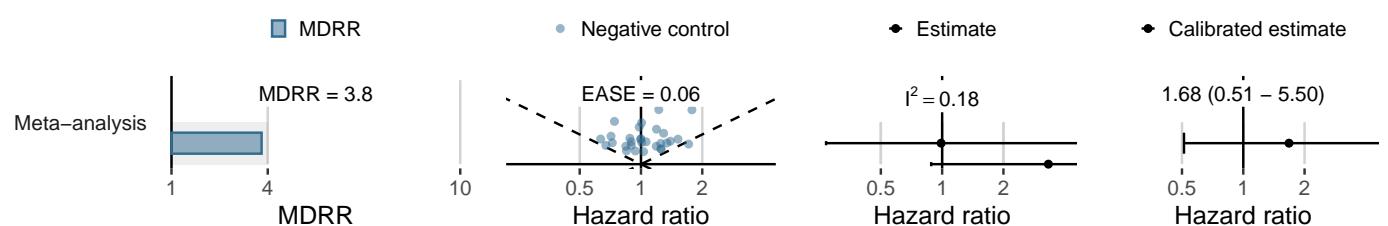
How Often? (Incidence rates in the PS-matched target cohorts)

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	11,332	8,818	36	4.08
Merative MDCD	-	-	-	-
Merative MDCR	1,627	1,561	8	5.12
Optum Clininformatics	9,756	8,591	49	5.70
Optum EHR	6,168	2,213	12	5.42
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



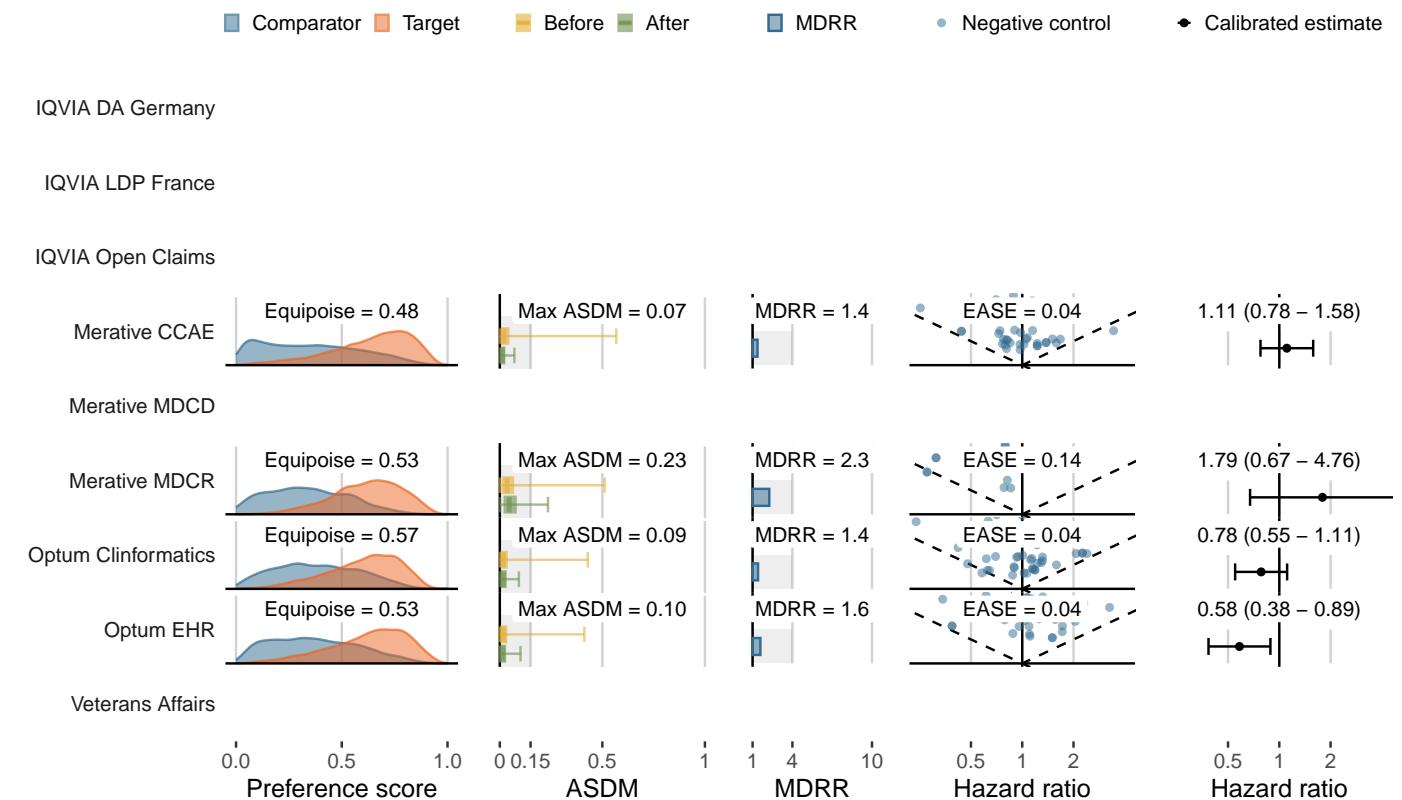
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Genitourinary infection**

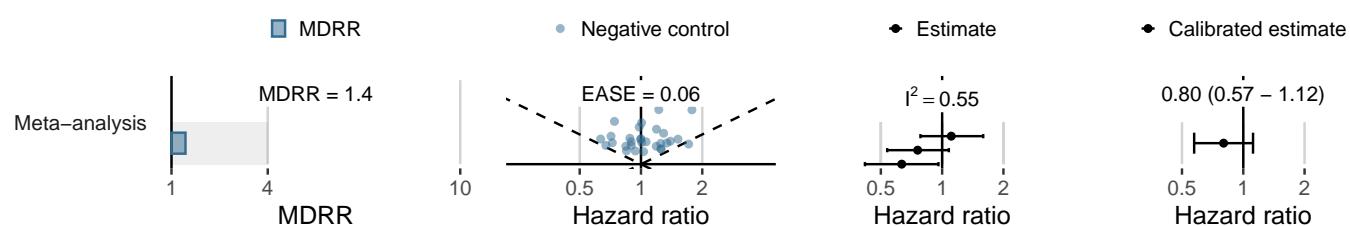
How Often? (Incidence rates in the PS-matched target cohorts)

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	9,291	7,012	325	46.35
Merative MDCD	-	-	-	-
Merative MDCR	1,320	1,217	70	57.51
Optum Clininformatics	7,845	6,654	284	42.68
Optum EHR	5,450	1,855	101	54.44
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



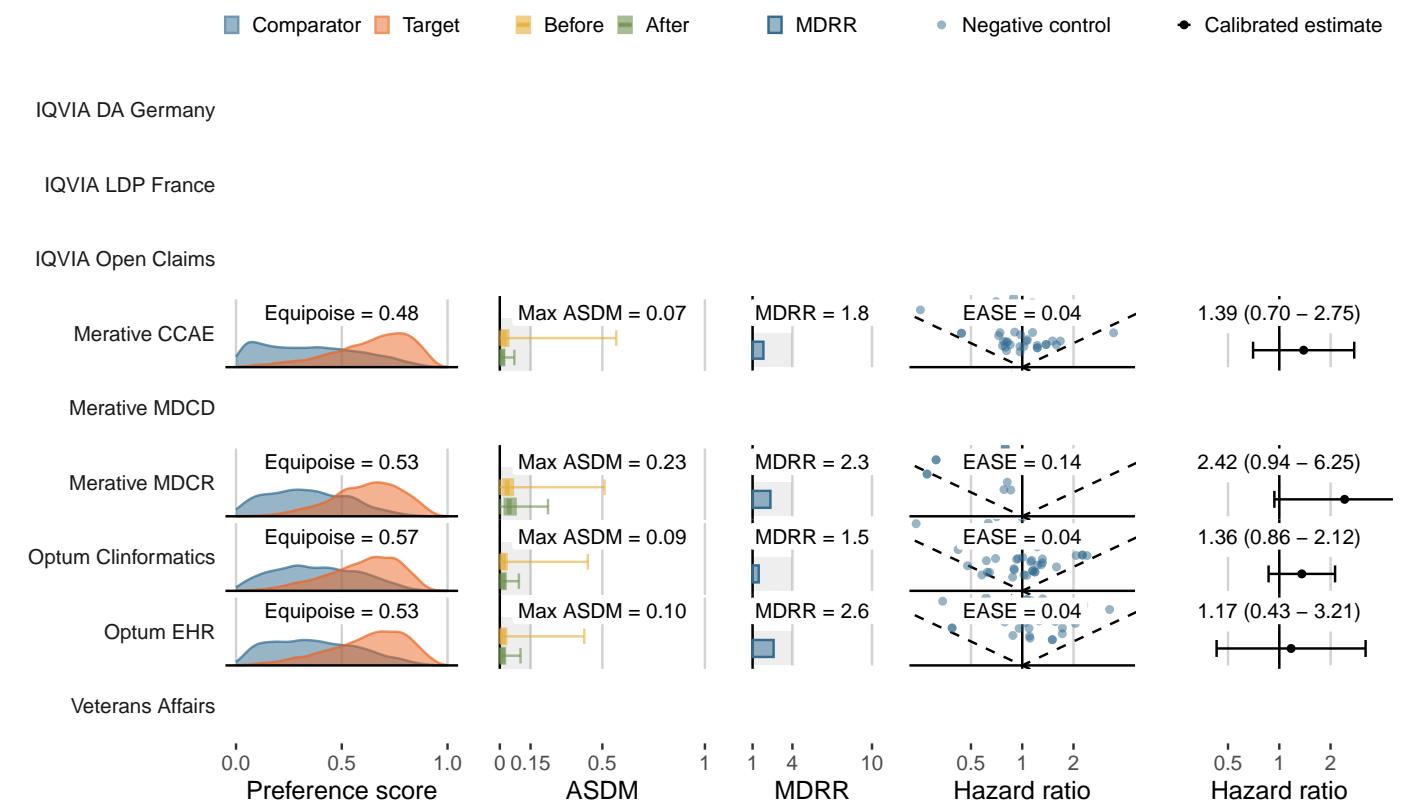
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Joint pain**

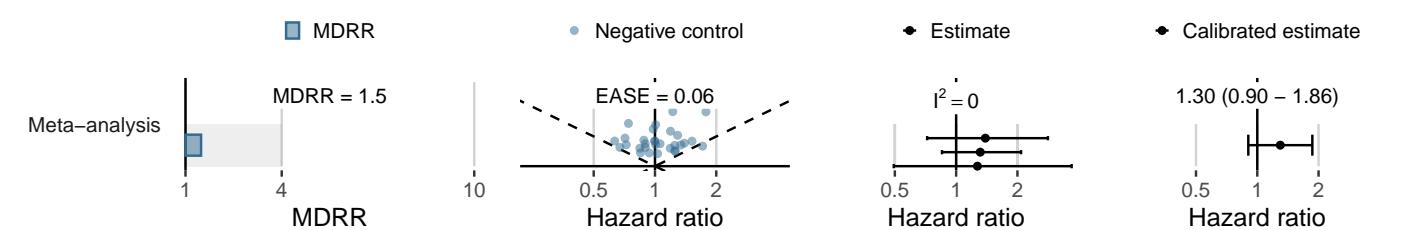
How Often? (Incidence rates in the PS-matched target cohorts)

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	10,989	8,540	87	10.19
Merative MDCD	-	-	-	-
Merative MDCR	1,298	1,185	65	54.87
Optum Clininformatics	7,931	6,686	247	36.94
Optum EHR	5,994	2,125	24	11.29
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



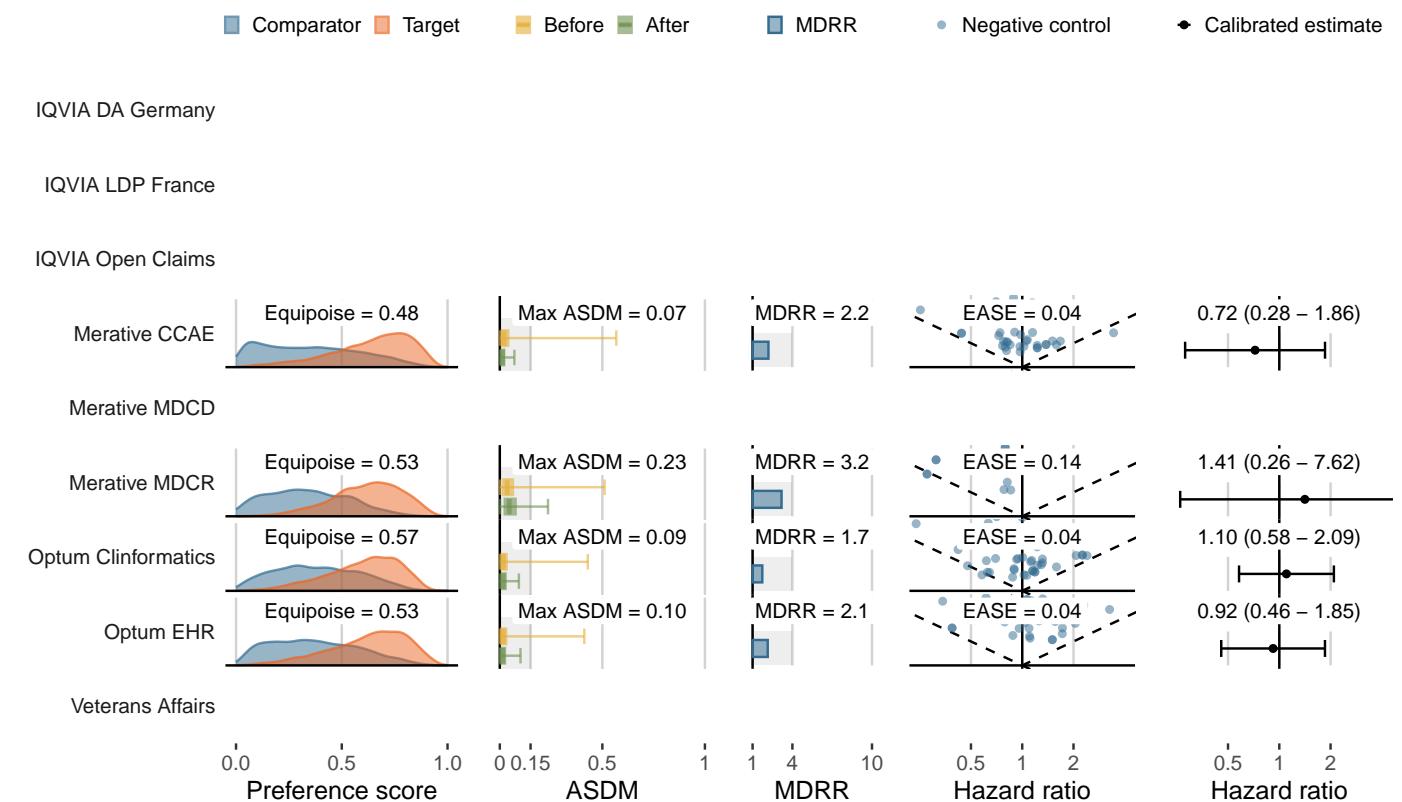
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Acute renal failure**

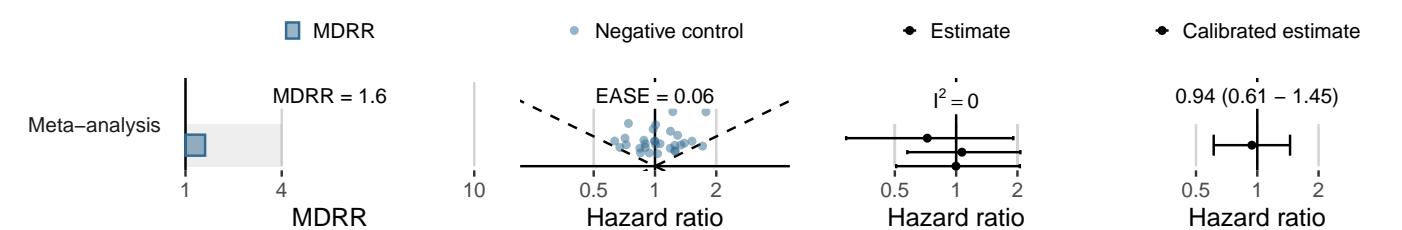
How Often? (Incidence rates in the PS-matched target cohorts)

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	11,400	8,910	54	6.06
Merative MDCD	-	-	-	-
Merative MDCR	1,604	1,537	34	22.12
Optum Clininformatics	9,723	8,571	117	13.65
Optum EHR	6,167	2,199	40	18.19
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



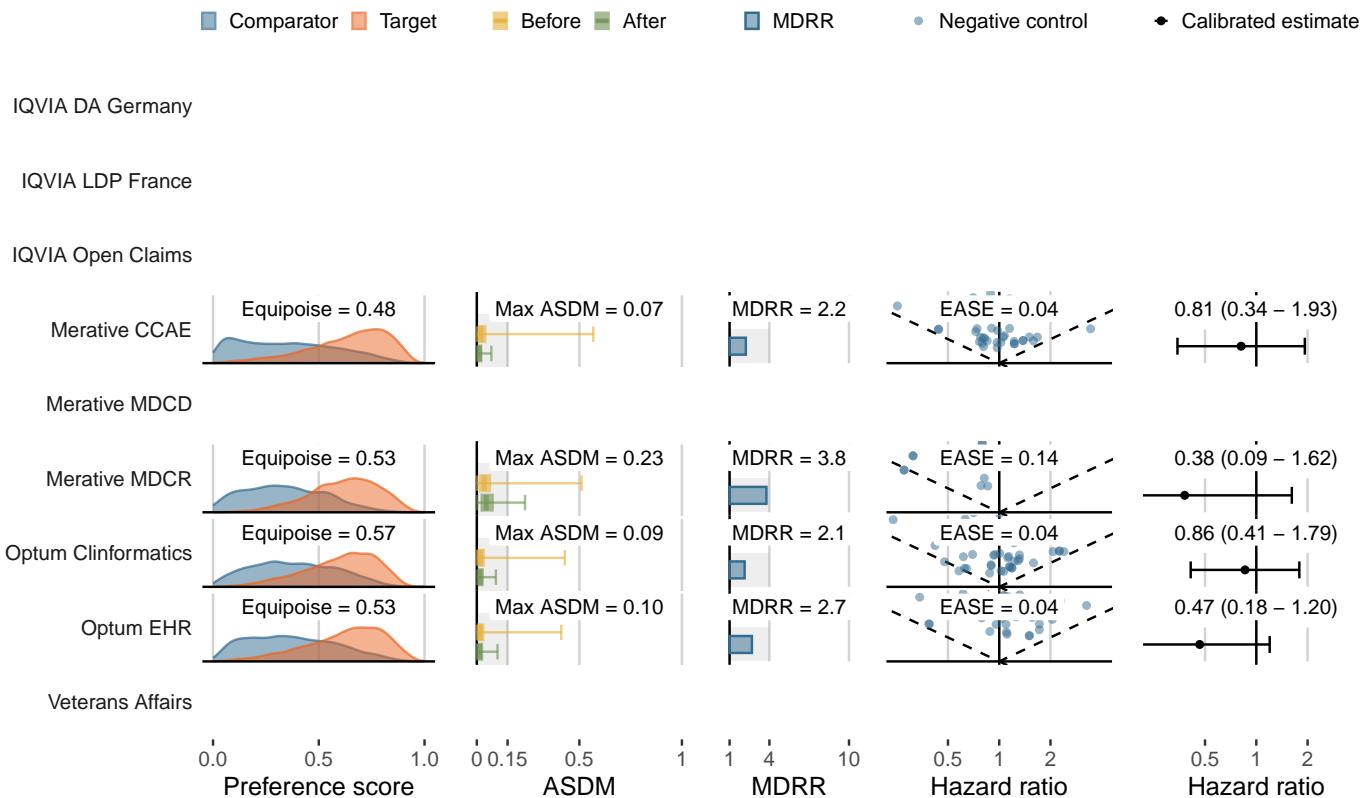
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Venous thromboembolic events**

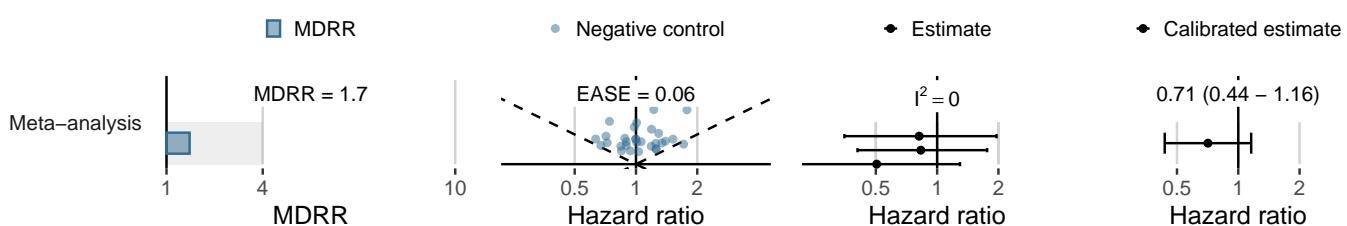
How Often? (Incidence rates in the PS-matched target cohorts)

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	11,299	8,807	51	5.79
Merative MDCD	-	-	-	-
Merative MDCR	1,614	1,523	25	16.42
Optum Clininformatics	9,730	8,570	59	6.88
Optum EHR	6,108	2,182	20	9.16
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



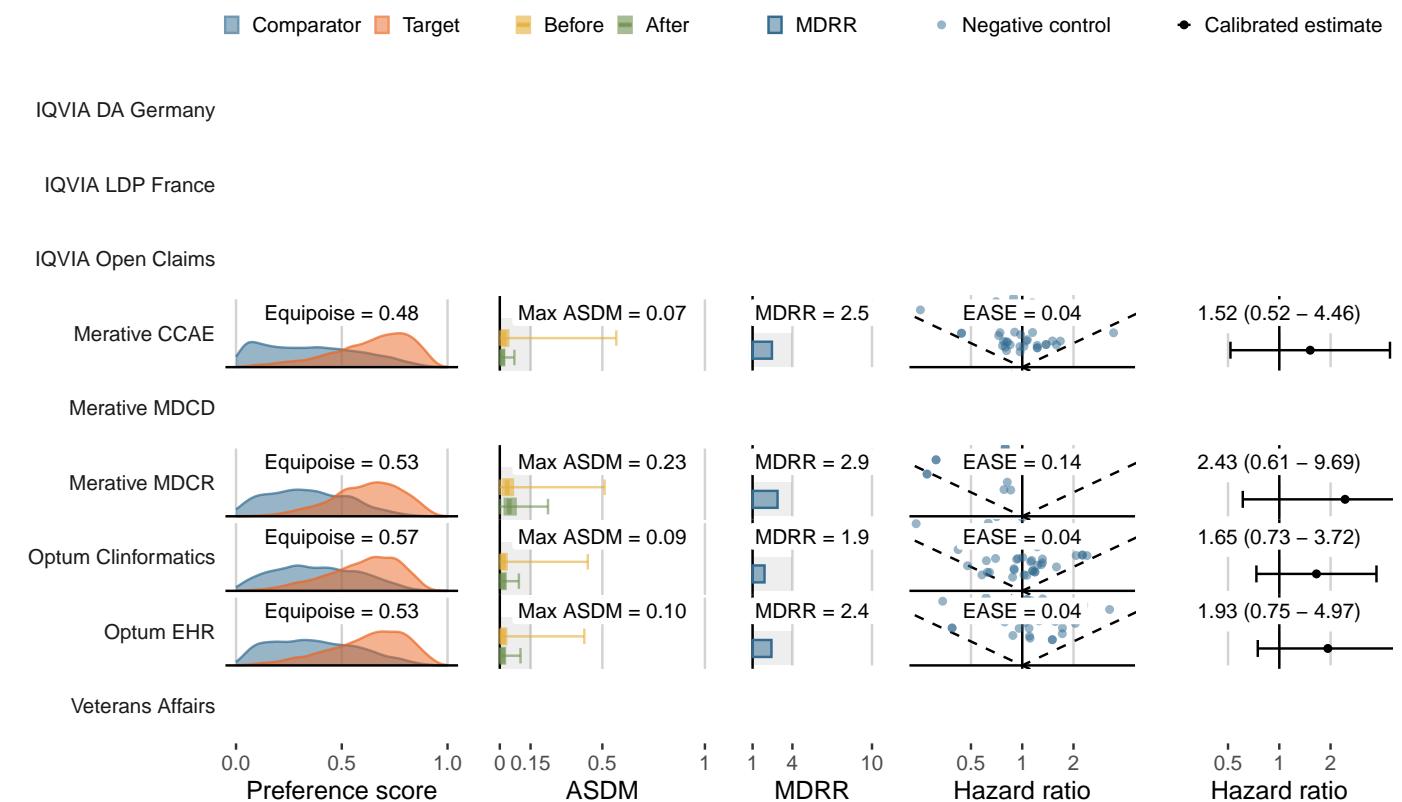
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Hospitalization with heart failure**

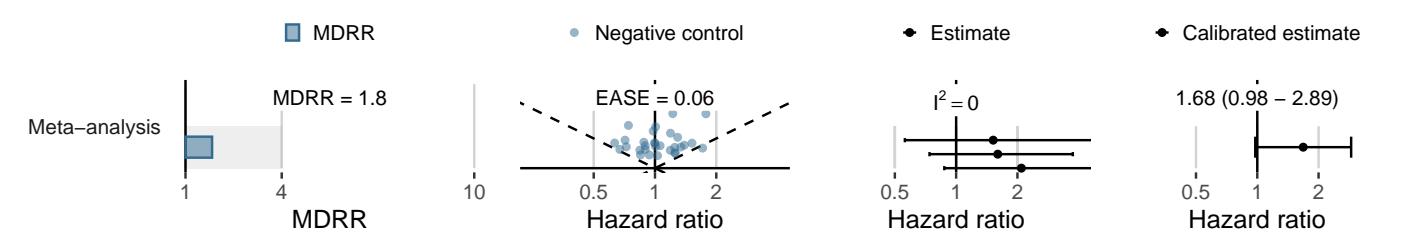
How Often? (Incidence rates in the PS-matched target cohorts)

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	11,345	8,876	43	4.84
Merative MDCD	-	-	-	-
Merative MDCR	1,561	1,493	42	28.12
Optum Clininformatics	9,660	8,491	92	10.84
Optum EHR	6,162	2,197	37	16.84
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): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- 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	11,406	8,933	24	2.69
Merative MDCD	-	-	-	-
Merative MDCR	1,613	1,550	21	13.55
Optum Clininformatics	9,786	8,640	60	6.94
Optum EHR	6,202	2,216	13	5.87
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)

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

IQVIA DA Germany

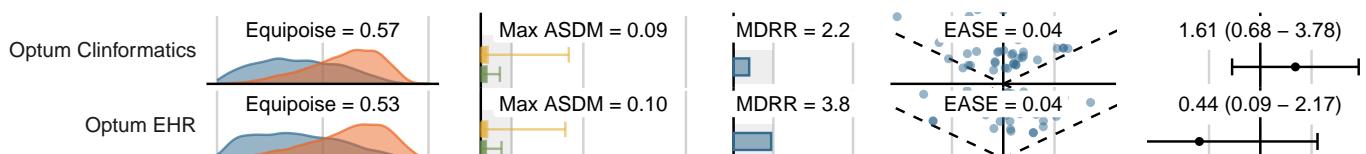
IQVIA LDP France

IQVIA Open Claims



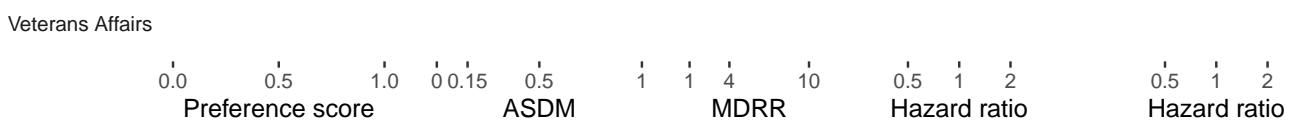
Merative MDCD

Merative MDCR



Optum Clininformatics

Optum EHR

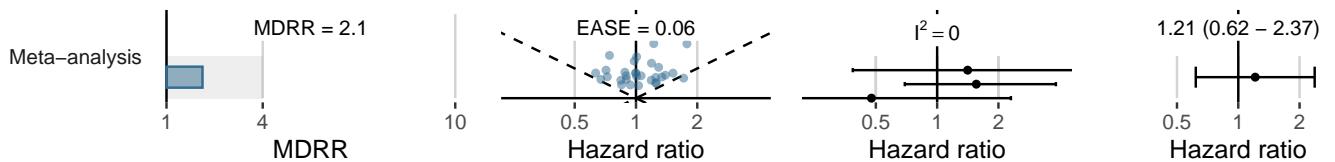


Veterans Affairs



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

■ MDRR ● Negative control ◆ Estimate ◆ Calibrated estimate



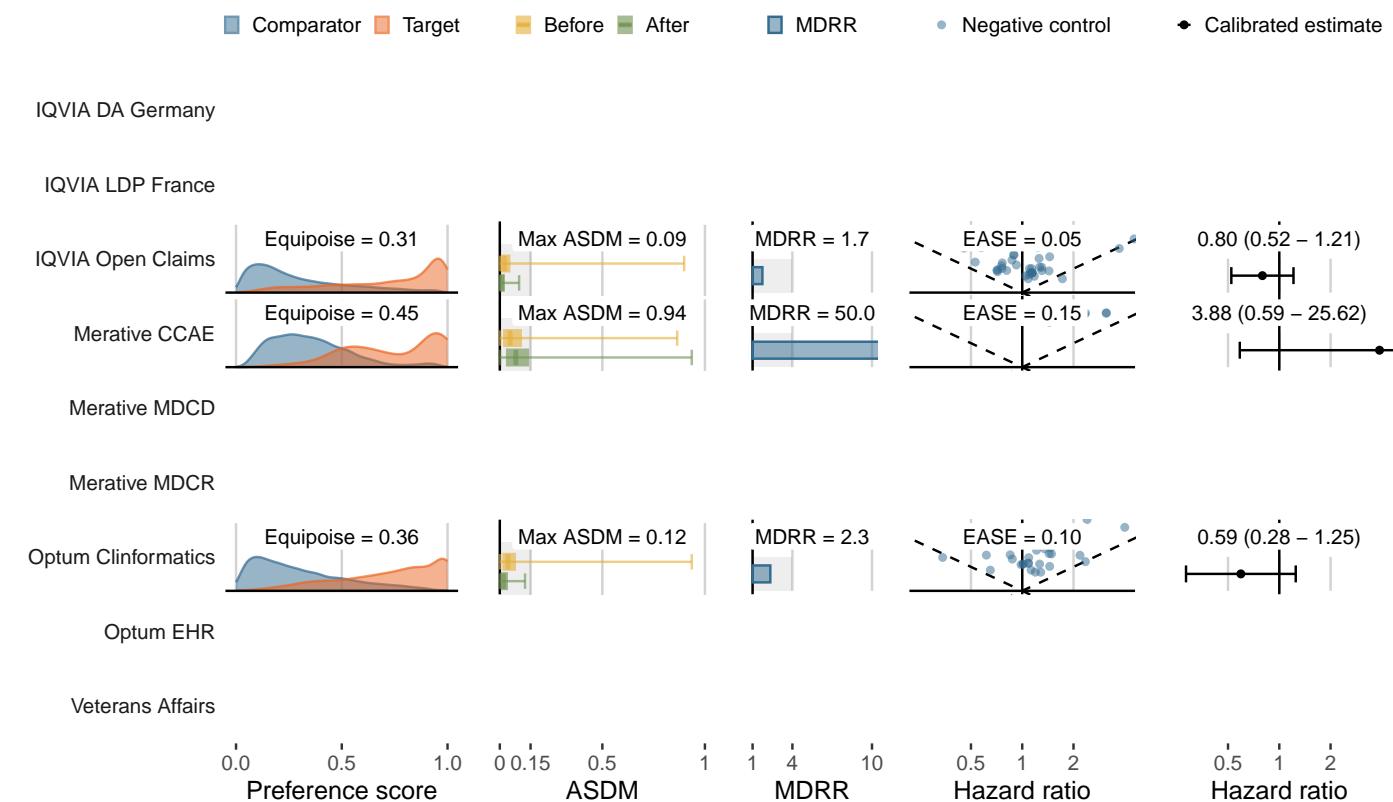
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Bone fracture**

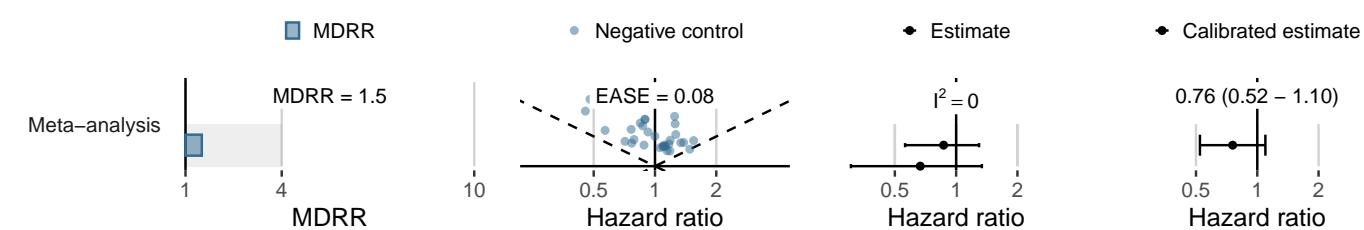
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	4,367	2,777	36	12.96
Merative CCAE	99	52	<5	<96.55
Merative MDCC	-	-	-	-
Merative MDCR	14	11	-	0.00
Optum Clininformatics	1,183	766	12	15.67
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): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- 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	4,920	3,148	18	5.72
Merative CCAE	112	59	-	0.00
Merative MDCD	-	-	-	-
Merative MDCR	15	11	-	0.00
Optum Clininformatics	1,256	824	<5	<6.07
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



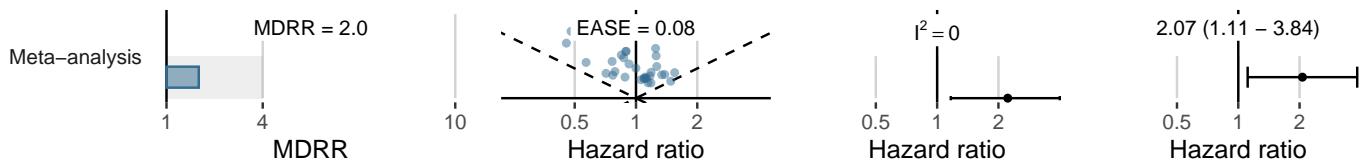
Optum EHR

Veterans Affairs



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

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate



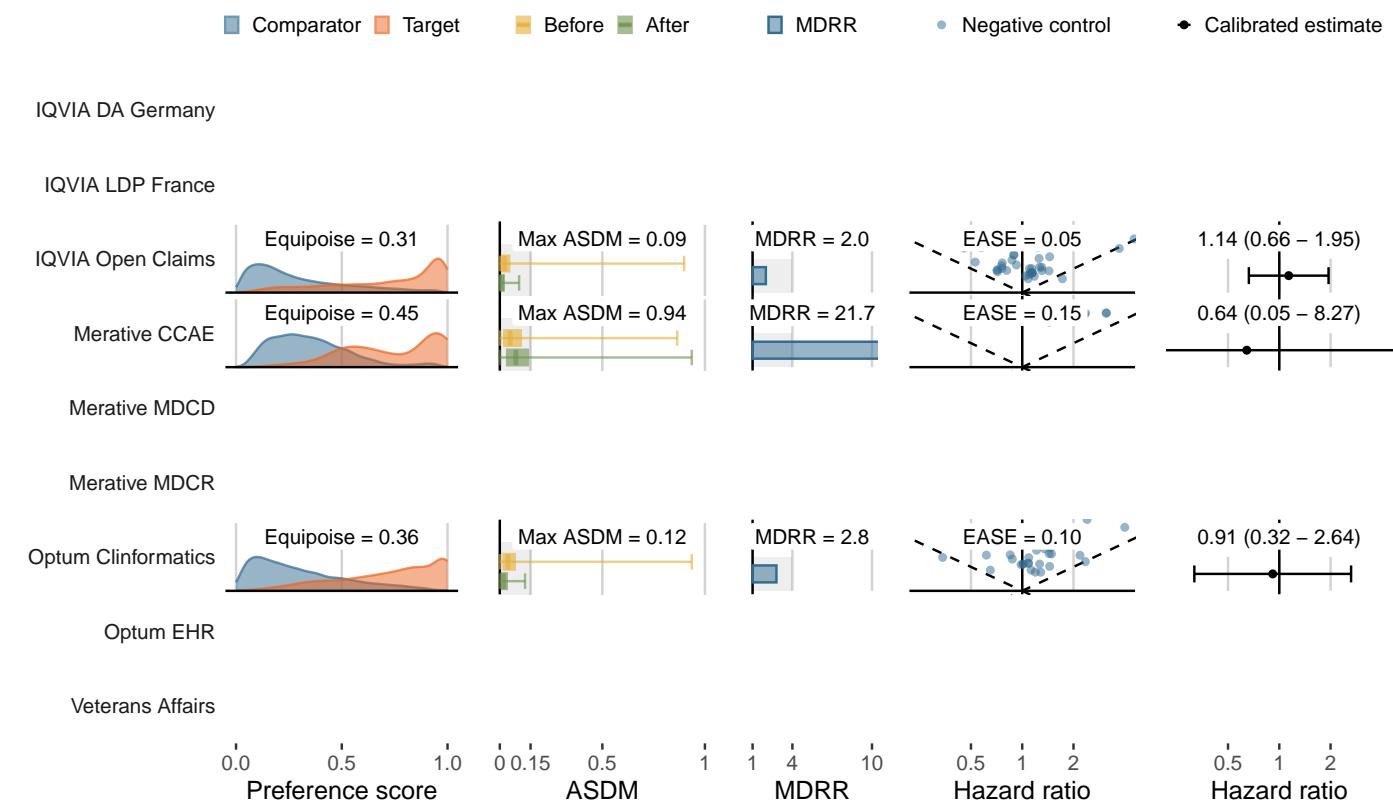
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Joint pain**

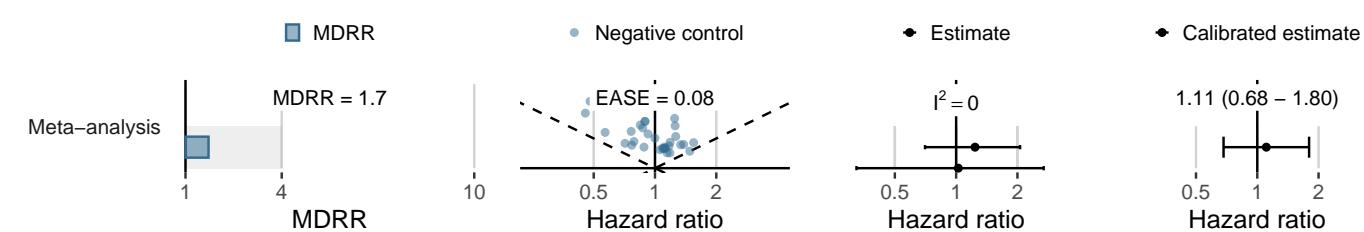
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	4,720	3,008	24	7.98
Merative CCAE	107	55	<5	<90.40
Merative MDCC	-	-	-	-
Merative MDCR	16	11	-	0.00
Optum Clininformatics	1,125	724	9	12.44
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)



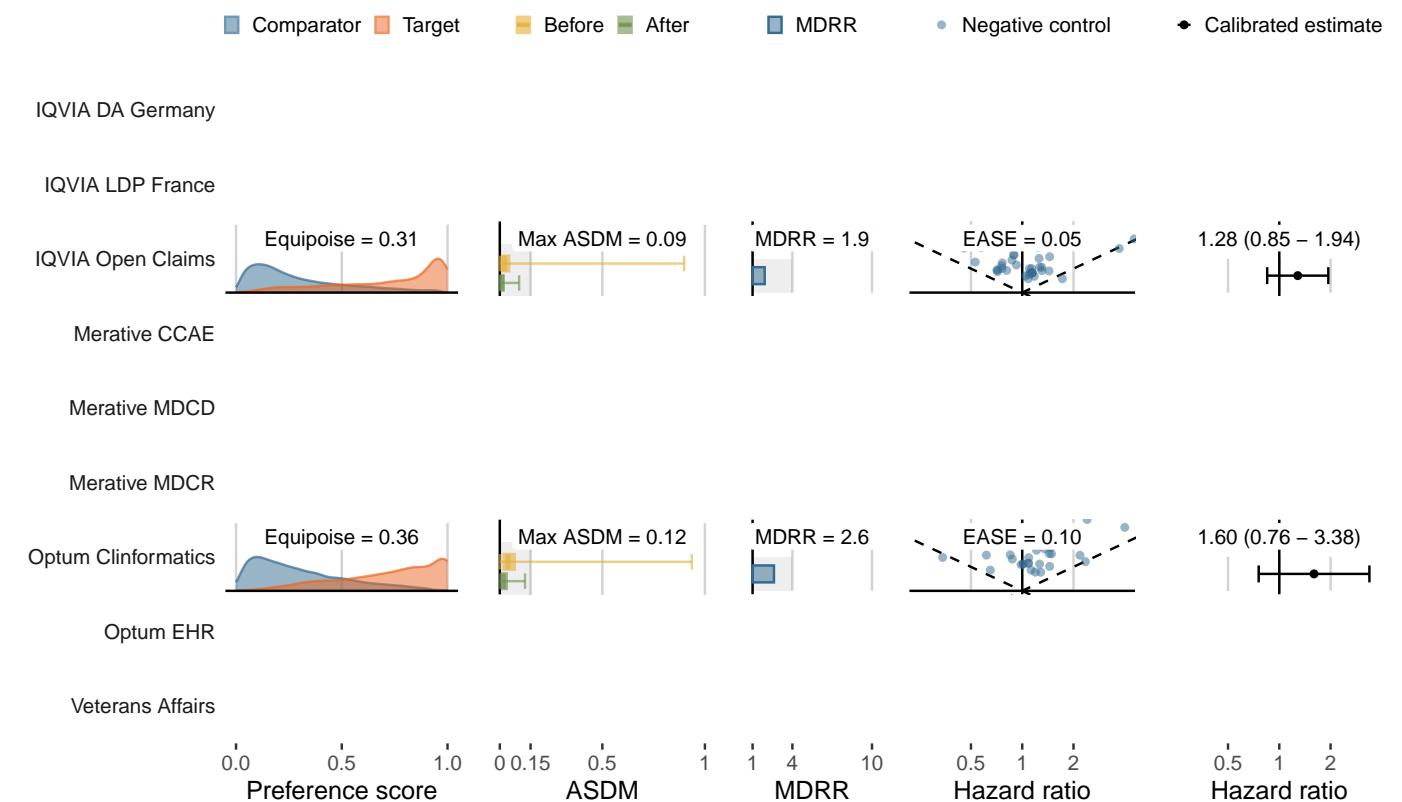
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute renal failure**

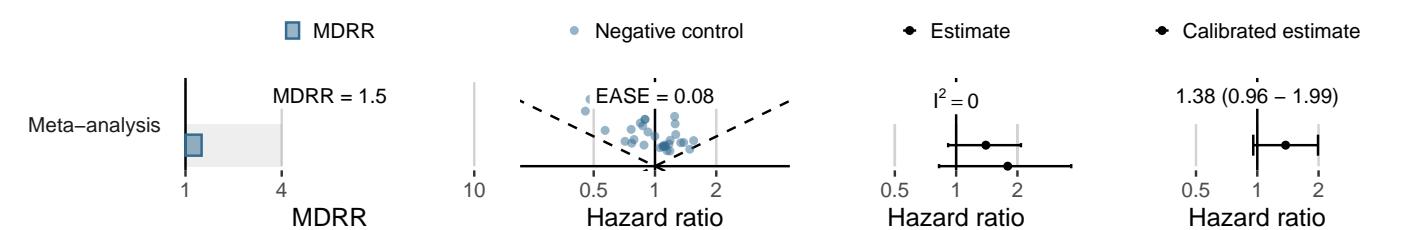
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	4,875	3,102	39	12.57
Merative CCAE	113	60	-	0.00
Merative MDCD	-	-	-	-
Merative MDCR	15	11	<5	<451.71
Optum Clininformatics	1,243	807	15	18.59
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): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- 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	4,883	3,118	9	2.89
Merative CCAE	112	60	-	0.00
Merative MDCD	-	-	-	-
Merative MDCR	16	11	<5	<454.97
Optum Clininformatics	1,250	810	6	7.41
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



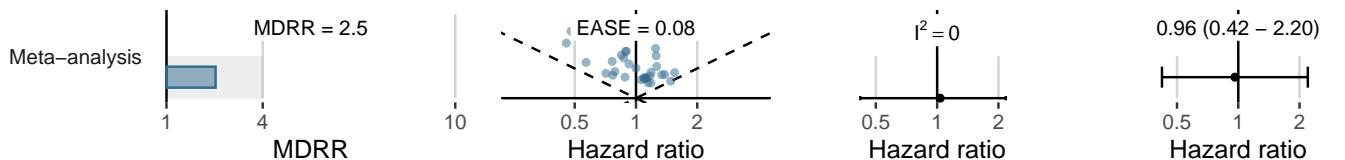
Optum EHR

Veterans Affairs

0.0 0.5 1.0 0.015 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



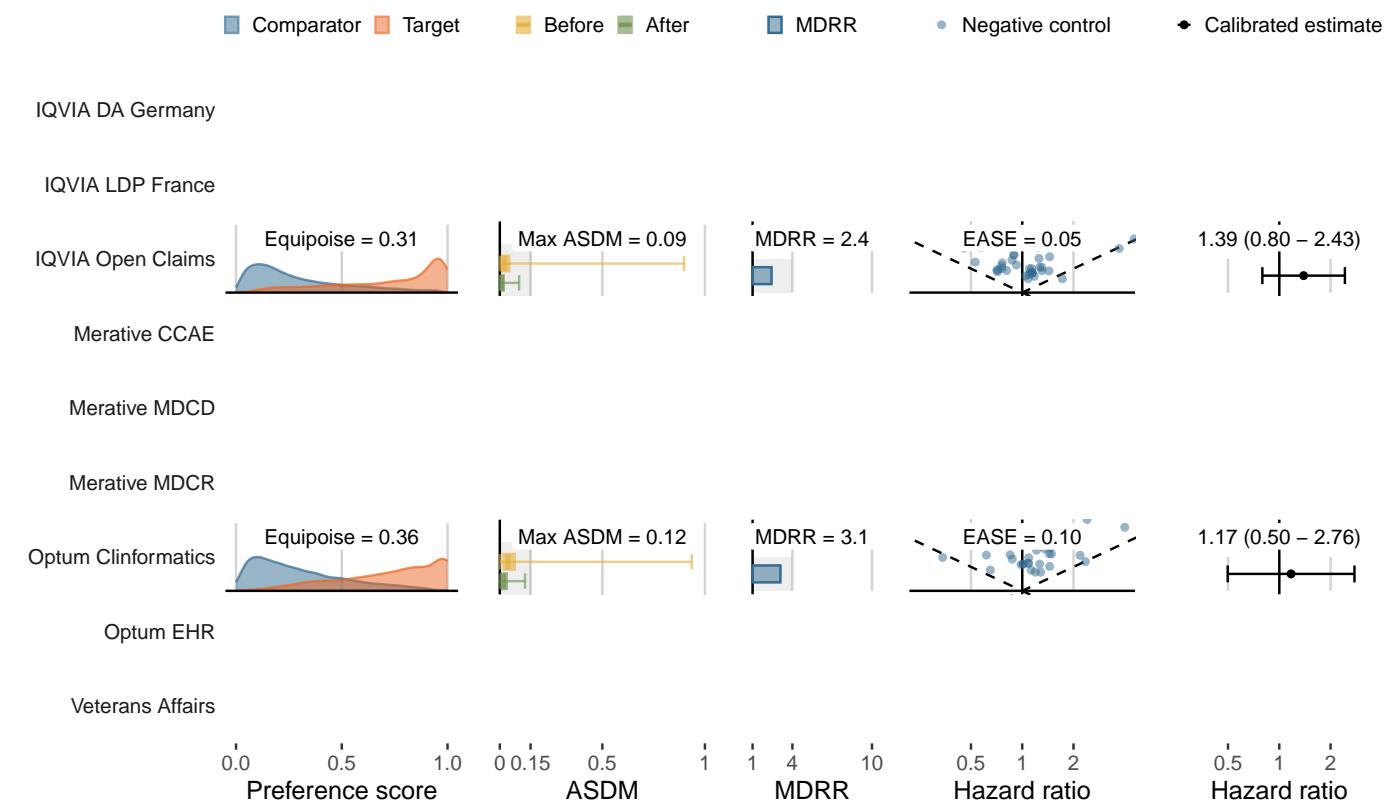
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Hospitalization with heart failure**

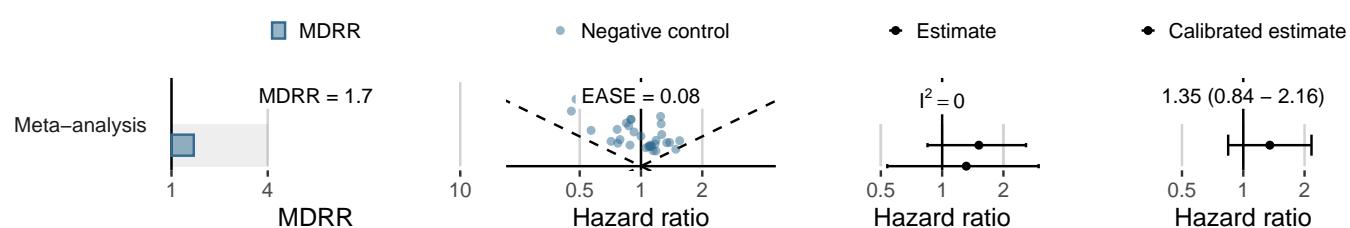
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	4,867	3,131	22	7.03
Merative CCAE	110	56	-	0.00
Merative MDCD	-	-	-	-
Merative MDCR	15	10	<5	<509.27
Optum Clininformatics	1,251	813	11	13.54
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)



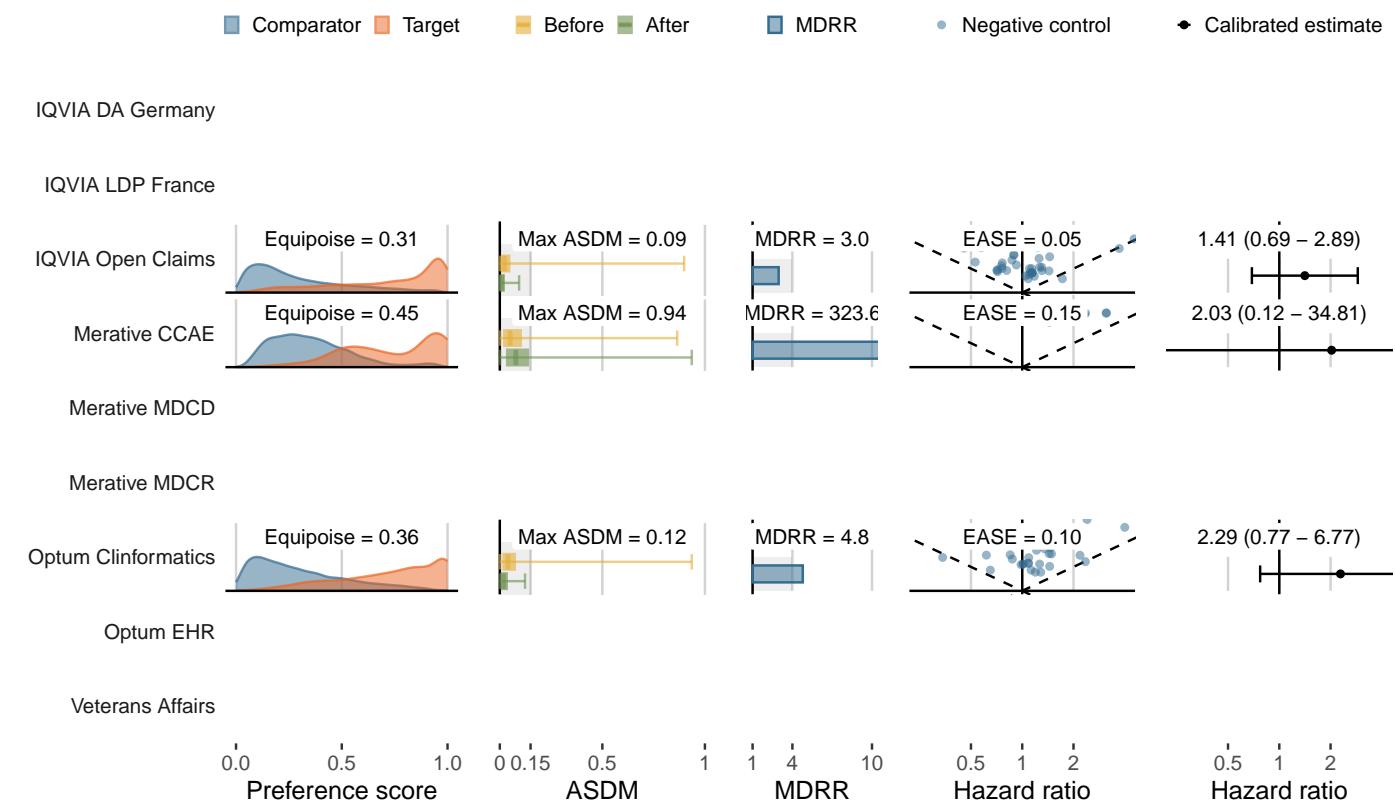
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Stroke**

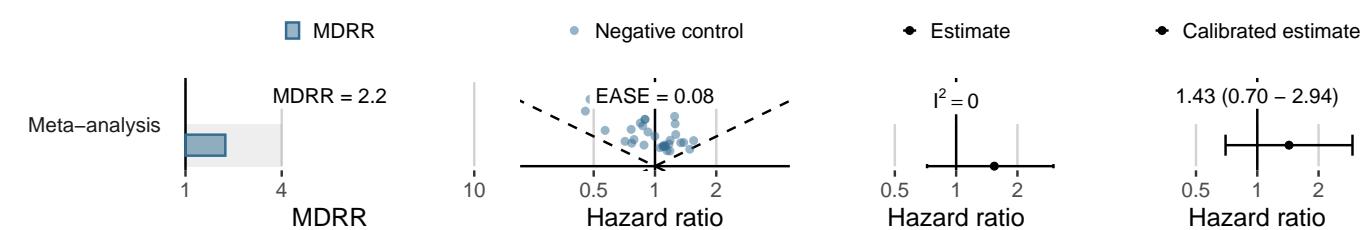
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	4,932	3,155	14	4.44
Merative CCAE	111	57	<5	<87.94
Merative MDCC	-	-	-	-
Merative MDCR	16	11	-	0.00
Optum Clininformatics	1,272	829	6	7.24
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)



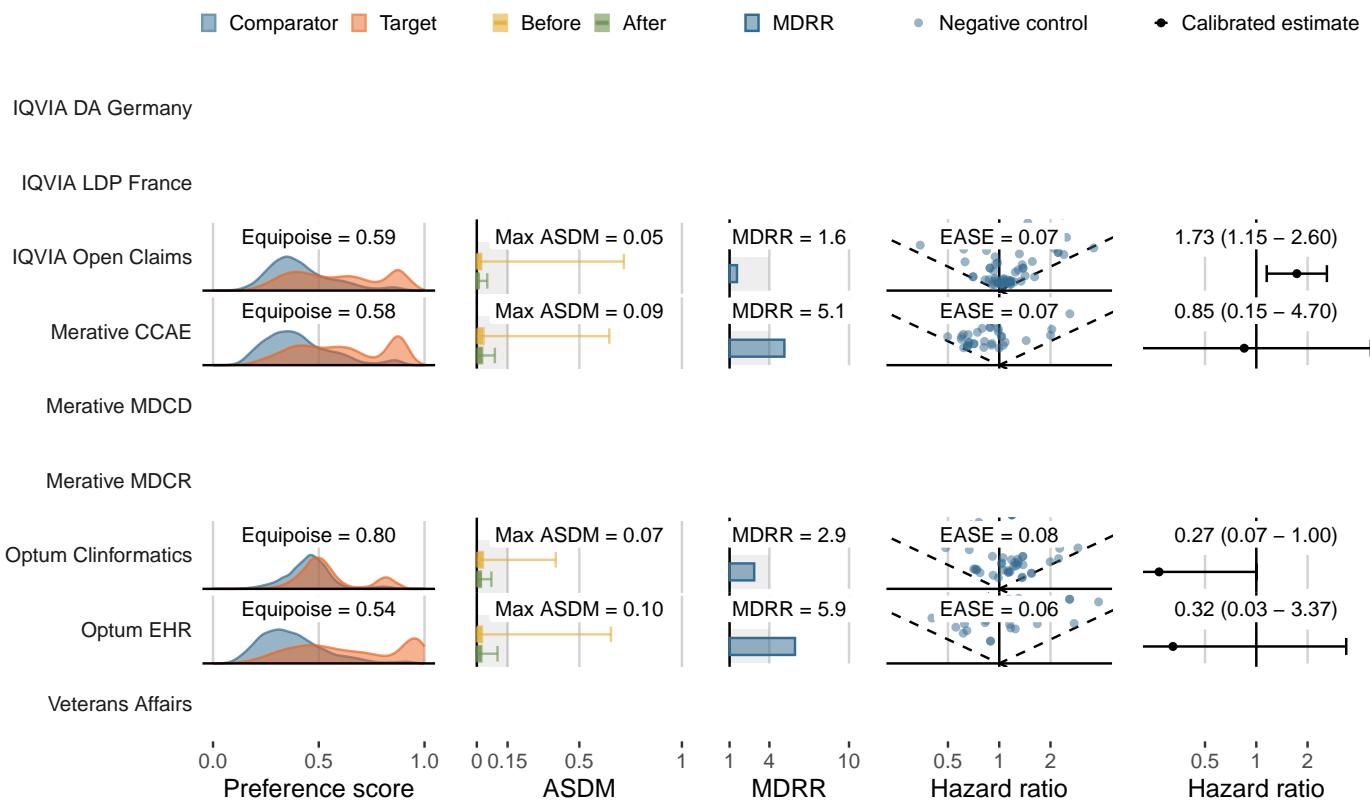
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

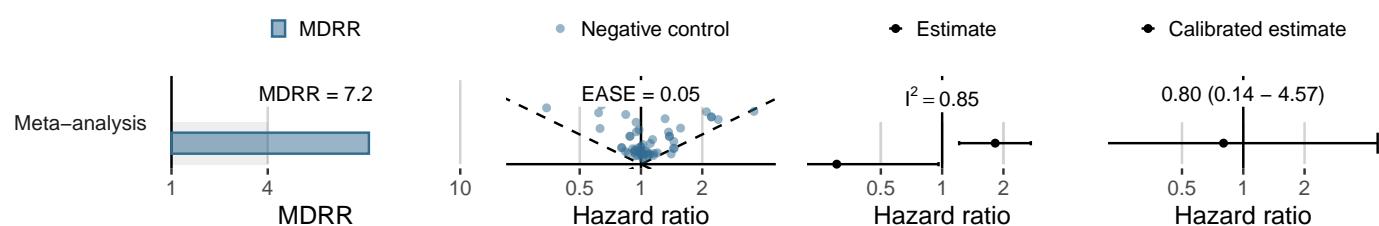
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,863	29,635	78	2.63
Merative CCAE	2,794	2,007	<5	<2.49
Merative MDCD	-	-	-	-
Merative MDCR	407	318	<5	<15.73
Optum Clininformatics	5,119	4,395	9	2.05
Optum EHR	3,245	1,219	<5	<4.10
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



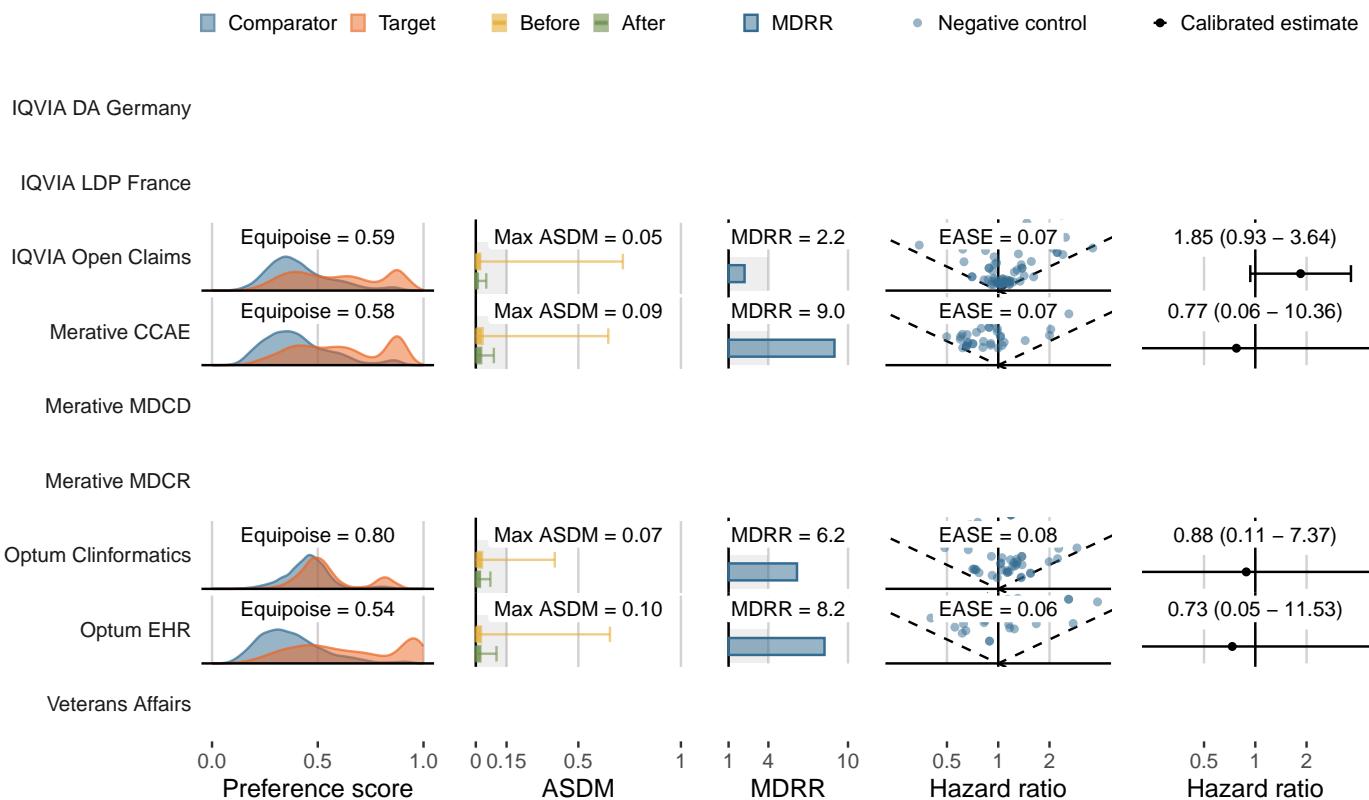
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

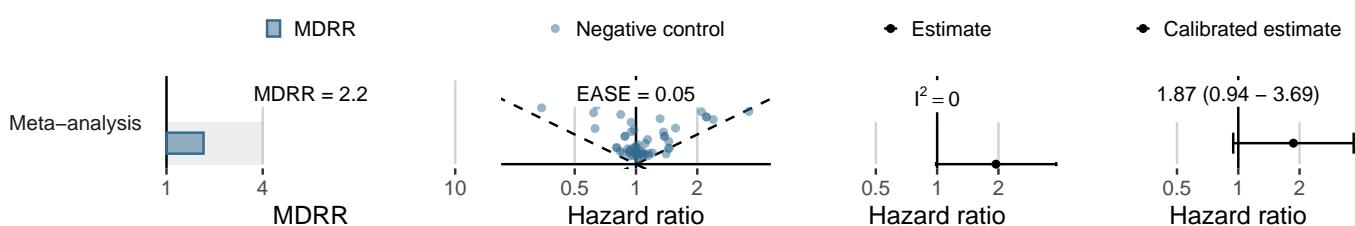
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	39,096	29,785	32	1.07
Merative CCAE	2,813	2,015	<5	<2.48
Merative MDCD	-	-	-	-
Merative MDCR	406	321	<5	<15.57
Optum Clininformatics	5,148	4,426	<5	<1.13
Optum EHR	3,247	1,220	<5	<4.10
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



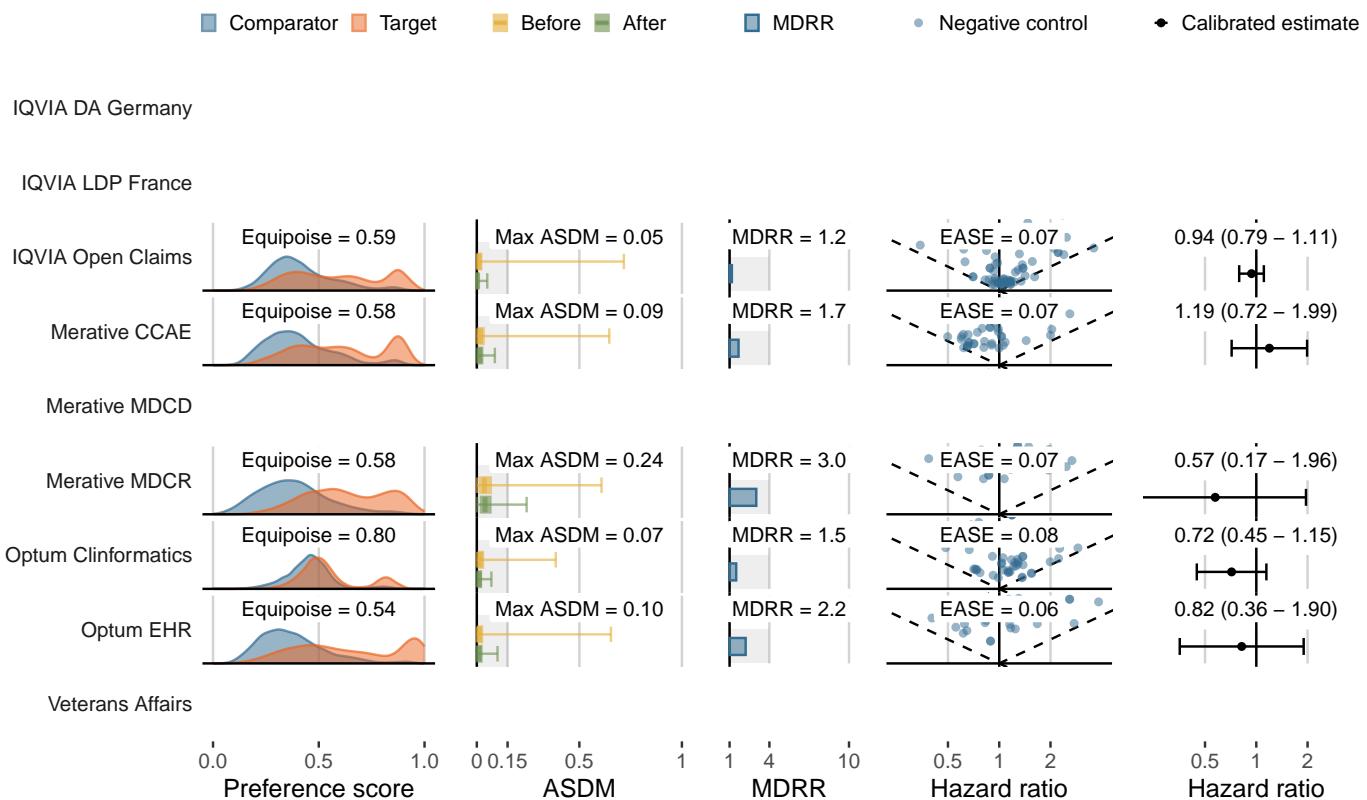
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

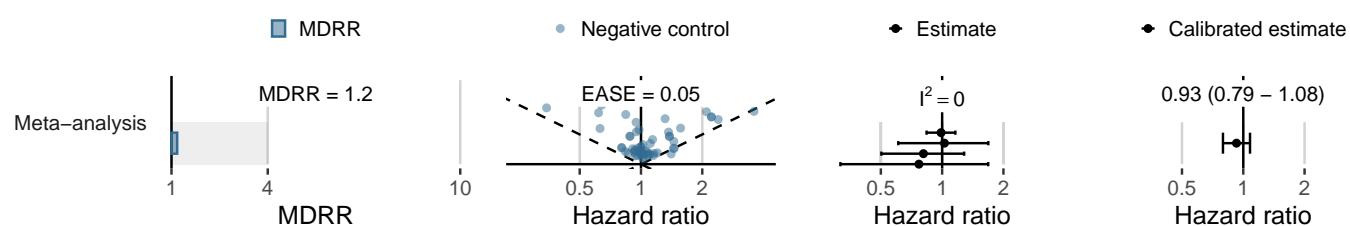
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	35,116	26,381	429	16.26
Merative CCAE	2,574	1,821	39	21.42
Merative MDCC	-	-	-	-
Merative MDCR	362	295	<5	<16.94
Optum Clininformatics	4,696	3,923	78	19.88
Optum EHR	3,080	1,150	20	17.39
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



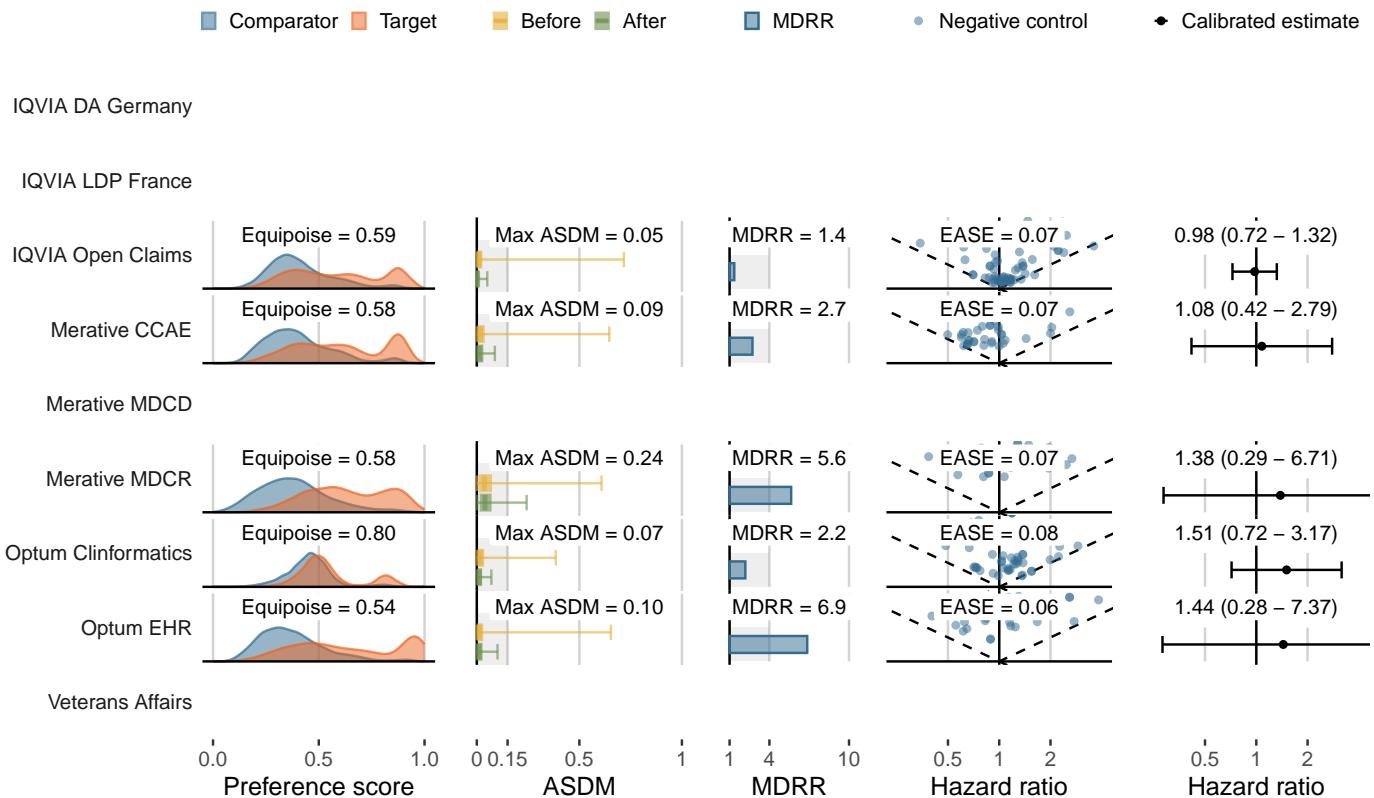
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

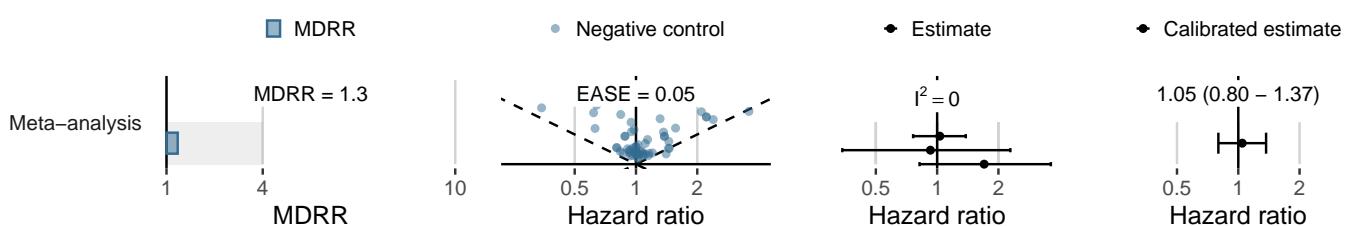
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,431	29,271	121	4.13
Merative CCAE	2,768	1,987	10	5.03
Merative MDCD	-	-	-	-
Merative MDCR	396	317	5	15.76
Optum Clininformatics	5,058	4,327	26	6.01
Optum EHR	3,217	1,210	<5	<4.13
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



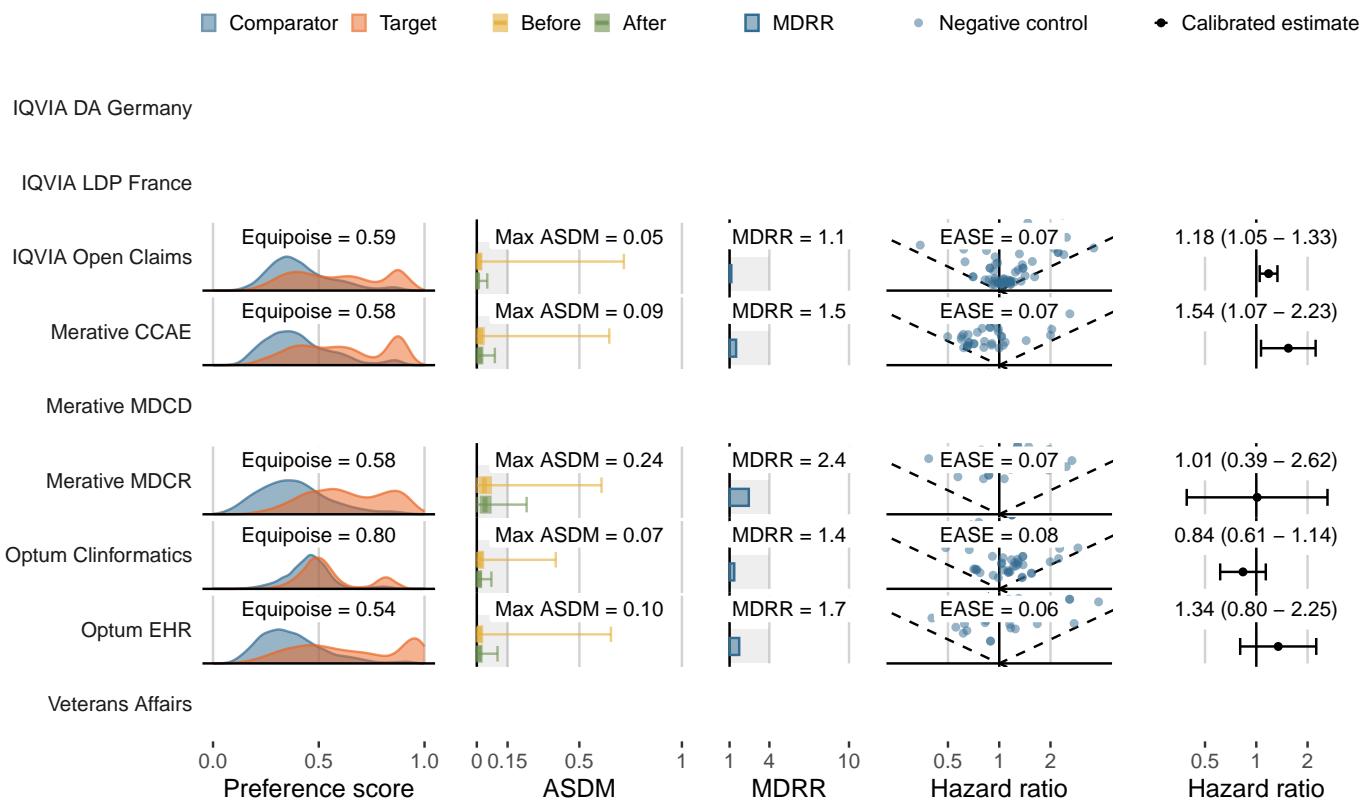
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

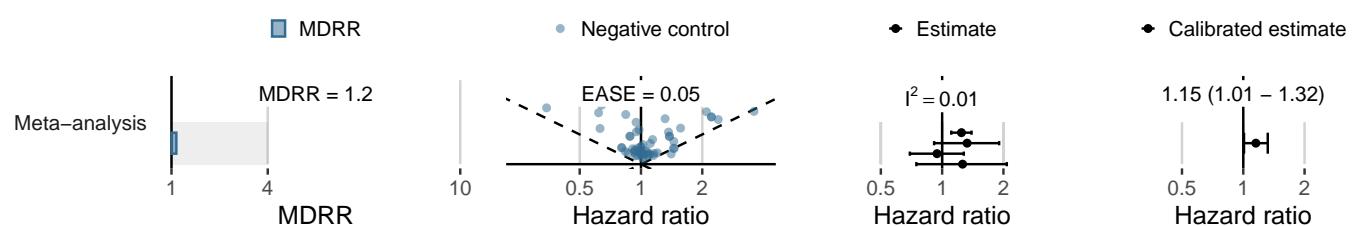
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	31,059	23,223	819	35.27
Merative CCAE	2,248	1,538	71	46.16
Merative MDCD	-	-	-	-
Merative MDCR	327	263	12	45.55
Optum Clininformatics	4,171	3,461	134	38.71
Optum EHR	2,802	997	47	47.13
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



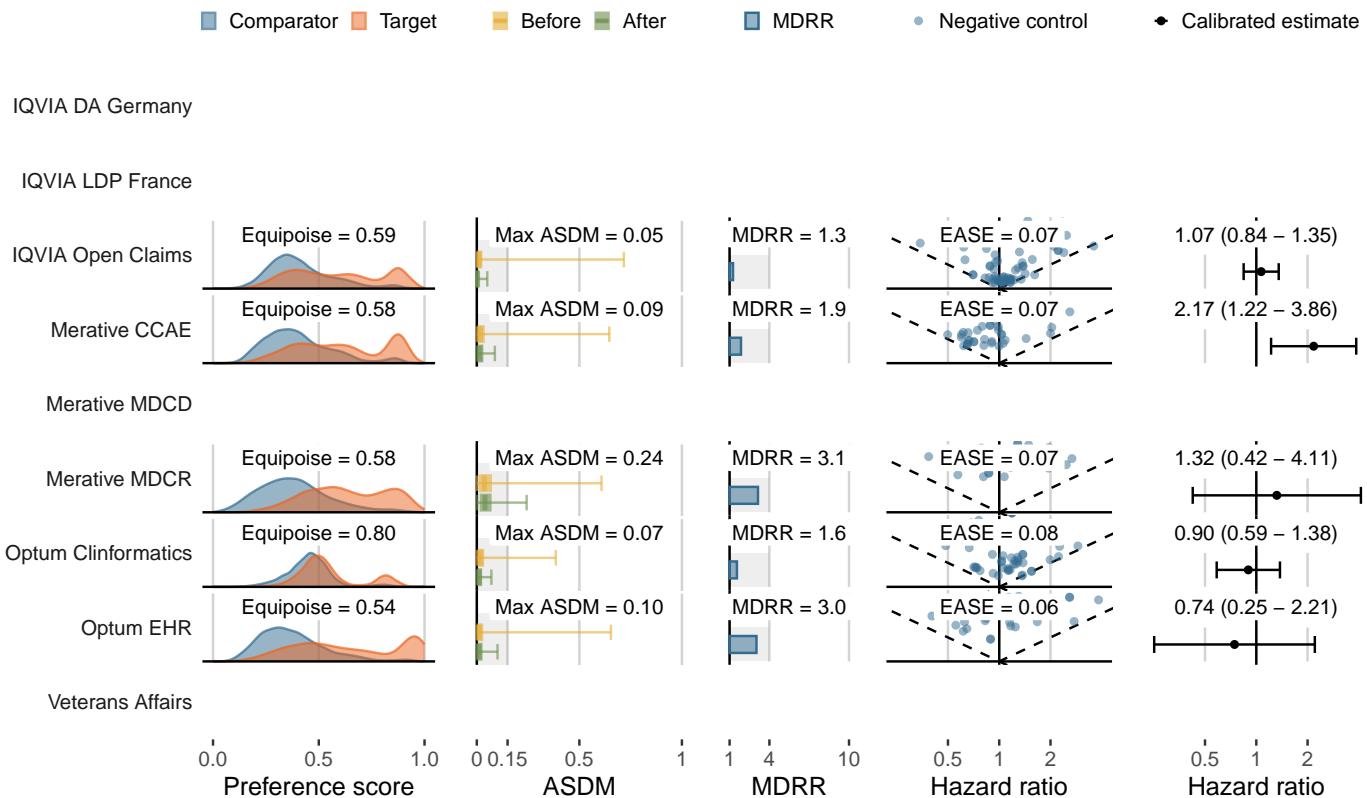
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

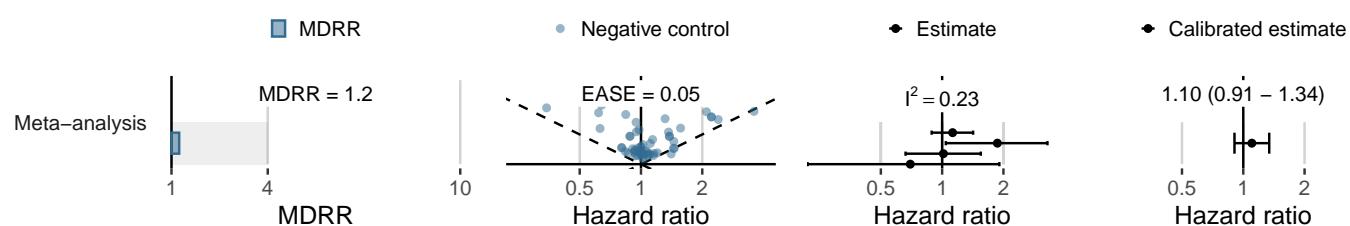
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	37,179	28,260	202	7.15
Merative CCAE	2,647	1,877	30	15.99
Merative MDCD	-	-	-	-
Merative MDCR	321	261	7	26.86
Optum Clininformatics	4,218	3,540	75	21.18
Optum EHR	3,120	1,164	8	6.87
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



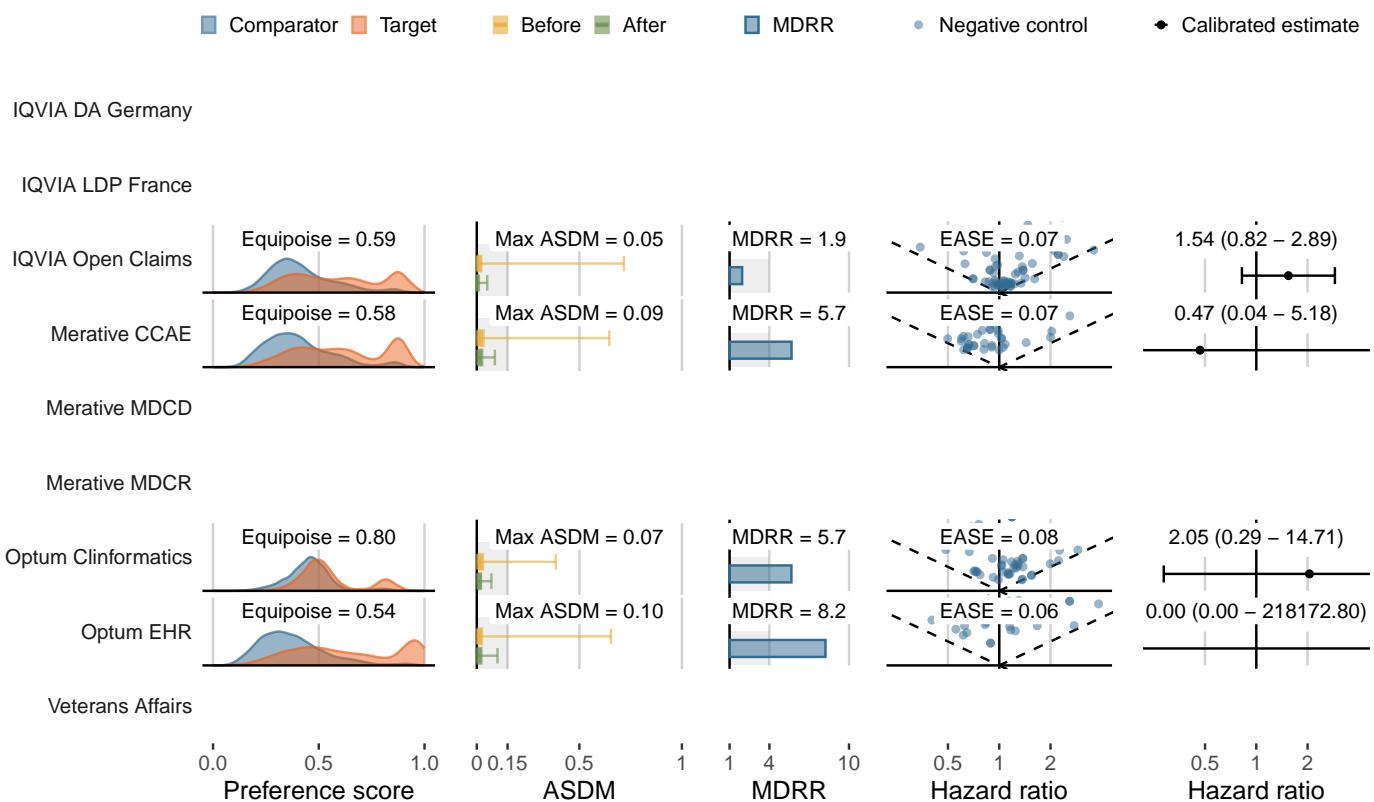
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

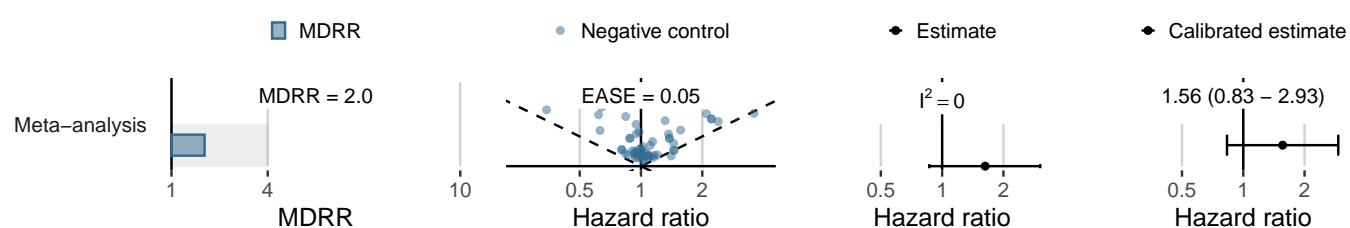
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	39,118	29,821	37	1.24
Merative CCAE	2,812	2,016	<5	<2.48
Merative MDCD	-	-	-	-
Merative MDCR	407	320	<5	<15.62
Optum Clininformatics	5,142	4,412	6	1.36
Optum EHR	3,253	1,223	<5	<4.09
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



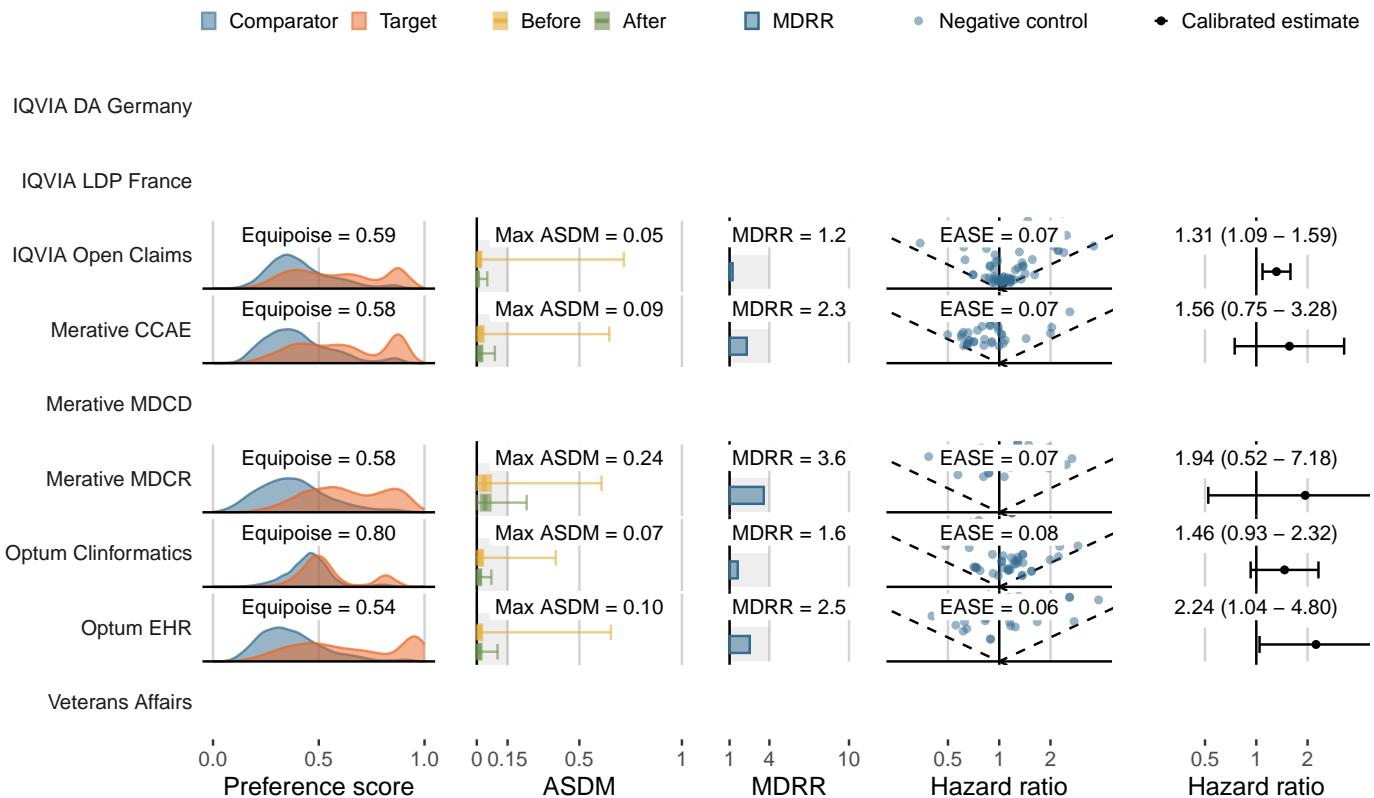
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

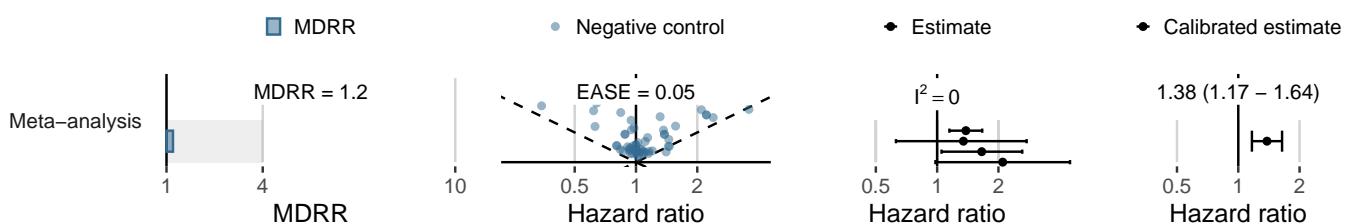
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,470	29,164	335	11.49
Merative CCAE	2,777	1,991	15	7.53
Merative MDCD	-	-	-	-
Merative MDCR	395	313	9	28.73
Optum Clininformatics	5,018	4,276	68	15.90
Optum EHR	3,221	1,201	25	20.81
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



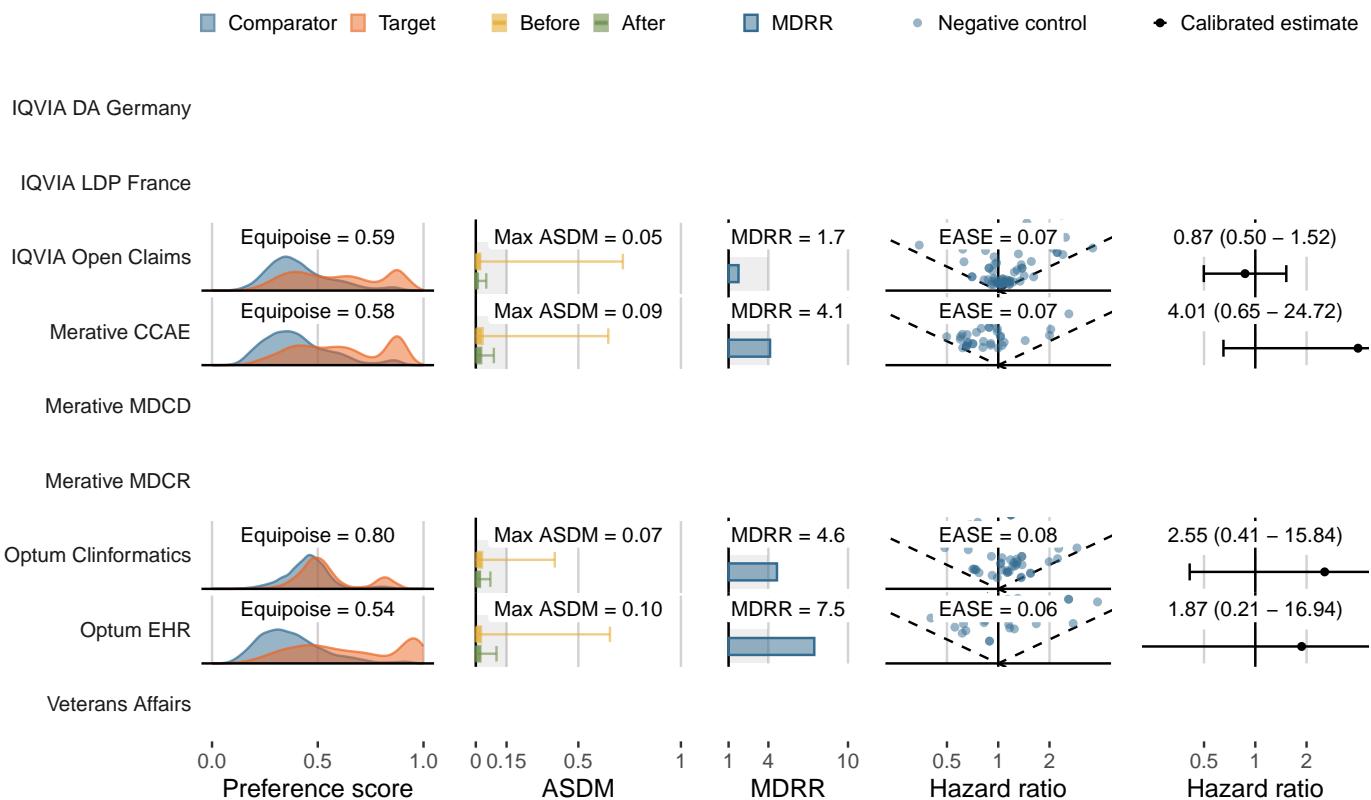
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

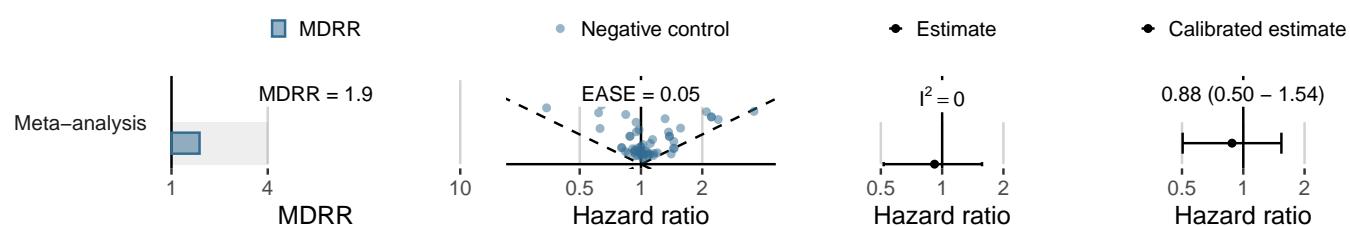
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,980	29,671	33	1.11
Merative CCAE	2,795	2,010	6	2.99
Merative MDCD	-	-	-	-
Merative MDCR	408	319	<5	<15.65
Optum Clininformatics	5,132	4,408	7	1.59
Optum EHR	3,240	1,215	<5	<4.11
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



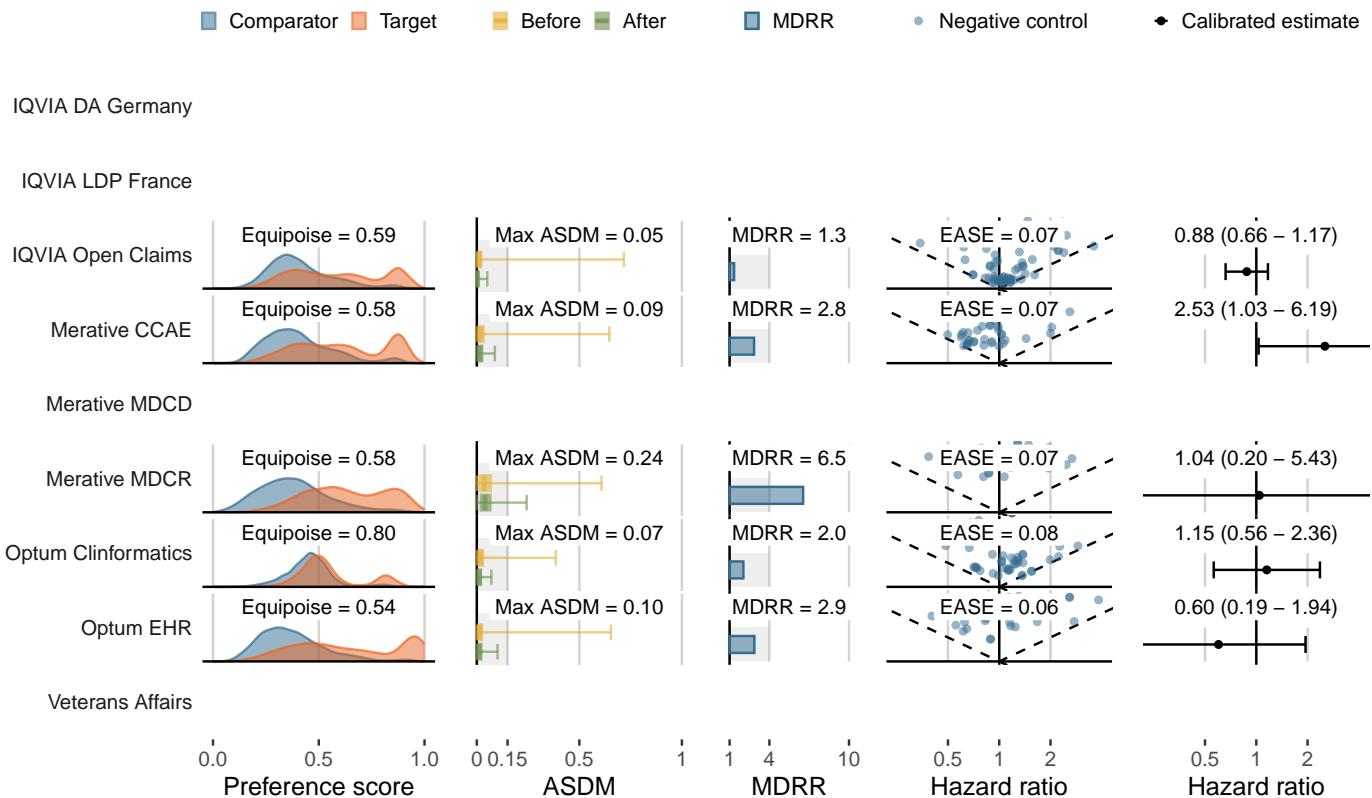
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

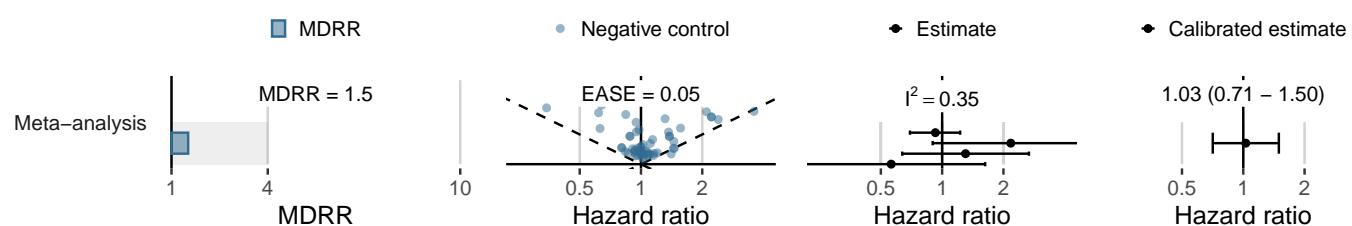
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,178	29,077	133	4.57
Merative CCAE	2,754	1,950	15	7.69
Merative MDCD	-	-	-	-
Merative MDCR	395	309	6	19.44
Optum Clininformatics	5,037	4,287	26	6.06
Optum EHR	3,186	1,191	10	8.39
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



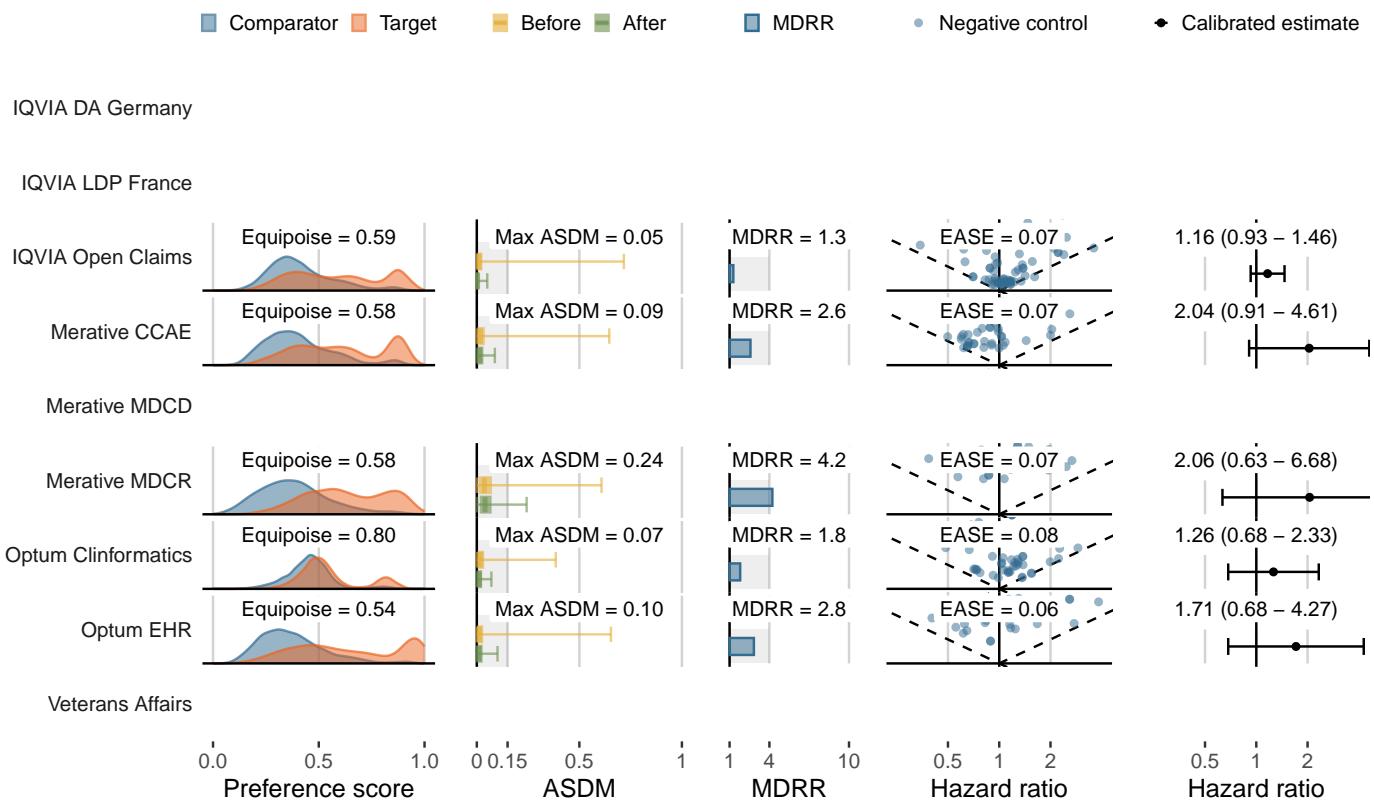
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

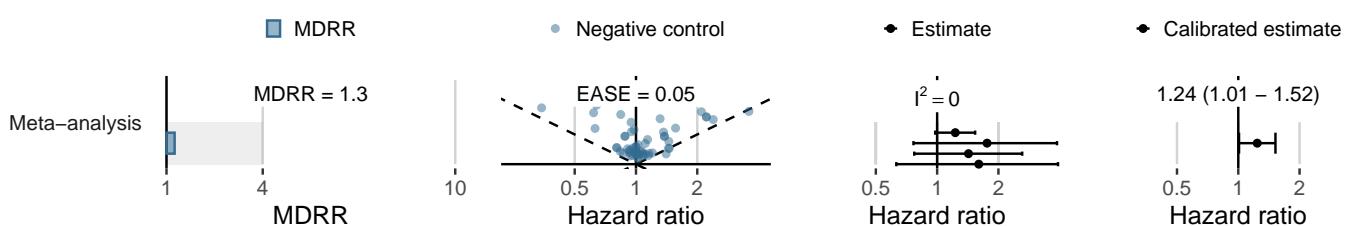
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,265	29,101	236	8.11
Merative CCAE	2,767	1,978	14	7.08
Merative MDCD	-	-	-	-
Merative MDCR	375	294	10	34.00
Optum Clininformatics	4,990	4,251	49	11.53
Optum EHR	3,207	1,201	18	14.99
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



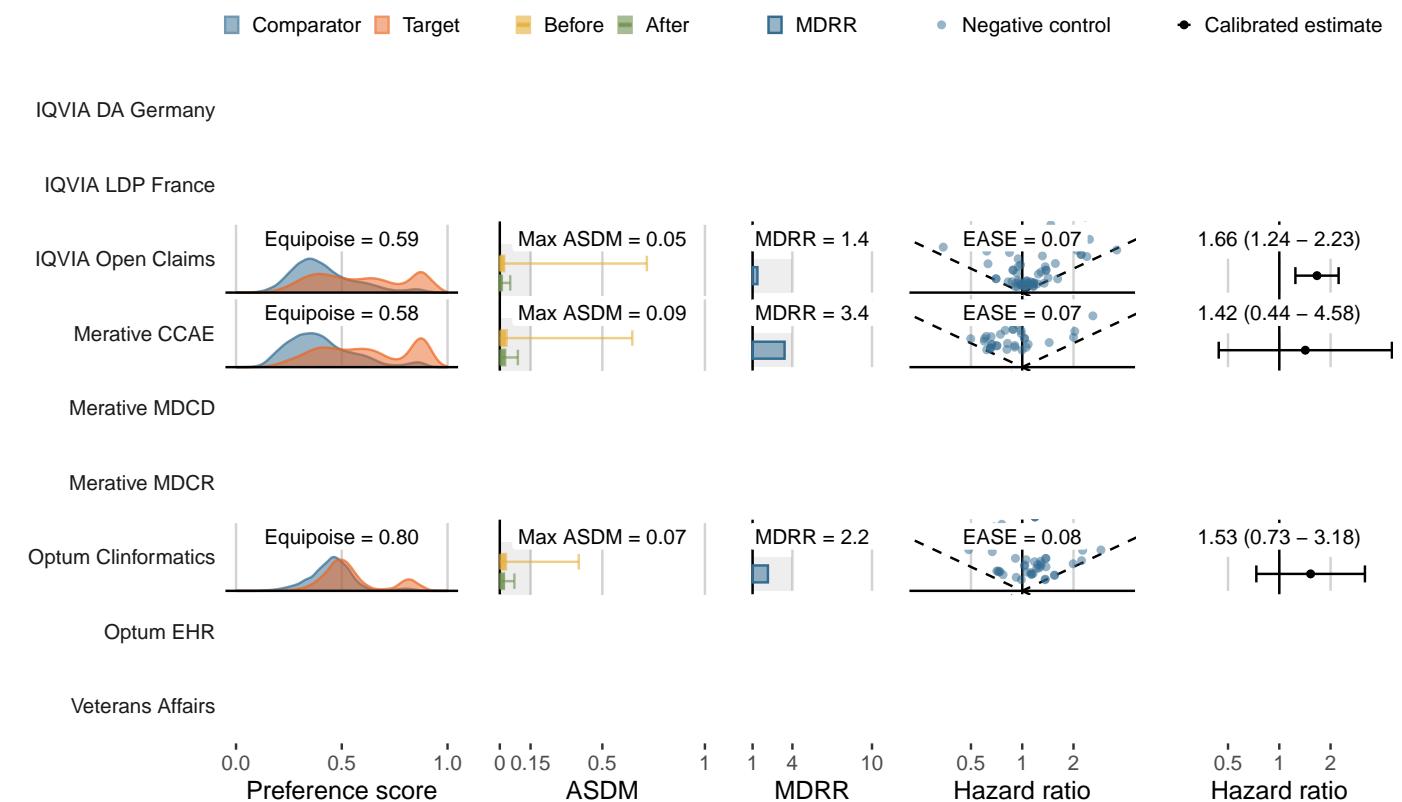
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

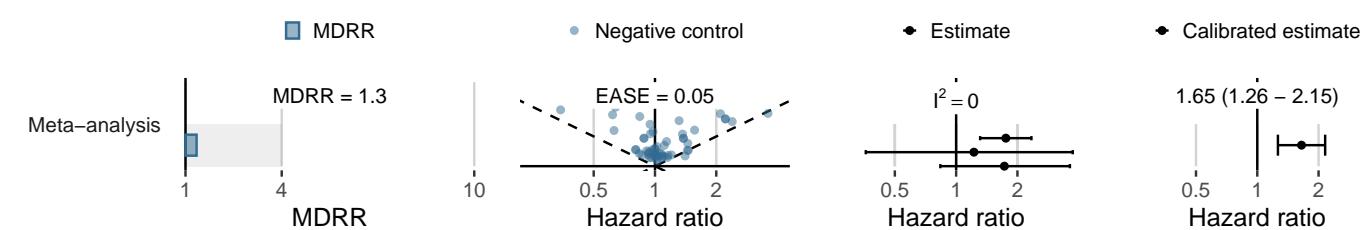
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,554	29,379	153	5.21
Merative CCAE	2,787	1,991	7	3.52
Merative MDCD	-	-	-	-
Merative MDCR	392	311	<5	<16.08
Optum Clininformatics	5,061	4,327	30	6.93
Optum EHR	3,231	1,207	5	4.14
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



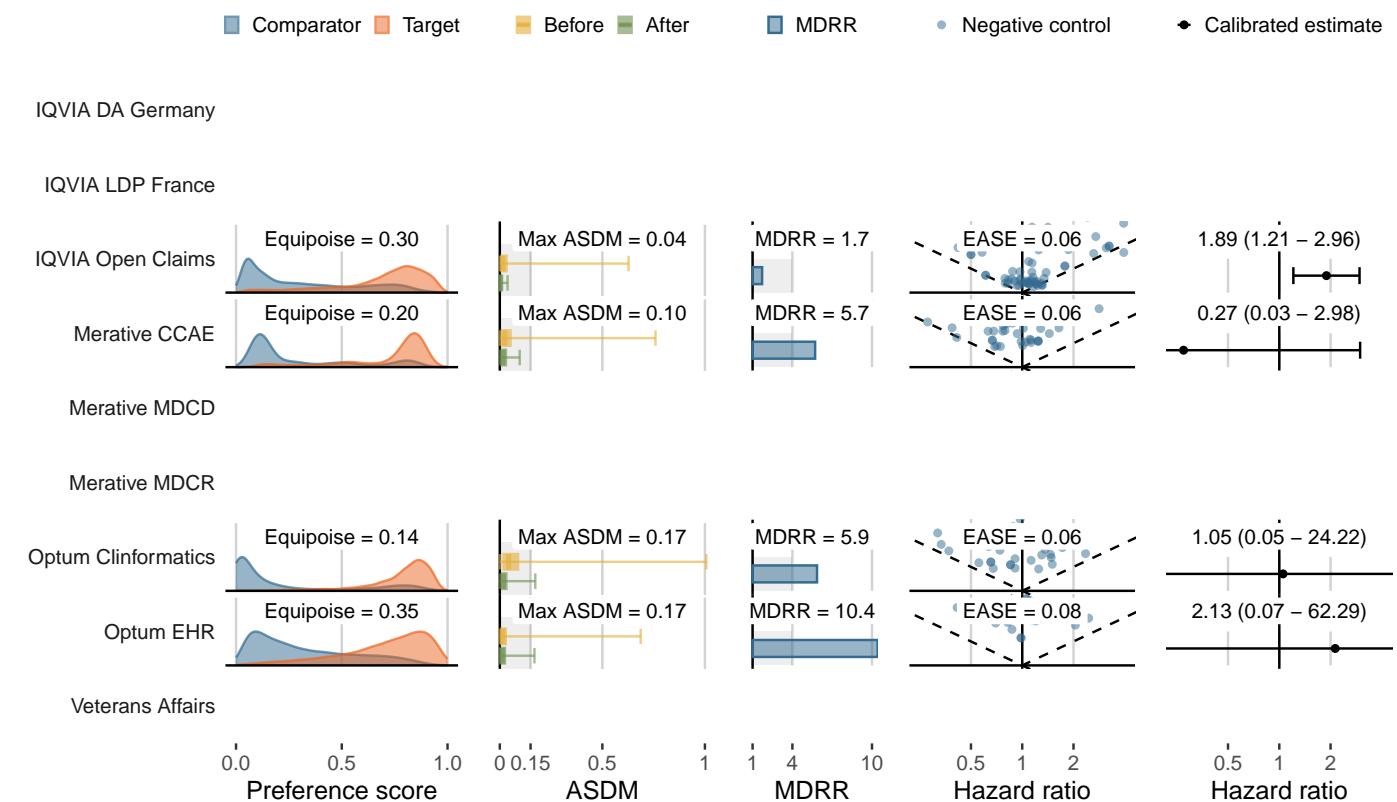
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

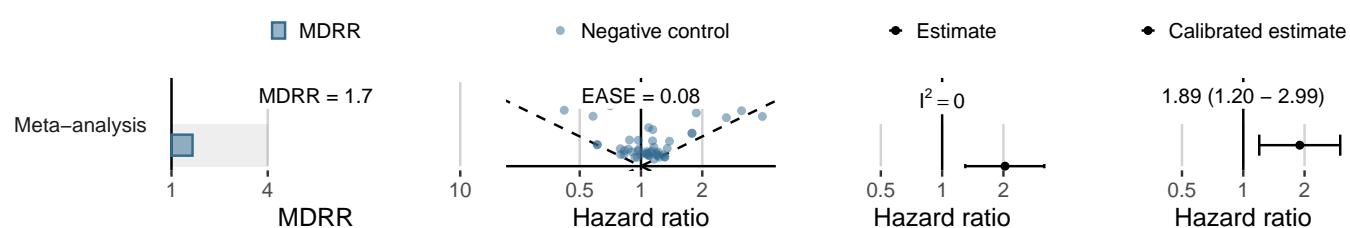
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	588	615	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	30,204	22,417	55	2.45
Merative CCAE	2,074	1,430	<5	<3.50
Merative MDCD	-	-	-	-
Merative MDCR	200	144	-	0.00
Optum Clininformatics	2,038	1,531	<5	<3.27
Optum EHR	2,450	887	<5	<5.64
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



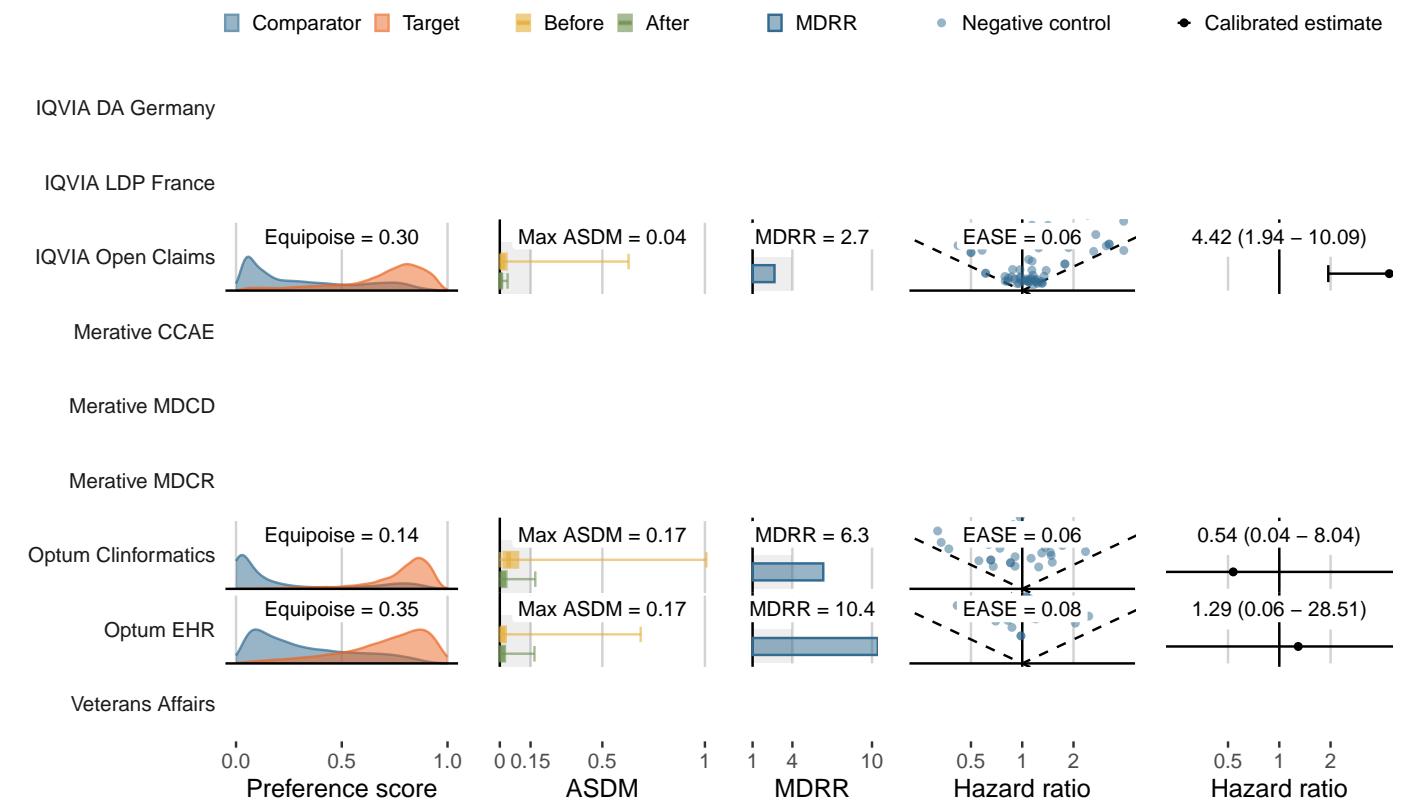
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

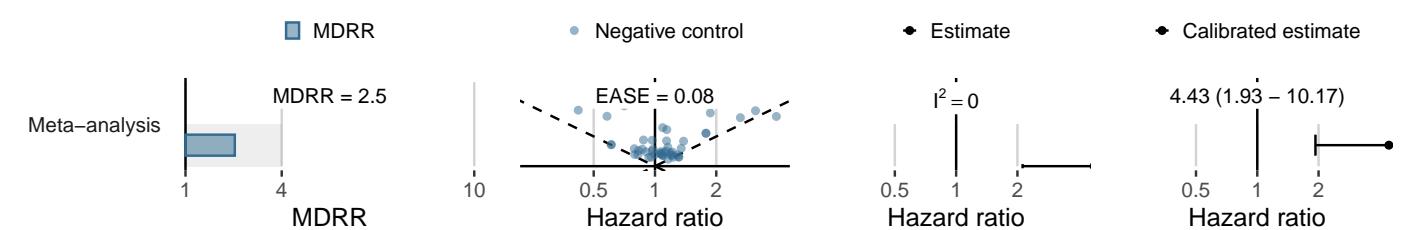
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	586	611	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	30,399	22,526	23	1.02
Merative CCAE	2,085	1,435	<5	<3.48
Merative MDCD	-	-	-	-
Merative MDCR	202	145	<5	<34.51
Optum Clininformatics	2,059	1,546	<5	<3.23
Optum EHR	2,456	892	<5	<5.60
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



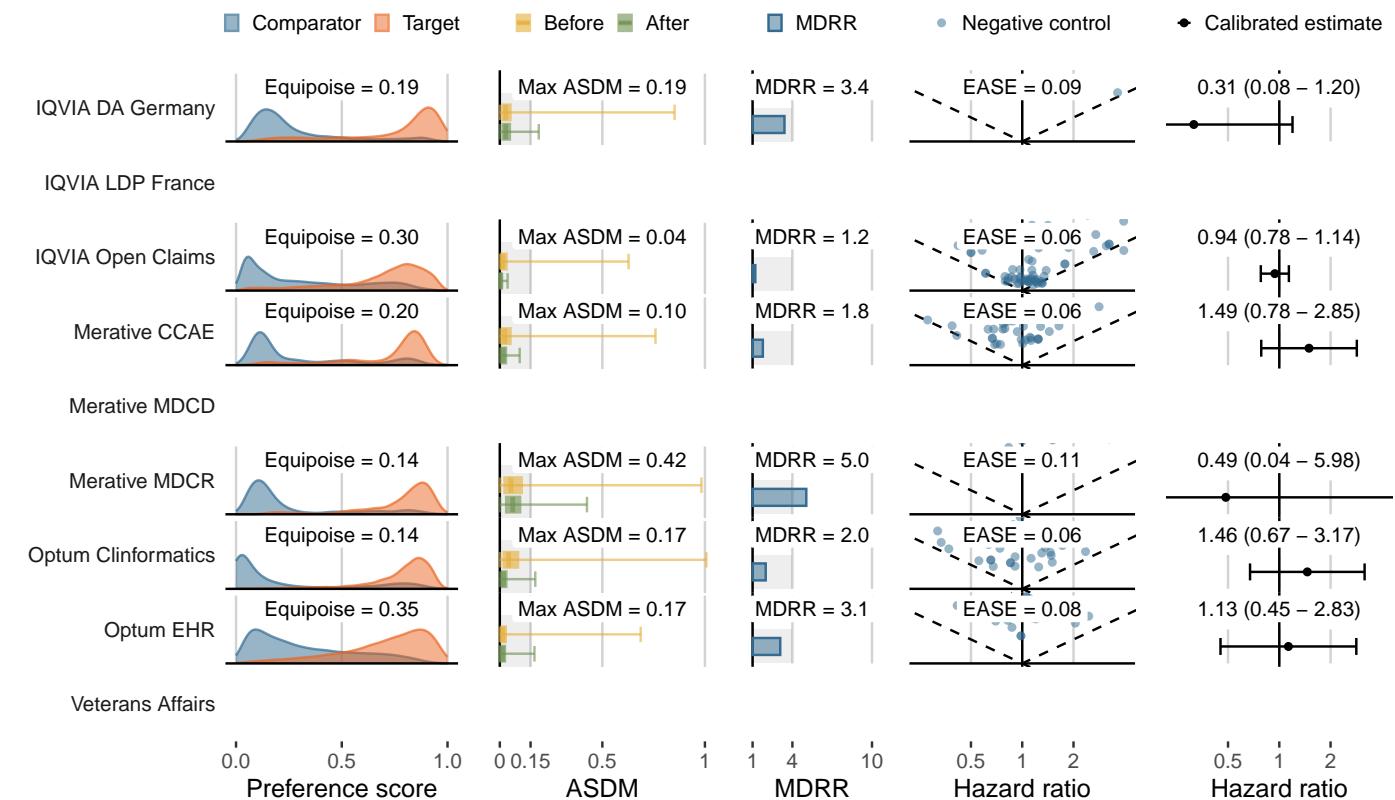
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

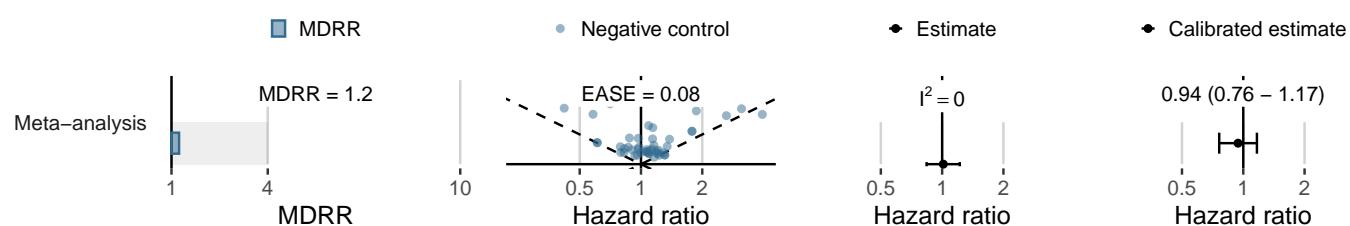
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	538	556	10	18.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	27,301	19,988	304	15.21
Merative CCAE	1,924	1,299	25	19.25
Merative MDCD	-	-	-	-
Merative MDCR	180	138	<5	<36.32
Optum Clininformatics	1,889	1,380	27	19.56
Optum EHR	2,328	839	14	16.69
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): **Saxagliptin** (DPP-4 inhibitors)
- 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	588	615	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	29,882	22,176	85	3.83
Merative CCAE	2,054	1,413	6	4.25
Merative MDCD	-	-	-	-
Merative MDCR	194	139	-	0.00
Optum Clininformatics	2,028	1,528	8	5.23
Optum EHR	2,432	884	<5	<5.65
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

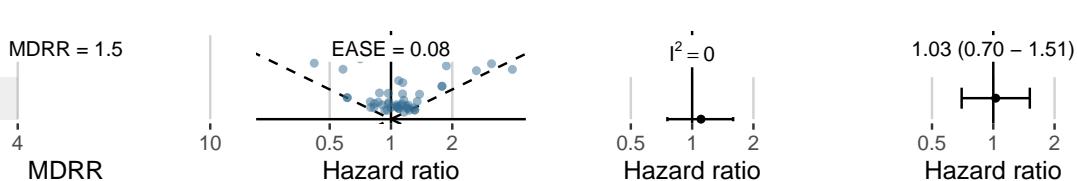
Veterans Affairs



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

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

Meta-analysis



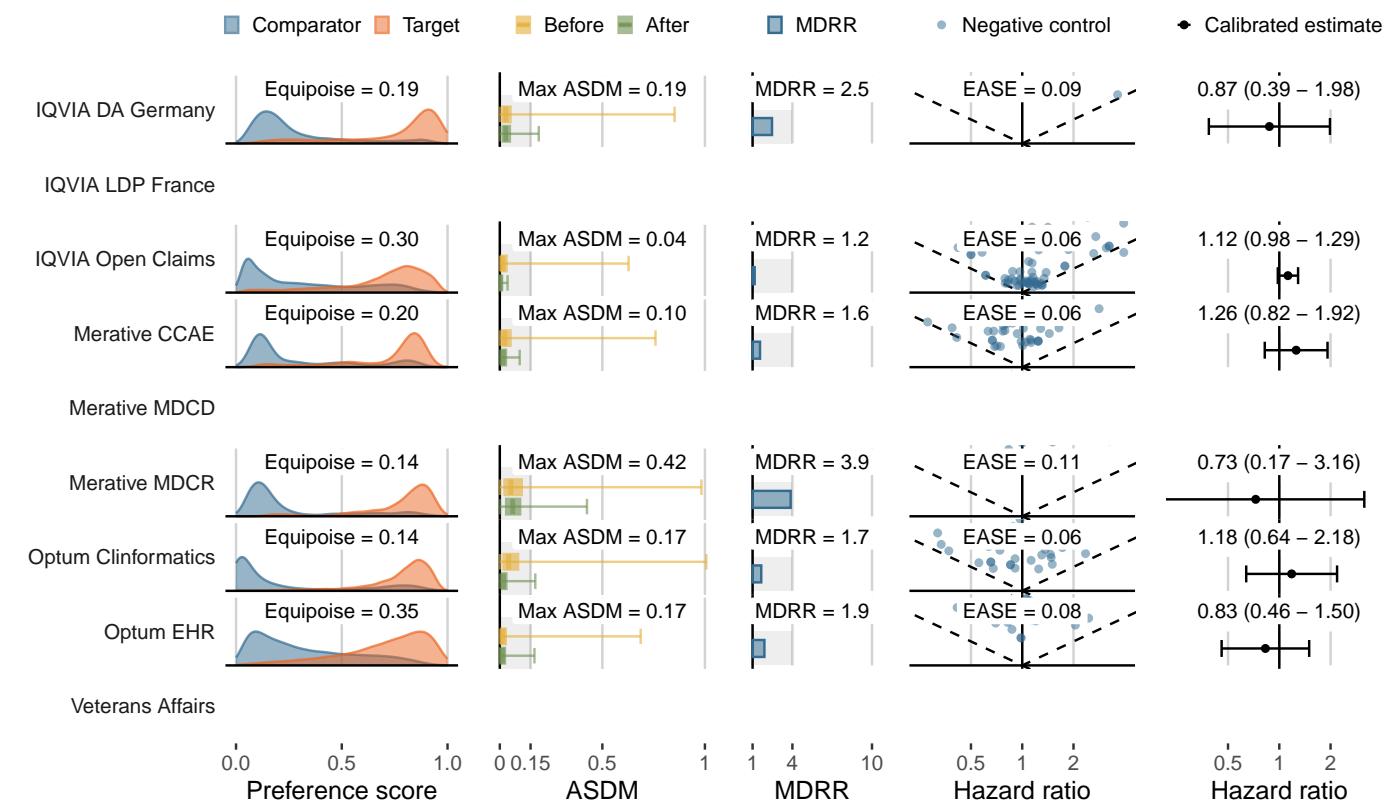
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

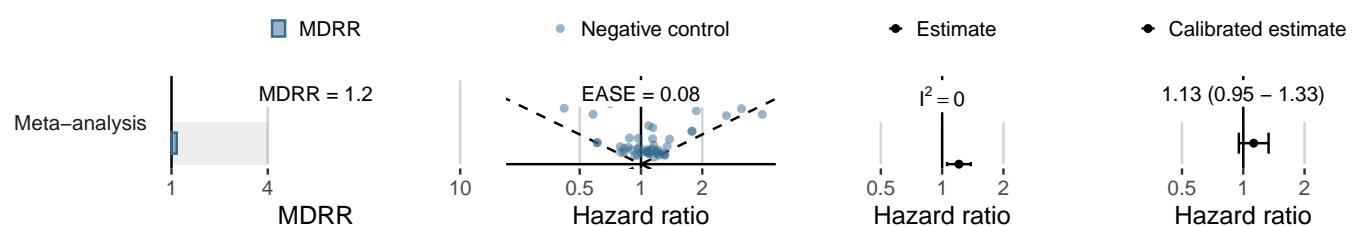
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	470	464	18	38.83
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	24,252	17,706	595	33.60
Merative CCAE	1,673	1,098	55	50.08
Merative MDCD	-	-	-	-
Merative MDCR	160	126	6	47.55
Optum Clininformatics	1,677	1,212	50	41.26
Optum EHR	2,126	739	32	43.32
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



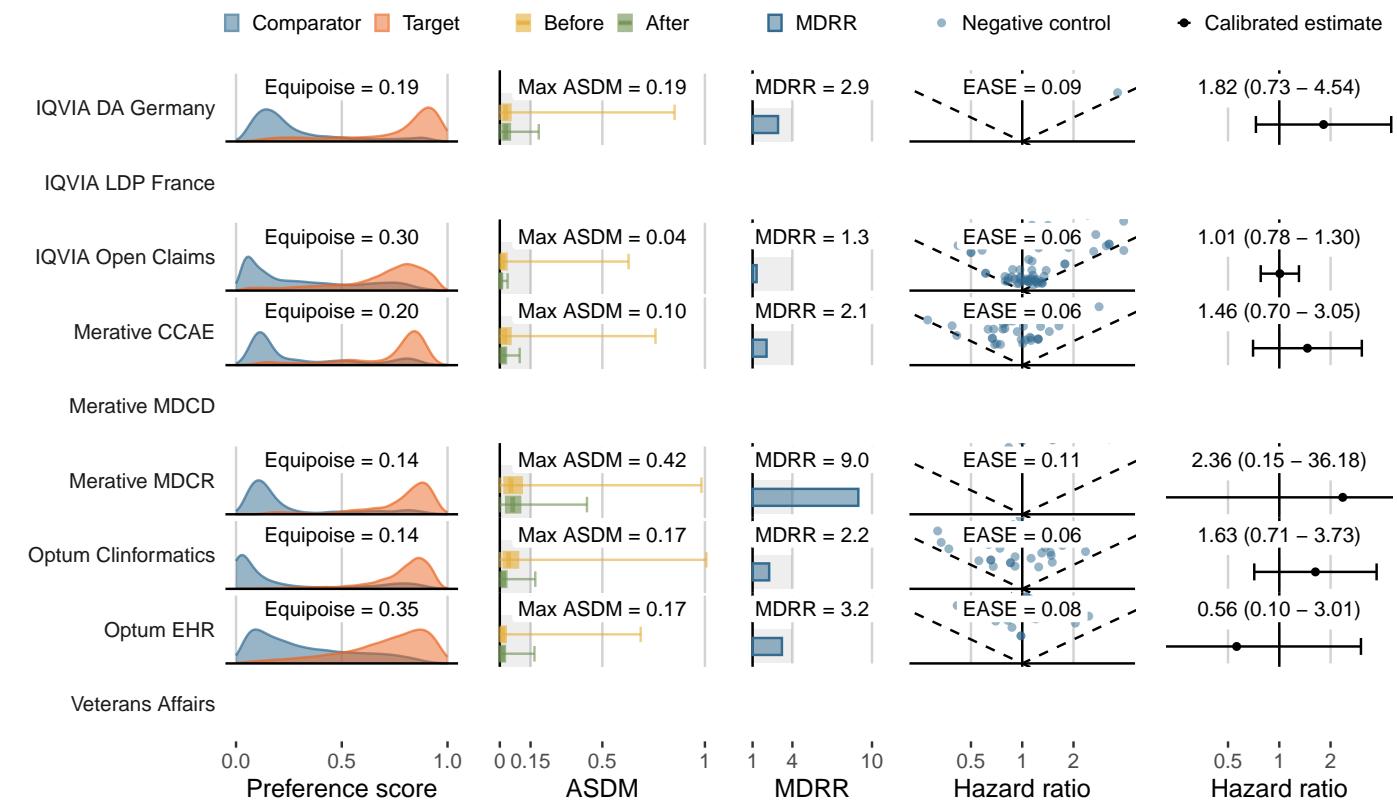
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

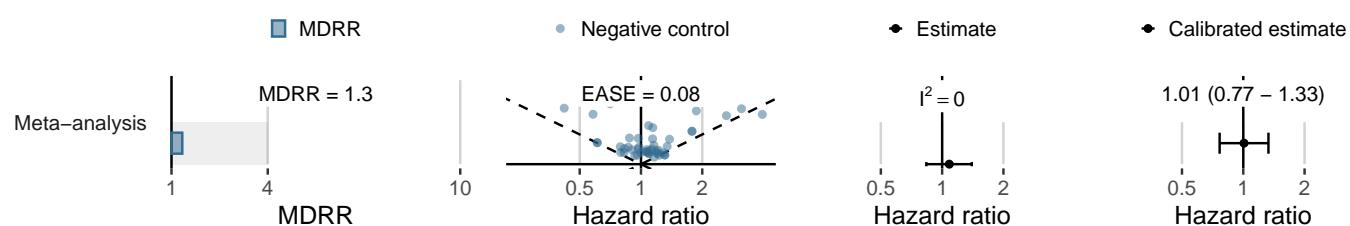
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	513	522	12	22.99
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	28,843	21,352	148	6.93
Merative CCAE	1,977	1,351	22	16.28
Merative MDCD	-	-	-	-
Merative MDCR	167	136	<5	<36.69
Optum Clininformatics	1,675	1,221	27	22.12
Optum EHR	2,368	854	6	7.03
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



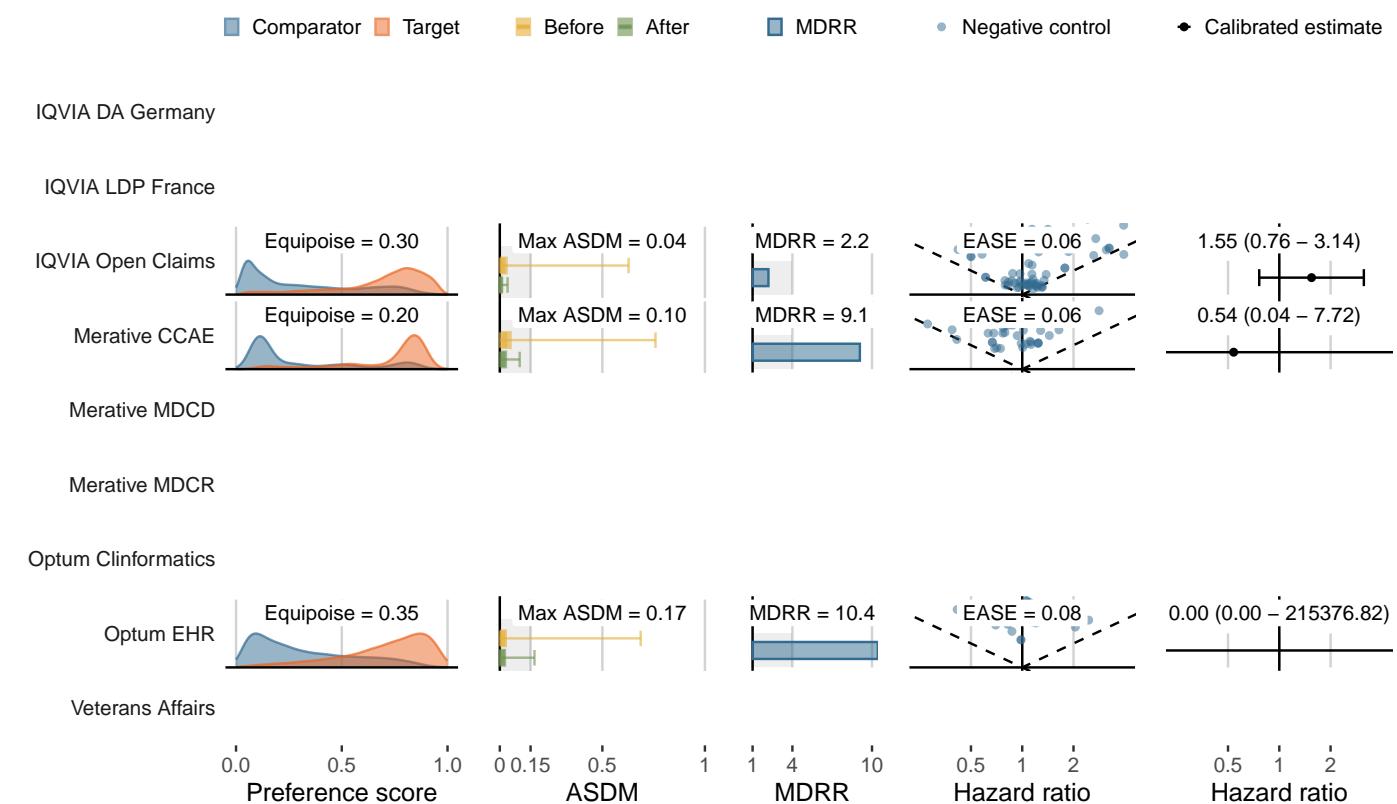
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

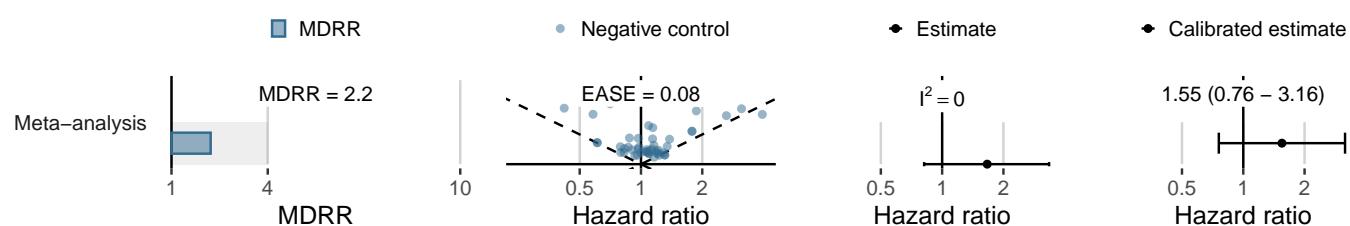
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	586	610	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	30,394	22,591	26	1.15
Merative CCAE	2,084	1,434	<5	<3.49
Merative MDCD	-	-	-	-
Merative MDCR	202	144	<5	<34.67
Optum Clininformatics	2,057	1,545	<5	<3.24
Optum EHR	2,455	892	<5	<5.61
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



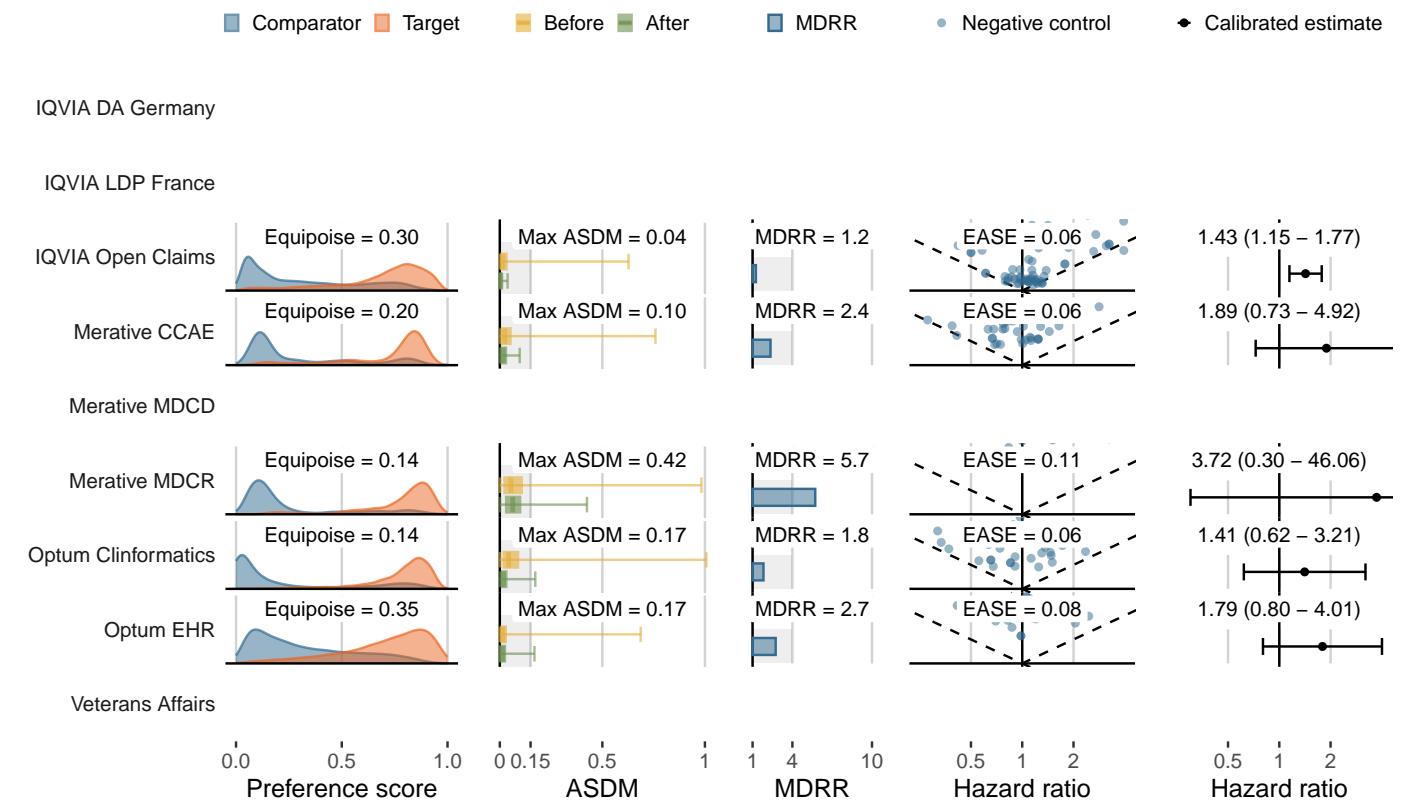
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

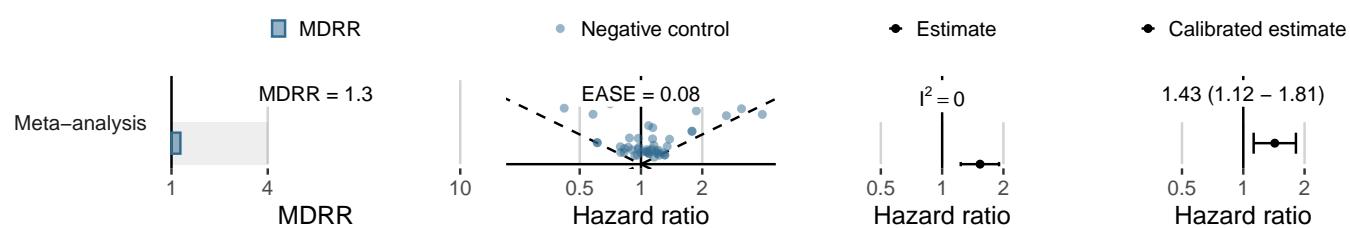
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	588	615	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	29,907	22,069	240	10.88
Merative CCAE	2,056	1,413	13	9.20
Merative MDCD	-	-	-	-
Merative MDCR	196	137	<5	<36.51
Optum Clininformatics	2,024	1,509	30	19.89
Optum EHR	2,437	876	17	19.40
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



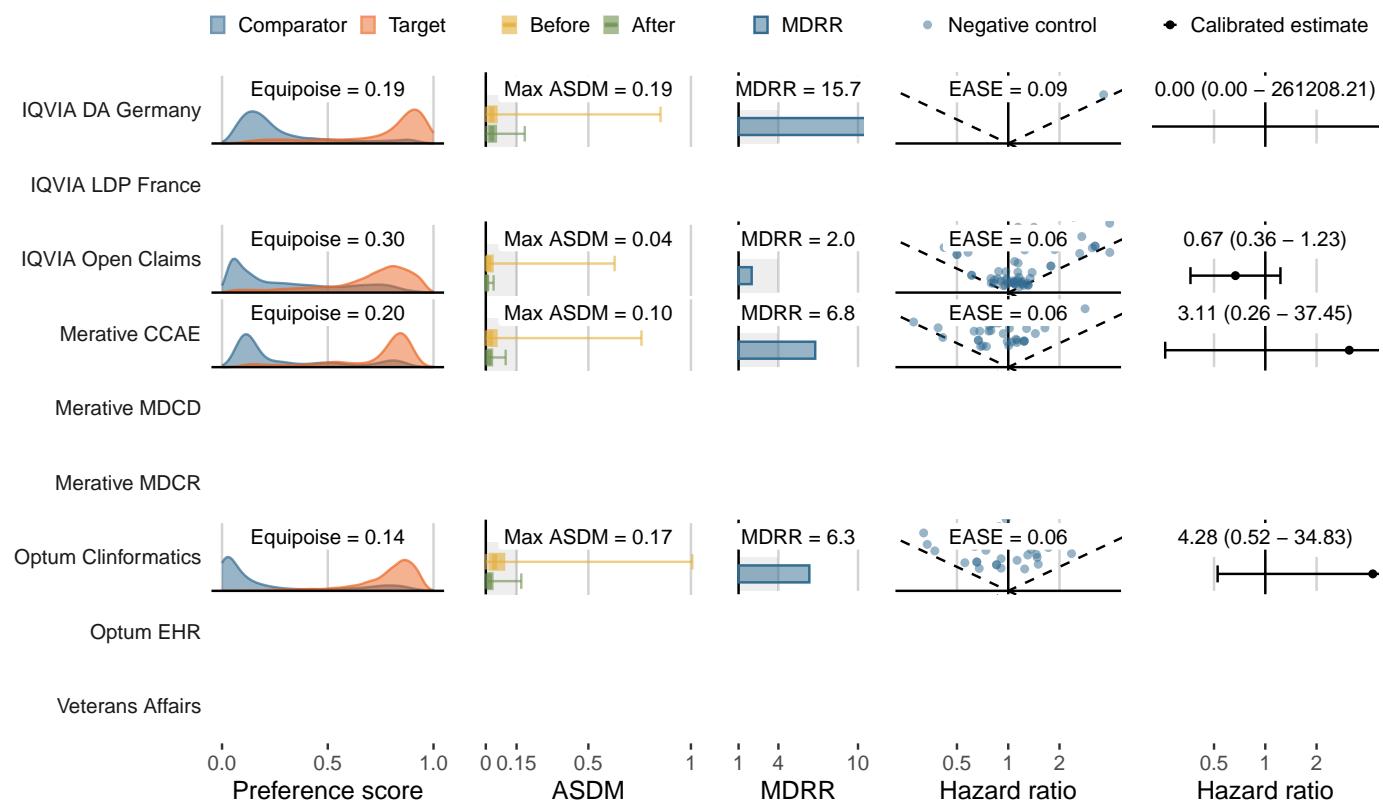
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

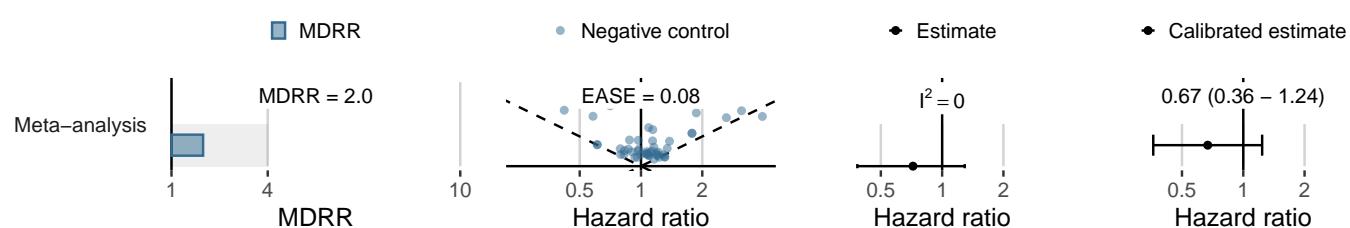
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	587	613	<5	<8.16
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	30,292	22,441	26	1.16
Merative CCAE	2,071	1,427	<5	<3.50
Merative MDCD	-	-	-	-
Merative MDCR	202	143	<5	<34.94
Optum Clininformatics	2,052	1,543	<5	<3.24
Optum EHR	2,448	886	<5	<5.65
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



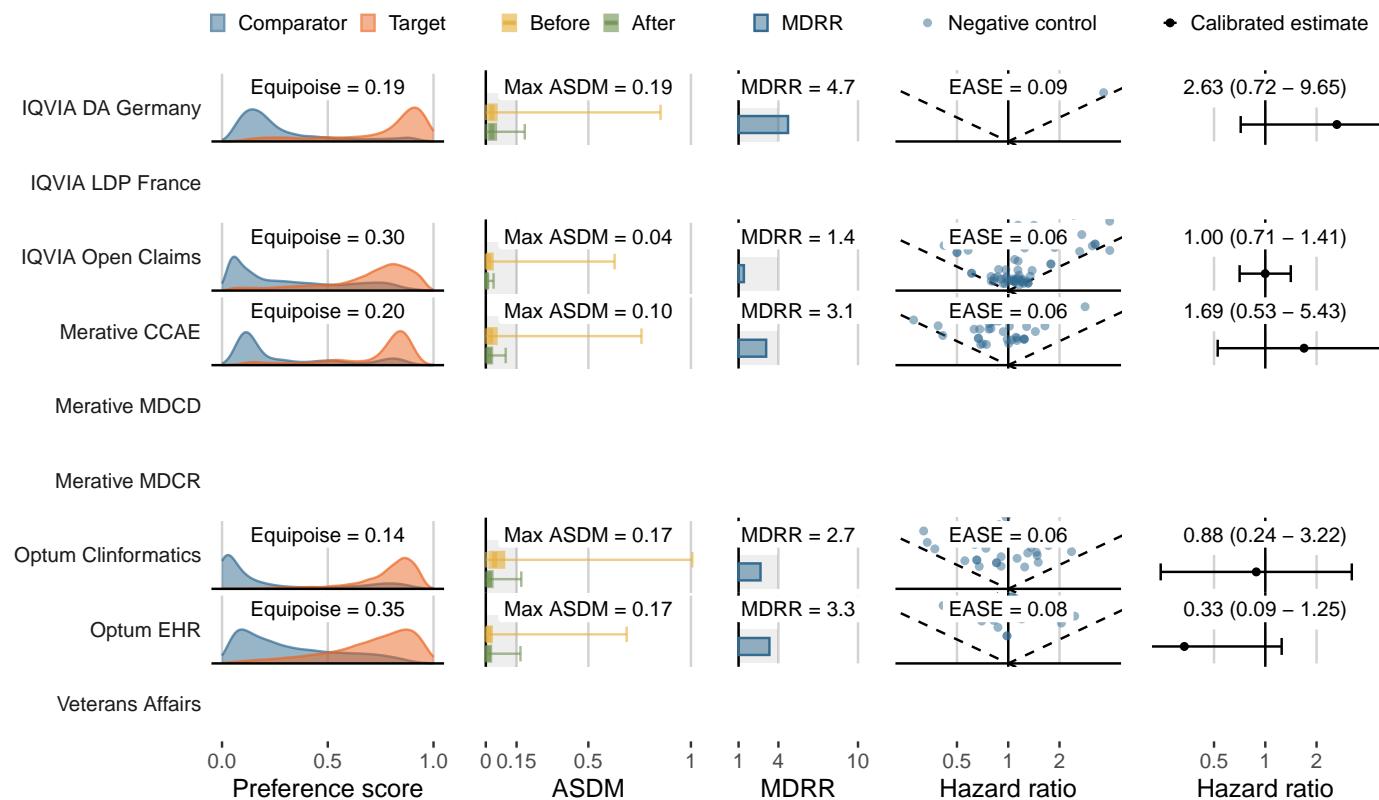
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

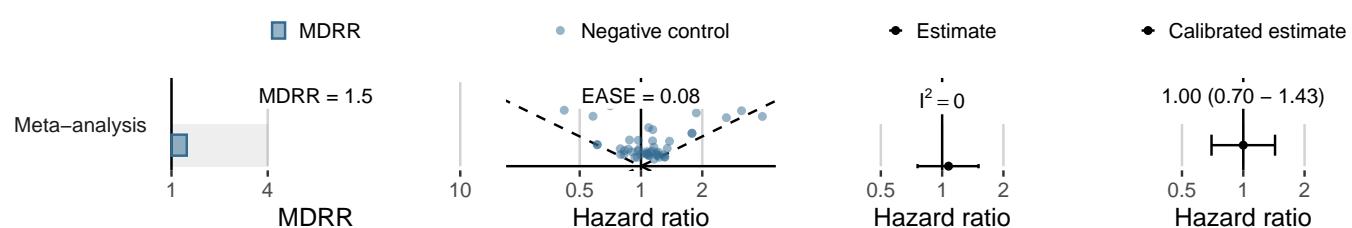
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	544	558	7	12.55
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	29,693	21,980	96	4.37
Merative CCAE	2,039	1,385	9	6.50
Merative MDCD	-	-	-	-
Merative MDCR	195	144	<5	<34.79
Optum Clininformatics	2,009	1,511	8	5.30
Optum EHR	2,411	867	9	10.38
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



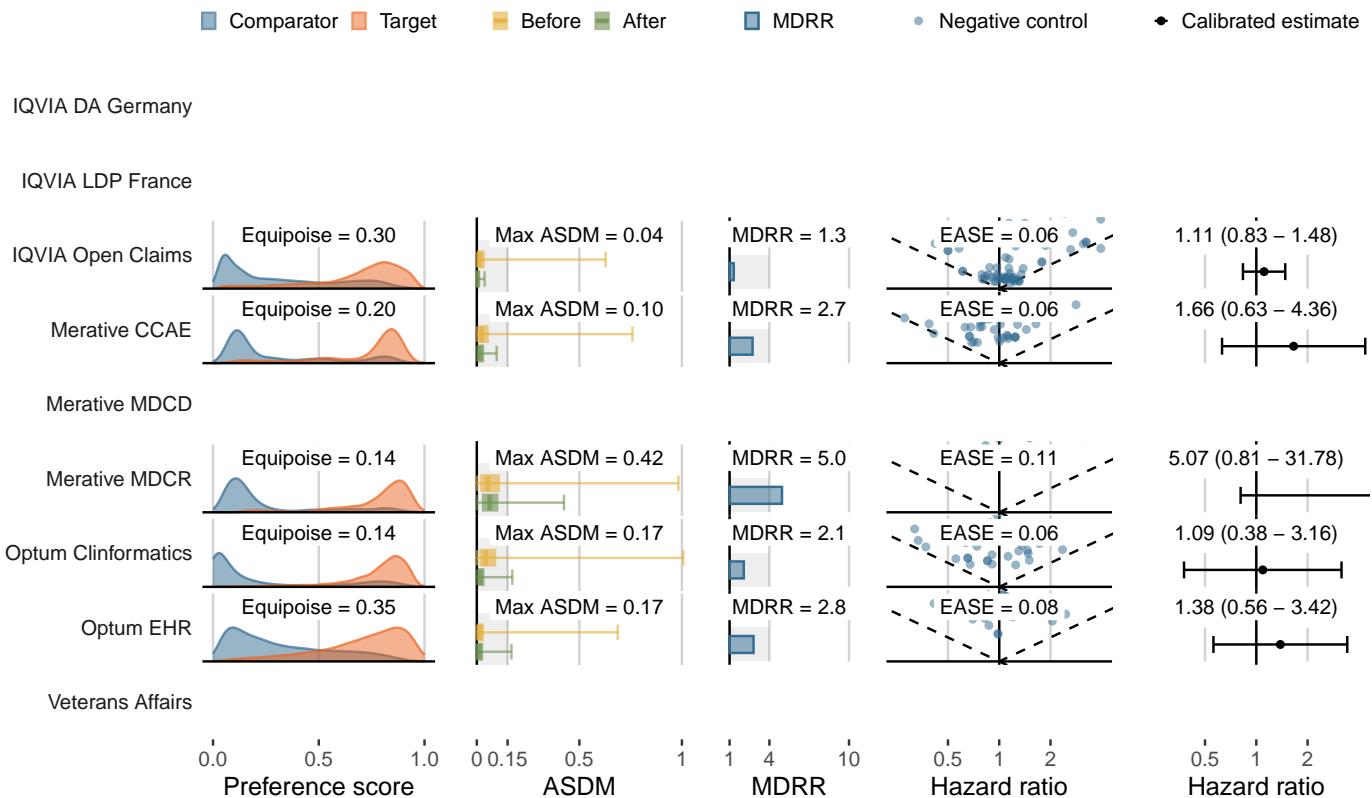
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

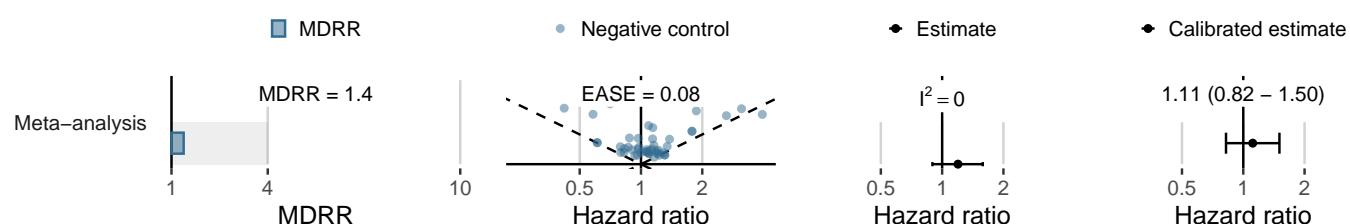
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	588	615	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	29,741	22,041	148	6.71
Merative CCAE	2,052	1,402	9	6.42
Merative MDCD	-	-	-	-
Merative MDCR	188	130	5	38.53
Optum Clininformatics	2,010	1,524	17	11.15
Optum EHR	2,436	884	12	13.58
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



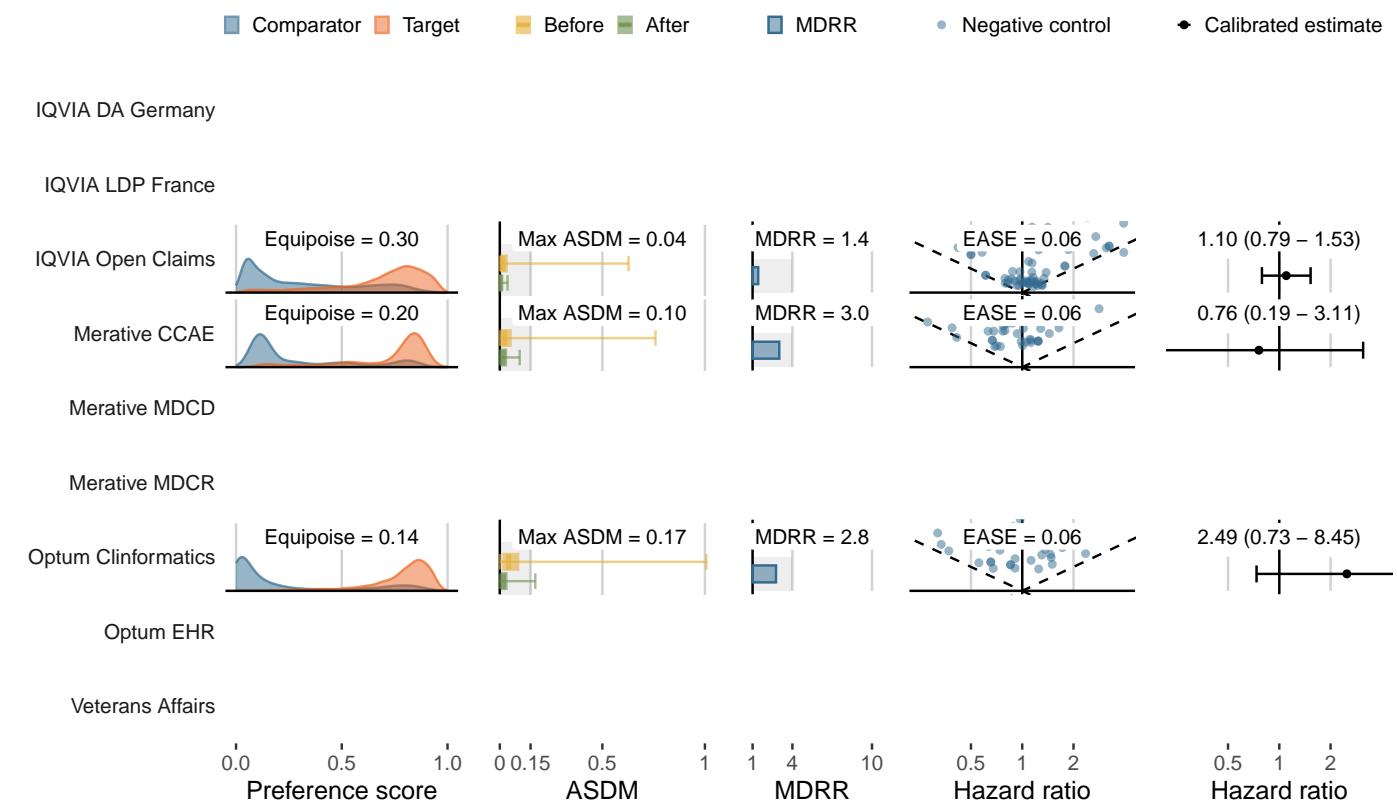
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

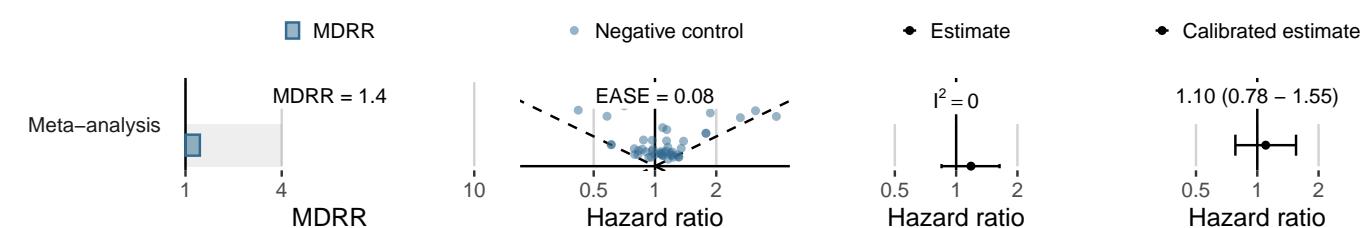
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	588	615	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	29,957	22,242	98	4.41
Merative CCAE	2,070	1,422	6	4.22
Merative MDCD	-	-	-	-
Merative MDCR	196	140	<5	<35.73
Optum Clininformatics	2,042	1,530	10	6.53
Optum EHR	2,443	879	<5	<5.69
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



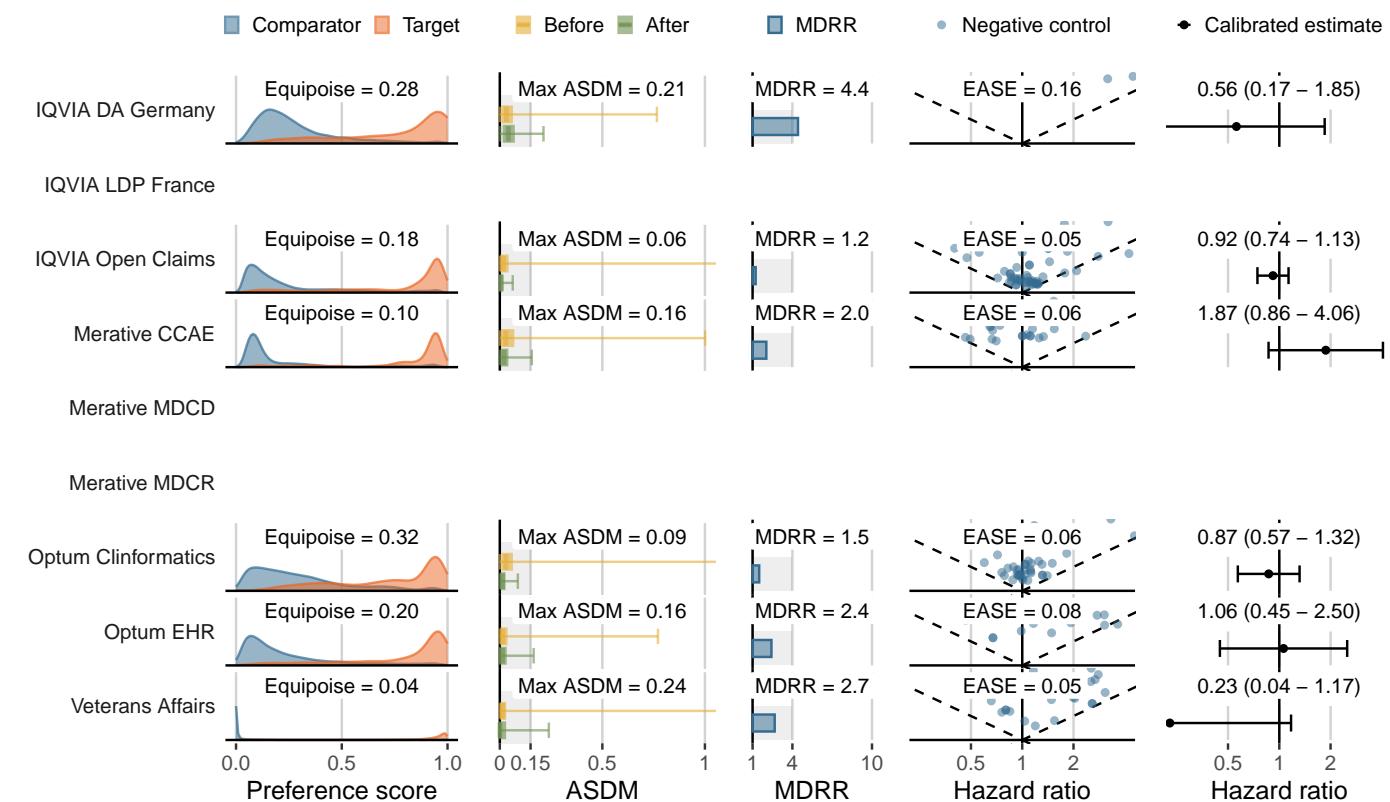
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

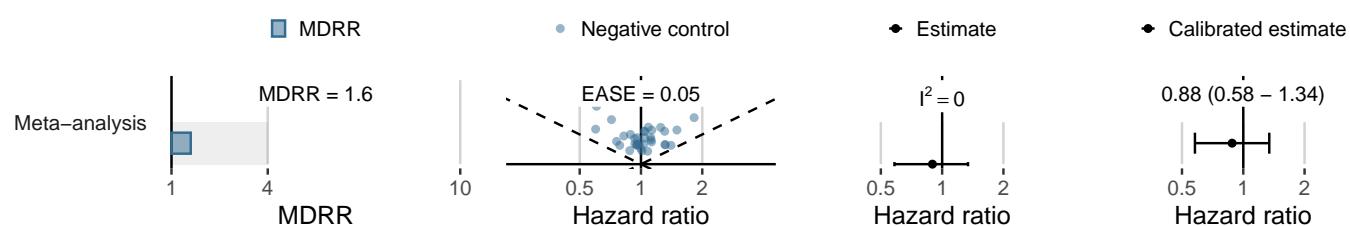
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	324	347	<5	<14.41
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	19,604	14,135	226	15.99
Merative CCAE	1,198	793	13	16.40
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,320	2,562	49	19.12
Optum EHR	1,702	611	13	21.28
Veterans Affairs	1,191	713	<10	<14.03

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



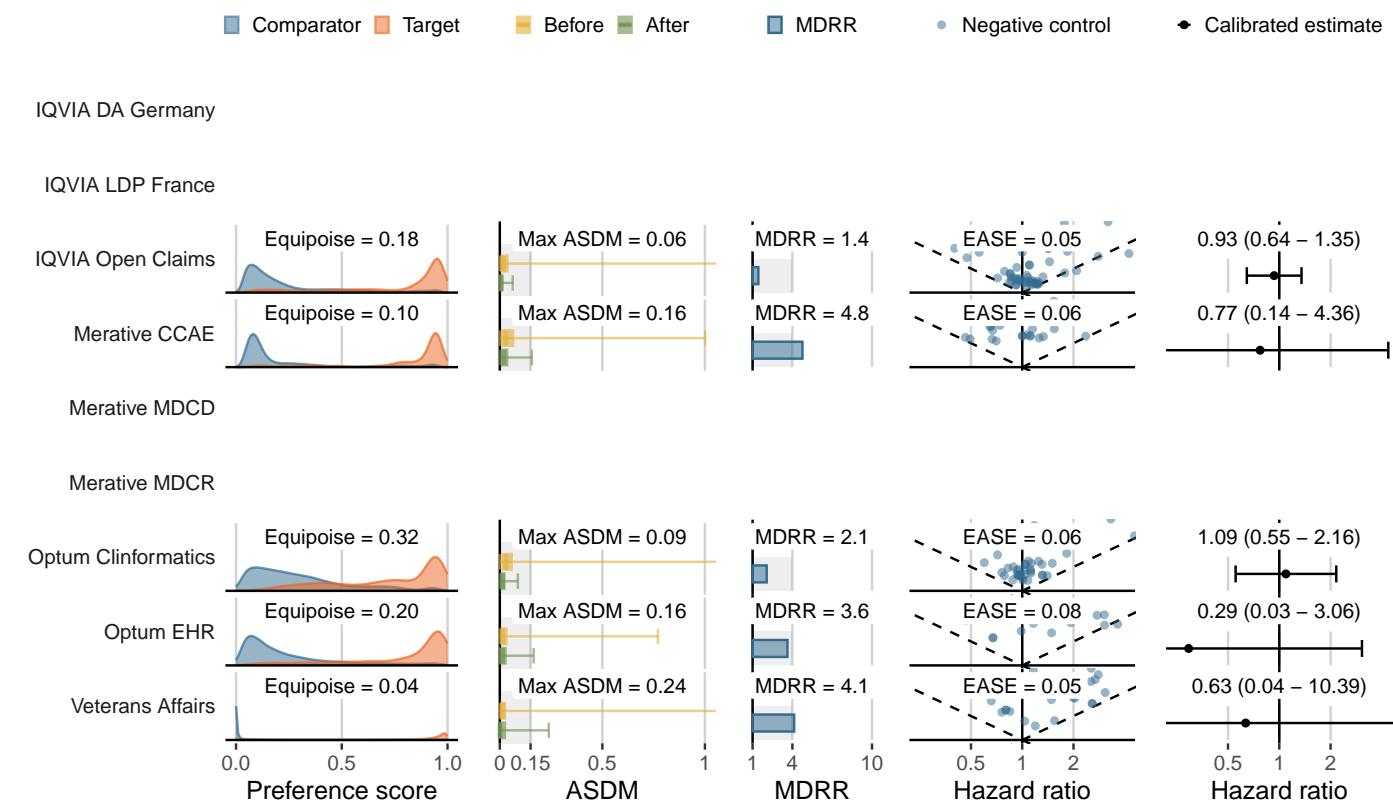
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

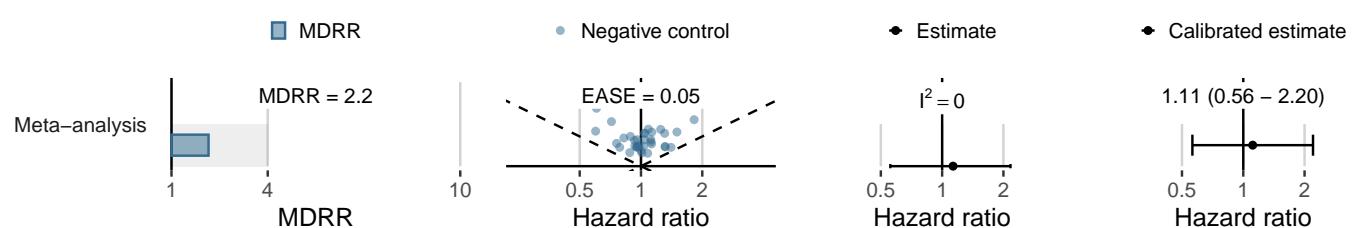
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	364	388	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	21,600	15,846	63	3.98
Merative CCAE	1,299	873	<5	<5.73
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,535	2,779	16	5.76
Optum EHR	1,795	651	<5	<7.69
Veterans Affairs	1,247	746	<10	<13.40

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



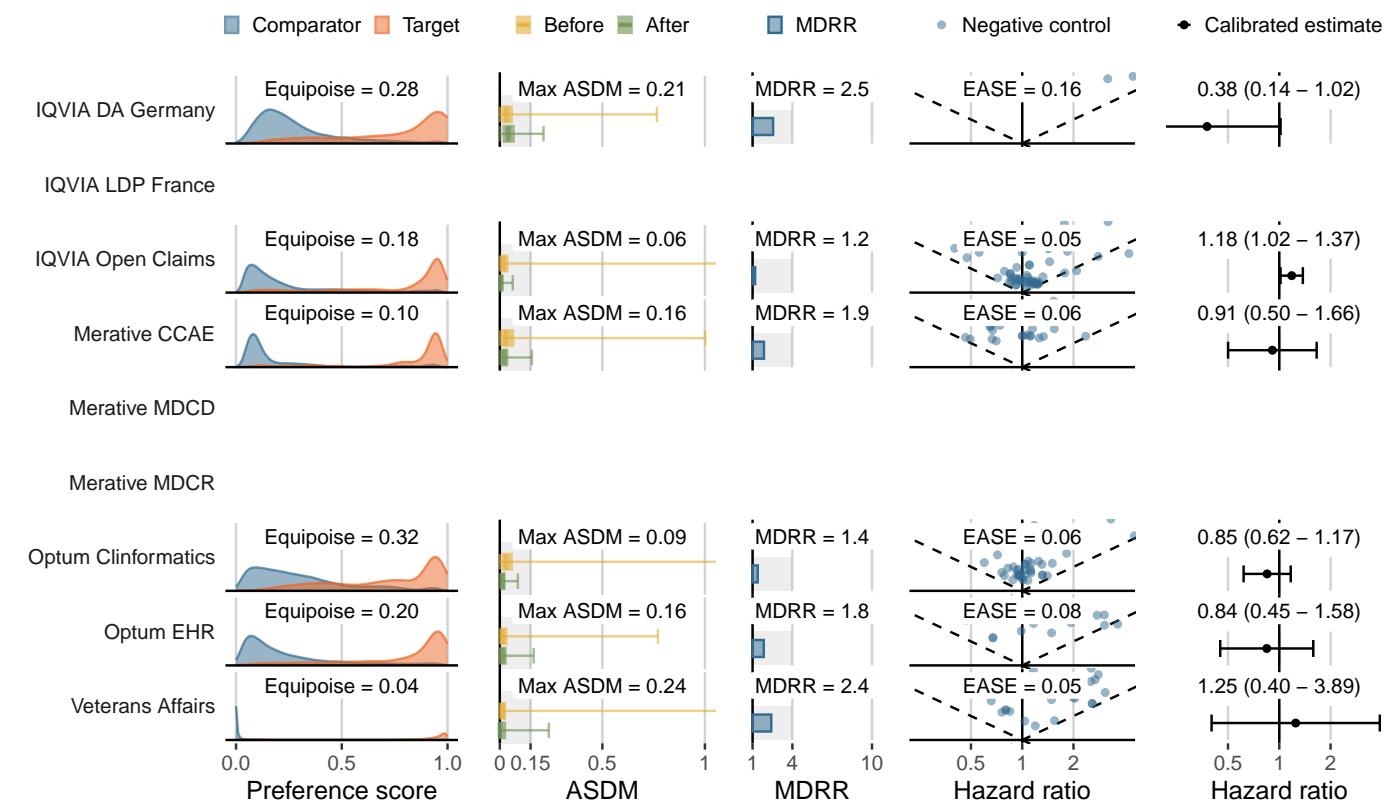
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

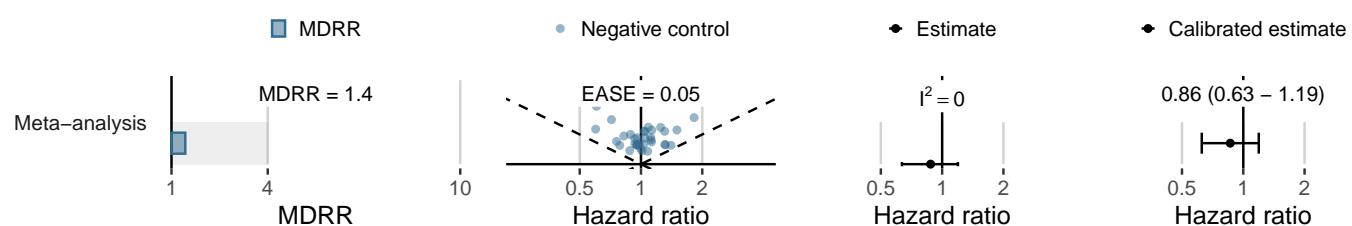
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	298	305	11	36.11
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	17,314	12,394	432	34.85
Merative CCAE	1,047	690	26	37.67
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	2,949	2,270	82	36.12
Optum EHR	1,557	547	21	38.42
Veterans Affairs	1,191	707	10	14.15

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



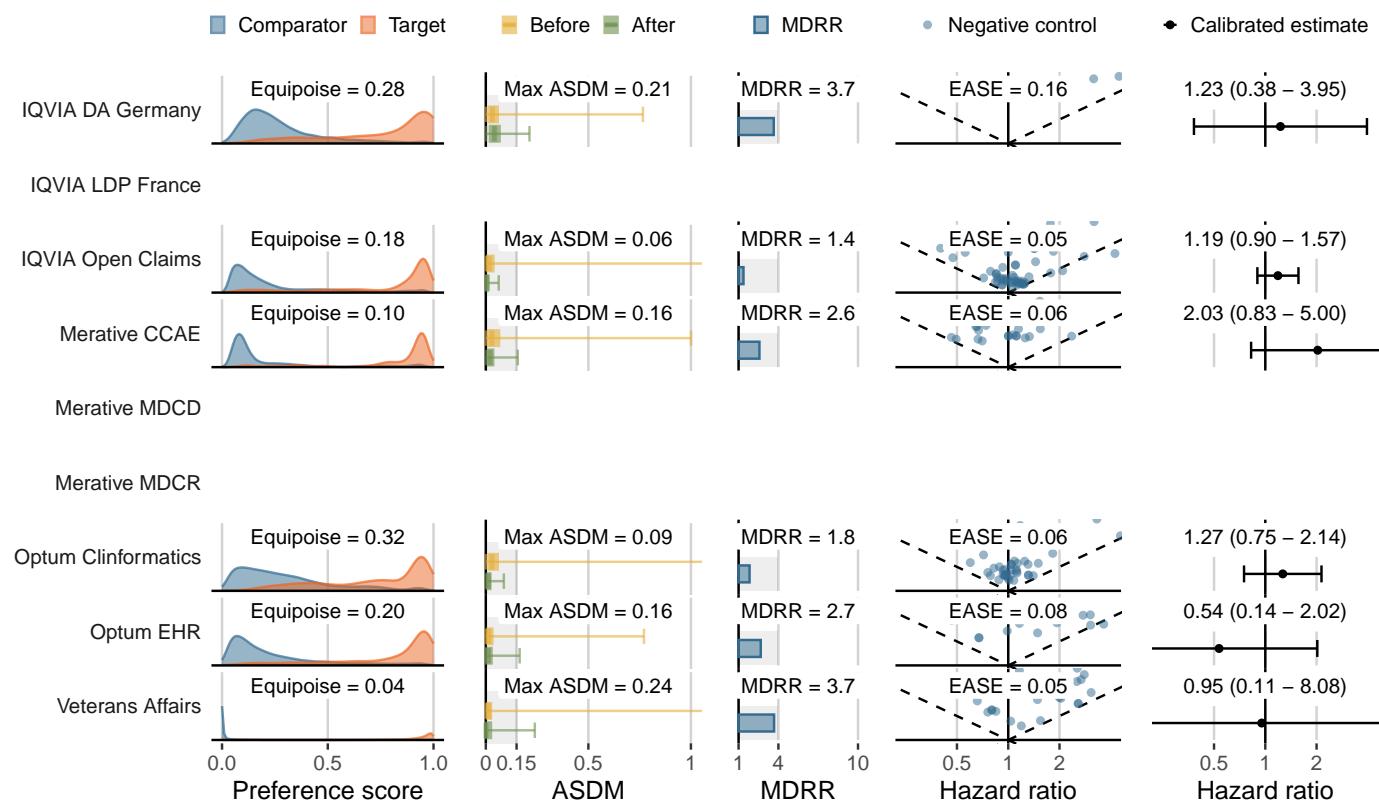
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

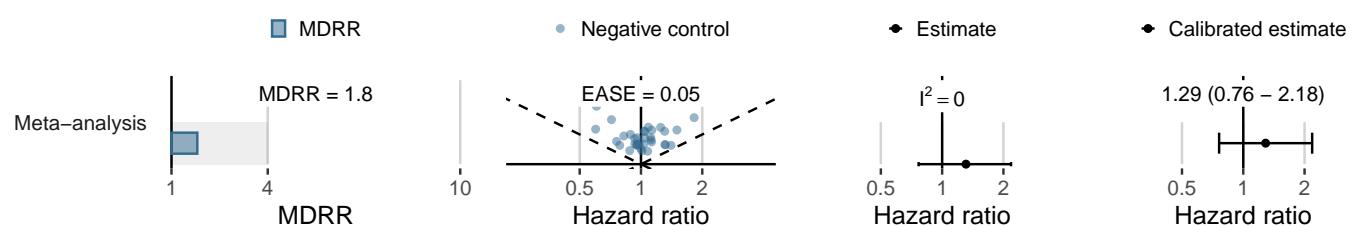
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	322	351	10	28.52
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	20,808	15,149	110	7.26
Merative CCAE	1,245	832	11	13.21
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,048	2,366	31	13.10
Optum EHR	1,745	630	5	7.93
Veterans Affairs	912	571	<10	<17.51

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): **Saxagliptin** (DPP-4 inhibitors)
- 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	364	388	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	21,569	15,754	185	11.74
Merative CCAE	1,306	873	6	6.87
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,517	2,742	52	18.97
Optum EHR	1,794	643	13	20.21
Veterans Affairs	1,271	758	13	17.16

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

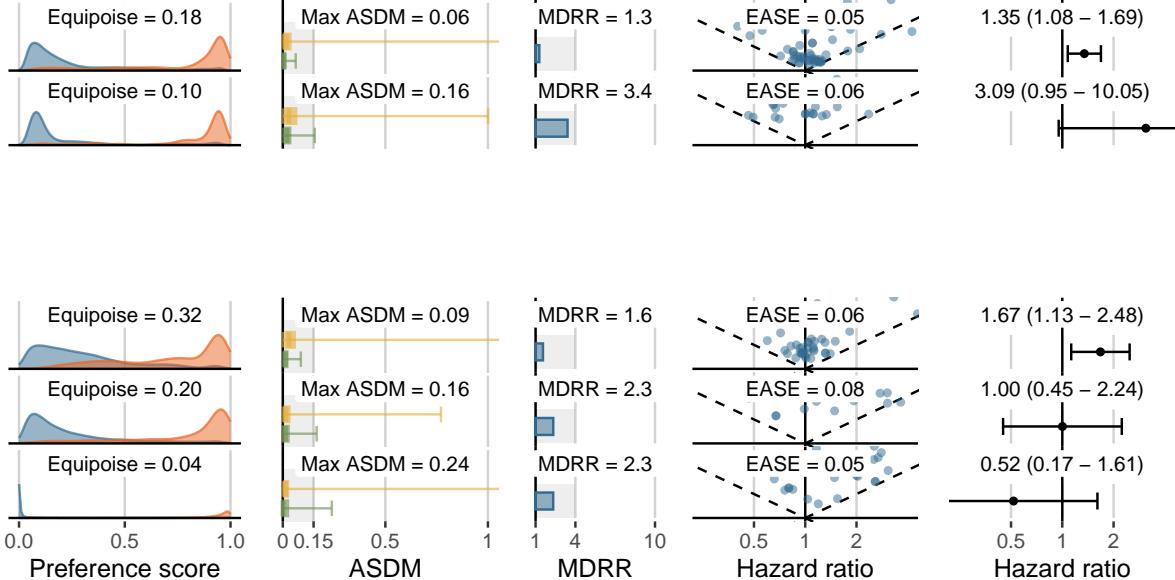
Merative MDCD

Merative MDCR

Optum Clininformatics

Optum EHR

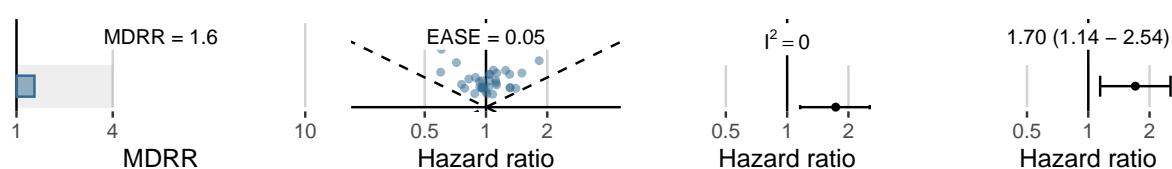
Veterans Affairs



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

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



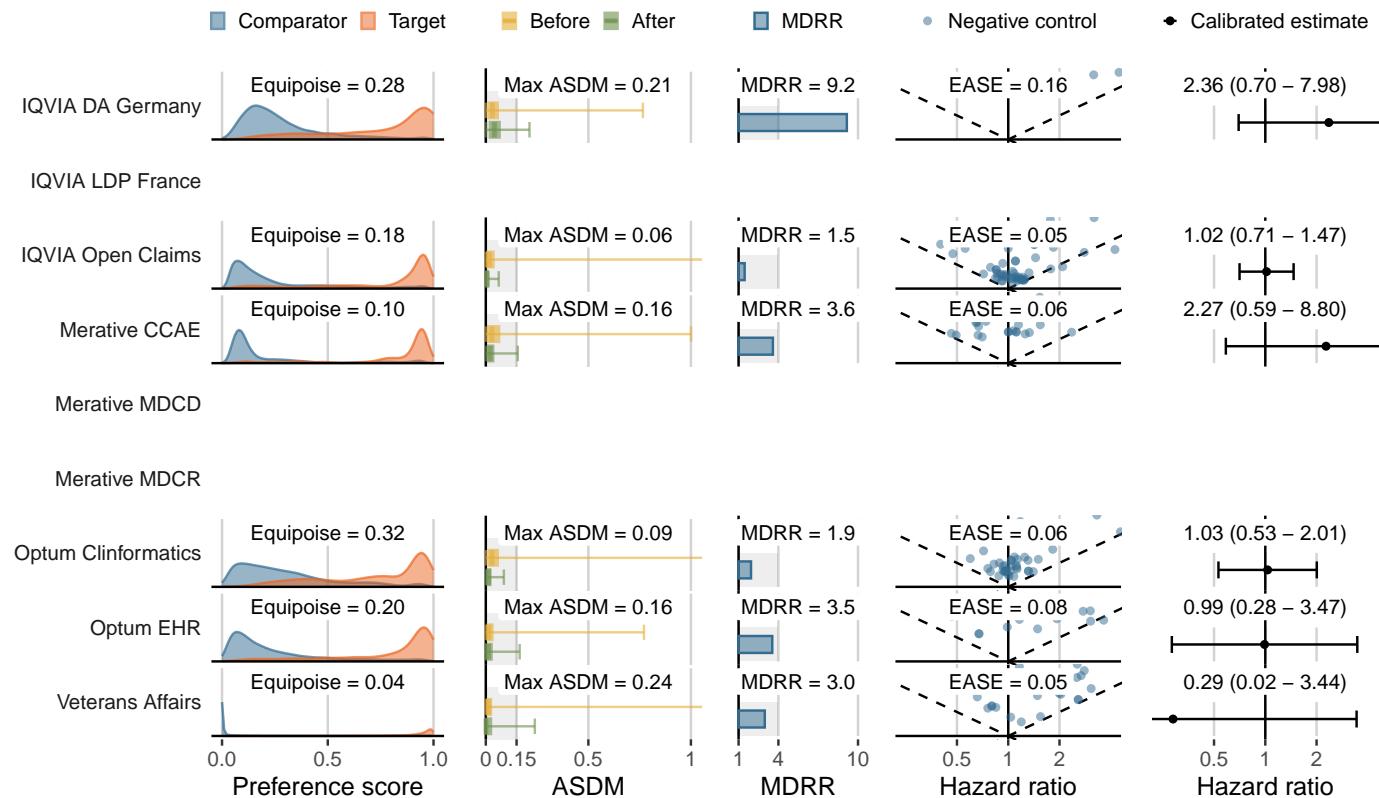
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

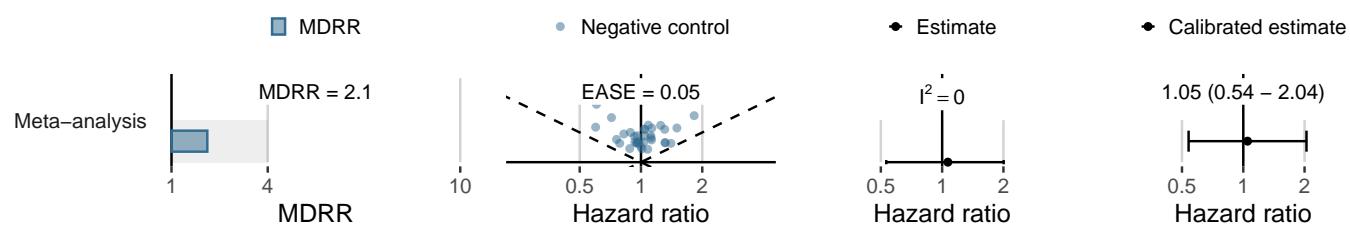
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	332	339	6	17.72
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	21,461	15,678	64	4.08
Merative CCAE	1,296	863	5	5.80
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,516	2,752	17	6.18
Optum EHR	1,787	643	7	10.88
Veterans Affairs	1,280	770	<10	<12.99

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



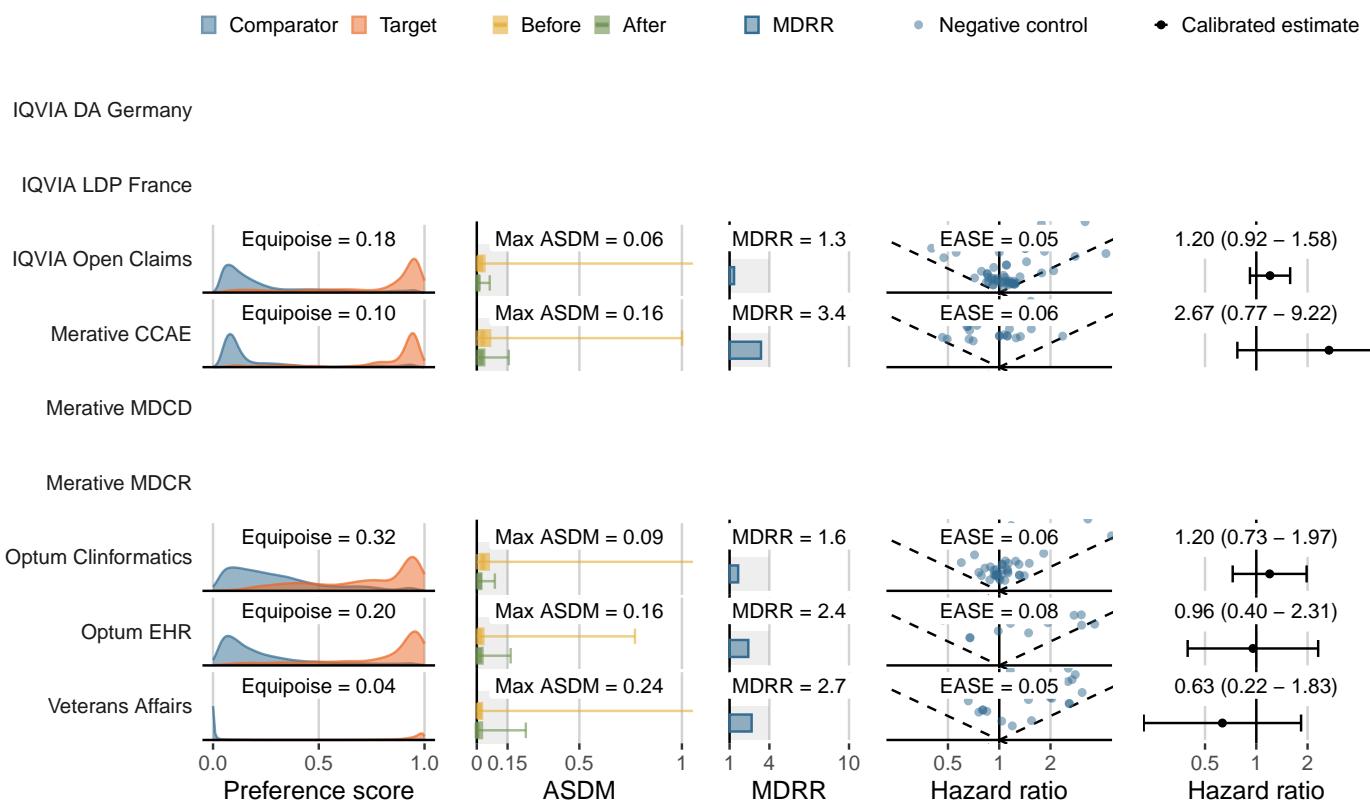
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

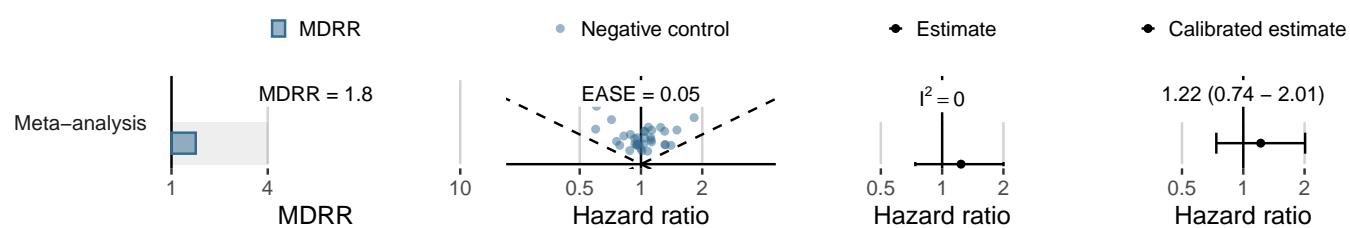
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	364	388	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	21,484	15,745	121	7.68
Merative CCAE	1,299	858	5	5.83
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,510	2,756	31	11.25
Optum EHR	1,795	650	8	12.30
Veterans Affairs	1,254	747	<10	<13.38

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



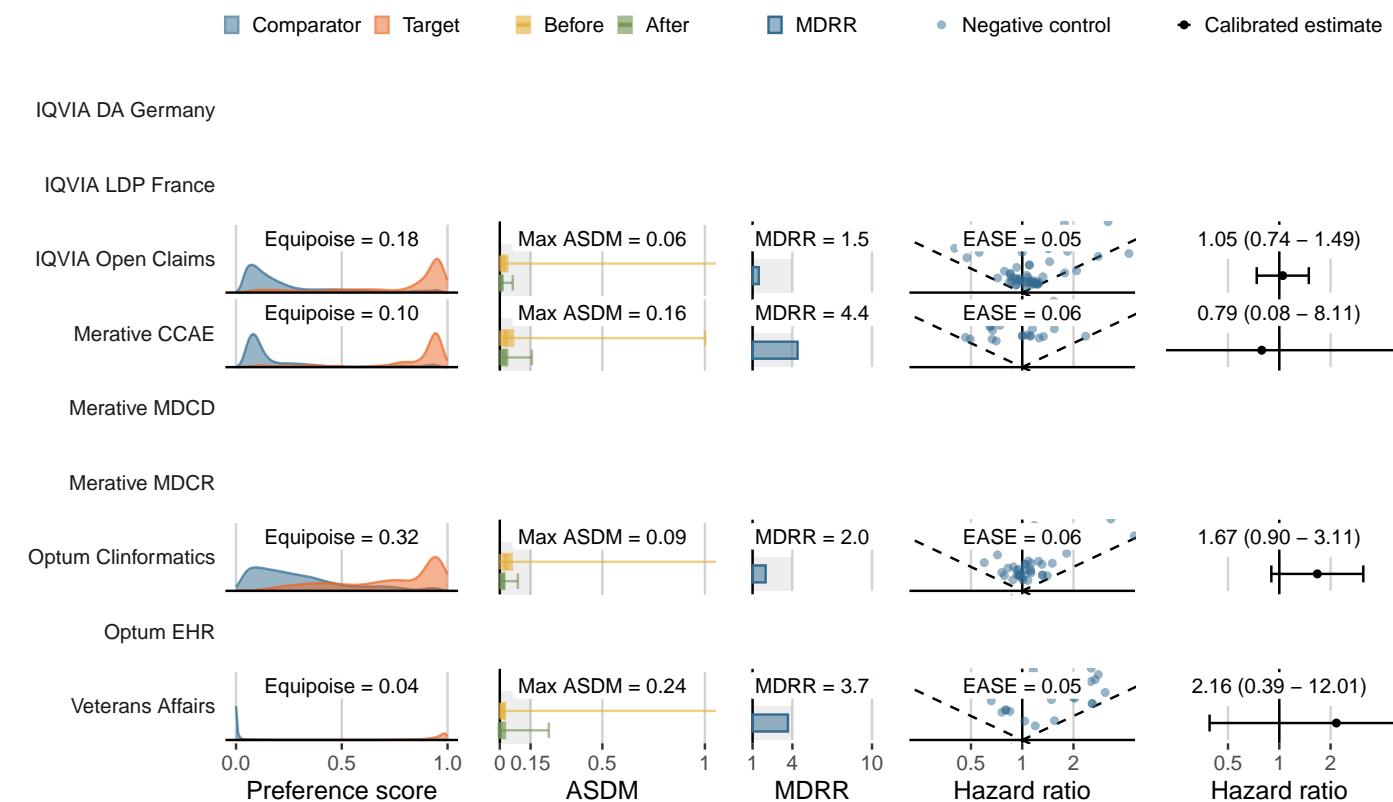
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

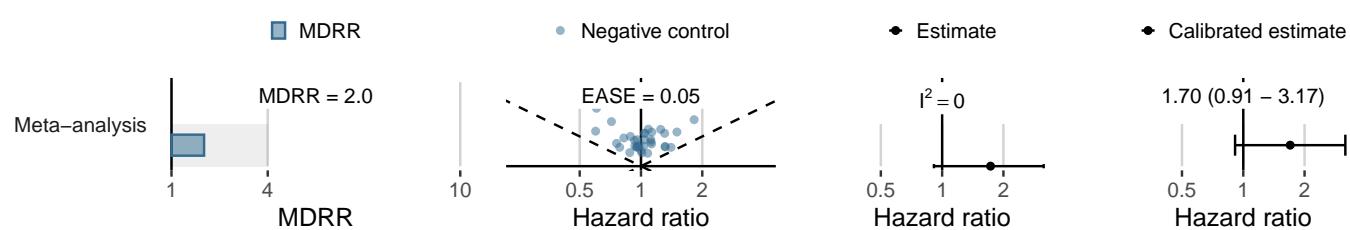
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	364	388	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	21,659	15,863	74	4.66
Merative CCAE	1,310	875	<5	<5.72
Merative MDCD	-	-	-	-
Merative MDCR	-	-	-	-
Optum Clininformatics	3,563	2,788	23	8.25
Optum EHR	1,803	650	<5	<7.69
Veterans Affairs	1,296	774	<10	<12.92

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



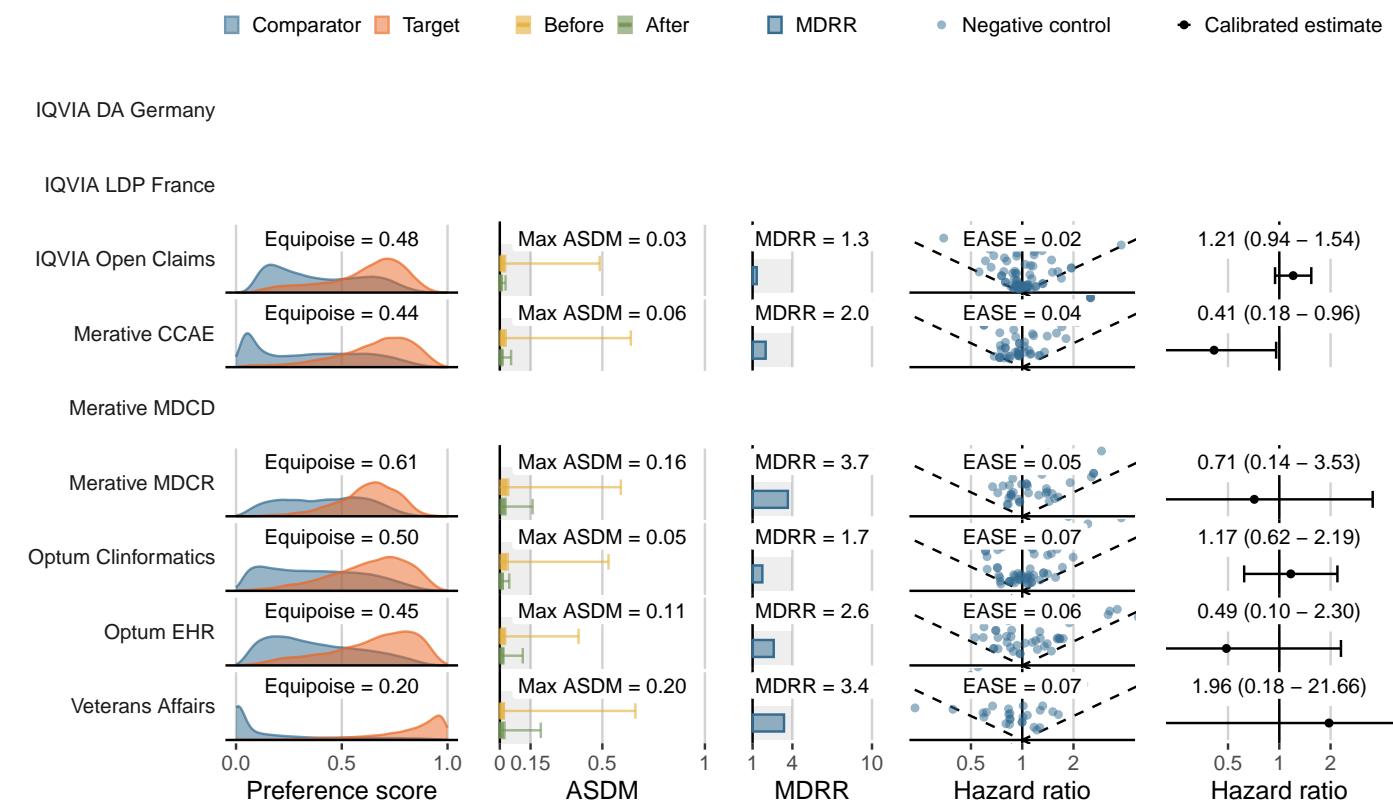
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Acute pancreatitis**

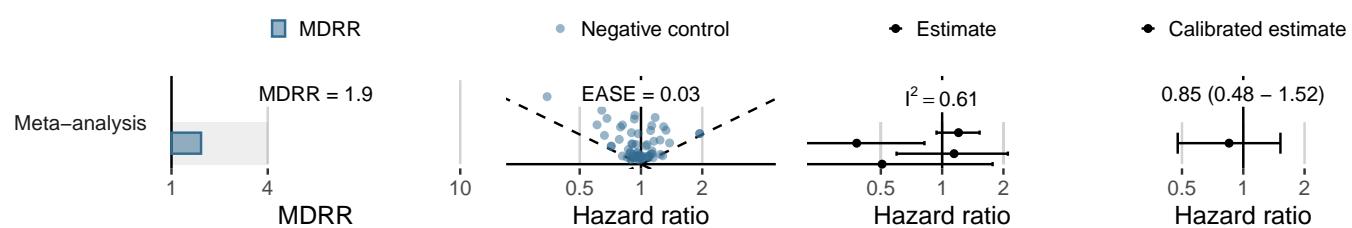
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,053	1,255	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,821	38,498	95	2.47
Merative CCAE	10,353	8,104	16	1.97
Merative MDCD	-	-	-	-
Merative MDCR	1,729	1,658	<5	<3.02
Optum Clininformatics	9,438	8,388	20	2.38
Optum EHR	6,032	2,171	<5	<2.30
Veterans Affairs	10,714	9,776	27	2.76

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



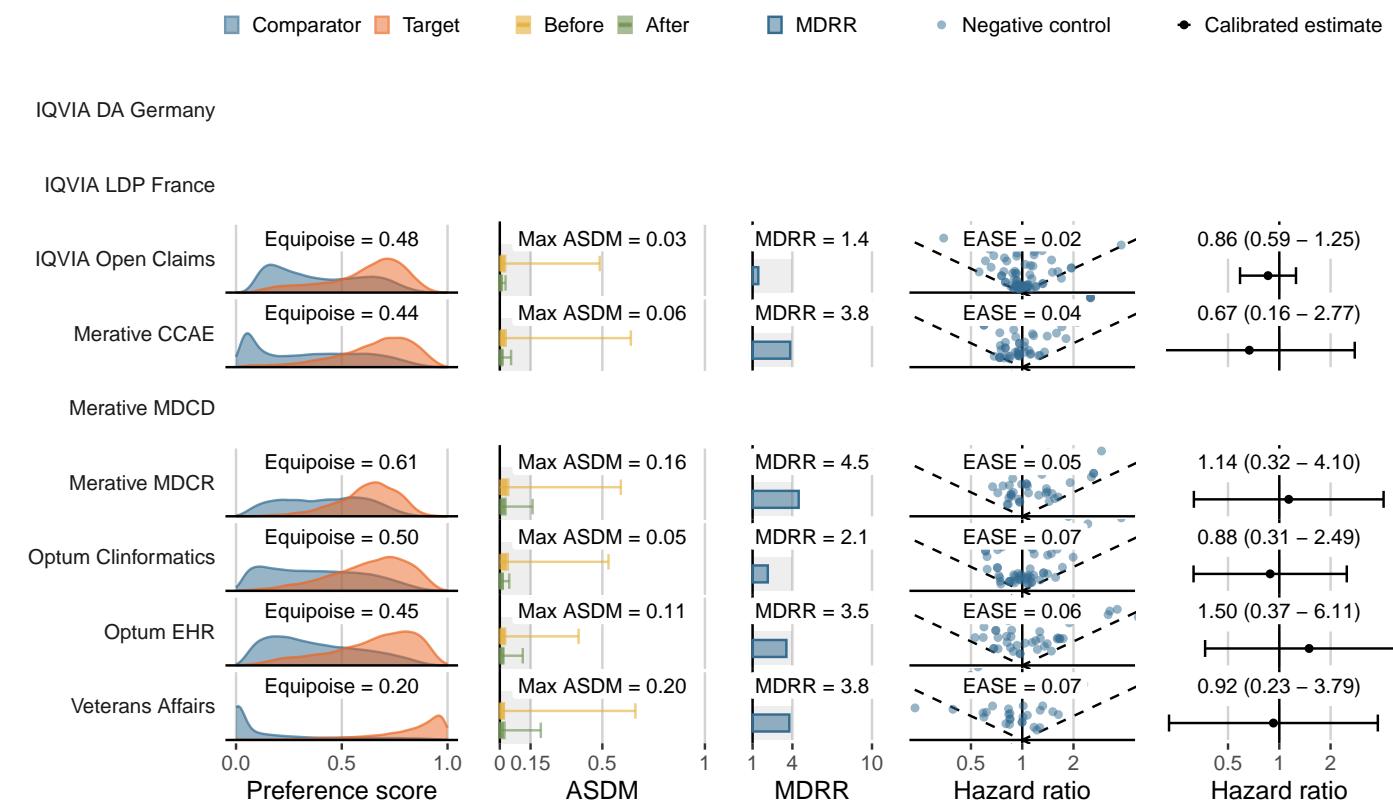
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Bladder cancer**

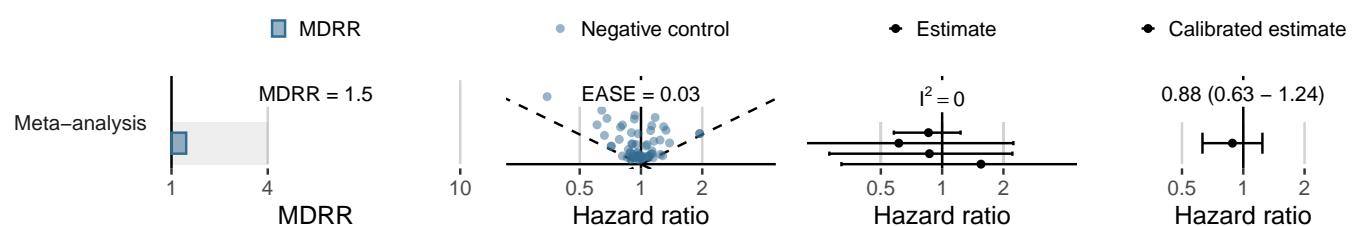
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,049	1,249	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	49,023	38,587	47	1.22
Merative CCAE	10,414	8,142	<5	<0.61
Merative MDCD	-	-	-	-
Merative MDCR	1,734	1,663	<5	<3.01
Optum Clininformatics	9,491	8,417	7	0.83
Optum EHR	6,032	2,174	<5	<2.30
Veterans Affairs	10,667	9,704	21	2.16

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



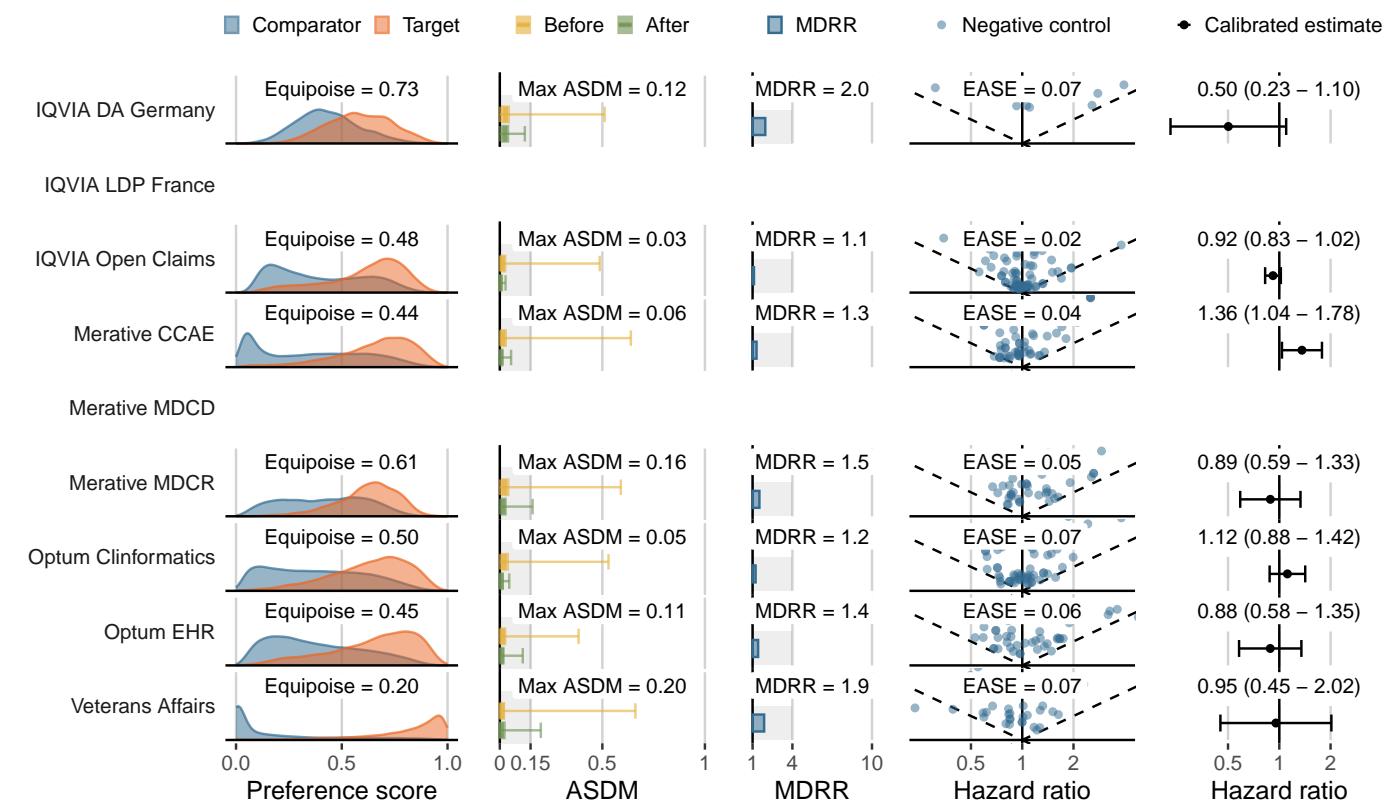
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Saxagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **Bone fracture**

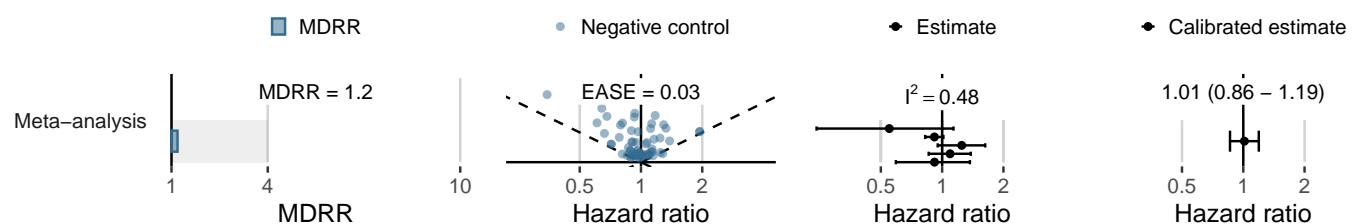
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	941	1,107	20	18.07
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,108	34,276	576	16.80
Merative CCAE	9,666	7,341	144	19.62
Merative MDCD	-	-	-	-
Merative MDCR	1,542	1,452	49	33.74
Optum Clininformatics	8,687	7,530	160	21.25
Optum EHR	5,760	2,053	39	18.99
Veterans Affairs	9,754	8,907	119	13.36

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



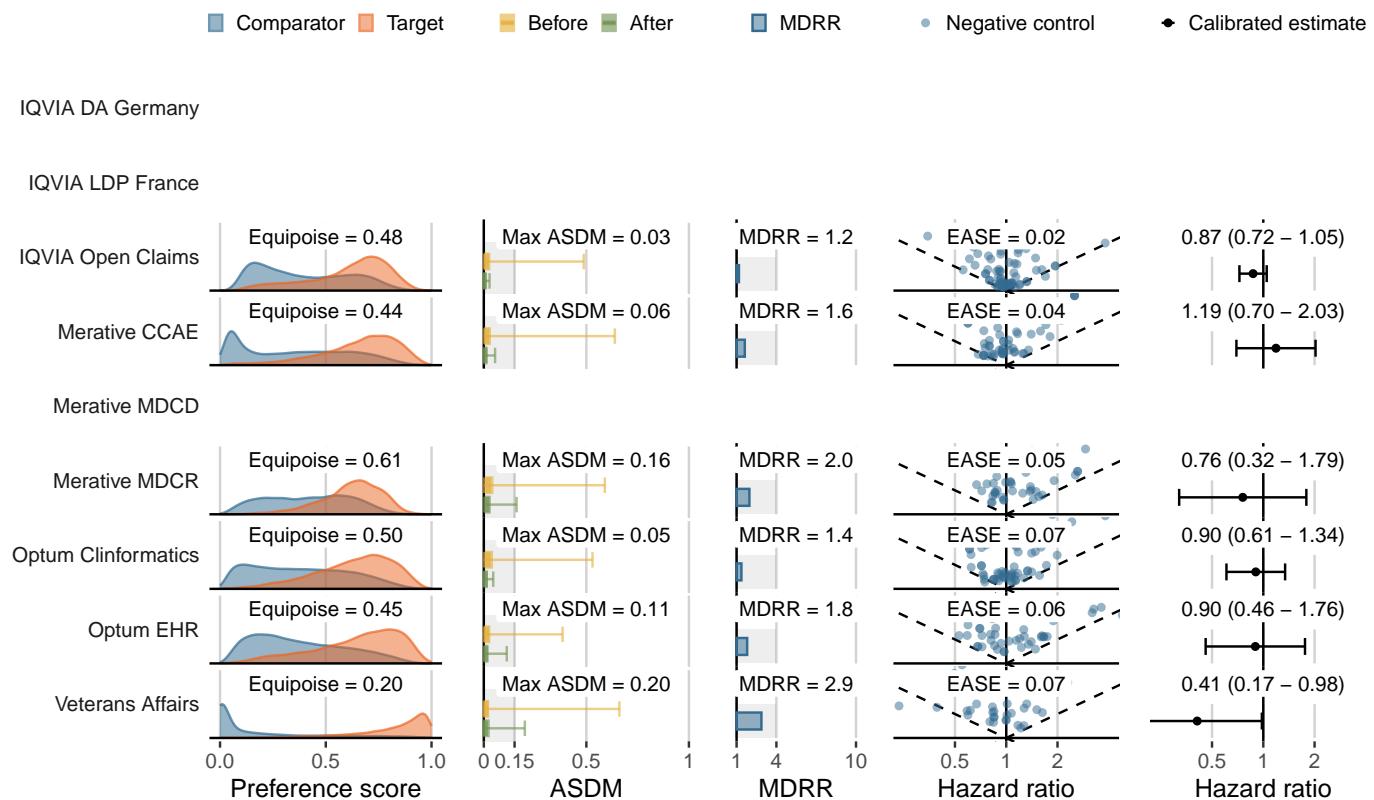
LEGEND-T2DM Evidence Dissemination Summary

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

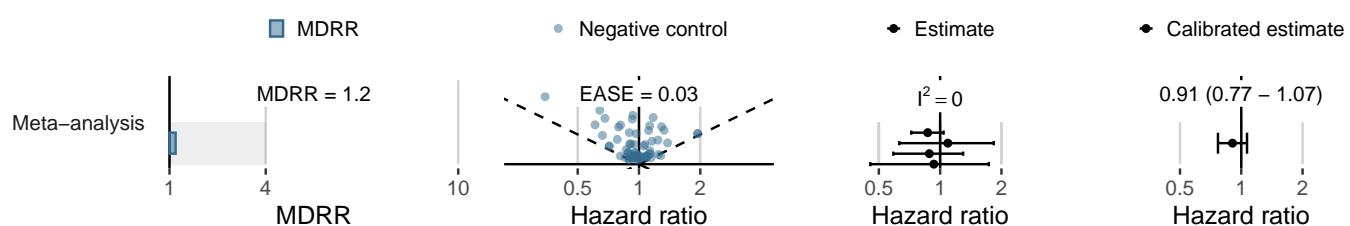
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,053	1,255	-	.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,200	37,944	166	4.37
Merative CCAE	10,263	7,970	34	4.27
Merative MDCD	-	-	-	-
Merative MDCR	1,697	1,627	9	5.53
Optum Clininformatics	9,307	8,206	50	6.09
Optum EHR	5,982	2,161	12	5.55
Veterans Affairs	10,540	9,628	31	3.22

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



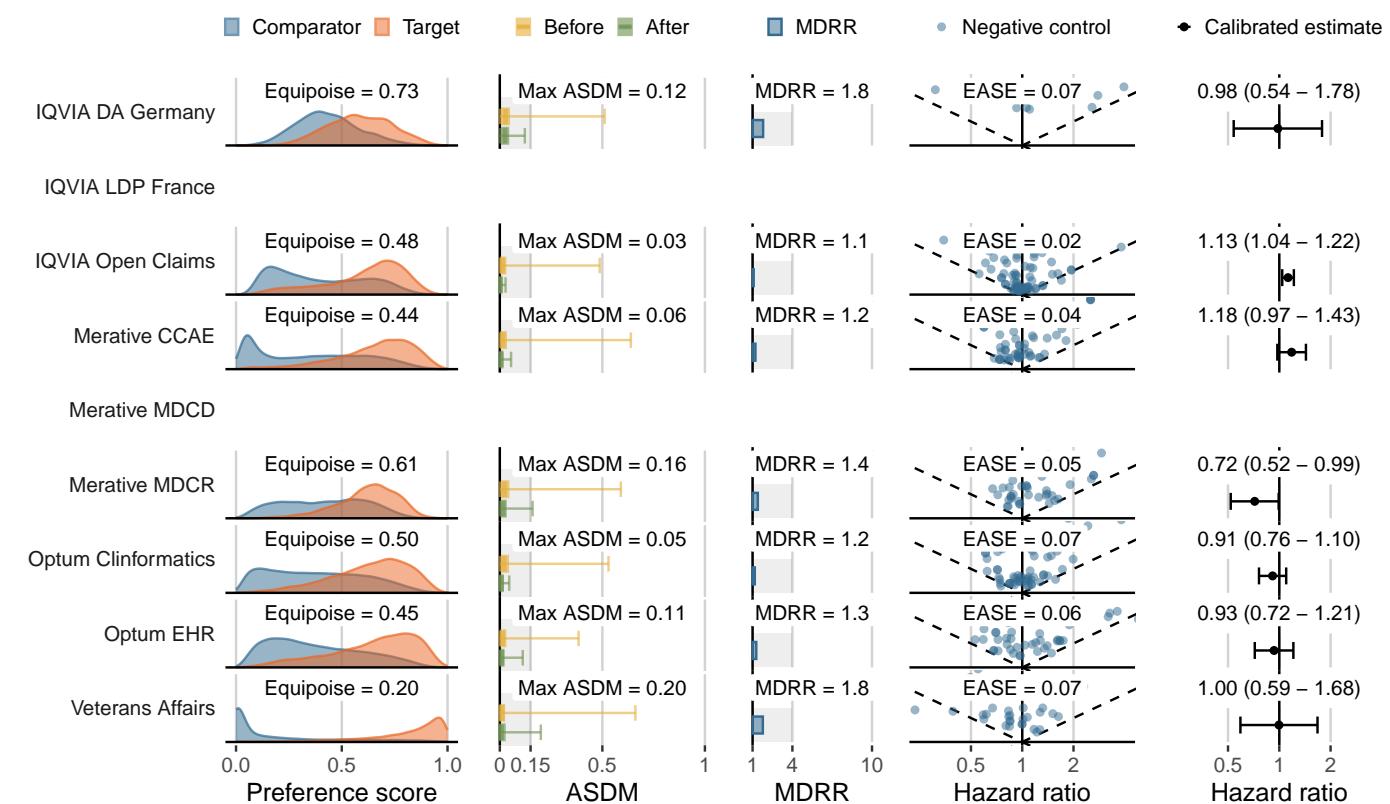
LEGEND-T2DM Evidence Dissemination Summary

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

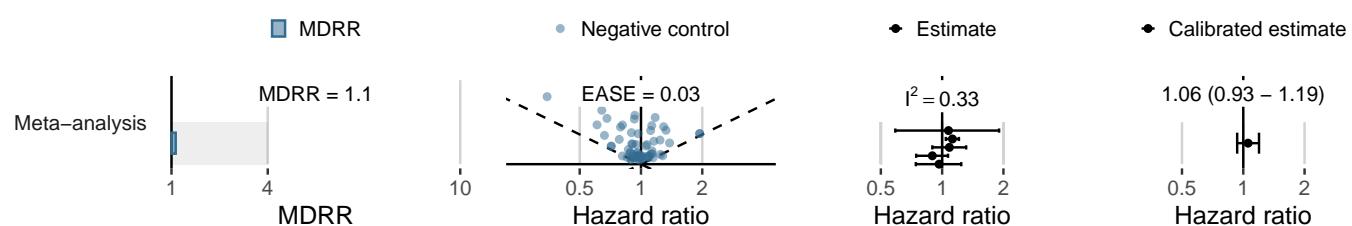
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	837	932	36	38.62
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,825	29,885	1,102	36.87
Merative CCAE	8,489	6,402	288	44.99
Merative MDCD	-	-	-	-
Merative MDCR	1,375	1,274	72	56.53
Optum Clininformatics	7,521	6,395	273	42.69
Optum EHR	5,285	1,811	99	54.67
Veterans Affairs	9,502	8,634	133	15.40

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



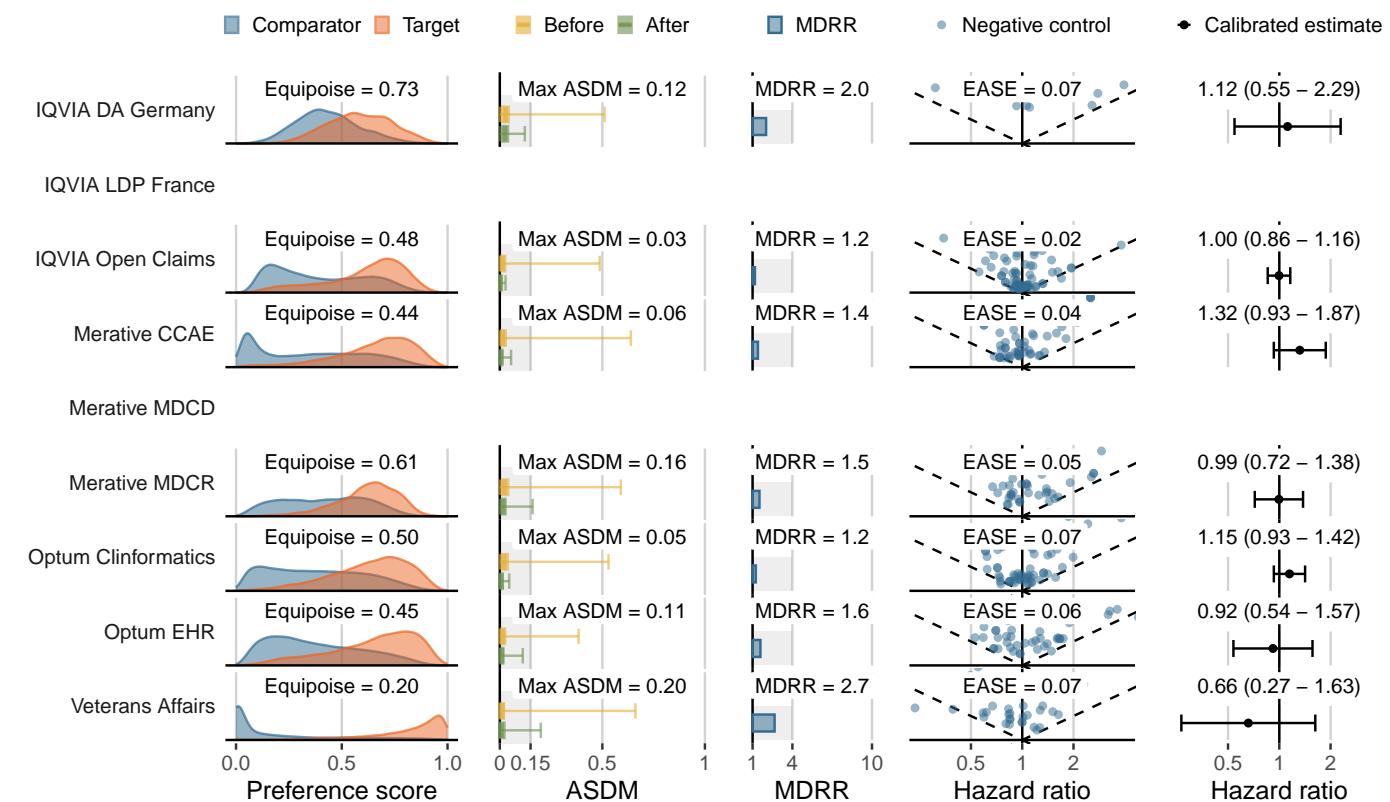
LEGEND-T2DM Evidence Dissemination Summary

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

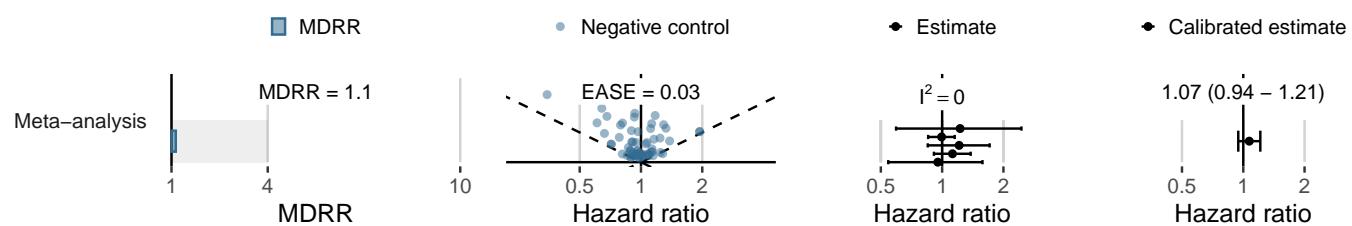
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	896	1,039	21	20.22
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	46,720	36,650	264	7.20
Merative CCAE	9,980	7,748	76	9.81
Merative MDCD	-	-	-	-
Merative MDCR	1,357	1,231	71	57.66
Optum Clininformatics	7,591	6,412	237	36.96
Optum EHR	5,815	2,074	24	11.57
Veterans Affairs	7,045	6,518	44	6.75

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



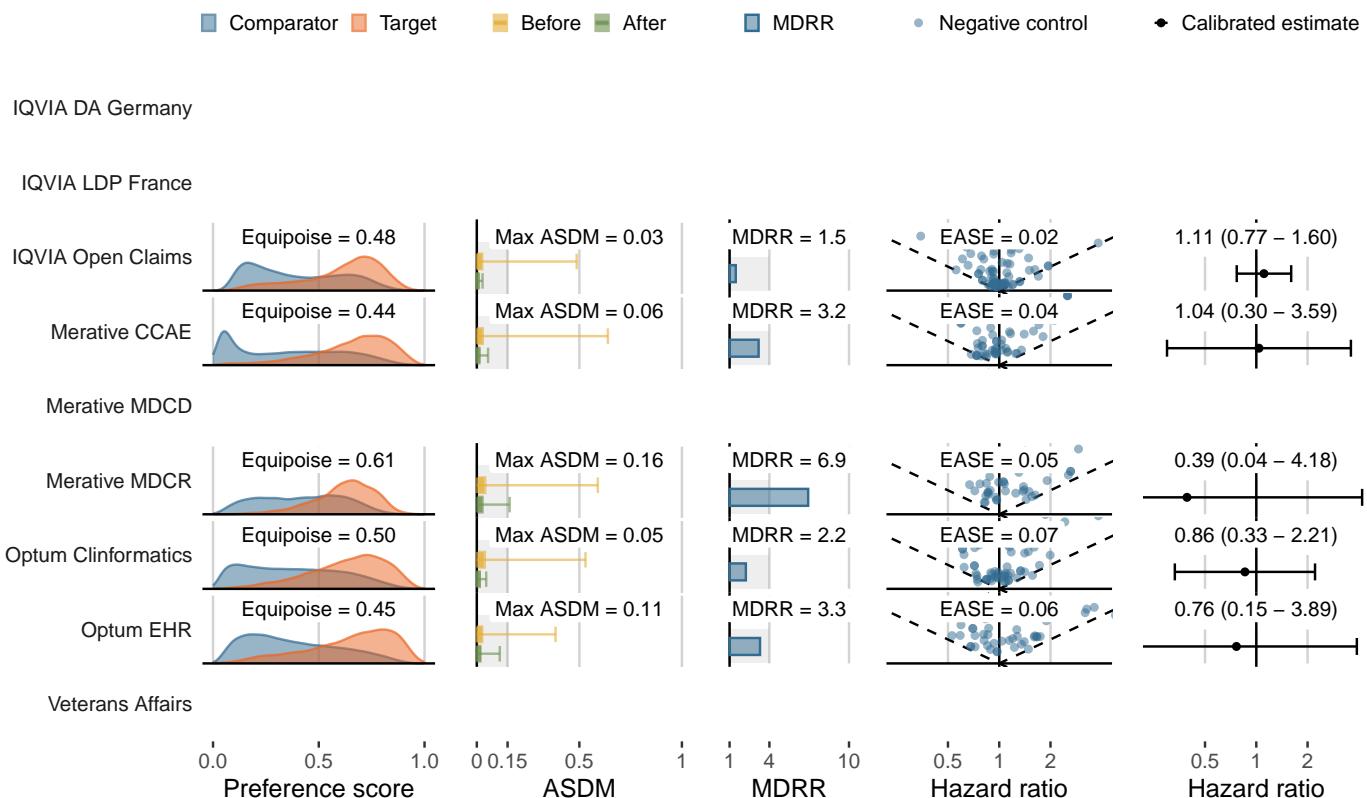
LEGEND-T2DM Evidence Dissemination Summary

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

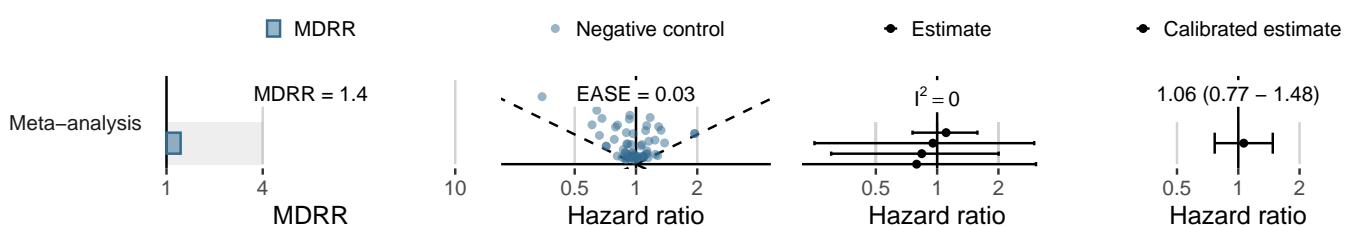
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,051	1,251	<5	<4.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	49,085	38,683	55	1.42
Merative CCAE	10,418	8,141	7	0.86
Merative MDCD	-	-	-	-
Merative MDCR	1,740	1,669	<5	<3.00
Optum Clininformatics	9,488	8,421	7	0.83
Optum EHR	6,037	2,184	<5	<2.29
Veterans Affairs	10,730	9,781	10	1.02

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



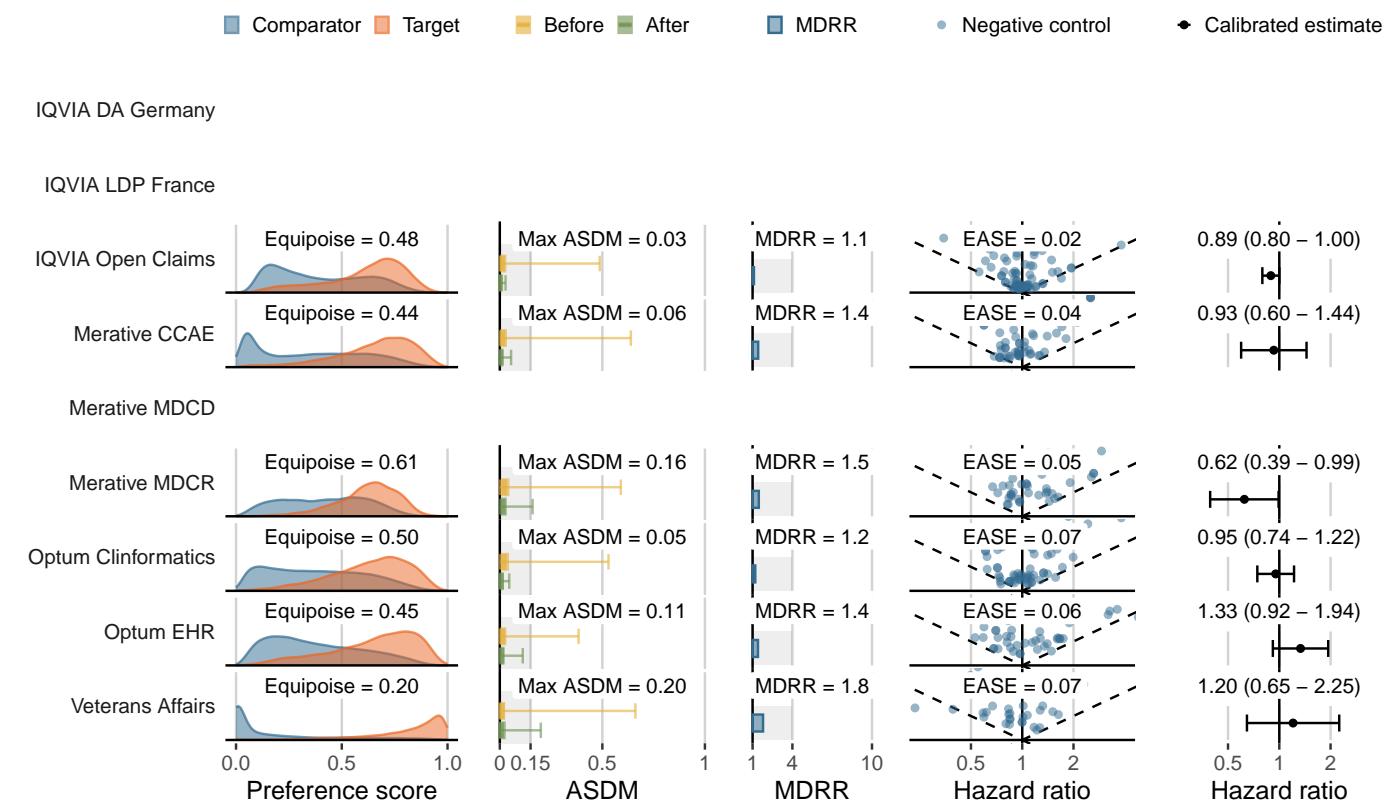
LEGEND-T2DM Evidence Dissemination Summary

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

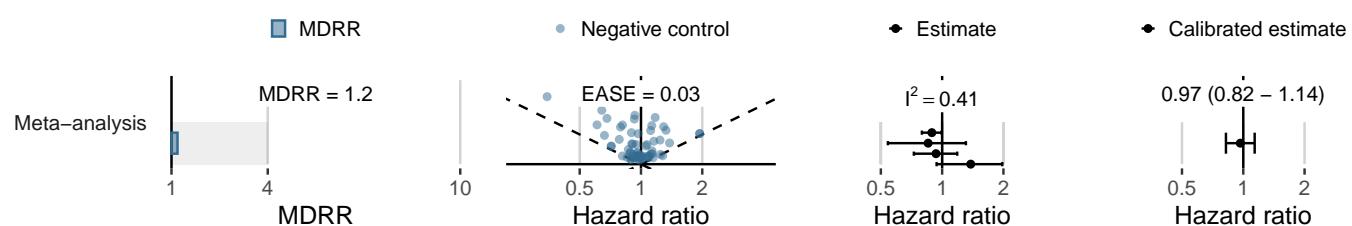
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,053	1,255	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,166	37,703	453	12.01
Merative CCAE	10,330	8,061	48	5.95
Merative MDCD	-	-	-	-
Merative MDCR	1,669	1,599	35	21.89
Optum Clininformatics	9,278	8,174	116	14.19
Optum EHR	5,984	2,147	40	18.63
Veterans Affairs	10,408	9,441	132	13.98

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



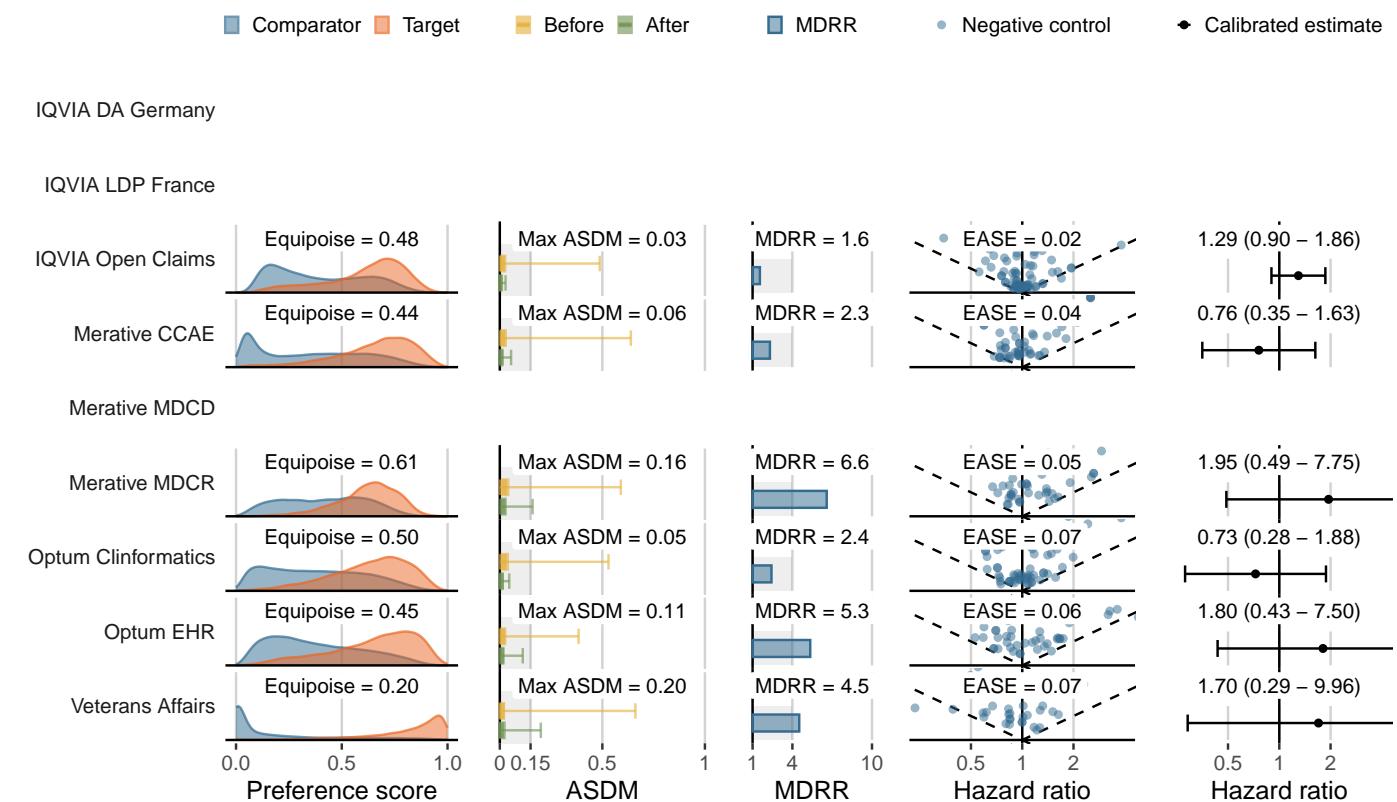
LEGEND-T2DM Evidence Dissemination Summary

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

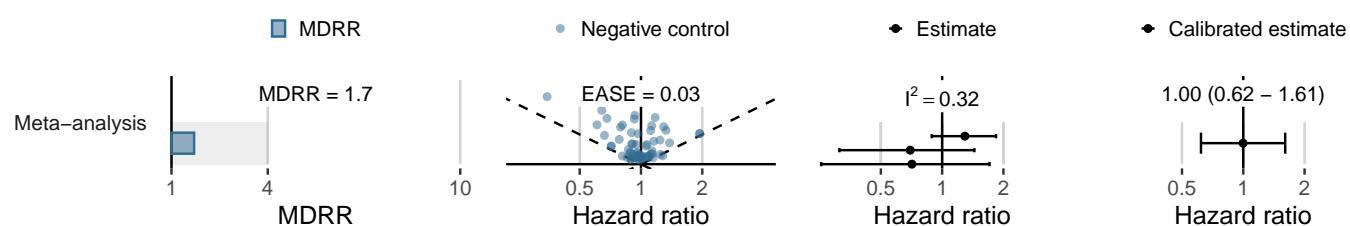
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,048	1,248	<5	<4.01
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,948	38,515	51	1.32
Merative CCAE	10,391	8,127	14	1.72
Merative MDCD	-	-	-	-
Merative MDCR	1,735	1,662	<5	<3.01
Optum Clininformatics	9,462	8,399	12	1.43
Optum EHR	6,031	2,176	<5	<2.30
Veterans Affairs	10,726	9,782	14	1.43

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



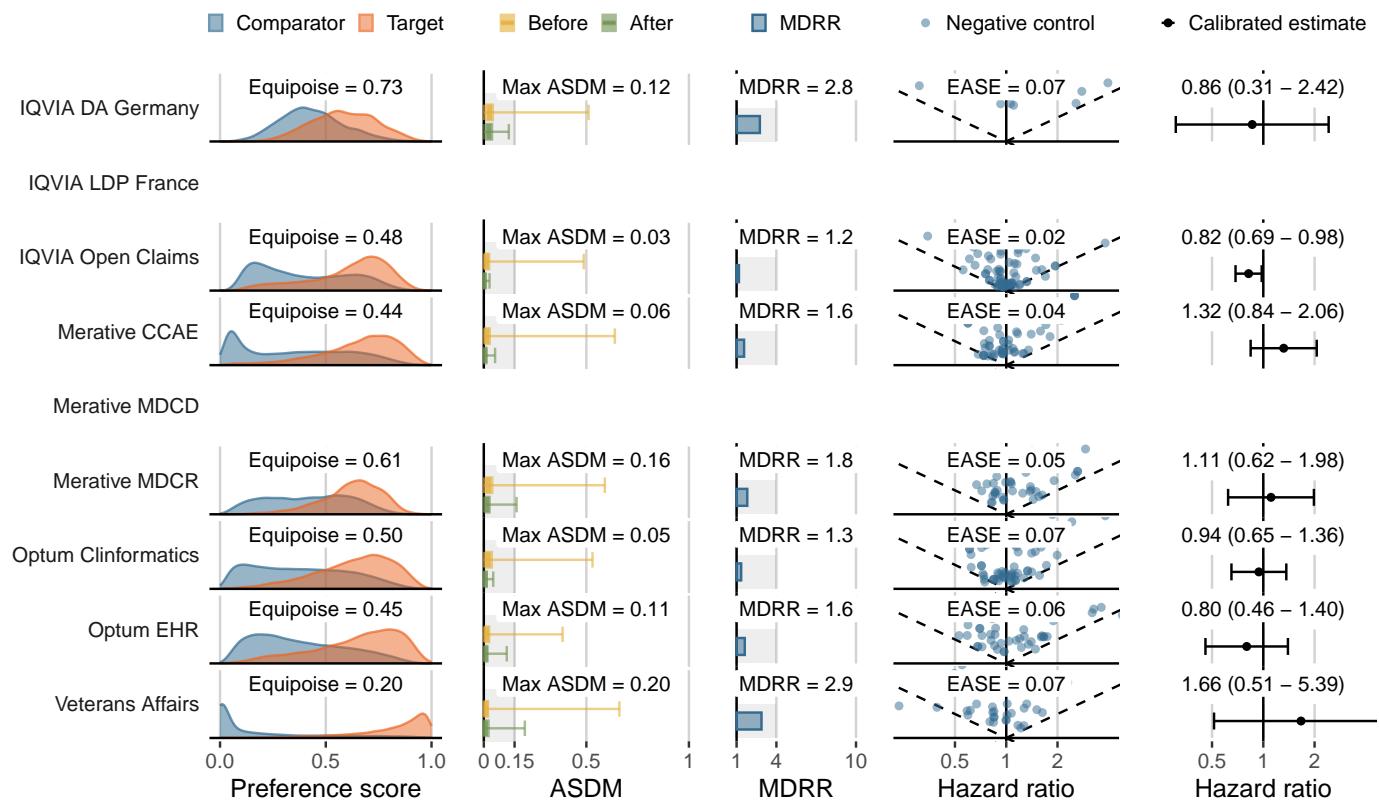
LEGEND-T2DM Evidence Dissemination Summary

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

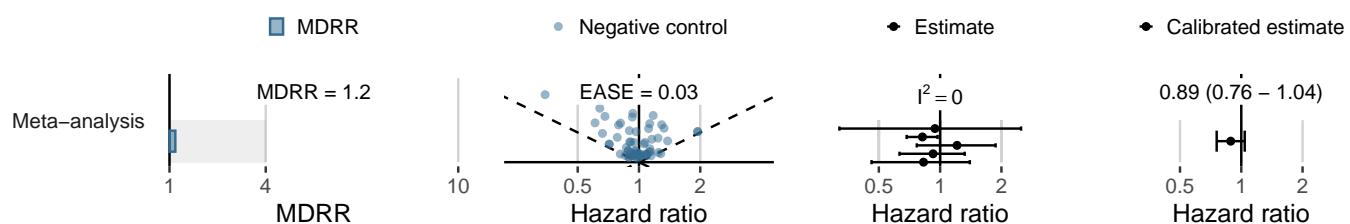
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	984	1,179	8	6.79
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	47,908	37,637	184	4.89
Merative CCAE	10,251	7,973	47	5.89
Merative MDCD	-	-	-	-
Merative MDCR	1,683	1,588	27	17.00
Optum Clininformatics	9,278	8,170	56	6.85
Optum EHR	5,921	2,130	20	9.39
Veterans Affairs	10,466	9,540	39	4.09

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



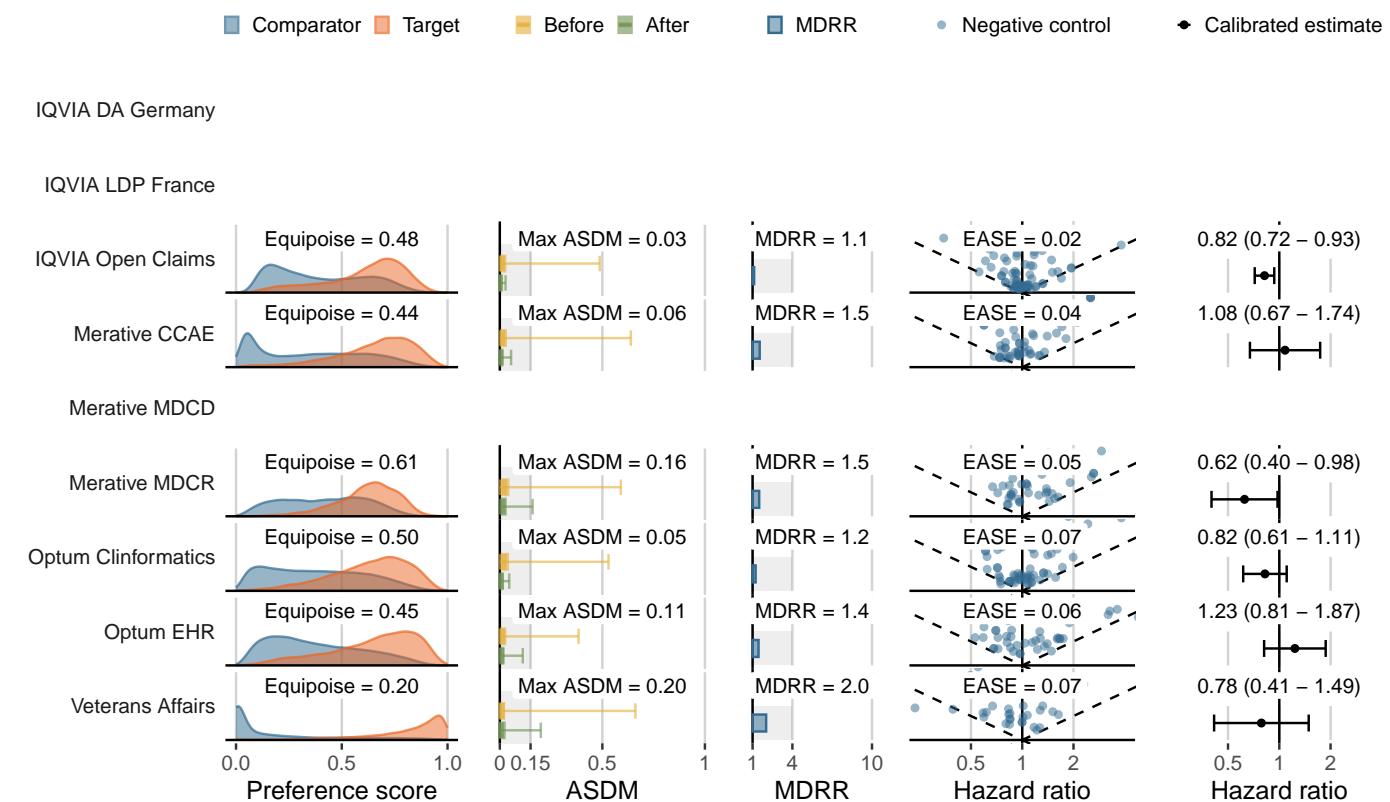
LEGEND-T2DM Evidence Dissemination Summary

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

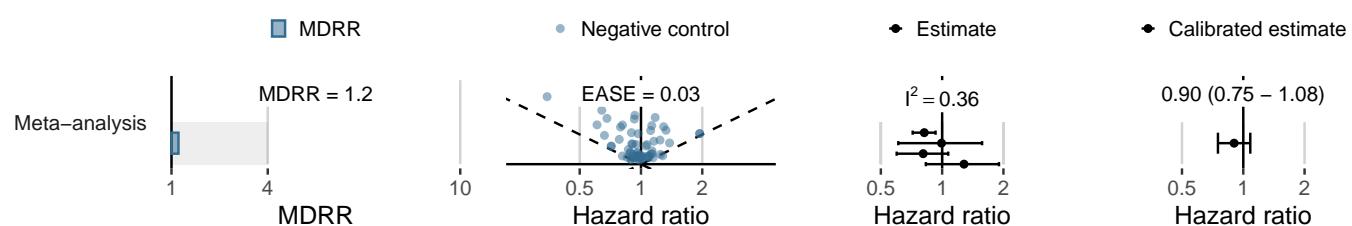
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,053	1,255	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	47,804	37,516	333	8.88
Merative CCAE	10,278	8,030	40	4.98
Merative MDCD	-	-	-	-
Merative MDCR	1,622	1,551	43	27.72
Optum Clininformatics	9,208	8,092	92	11.37
Optum EHR	5,977	2,144	36	16.79
Veterans Affairs	10,466	9,520	80	8.40

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



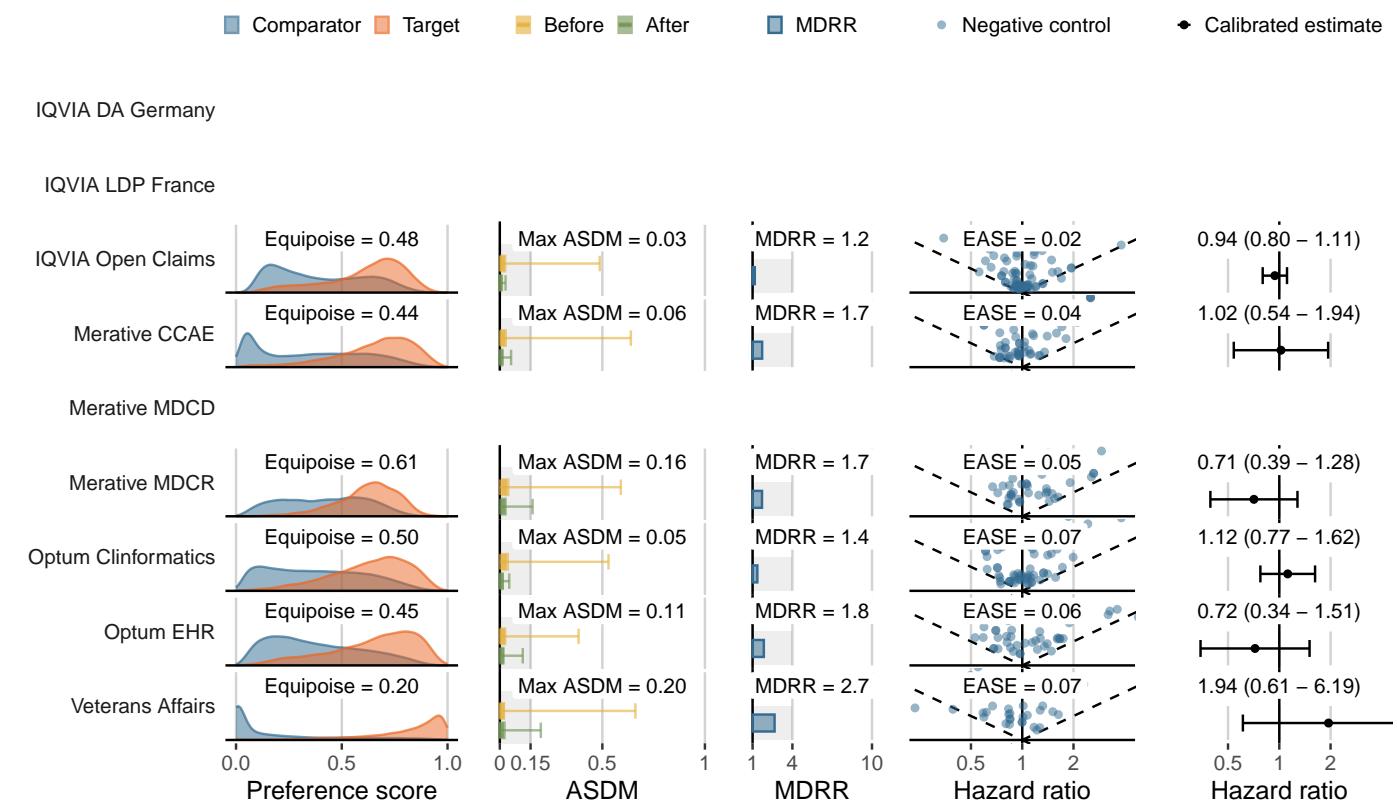
LEGEND-T2DM Evidence Dissemination Summary

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

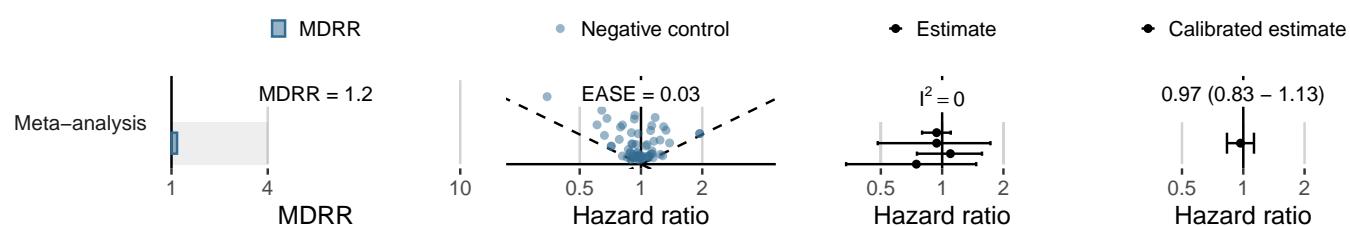
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,053	1,255	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,300	38,055	205	5.39
Merative CCAE	10,333	8,080	22	2.72
Merative MDCD	-	-	-	-
Merative MDCR	1,681	1,618	21	12.98
Optum Clininformatics	9,337	8,241	60	7.28
Optum EHR	6,017	2,164	12	5.55
Veterans Affairs	10,622	9,678	47	4.86

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



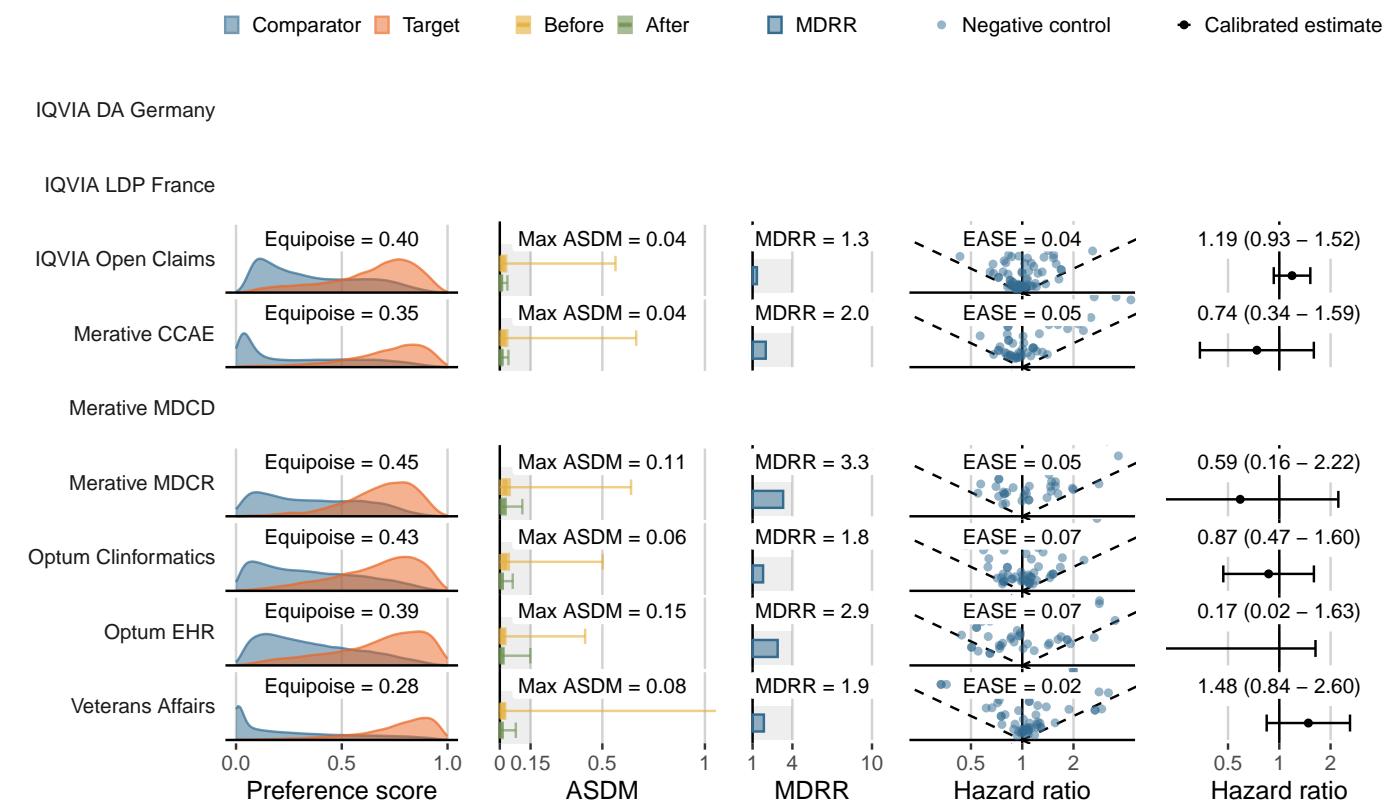
LEGEND-T2DM Evidence Dissemination Summary

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

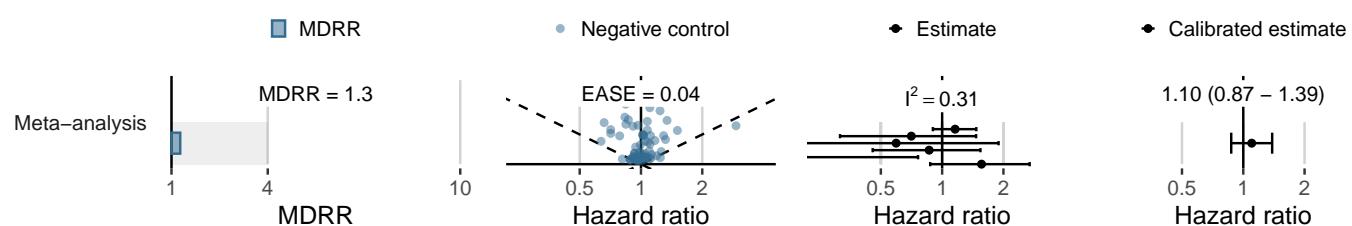
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,788	38,456	95	2.47
Merative CCAE	10,162	7,921	16	2.02
Merative MDCD	-	-	-	-
Merative MDCR	1,636	1,563	<5	<3.20
Optum Clininformatics	9,373	8,309	19	2.29
Optum EHR	5,948	2,139	<5	<2.34
Veterans Affairs	10,623	9,796	27	2.76

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



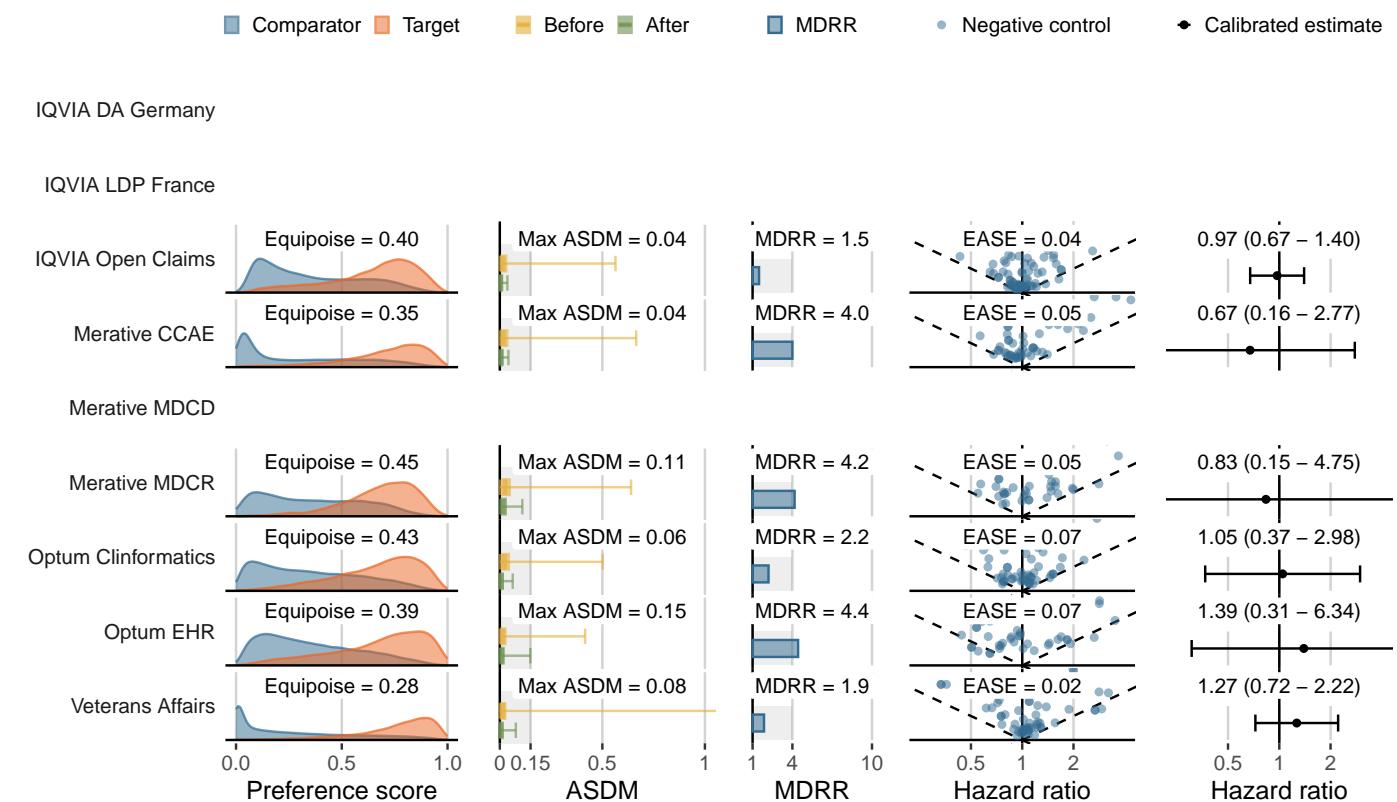
LEGEND-T2DM Evidence Dissemination Summary

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

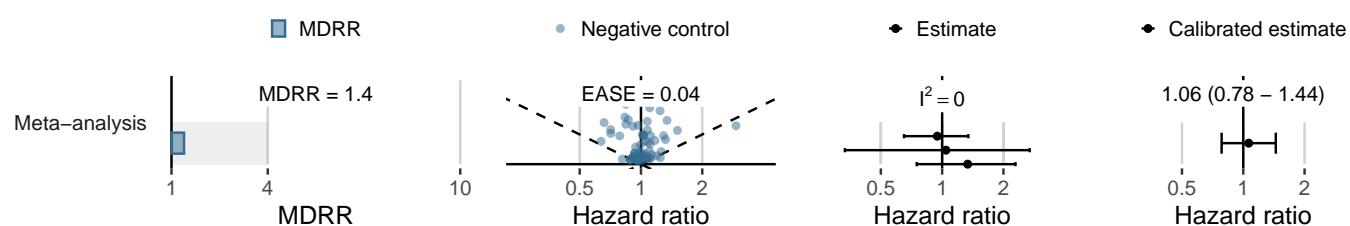
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,993	38,549	47	1.22
Merative CCAE	10,218	7,946	<5	<0.63
Merative MDCD	-	-	-	-
Merative MDCR	1,642	1,567	<5	<3.19
Optum Clininformatics	9,419	8,344	7	0.84
Optum EHR	5,950	2,136	<5	<2.34
Veterans Affairs	10,585	9,736	22	2.26

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



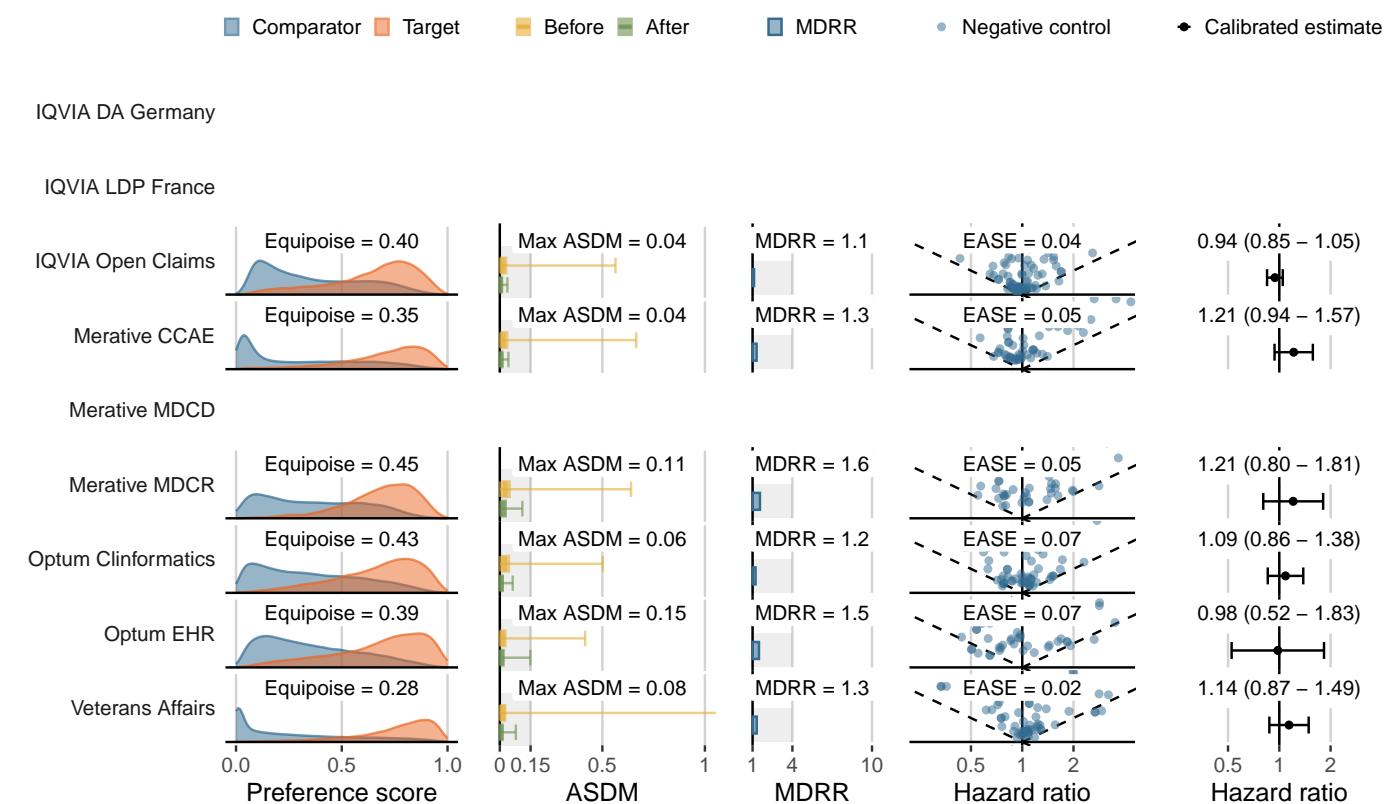
LEGEND-T2DM Evidence Dissemination Summary

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

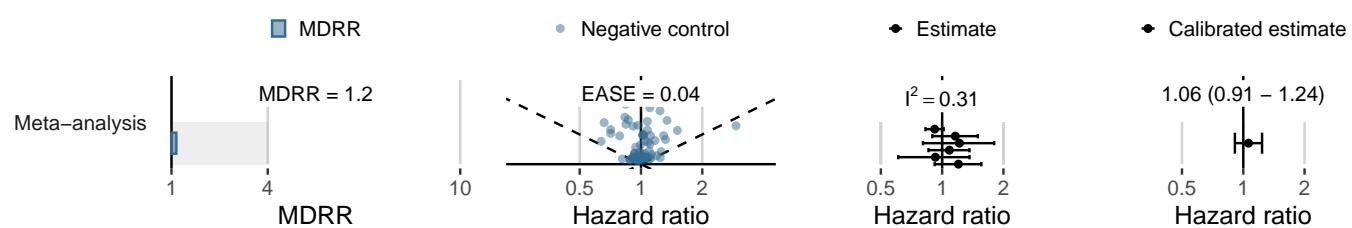
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,085	34,251	575	16.79
Merative CCAE	9,491	7,188	137	19.06
Merative MDCD	-	-	-	-
Merative MDCR	1,459	1,362	45	33.03
Optum Clininformatics	8,639	7,478	157	20.99
Optum EHR	5,687	2,018	38	18.83
Veterans Affairs	9,650	8,890	117	13.16

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



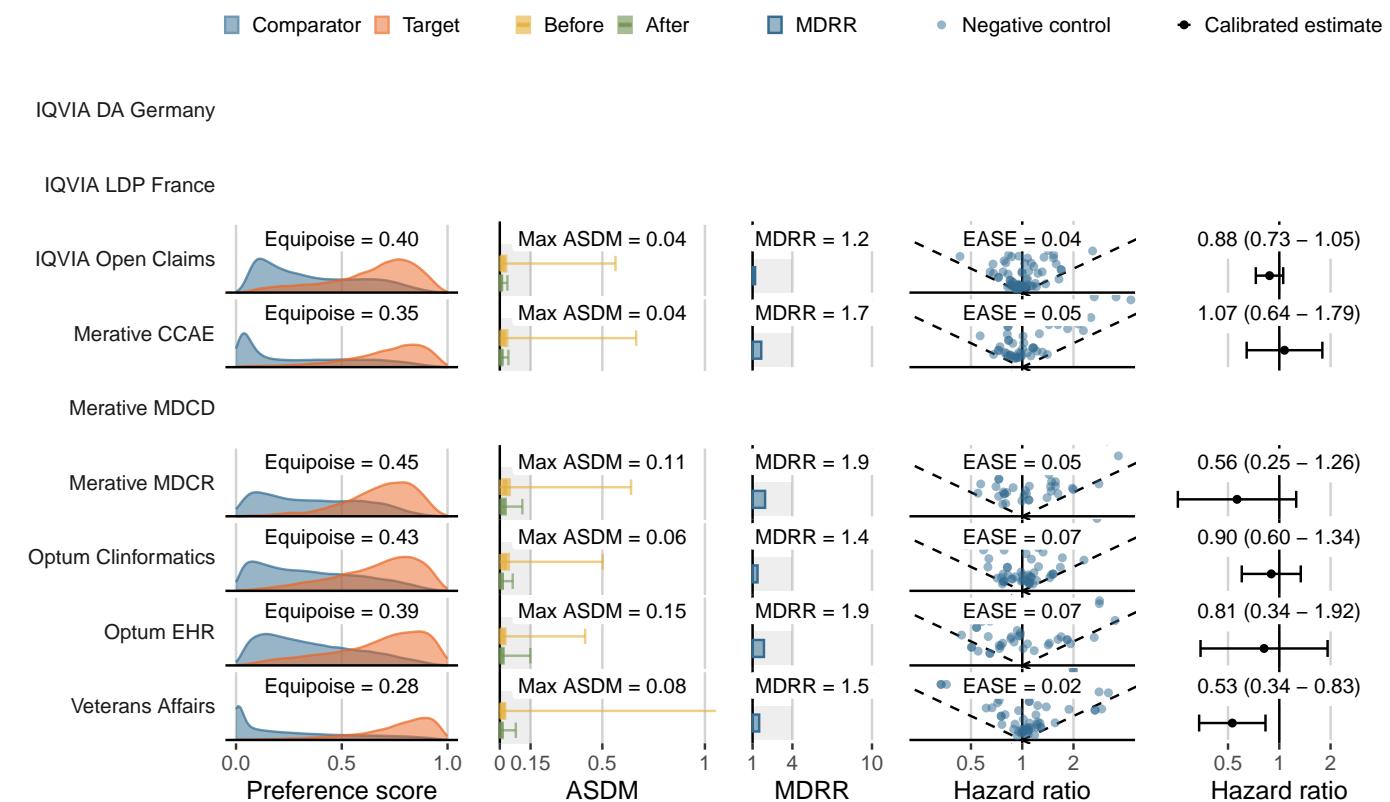
LEGEND-T2DM Evidence Dissemination Summary

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

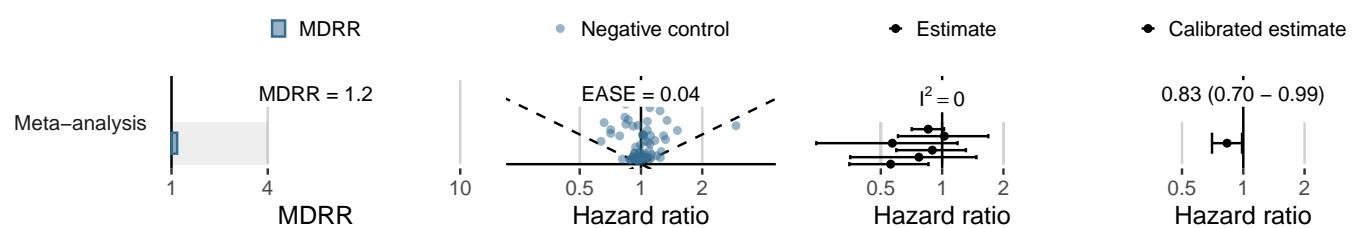
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,168	37,904	166	4.38
Merative CCAE	10,071	7,772	35	4.50
Merative MDCD	-	-	-	-
Merative MDCR	1,604	1,526	9	5.90
Optum Clininformatics	9,228	8,118	49	6.04
Optum EHR	5,901	2,123	12	5.65
Veterans Affairs	10,455	9,642	31	3.22

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



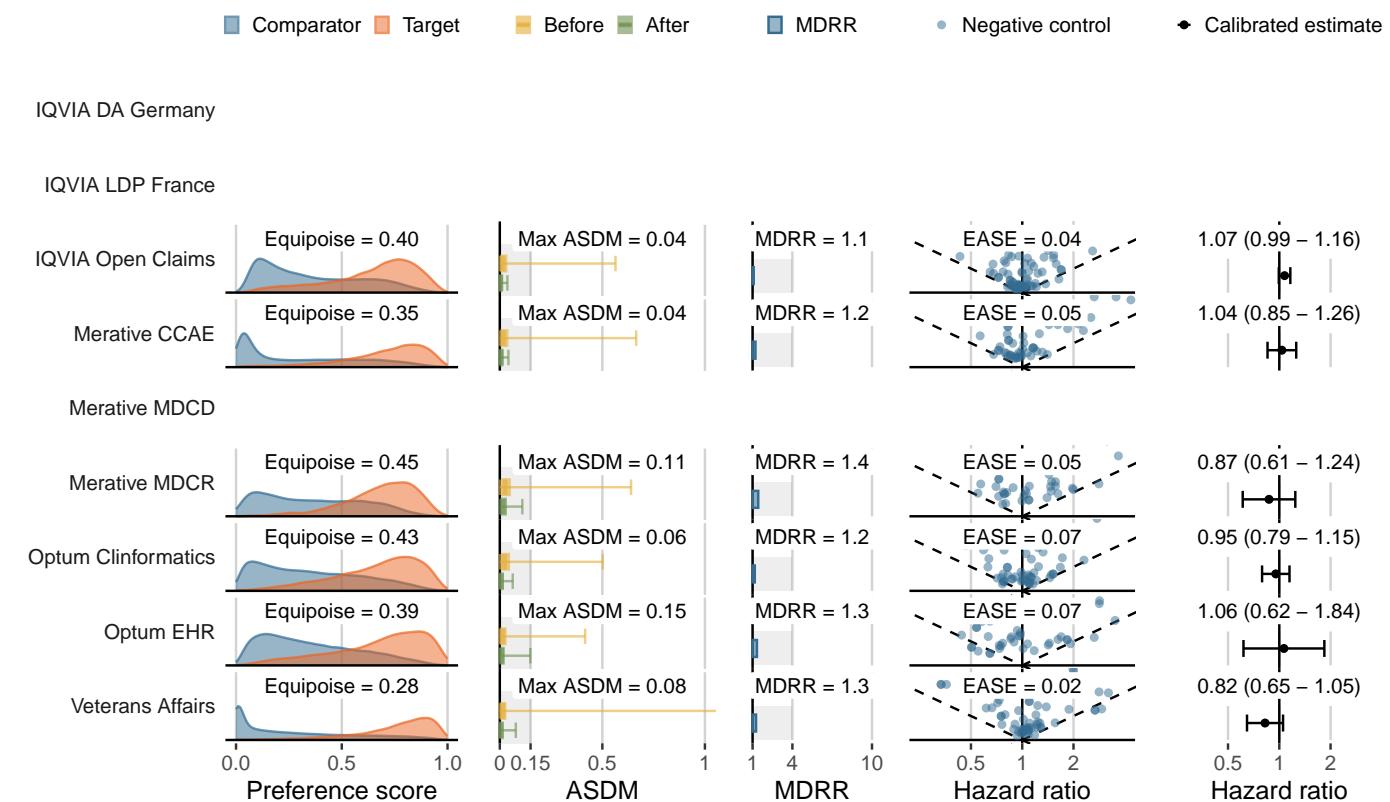
LEGEND-T2DM Evidence Dissemination Summary

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

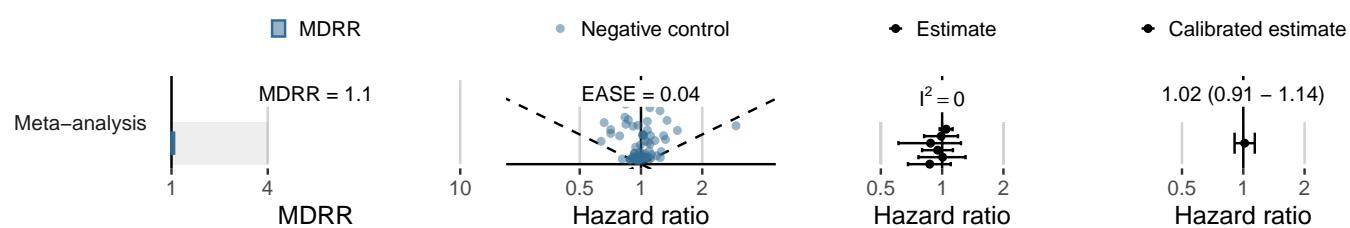
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	38,792	29,844	1,096	36.72
Merative CCAE	8,339	6,290	279	44.36
Merative MDCD	-	-	-	-
Merative MDCR	1,295	1,185	66	55.70
Optum Clininformatics	7,459	6,318	268	42.42
Optum EHR	5,200	1,778	97	54.55
Veterans Affairs	9,352	8,579	134	15.62

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



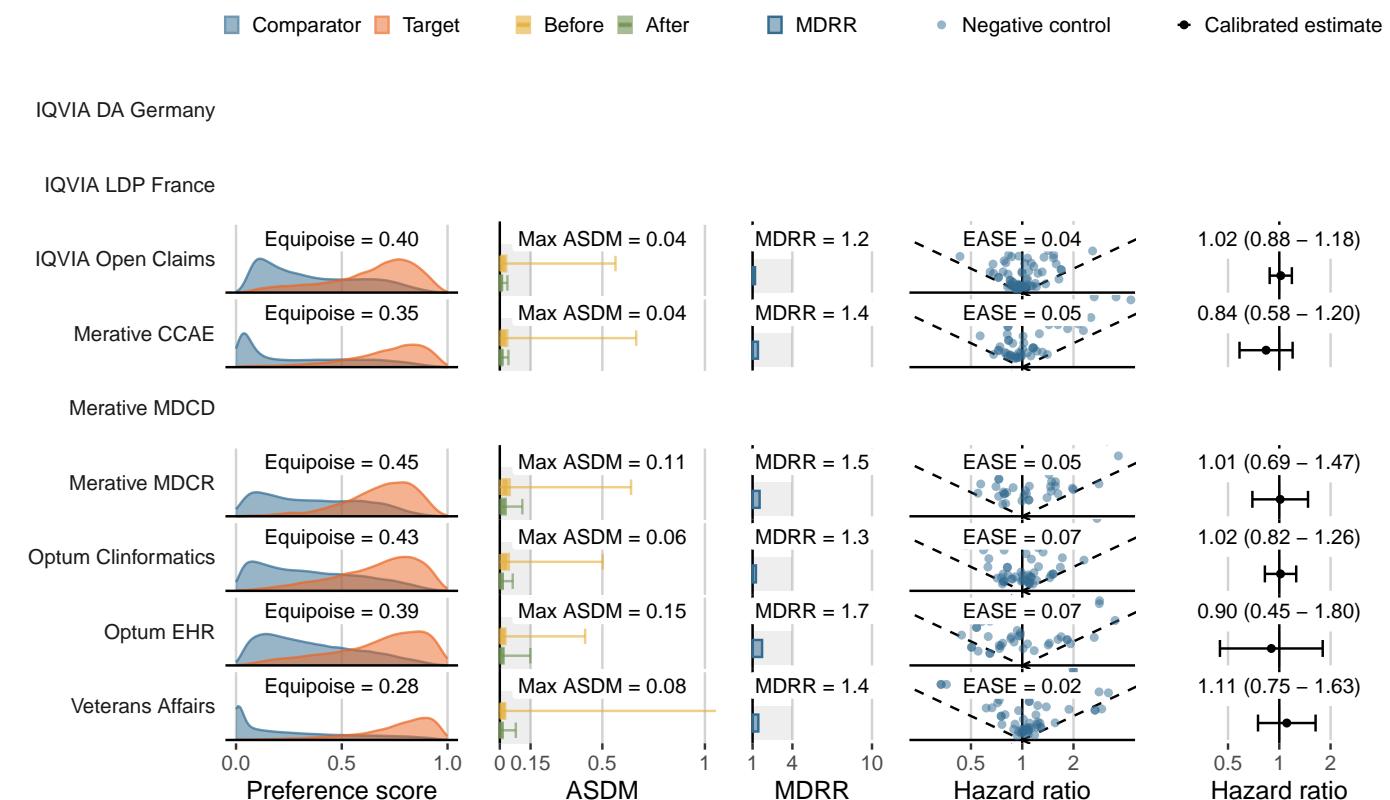
LEGEND-T2DM Evidence Dissemination Summary

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

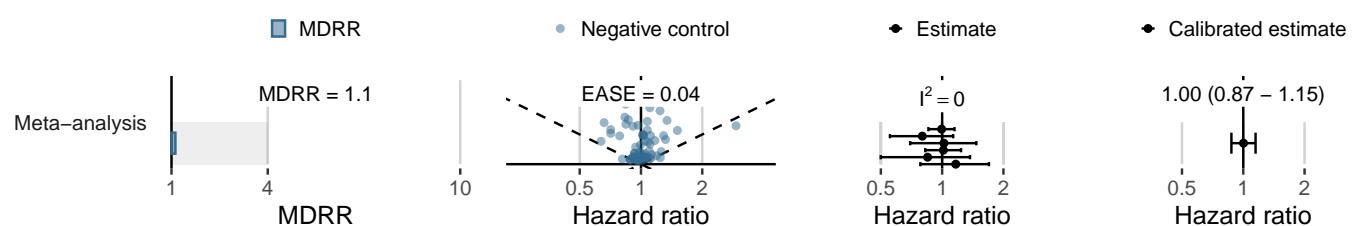
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	46,687	36,609	265	7.24
Merative CCAE	9,798	7,568	76	10.04
Merative MDCD	-	-	-	-
Merative MDCR	1,282	1,155	60	51.94
Optum Clininformatics	7,543	6,370	231	36.26
Optum EHR	5,733	2,035	24	11.80
Veterans Affairs	6,997	6,561	43	6.55

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



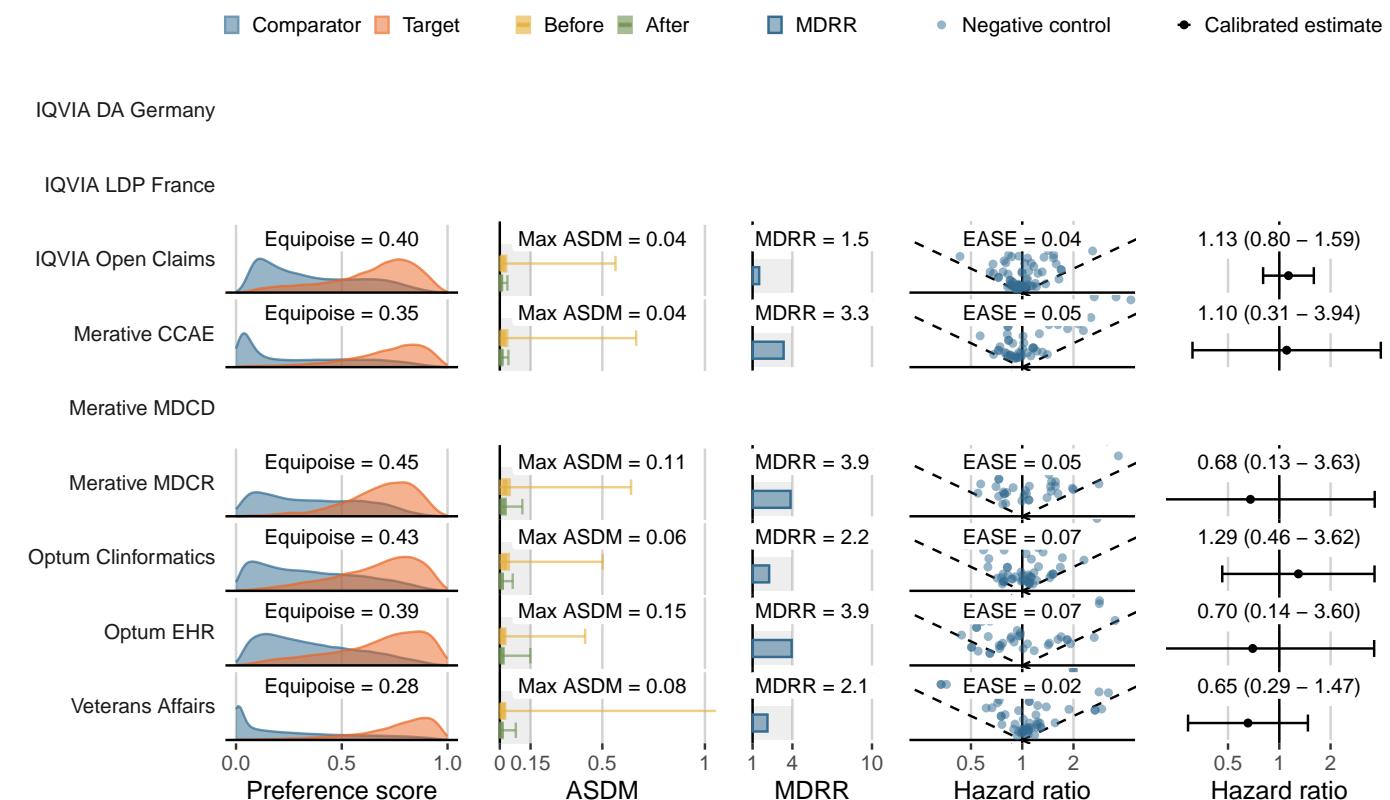
LEGEND-T2DM Evidence Dissemination Summary

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

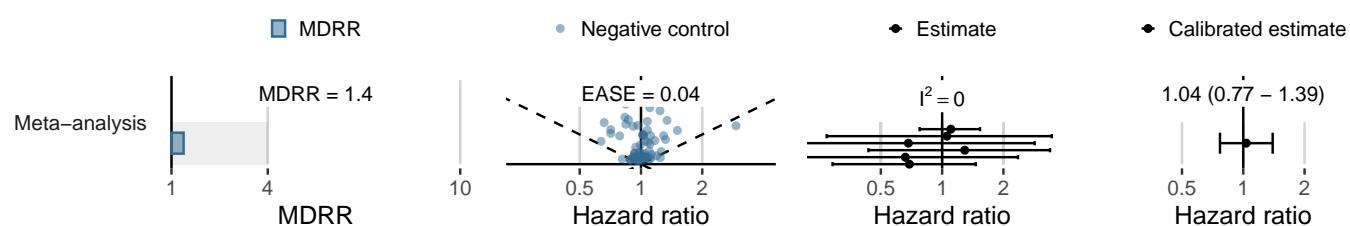
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	49,057	38,647	55	1.42
Merative CCAE	10,225	7,954	6	0.75
Merative MDCD	-	-	-	-
Merative MDCR	1,648	1,575	<5	<3.17
Optum Clininformatics	9,415	8,351	6	0.72
Optum EHR	5,952	2,145	<5	<2.33
Veterans Affairs	10,640	9,799	10	1.02

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



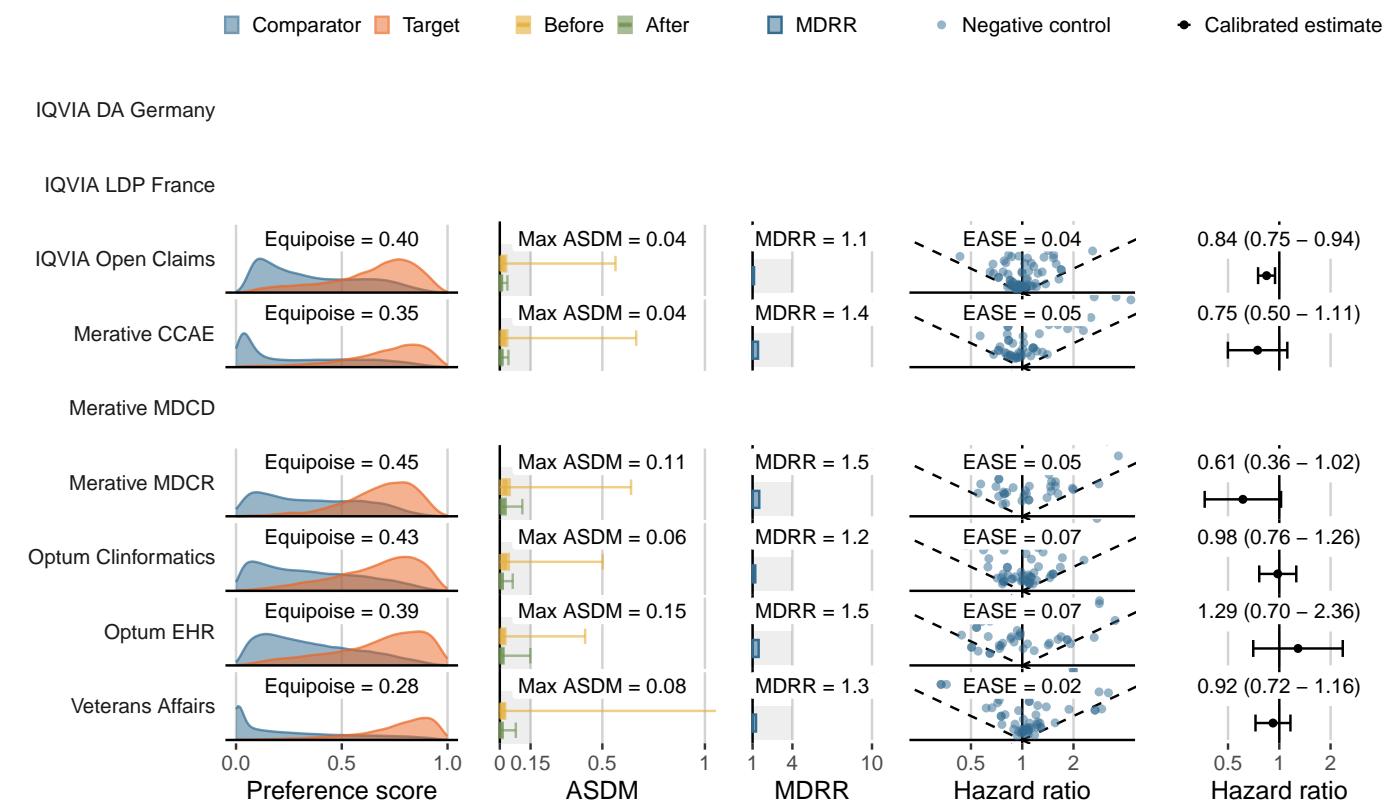
LEGEND-T2DM Evidence Dissemination Summary

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

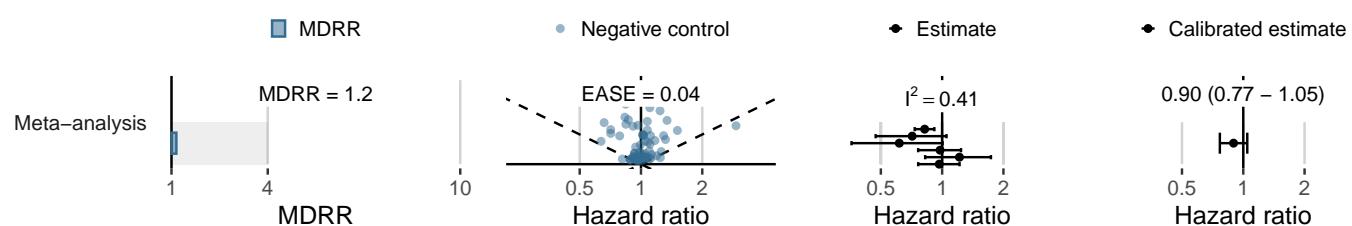
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,143	37,677	453	12.02
Merative CCAE	10,131	7,865	47	5.98
Merative MDCD	-	-	-	-
Merative MDCR	1,586	1,516	34	22.43
Optum Clininformatics	9,205	8,102	115	14.19
Optum EHR	5,900	2,108	40	18.98
Veterans Affairs	10,330	9,462	134	14.16

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



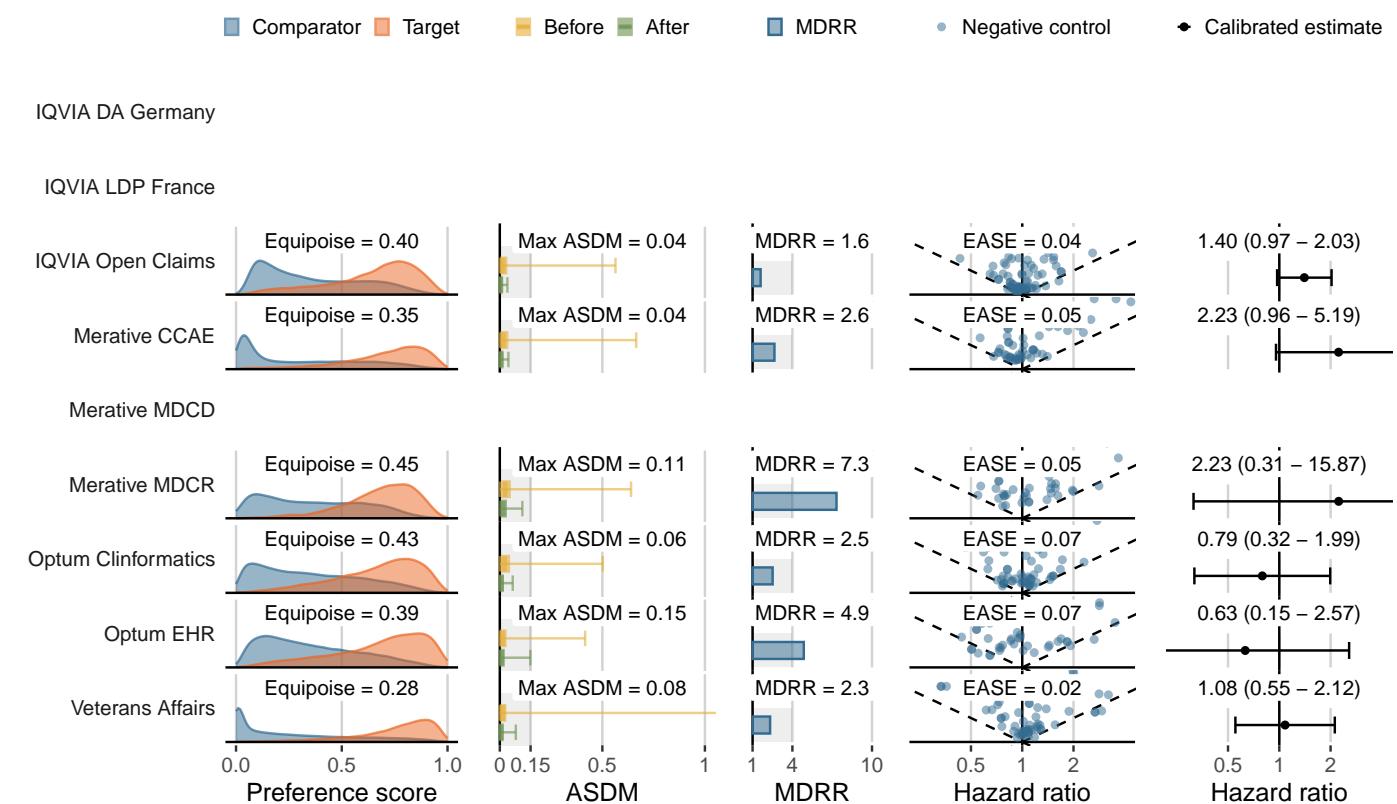
LEGEND-T2DM Evidence Dissemination Summary

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

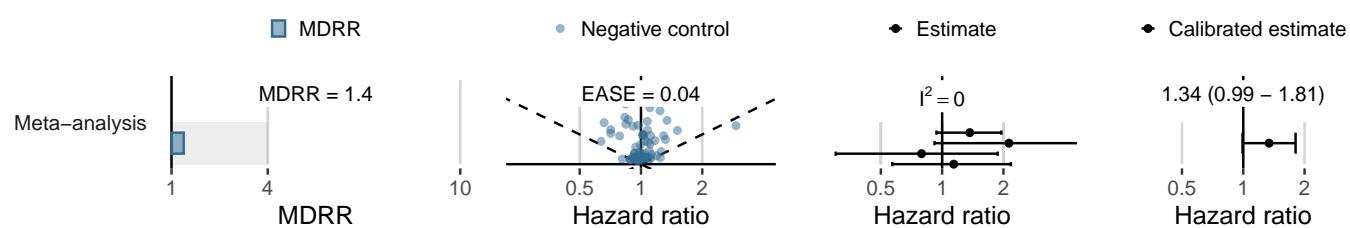
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,921	38,482	51	1.33
Merative CCAE	10,194	7,940	14	1.76
Merative MDCD	-	-	-	-
Merative MDCR	1,645	1,571	<5	<3.18
Optum Clininformatics	9,395	8,332	14	1.68
Optum EHR	5,948	2,139	<5	<2.34
Veterans Affairs	10,642	9,806	15	1.53

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



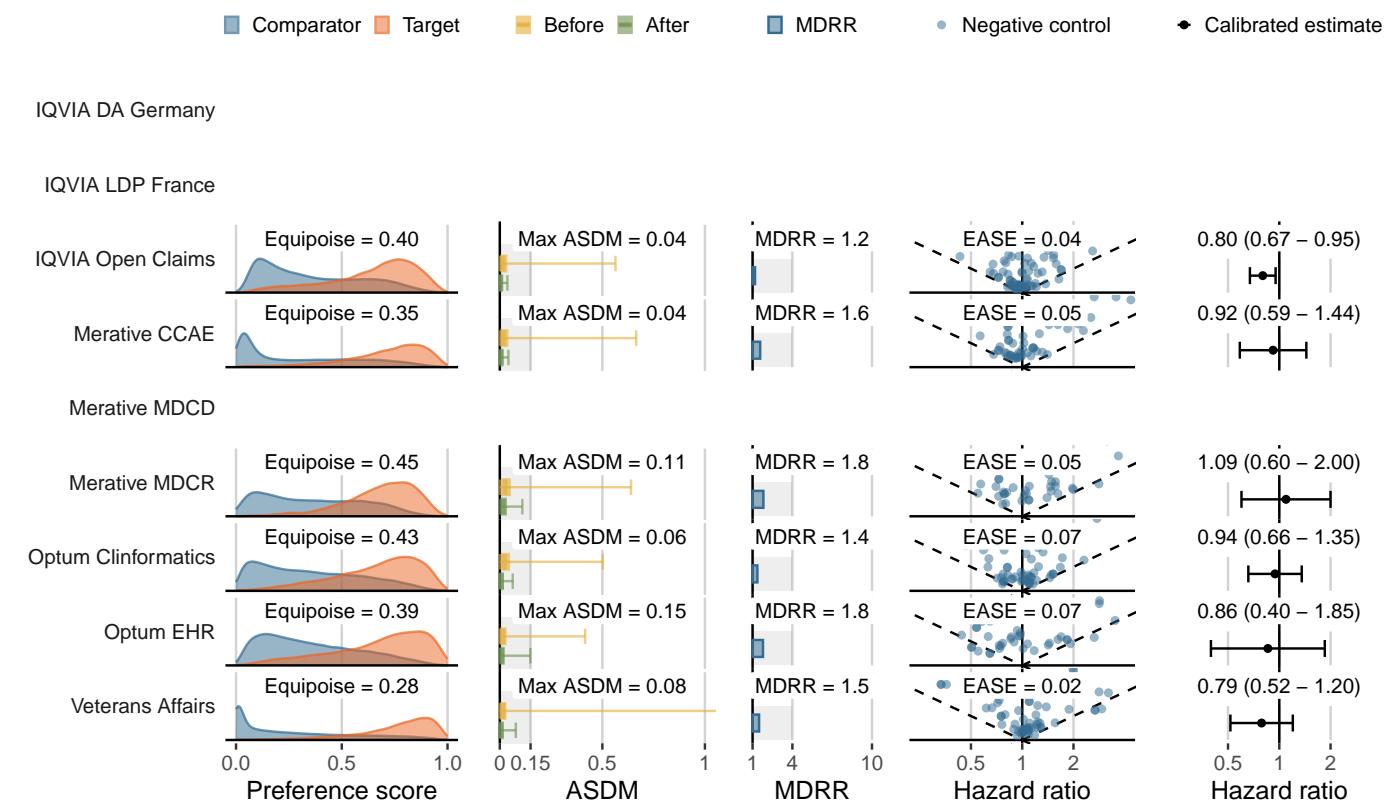
LEGEND-T2DM Evidence Dissemination Summary

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

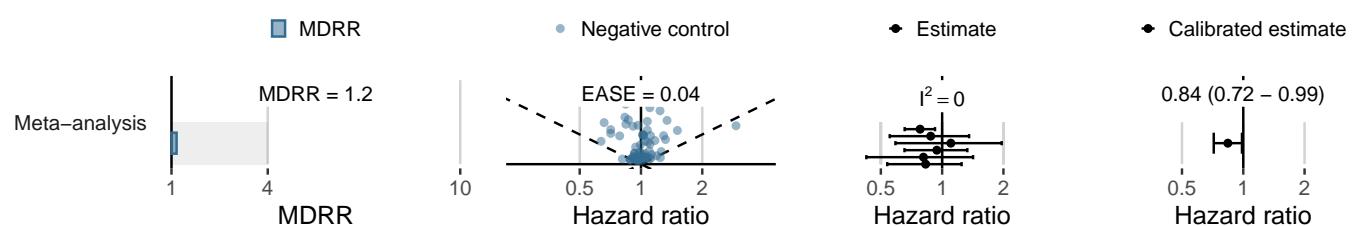
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	47,878	37,598	184	4.89
Merative CCAE	10,052	7,782	43	5.53
Merative MDCD	-	-	-	-
Merative MDCR	1,600	1,506	24	15.94
Optum Clininformatics	9,212	8,104	57	7.03
Optum EHR	5,838	2,092	19	9.08
Veterans Affairs	10,377	9,557	38	3.98

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



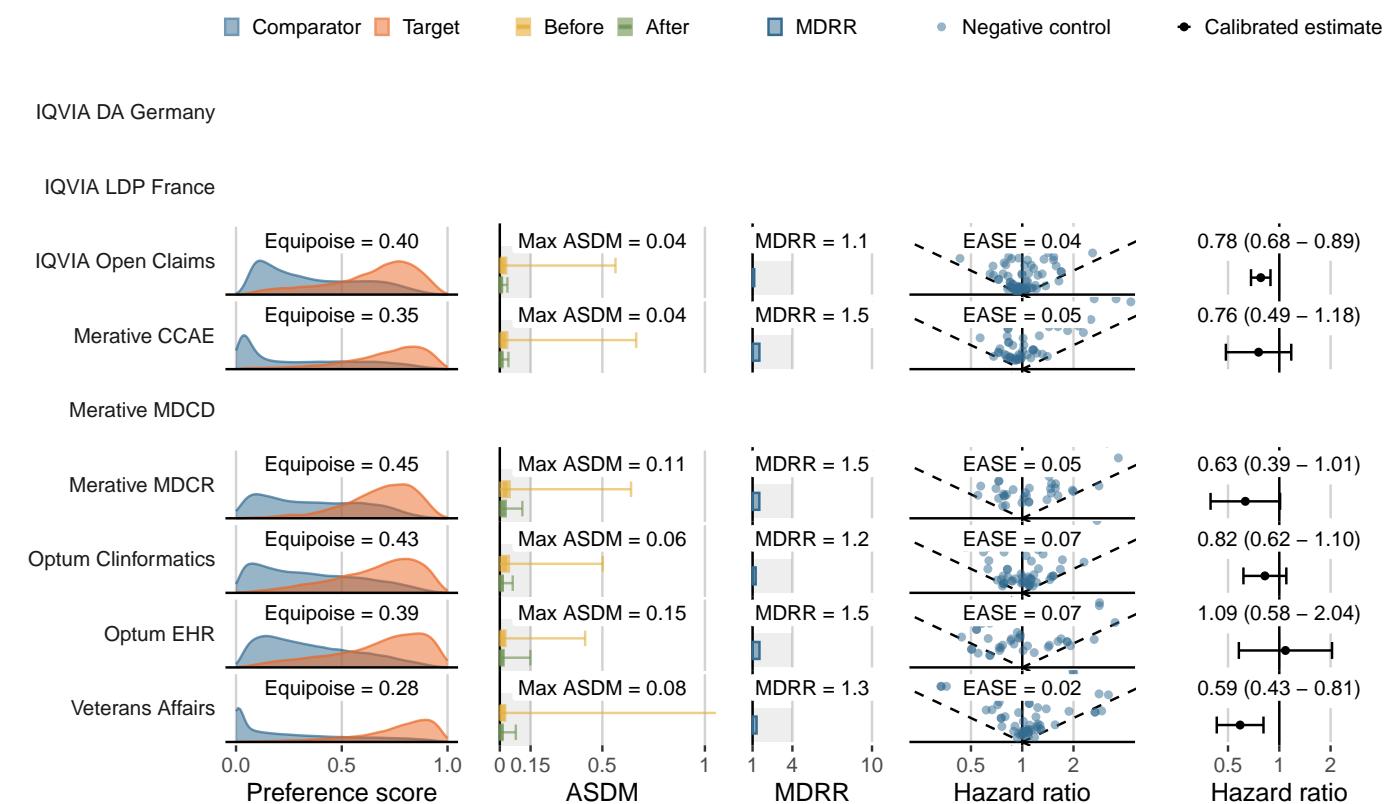
LEGEND-T2DM Evidence Dissemination Summary

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

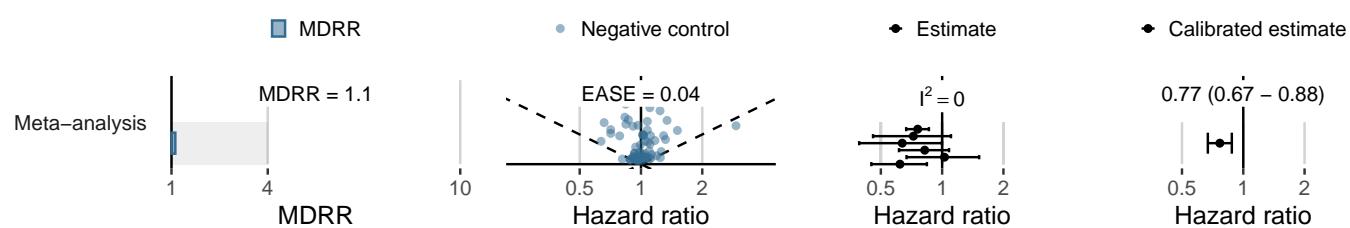
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	47,768	37,476	333	8.89
Merative CCAE	10,076	7,831	38	4.85
Merative MDCD	-	-	-	-
Merative MDCR	1,535	1,464	39	26.63
Optum Clininformatics	9,129	8,009	89	11.11
Optum EHR	5,893	2,107	36	17.09
Veterans Affairs	10,379	9,533	77	8.08

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



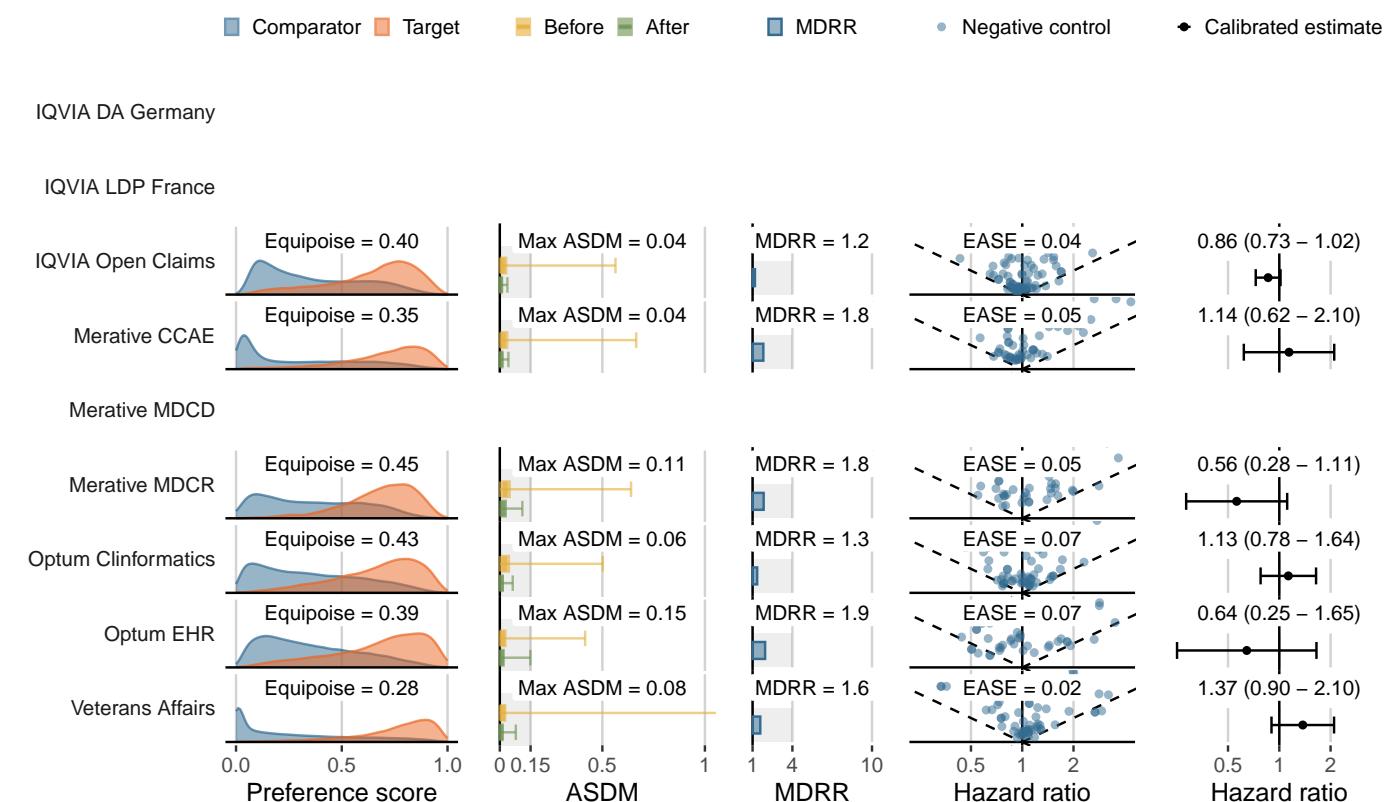
LEGEND-T2DM Evidence Dissemination Summary

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

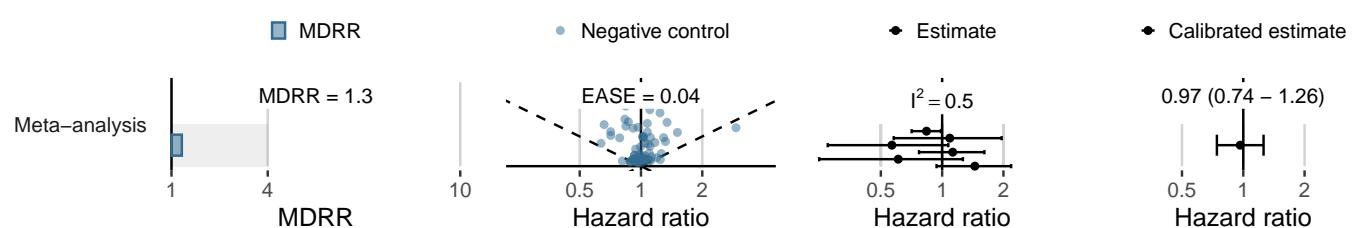
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	48,272	38,019	205	5.39
Merative CCAE	10,139	7,885	21	2.66
Merative MDCD	-	-	-	-
Merative MDCR	1,593	1,522	21	13.80
Optum Clininformatics	9,272	8,175	58	7.09
Optum EHR	5,933	2,125	12	5.65
Veterans Affairs	10,525	9,692	45	4.64

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



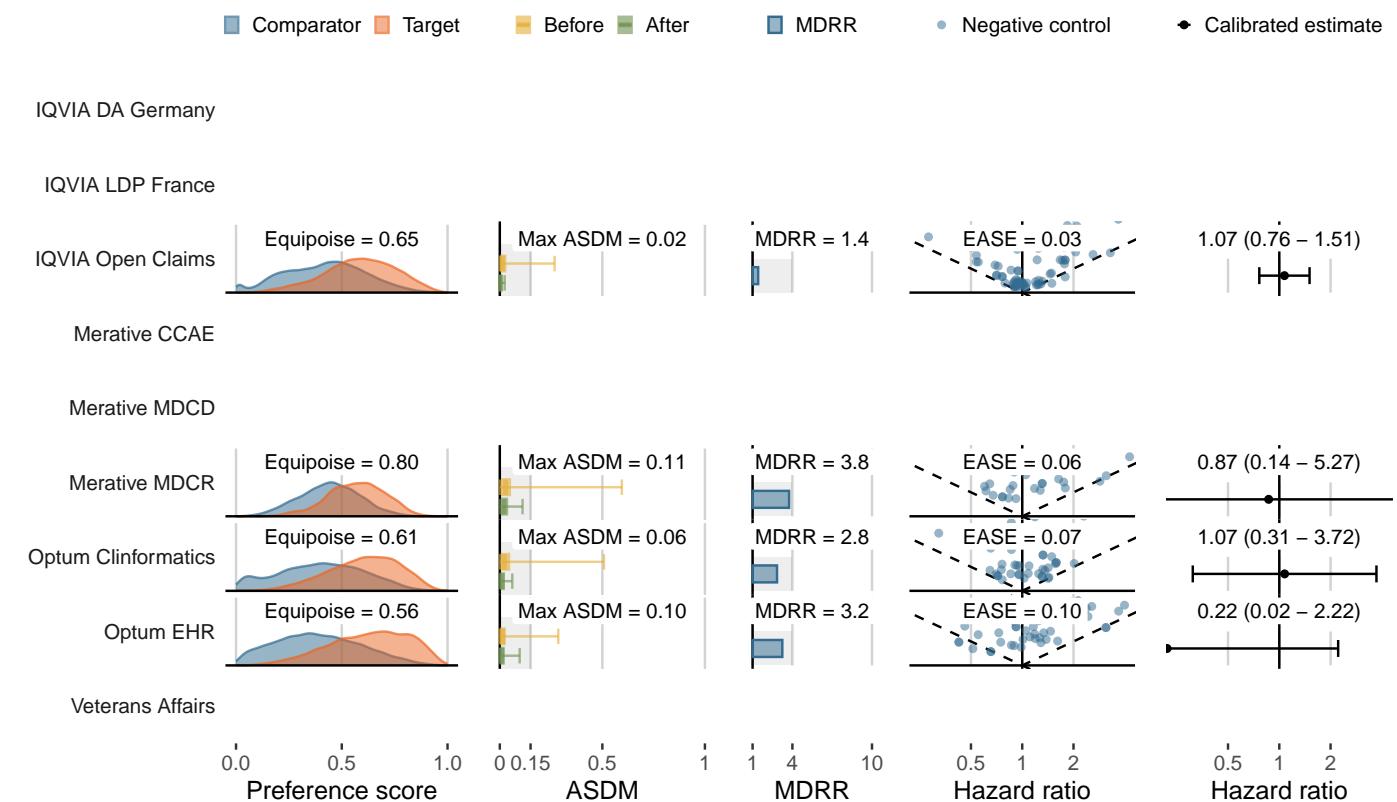
LEGEND-T2DM Evidence Dissemination Summary

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

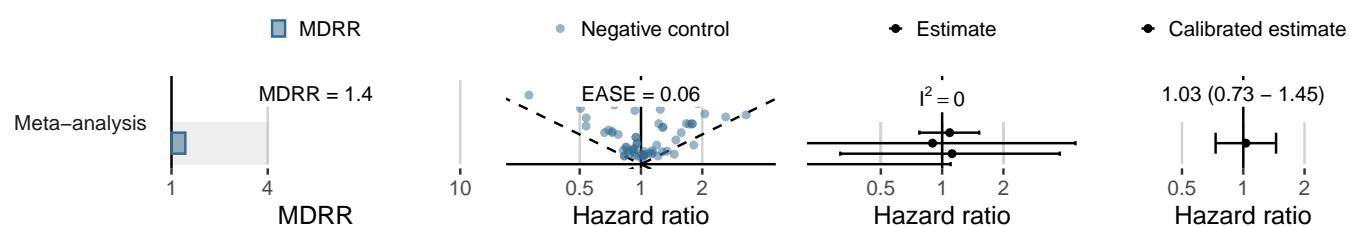
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,163	1,350	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	45,901	35,733	91	2.55
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,441	1,358	<5	<3.68
Optum Clininformatics	6,448	5,692	14	2.46
Optum EHR	5,290	1,884	<5	<2.65
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



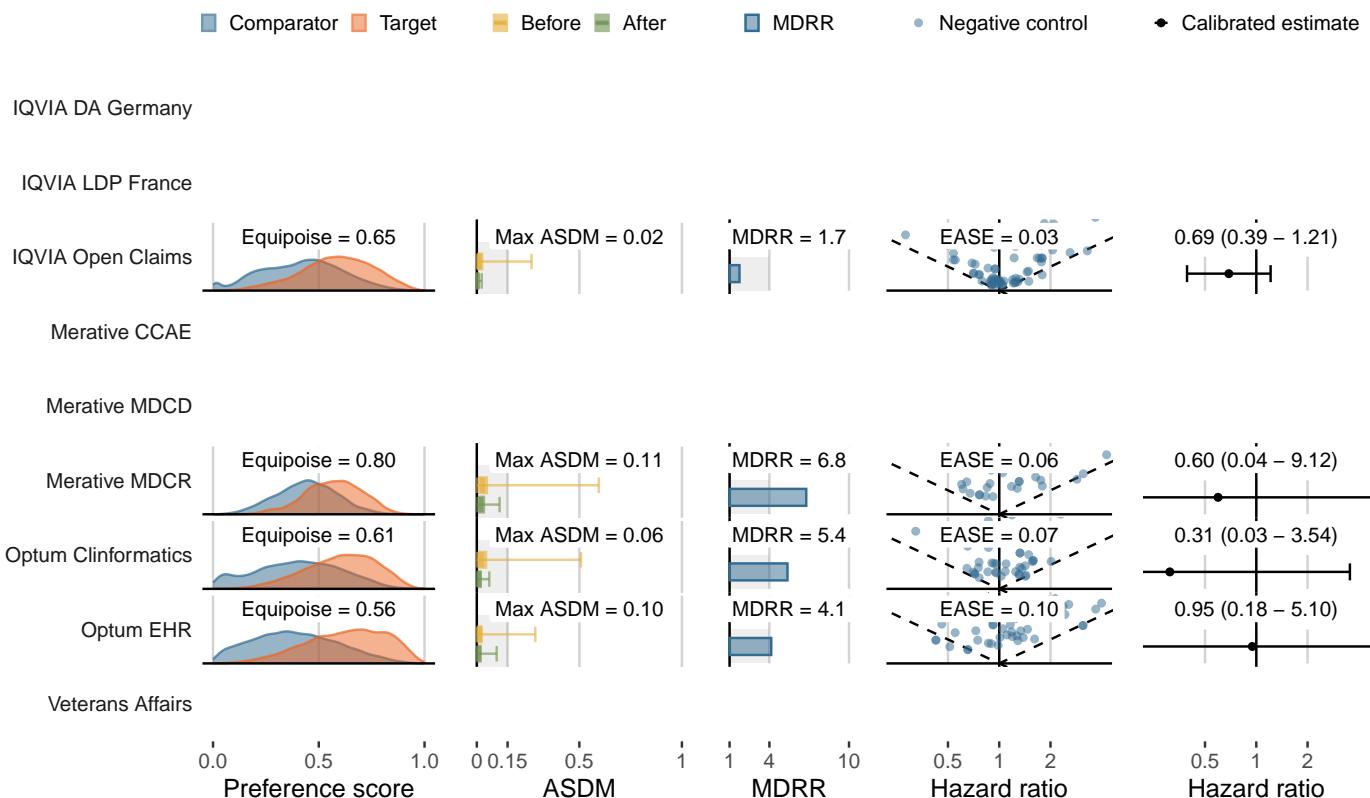
LEGEND-T2DM Evidence Dissemination Summary

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

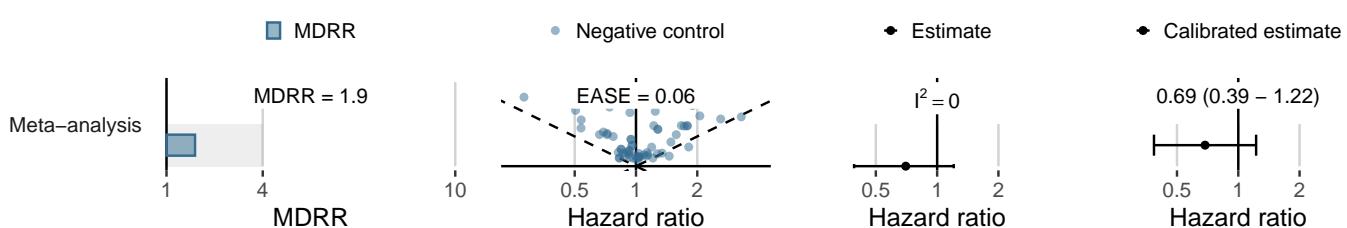
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,157	1,343	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	46,122	35,861	42	1.17
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,451	1,368	<5	<3.65
Optum Clininformatics	6,476	5,714	5	0.87
Optum EHR	5,291	1,880	<5	<2.66
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



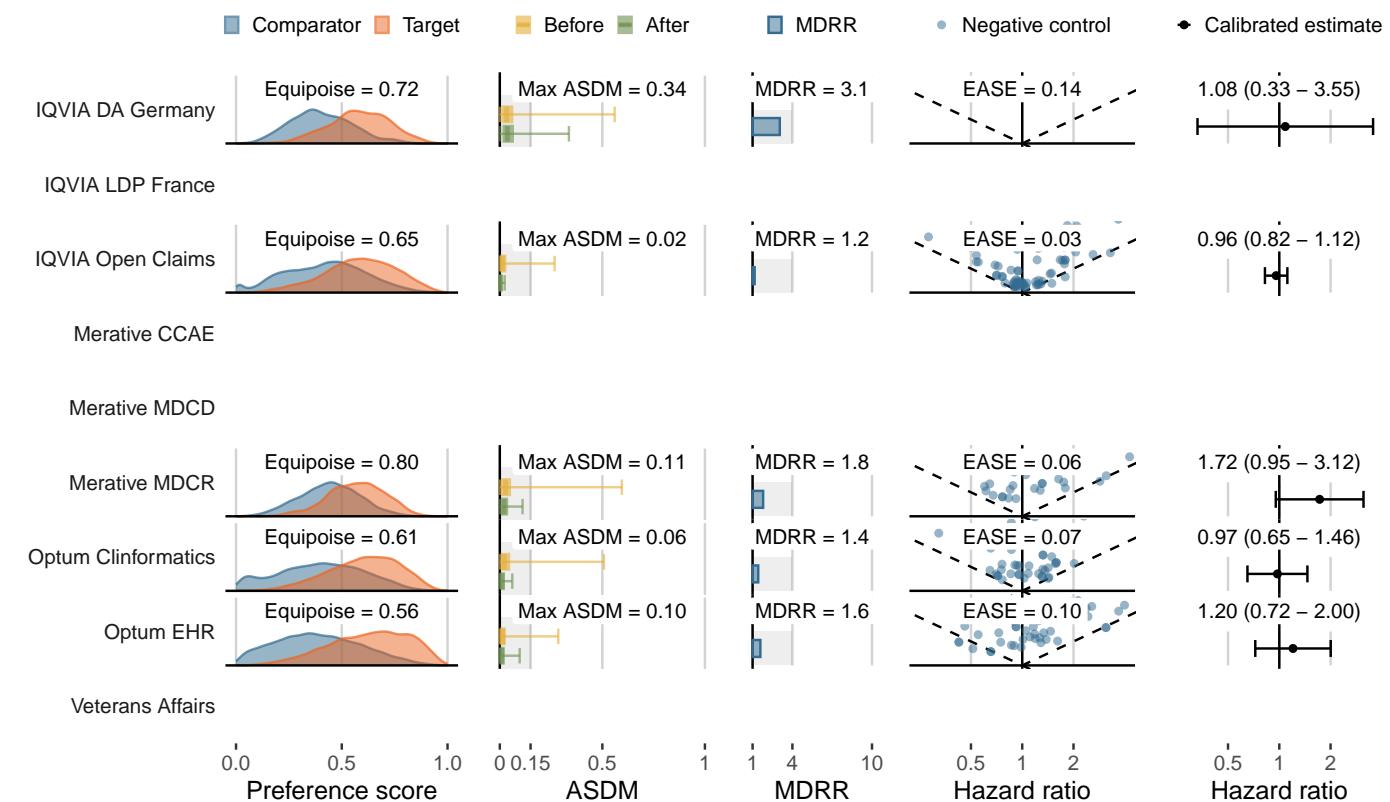
LEGEND-T2DM Evidence Dissemination Summary

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

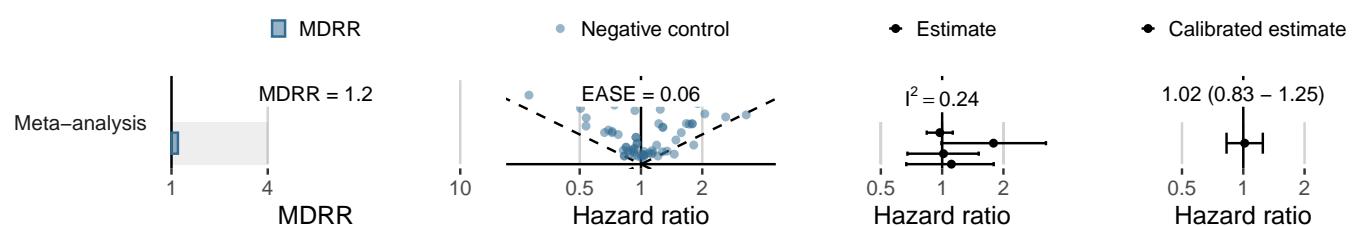
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,042	1,200	21	17.50
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	41,533	31,906	530	16.61
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,312	1,234	43	34.84
Optum Clininformatics	5,972	5,169	111	21.48
Optum EHR	5,048	1,776	33	18.58
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



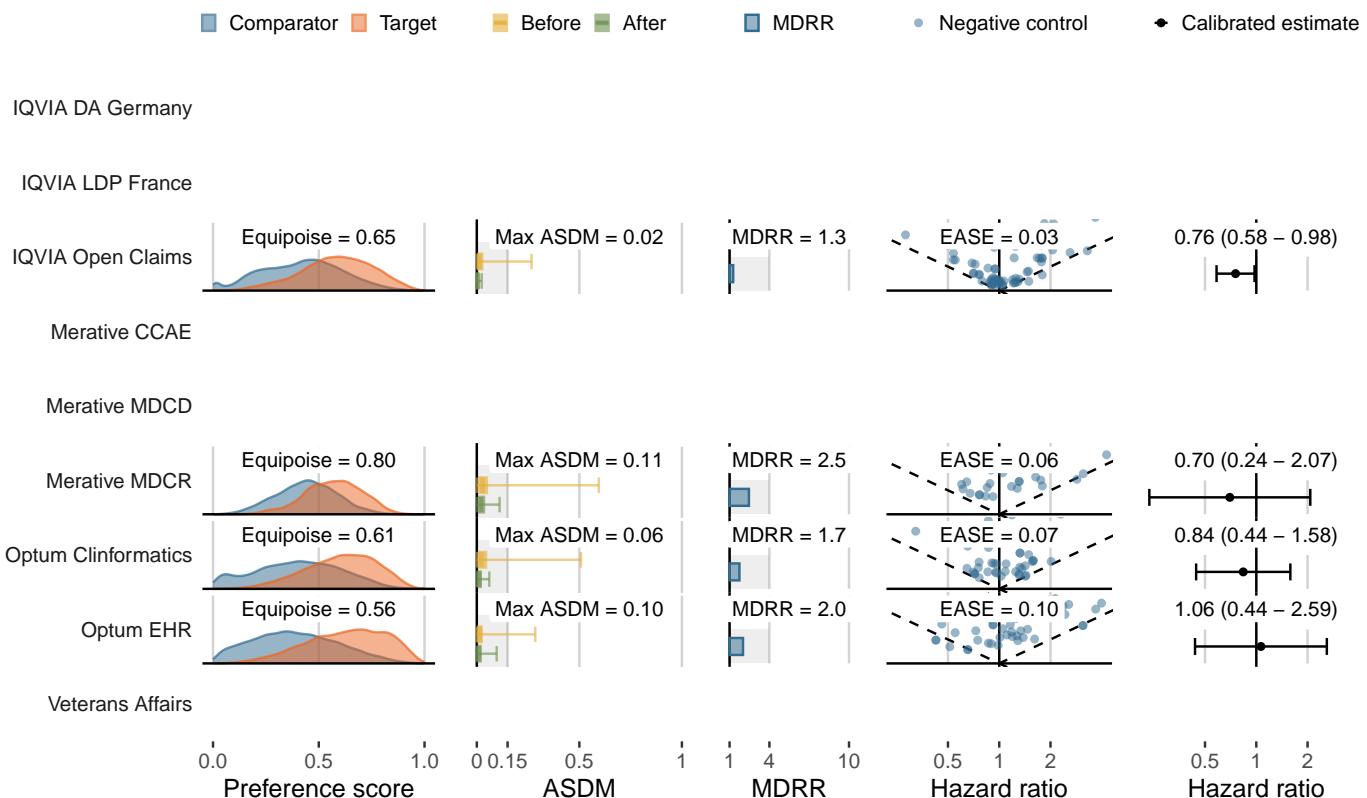
LEGEND-T2DM Evidence Dissemination Summary

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

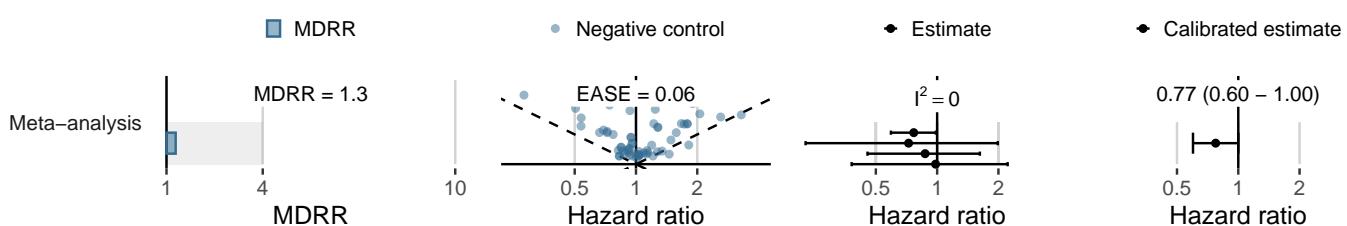
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,163	1,350	-	-.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	45,299	35,201	153	4.35
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,413	1,339	8	5.98
Optum Clininformatics	6,378	5,563	38	6.83
Optum EHR	5,252	1,871	10	5.35
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



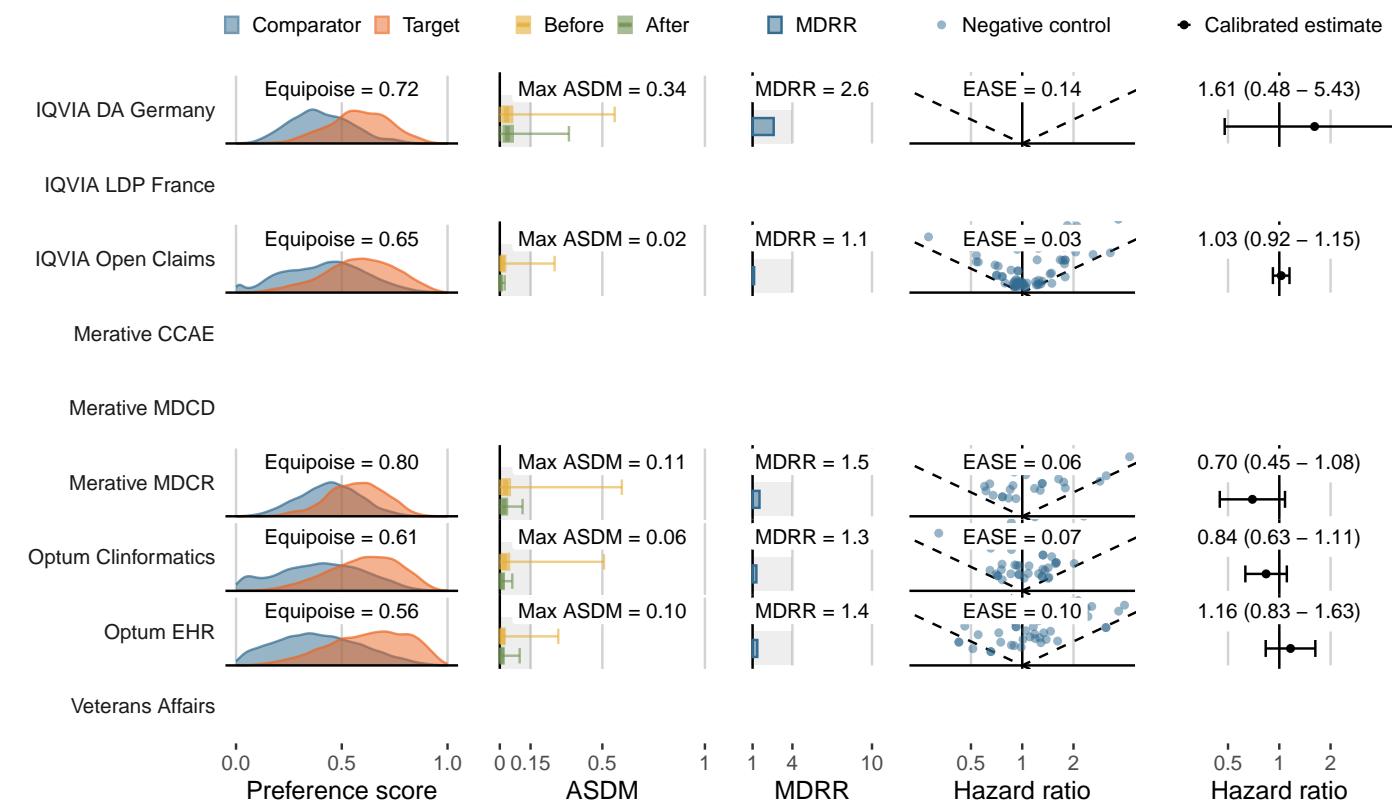
LEGEND-T2DM Evidence Dissemination Summary

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

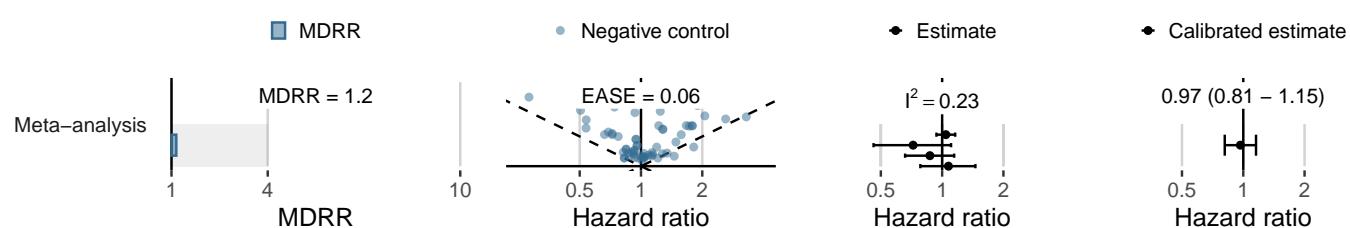
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	905	992	36	36.29
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	36,649	27,886	999	35.82
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,149	1,061	62	58.43
Optum Clininformatics	5,130	4,340	193	44.47
Optum EHR	4,638	1,569	83	52.90
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



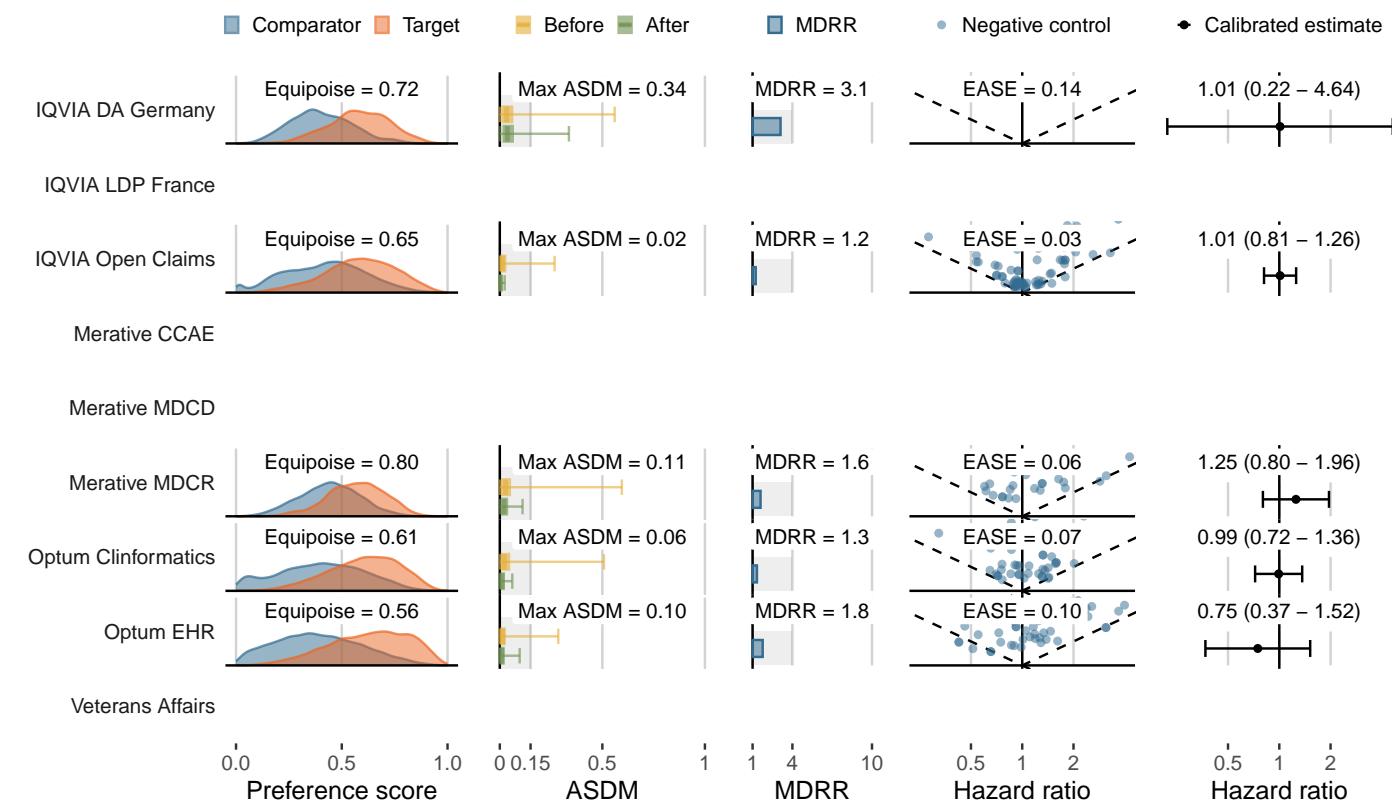
LEGEND-T2DM Evidence Dissemination Summary

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

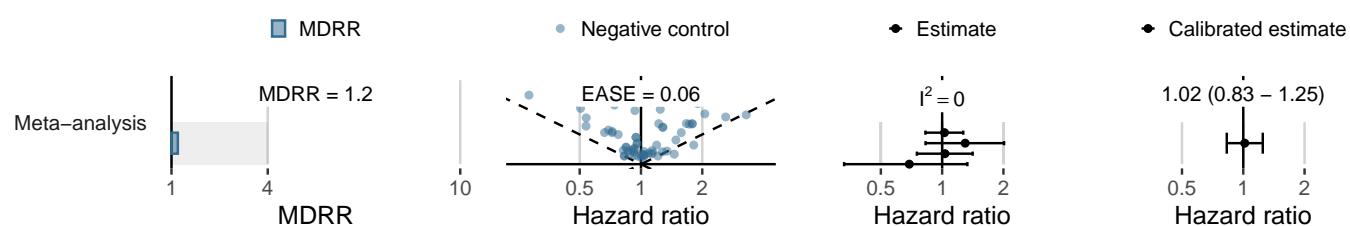
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	971	1,124	22	19.57
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,022	34,109	243	7.12
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,153	1,040	59	56.72
Optum Clininformatics	5,224	4,348	162	37.26
Optum EHR	5,113	1,803	20	11.09
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): **Saxagliptin** (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	1,161	1,345	<5	<3.72
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	46,169	35,928	46	1.28
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,456	1,373	-	0.00
Optum Clininformatics	6,478	5,712	<5	<0.88
Optum EHR	5,297	1,891	<5	<2.64
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

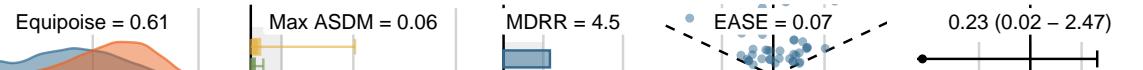


Merative CCAE

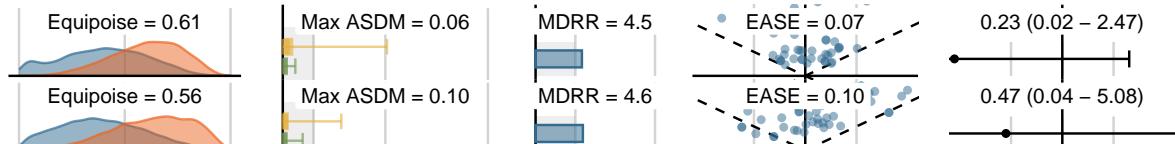
Merative MDCD

Merative MDCR

Optum Clininformatics



Optum EHR



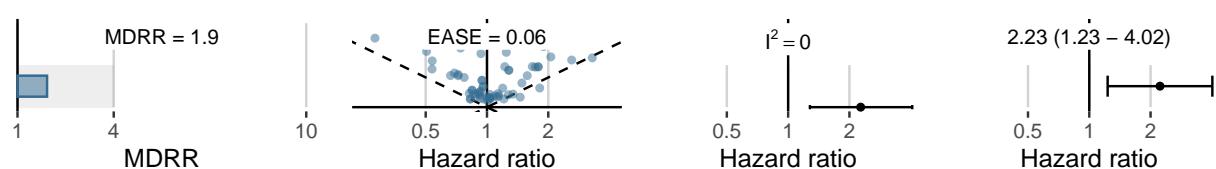
Veterans Affairs



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

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



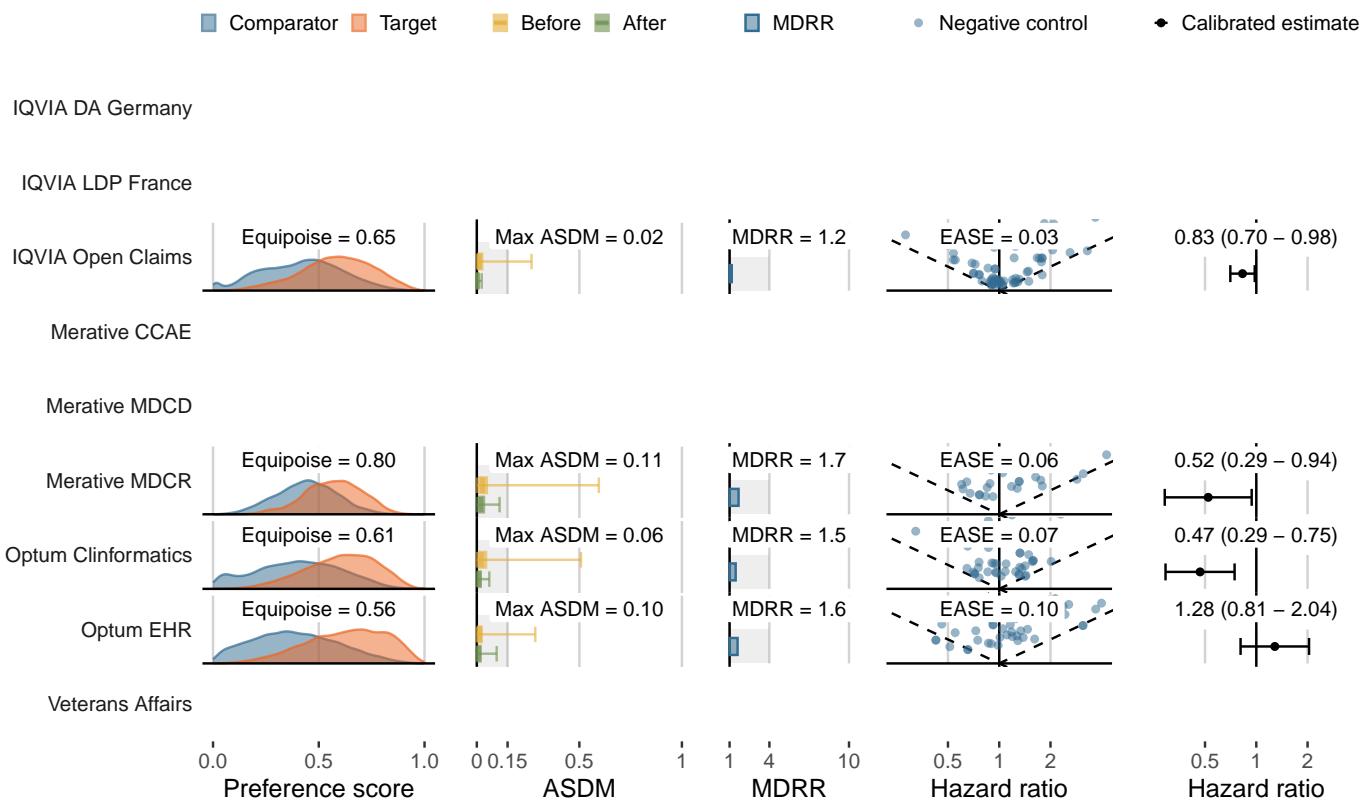
LEGEND-T2DM Evidence Dissemination Summary

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

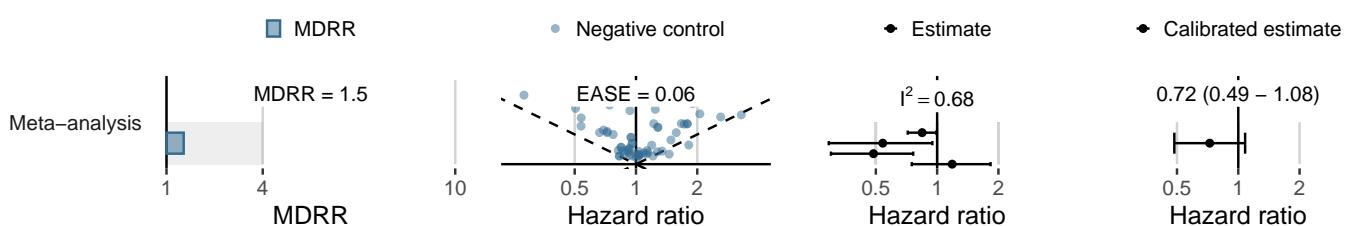
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,163	1,350	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	45,269	34,944	418	11.96
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,395	1,322	33	24.96
Optum Clininformatics	6,316	5,524	74	13.40
Optum EHR	5,256	1,861	37	19.89
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



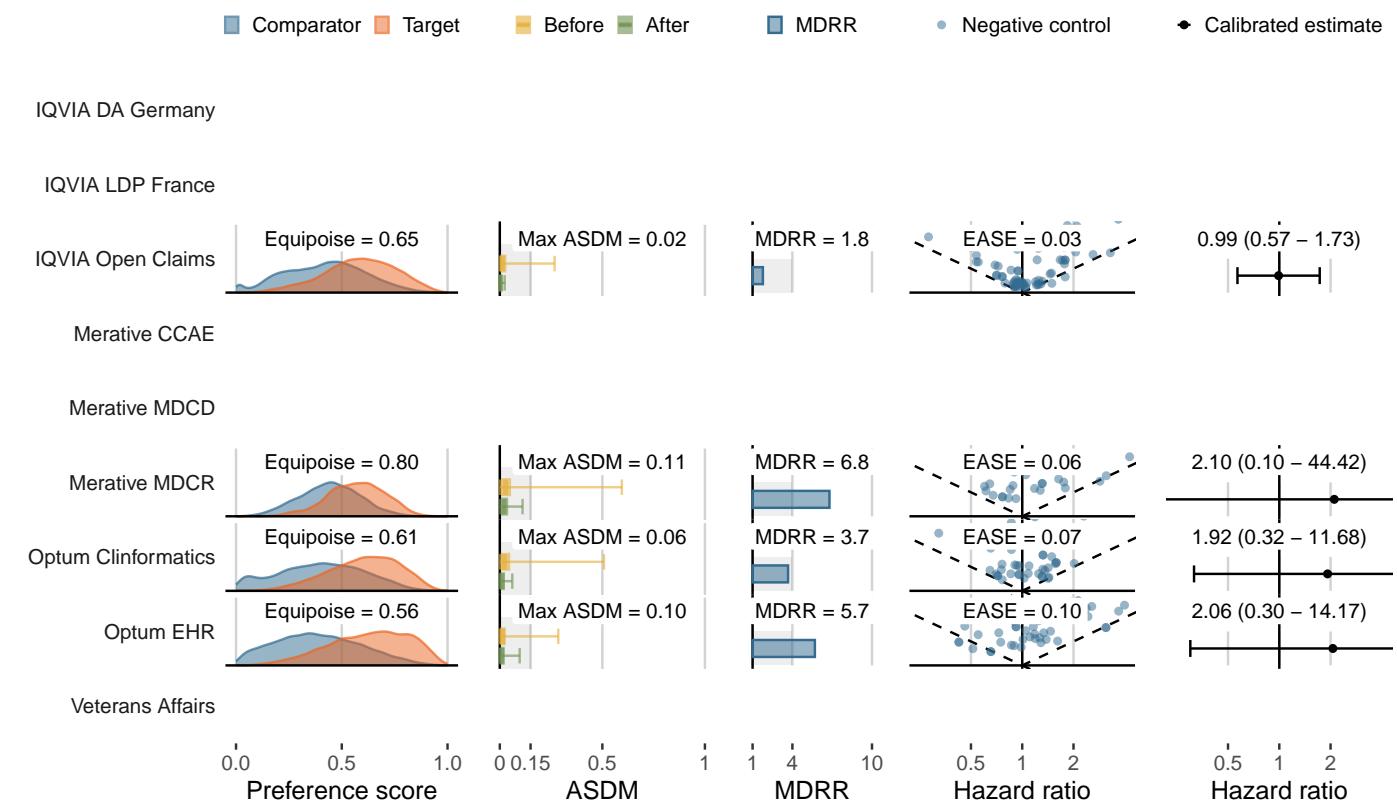
LEGEND-T2DM Evidence Dissemination Summary

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

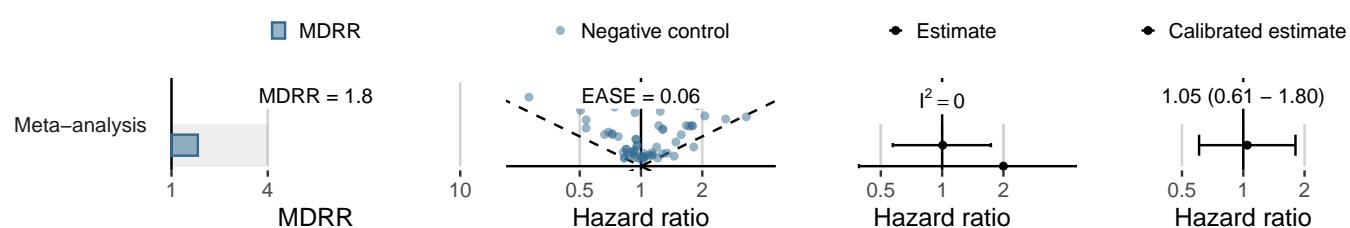
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,156	1,340	<5	<3.73
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	46,087	35,829	44	1.23
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,452	1,365	<5	<3.66
Optum Clininformatics	6,473	5,708	9	1.58
Optum EHR	5,292	1,885	<5	<2.65
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



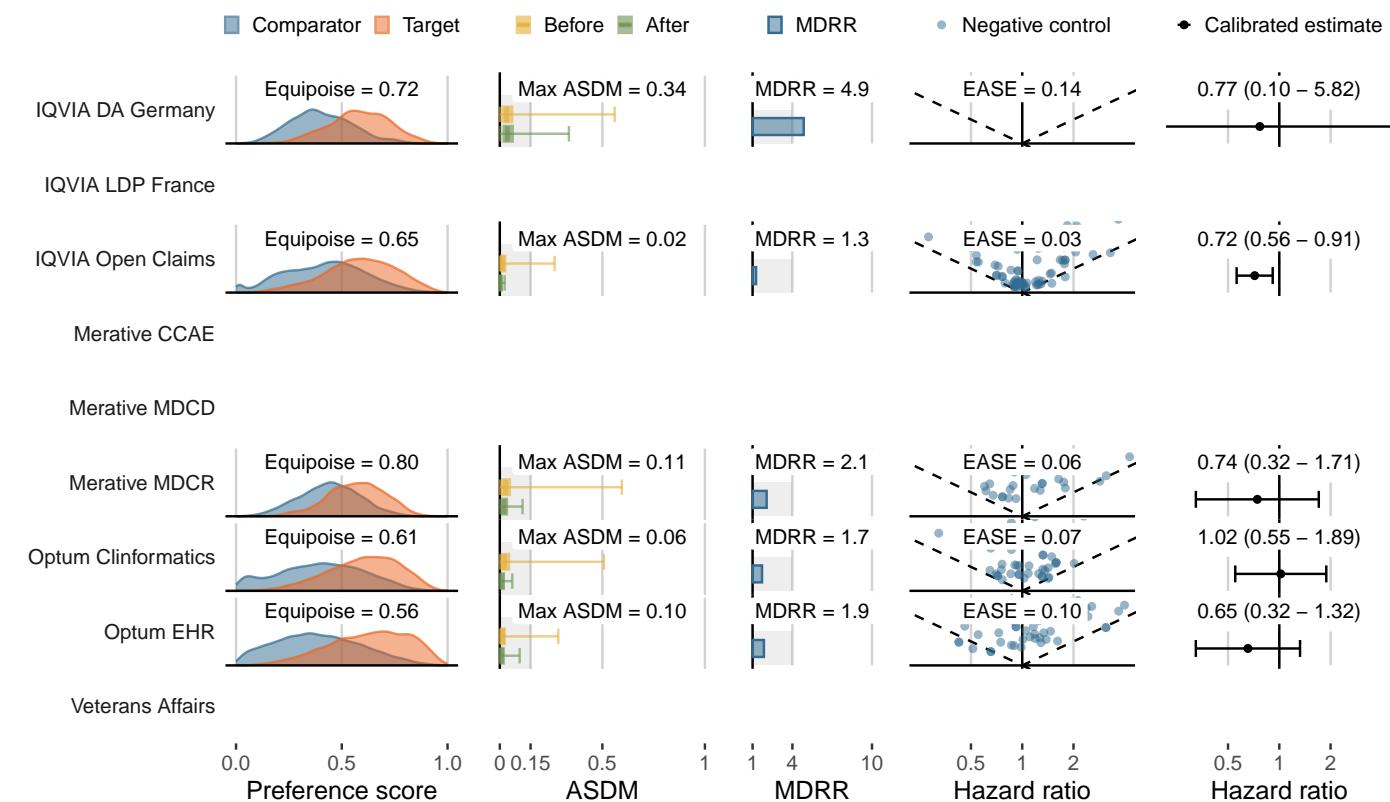
LEGEND-T2DM Evidence Dissemination Summary

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

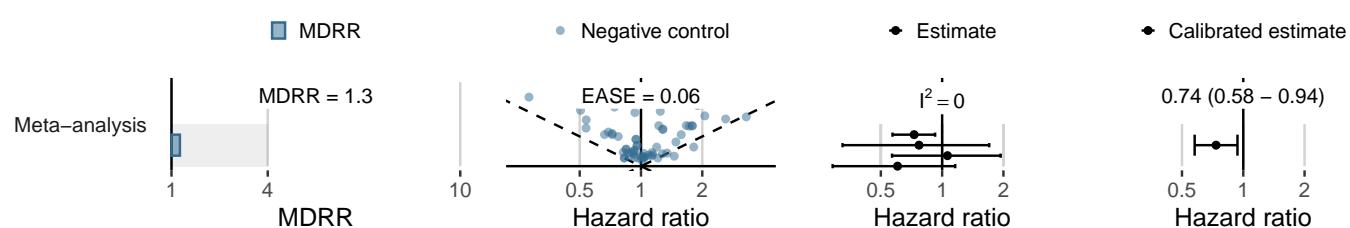
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,084	1,261	10	7.93
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	45,087	34,970	172	4.92
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,407	1,302	22	16.89
Optum Clininformatics	6,316	5,517	42	7.61
Optum EHR	5,184	1,845	16	8.67
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



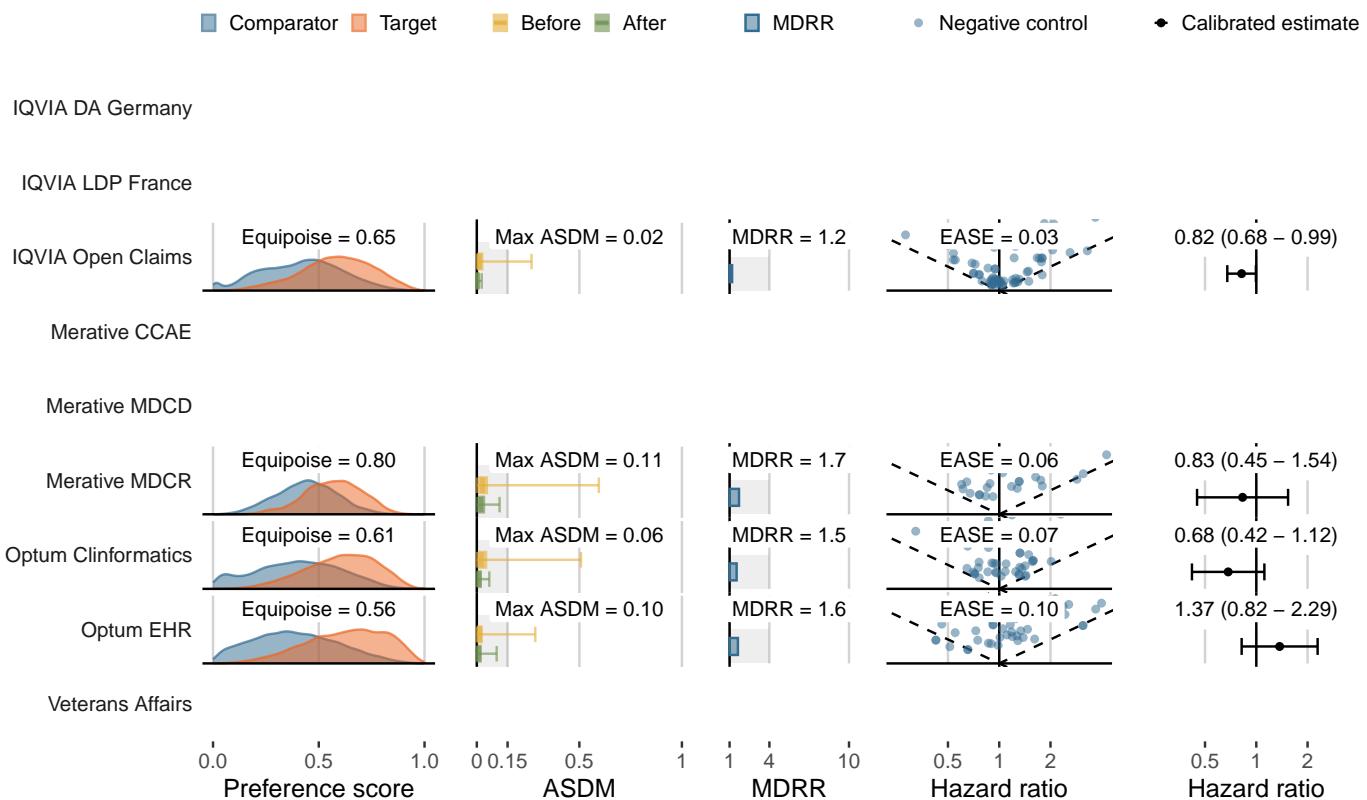
LEGEND-T2DM Evidence Dissemination Summary

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

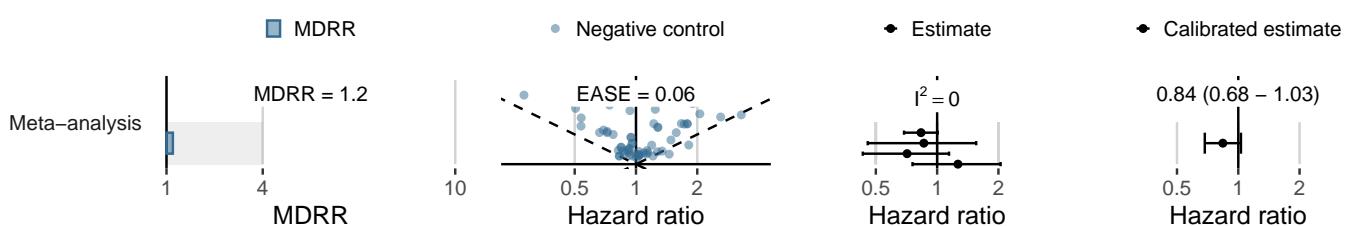
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,163	1,350	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	44,919	34,801	310	8.91
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,345	1,262	33	26.15
Optum Clininformatics	6,296	5,497	62	11.28
Optum EHR	5,242	1,854	35	18.88
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



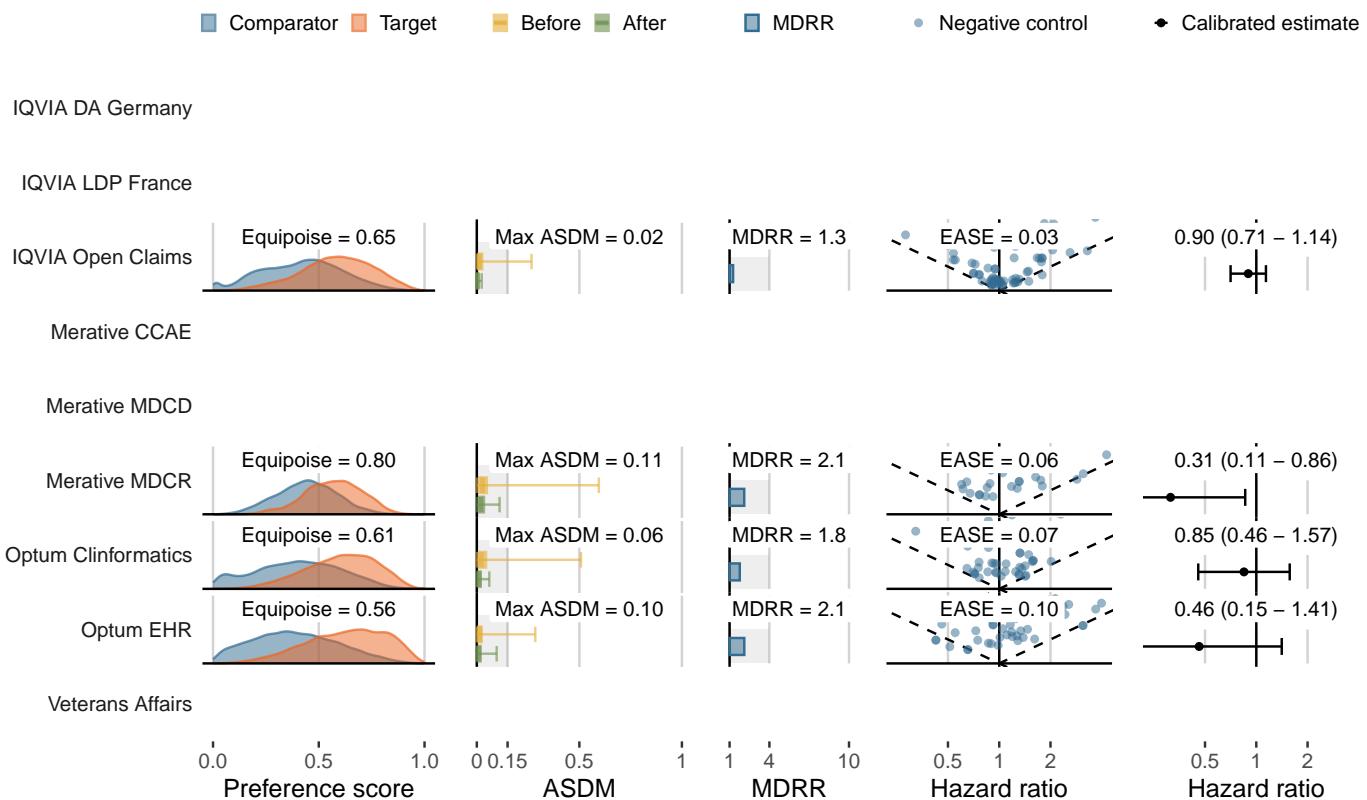
LEGEND-T2DM Evidence Dissemination Summary

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

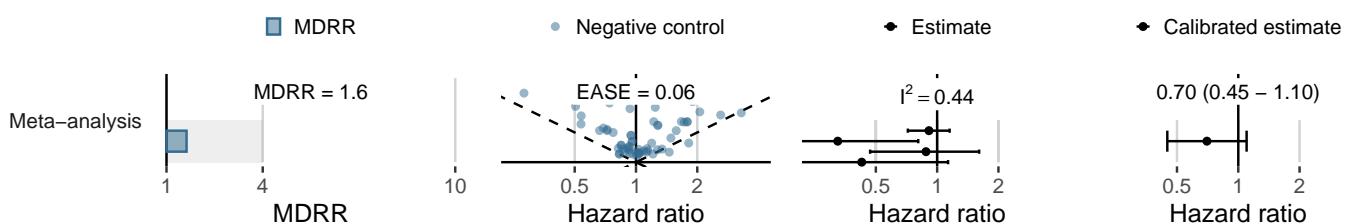
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	1,163	1,350	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	45,396	35,295	193	5.47
Merative CCAE	-	-	-	-
Merative MDCD	-	-	-	-
Merative MDCR	1,405	1,330	21	15.79
Optum Clininformatics	6,390	5,621	35	6.23
Optum EHR	5,274	1,875	10	5.33
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



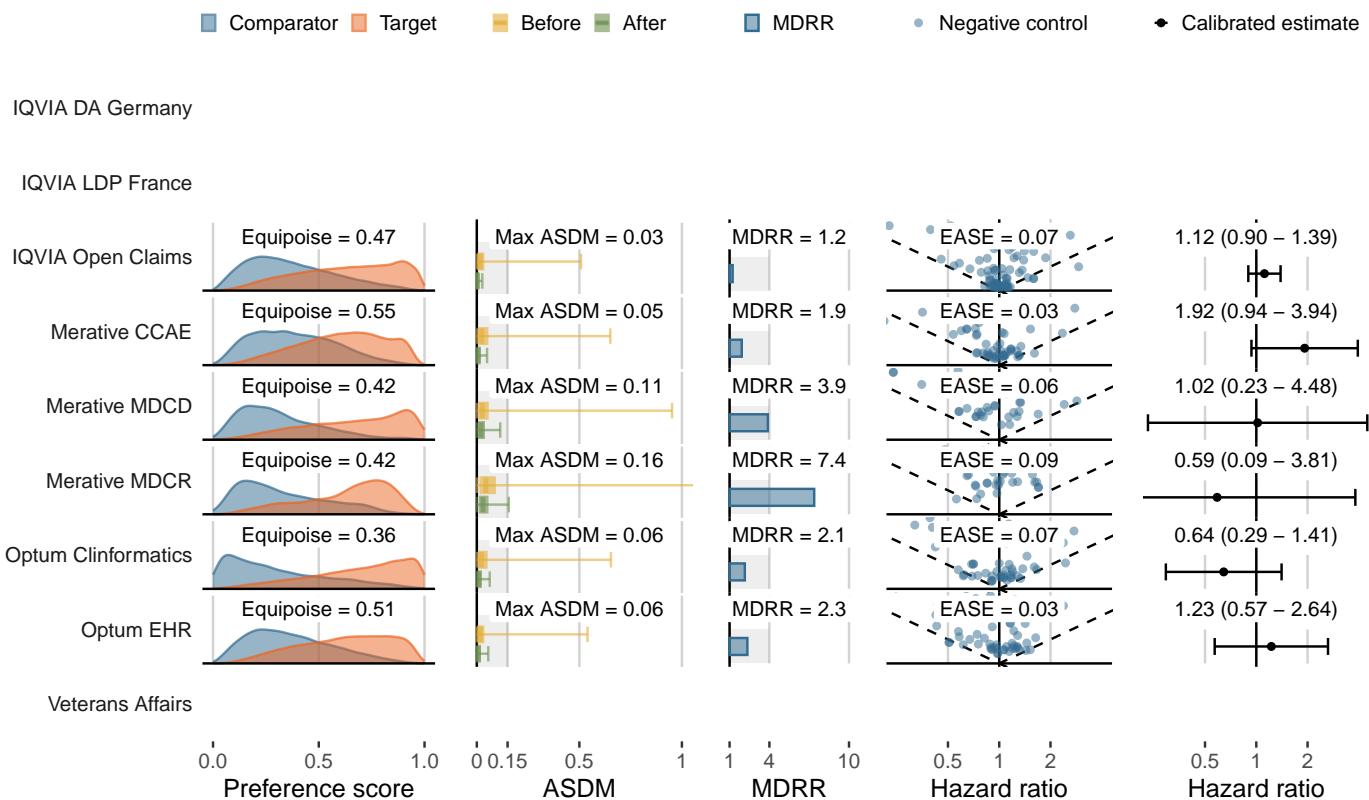
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute pancreatitis**

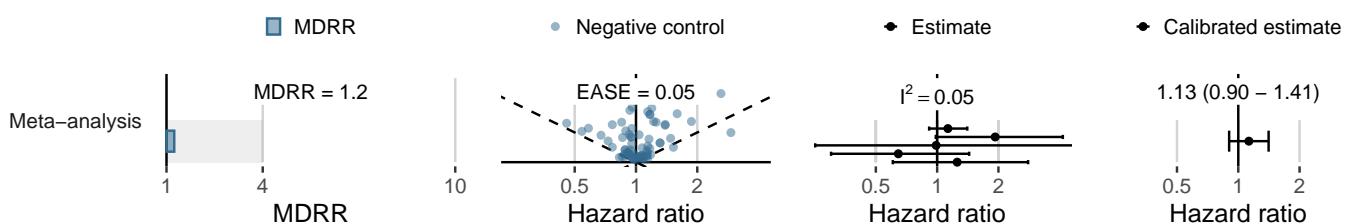
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	548,167	480,559	934	1.94
Merative CCAE	40,457	33,877	82	2.42
Merative MDCD	6,119	4,232	19	4.49
Merative MDCR	6,438	5,039	12	2.38
Optum Clininformatics	23,471	19,095	58	3.04
Optum EHR	51,025	24,630	53	2.15
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



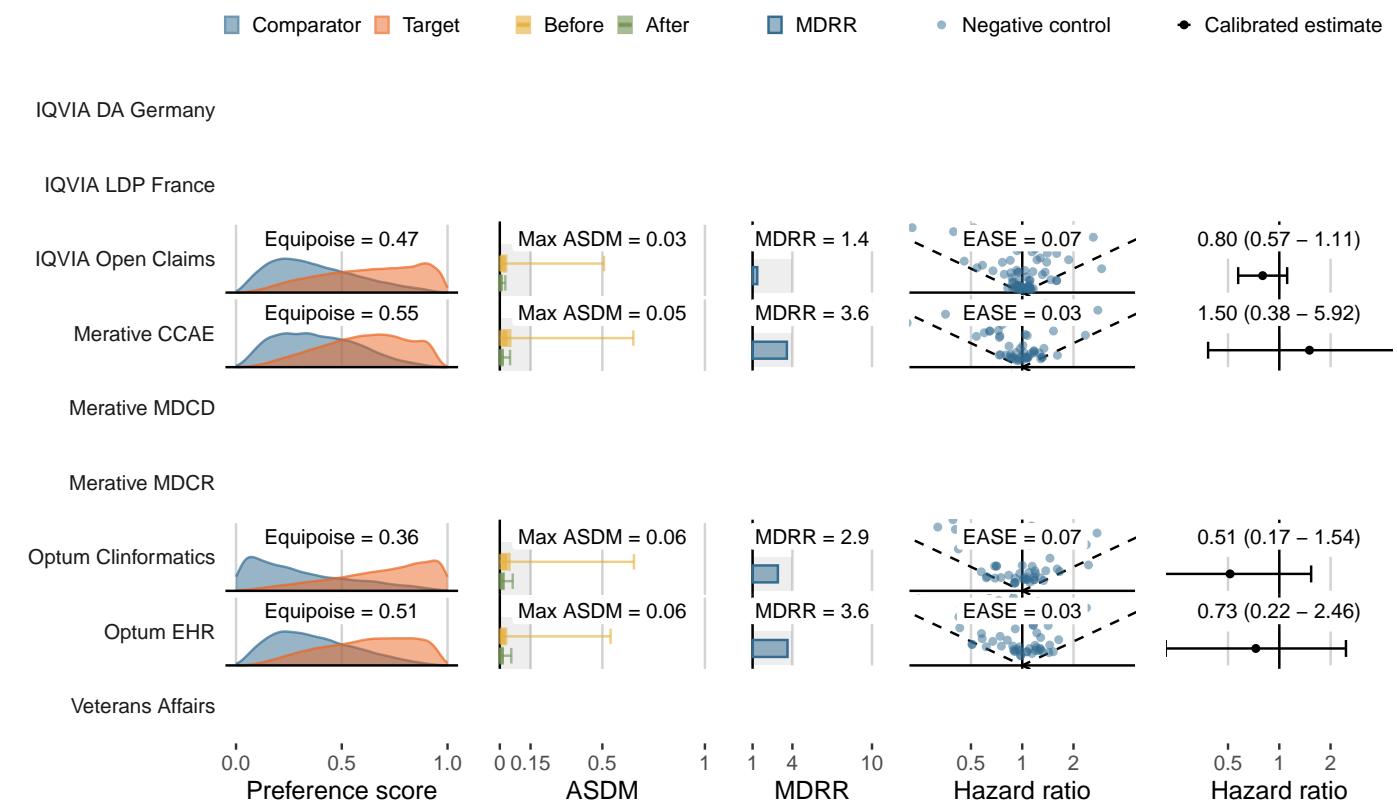
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Bladder cancer**

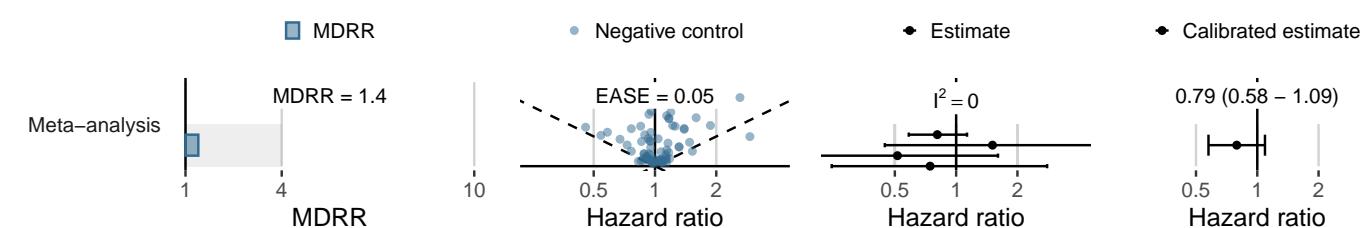
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	551,243	482,883	443	0.92
Merative CCAE	40,711	34,082	21	0.62
Merative MDCD	6,235	4,304	<5	<1.16
Merative MDCR	6,419	5,024	10	1.99
Optum Clininformatics	23,588	19,126	31	1.62
Optum EHR	51,091	24,654	25	1.01
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



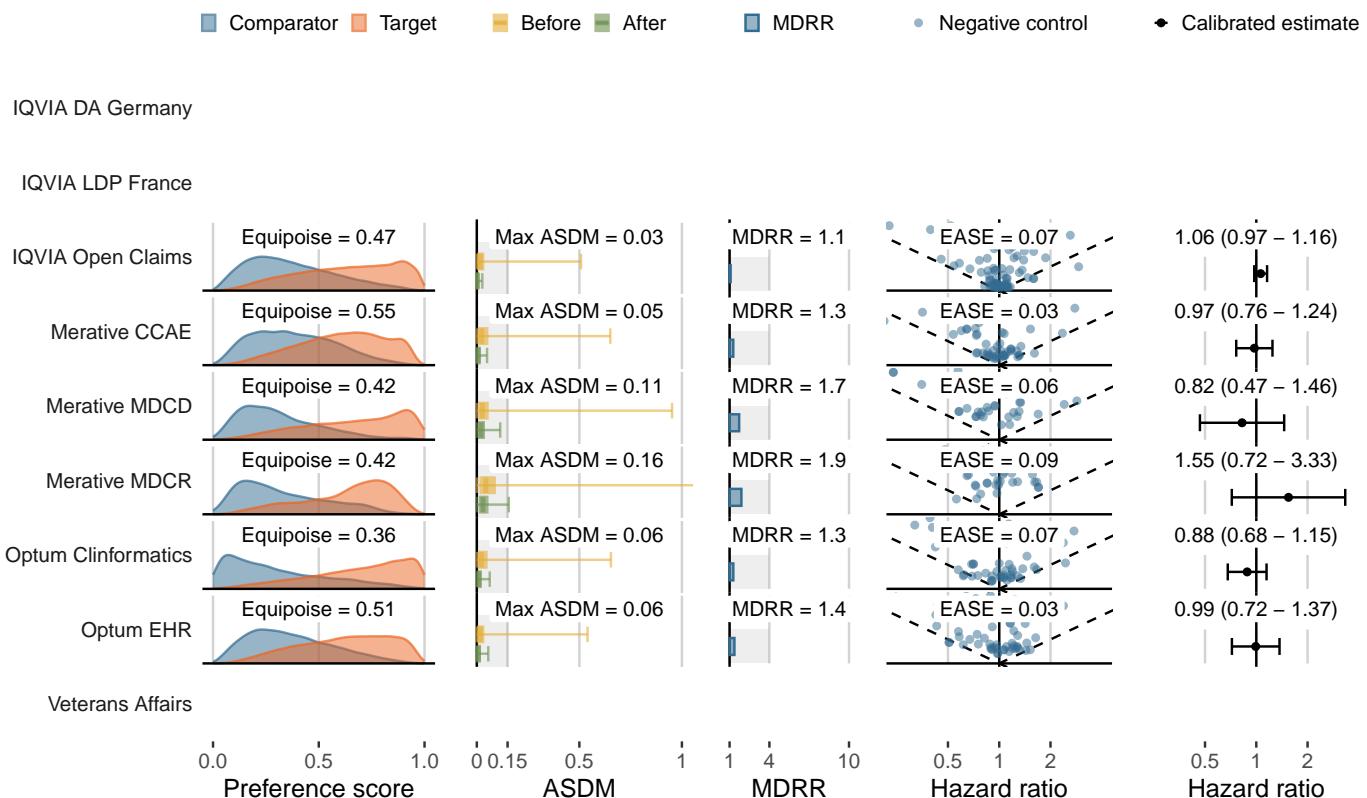
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Bone fracture**

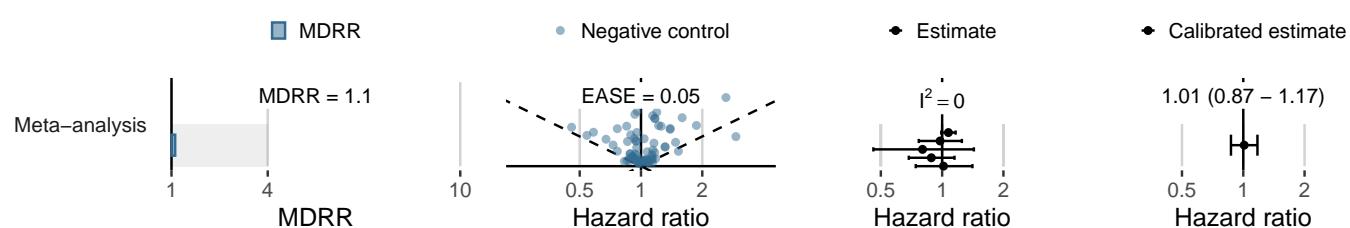
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	482,616	417,846	6,896	16.50
Merative CCAE	37,185	30,599	531	17.35
Merative MDCD	5,339	3,575	123	34.41
Merative MDCR	5,737	4,366	152	34.82
Optum Clininformatics	20,953	16,659	583	35.00
Optum EHR	47,547	22,641	434	19.17
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



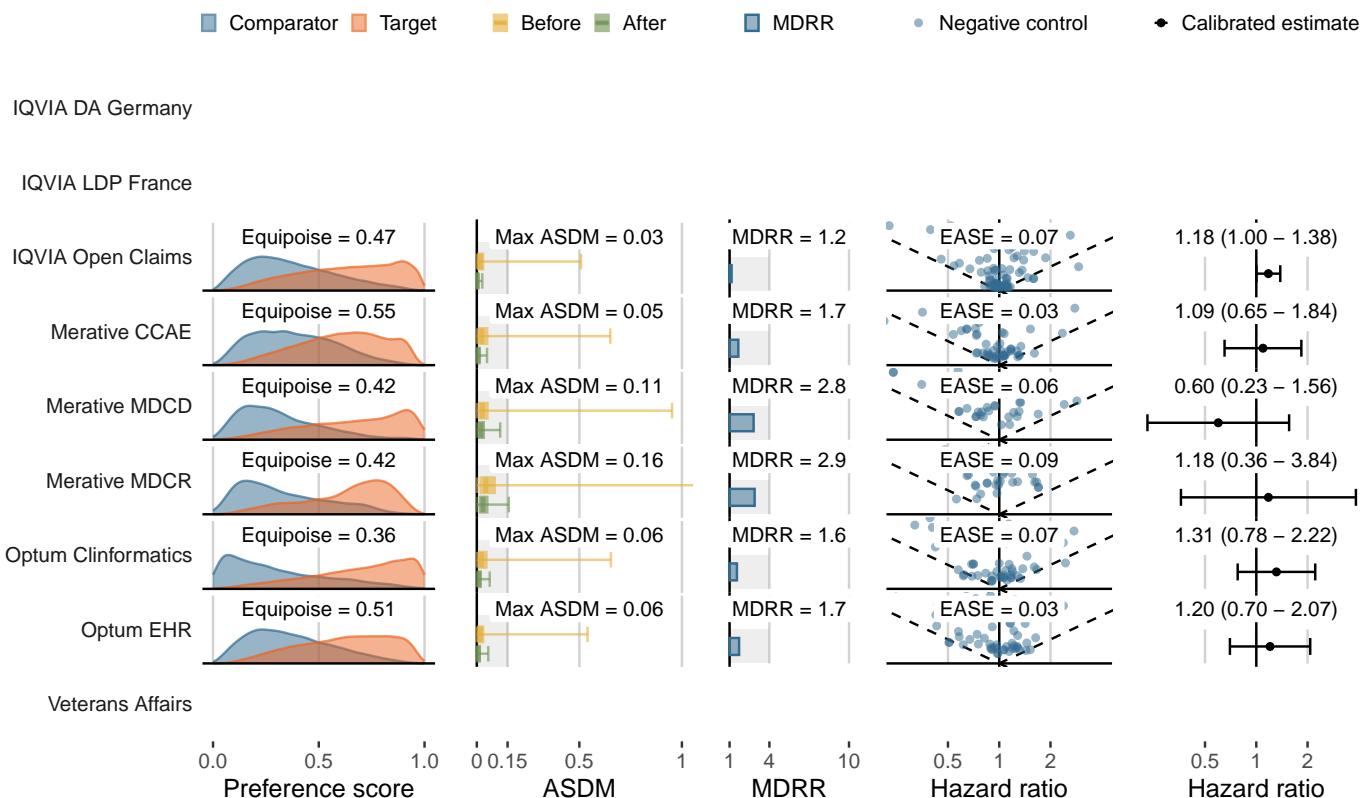
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute myocardial infarction**

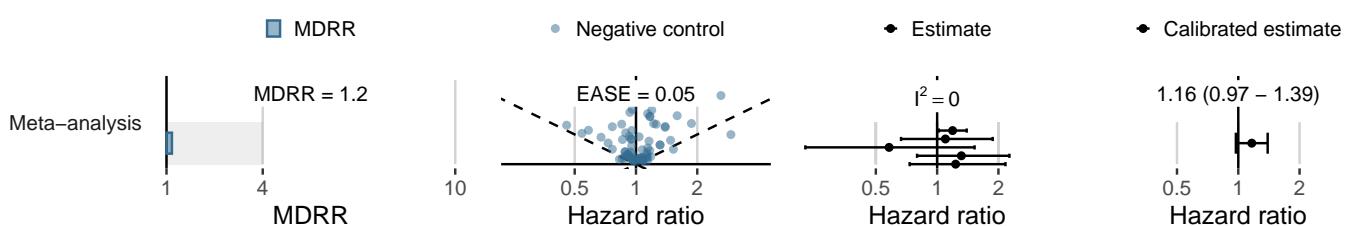
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	539,094	471,530	2,115	4.49
Merative CCAE	40,063	33,457	124	3.71
Merative MDCD	6,016	4,135	32	7.74
Merative MDCR	6,248	4,912	55	11.20
Optum Clininformatics	22,966	18,697	195	10.43
Optum EHR	50,596	24,345	147	6.04
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



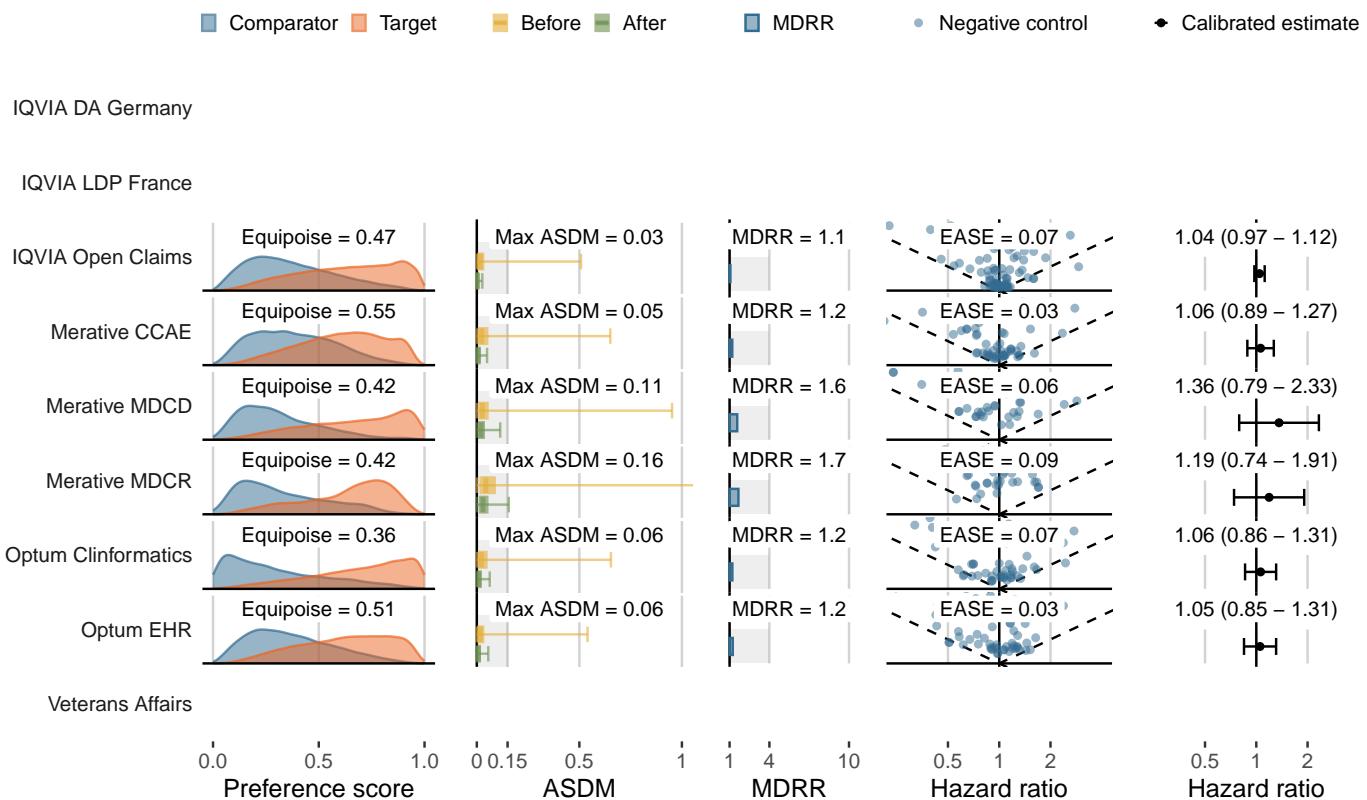
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Genitourinary infection**

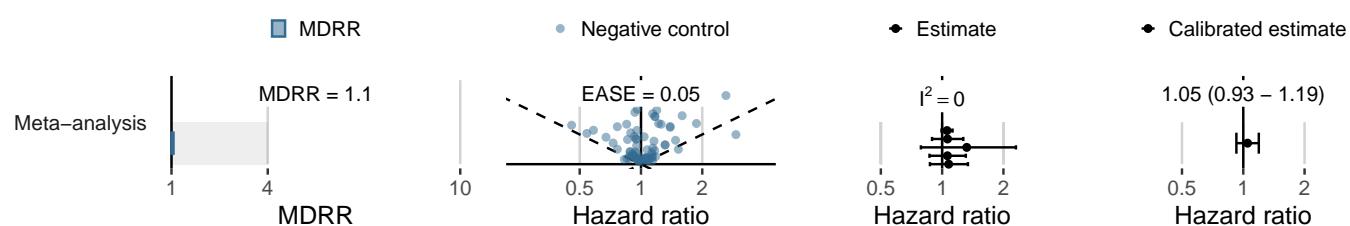
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	420,216	363,363	10,978	30.21
Merative CCAE	32,637	26,772	938	35.04
Merative MDCD	4,368	2,834	179	63.16
Merative MDCR	4,890	3,650	225	61.64
Optum Clininformatics	17,168	13,357	973	72.85
Optum EHR	42,994	19,856	895	45.08
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



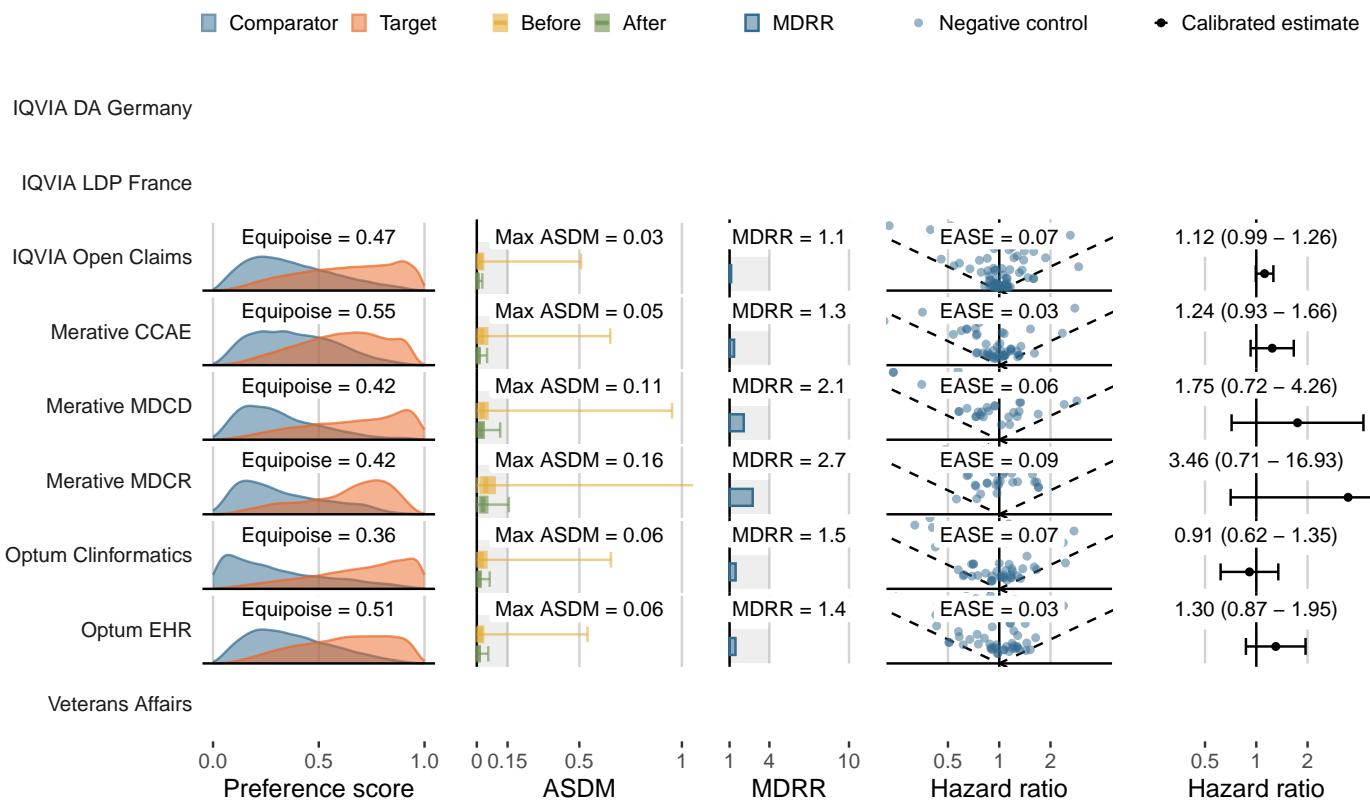
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Joint pain**

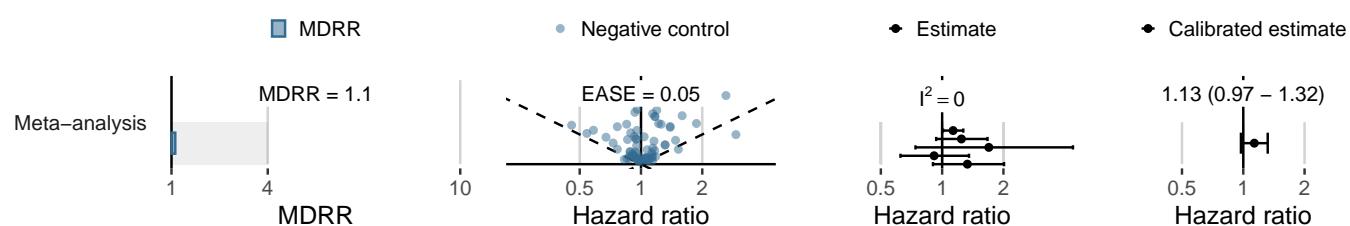
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	518,592	453,297	3,155	6.96
Merative CCAE	38,197	31,730	371	11.69
Merative MDCD	4,553	2,934	68	23.18
Merative MDCR	5,349	4,125	59	14.30
Optum Clininformatics	20,158	16,143	247	15.30
Optum EHR	48,343	23,024	310	13.46
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



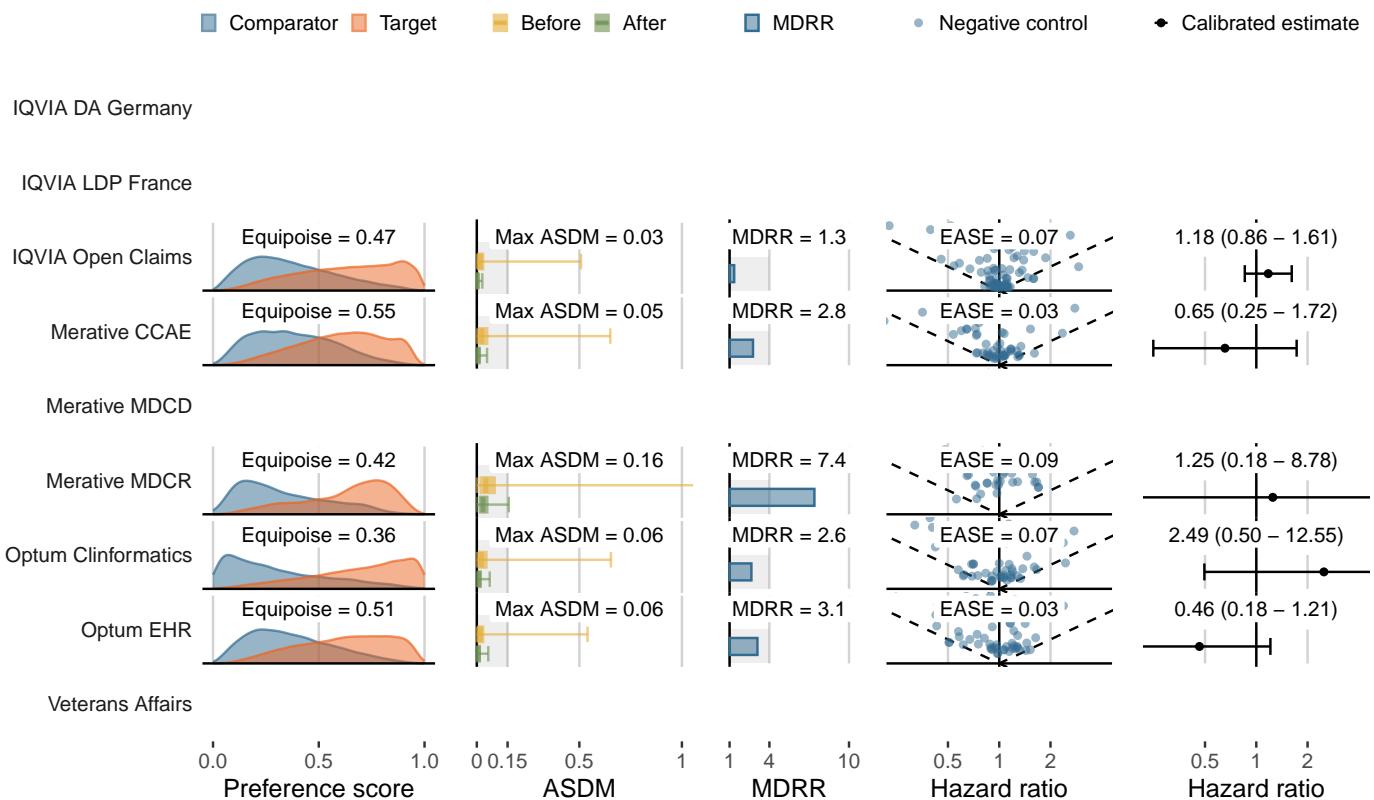
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Renal cancer**

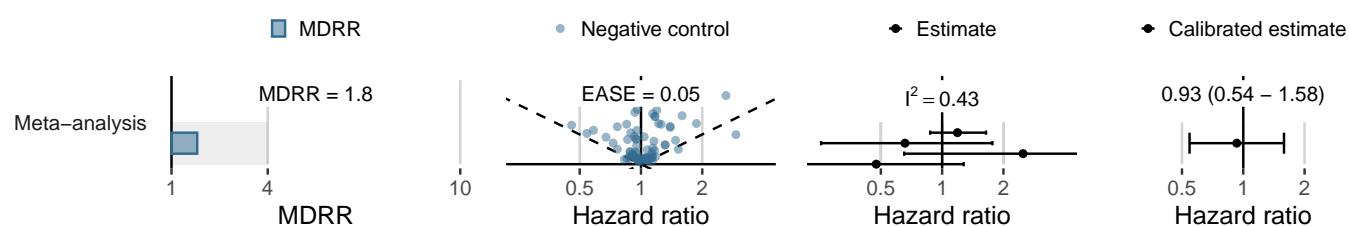
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	551,920	483,401	451	.93
Merative CCAE	40,697	34,073	31	.91
Merative MDCD	6,227	4,290	7	1.63
Merative MDCR	6,437	5,035	12	2.38
Optum Clininformatics	23,594	19,140	42	2.19
Optum EHR	51,131	24,677	27	1.09
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



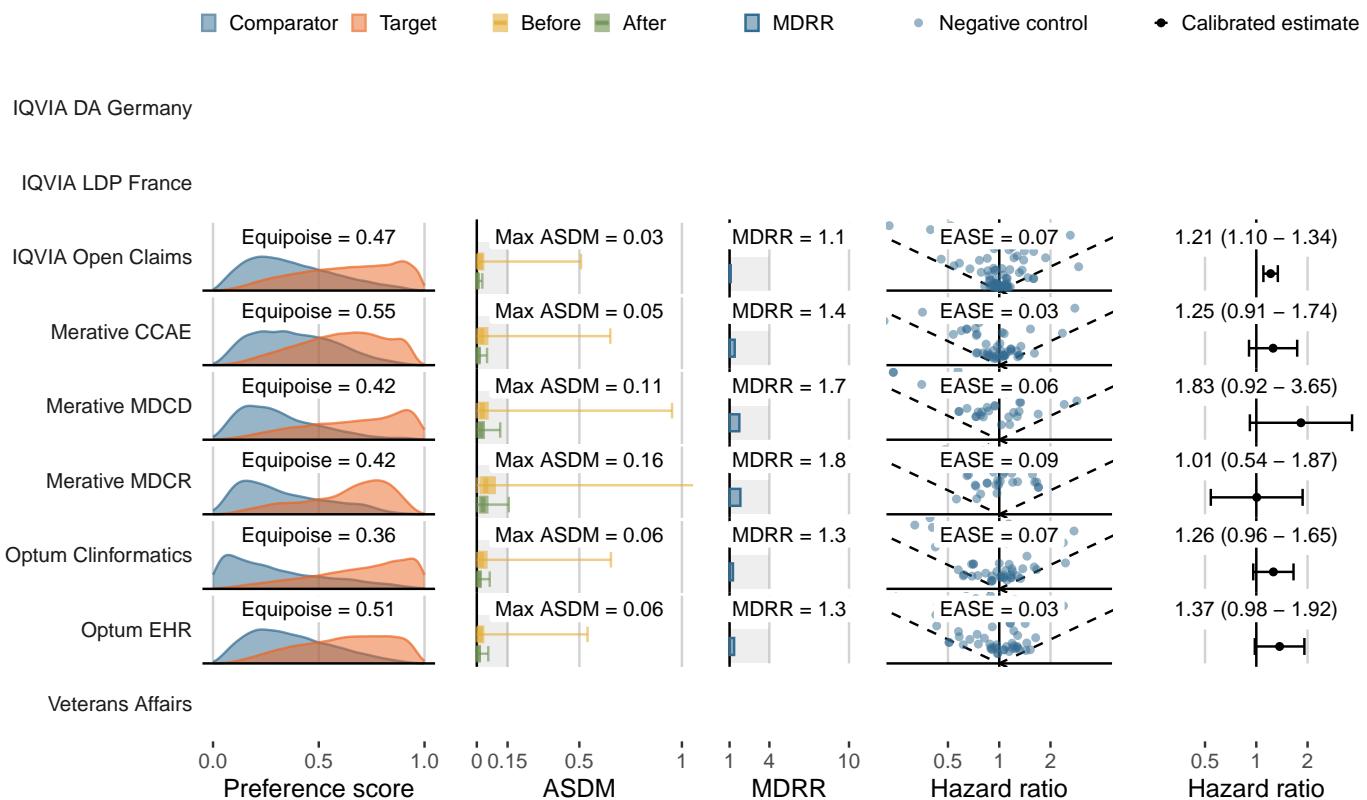
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute renal failure**

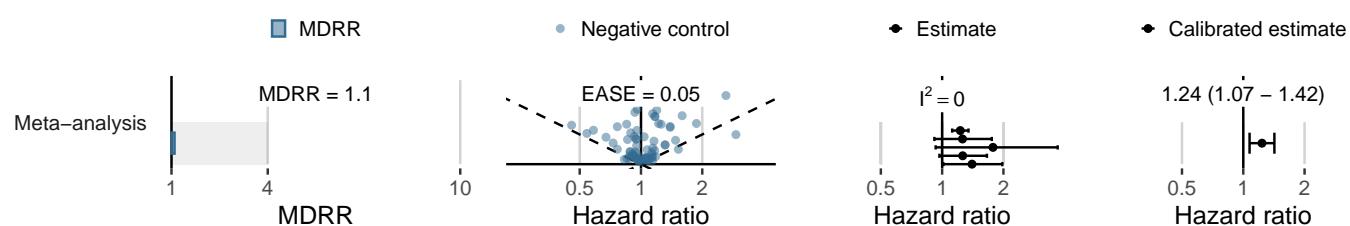
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	533,783	465,376	6,244	13.42
Merative CCAE	39,868	33,262	301	9.05
Merative MDCD	5,768	3,890	136	34.96
Merative MDCR	5,957	4,609	167	36.24
Optum Clininformatics	21,833	17,455	740	42.40
Optum EHR	50,335	24,003	498	20.75
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



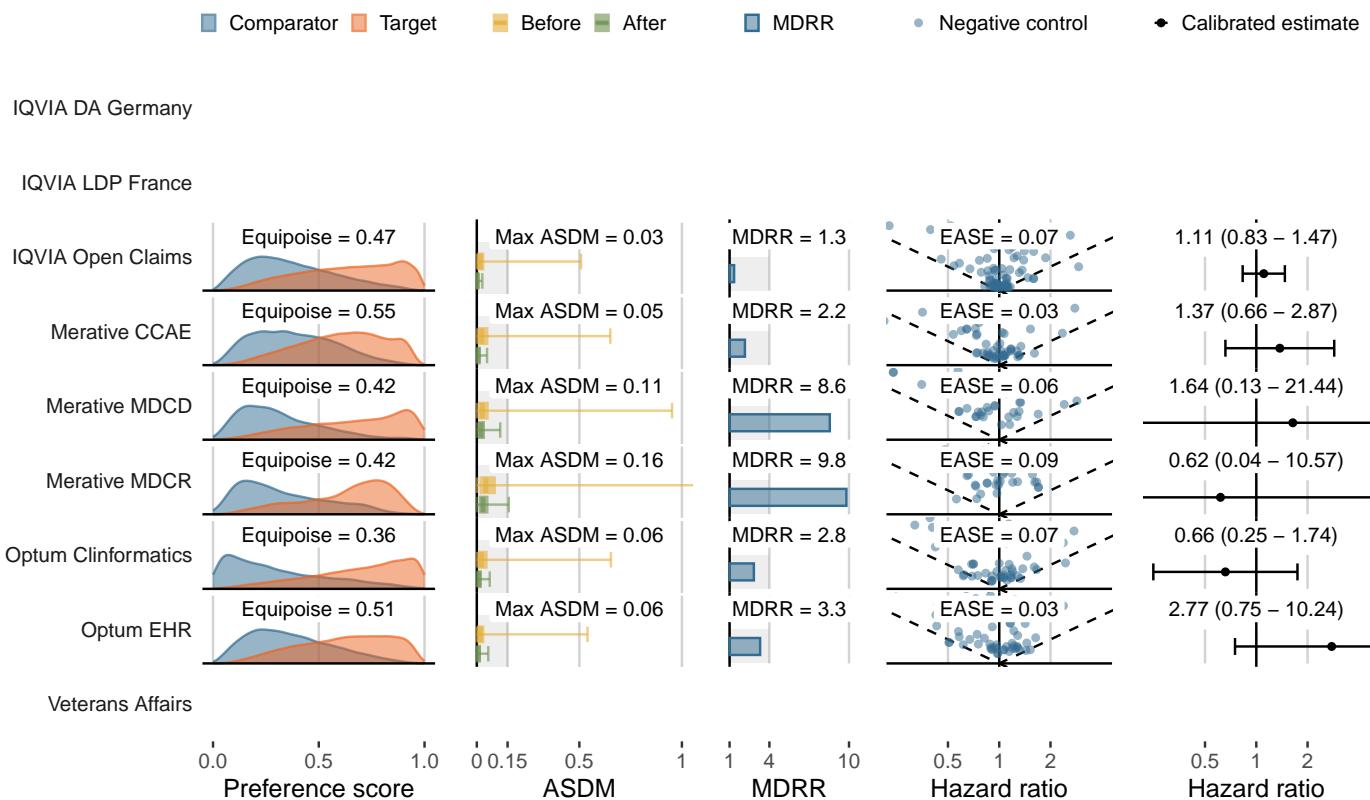
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Thyroid tumor**

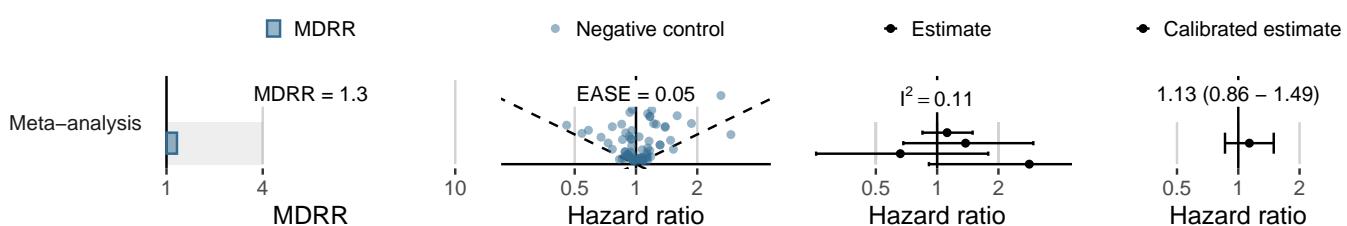
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	550,002	481,570	456	.95
Merative CCAE	40,545	33,953	55	1.62
Merative MDCD	6,218	4,293	5	1.16
Merative MDCR	6,433	4,998	8	1.60
Optum Clininformatics	23,590	19,142	32	1.67
Optum EHR	51,034	24,637	29	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)



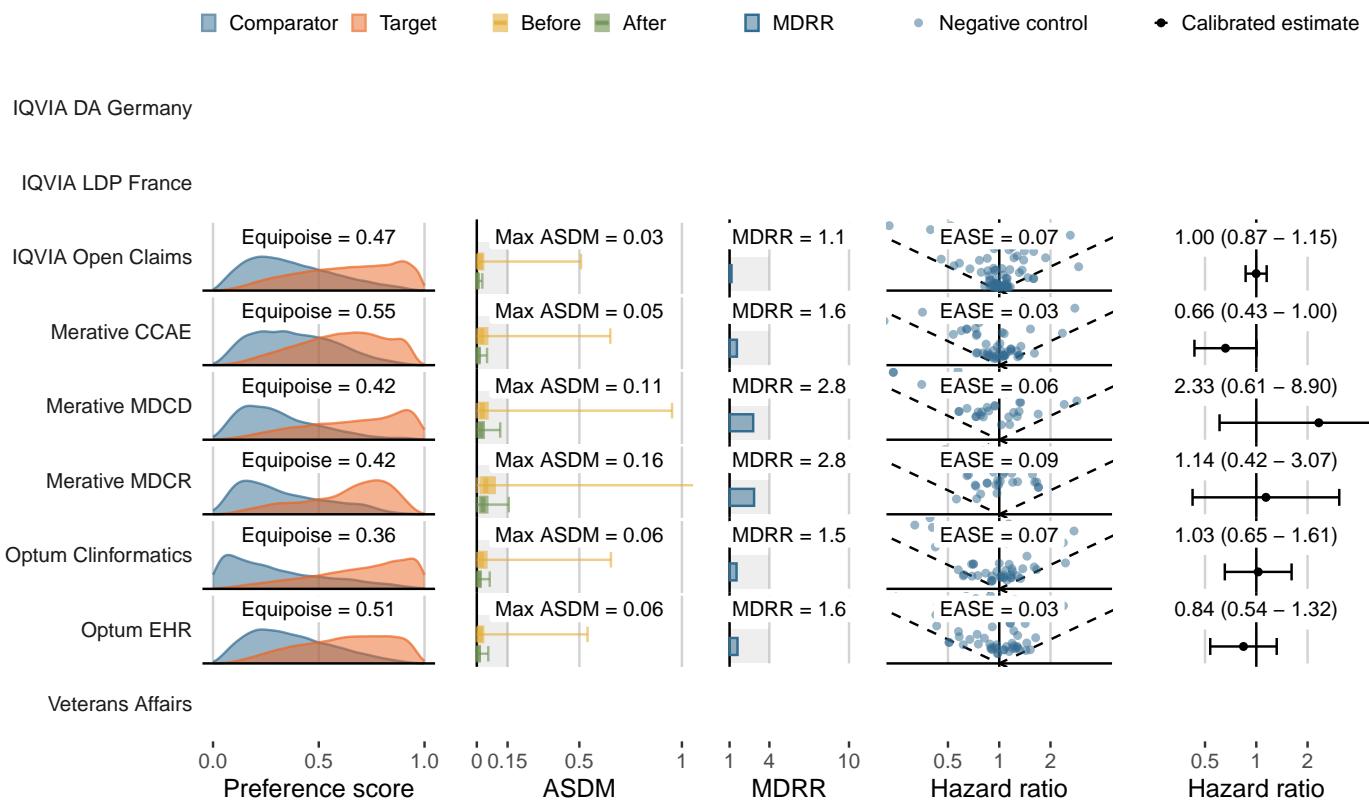
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Venous thromboembolic events**

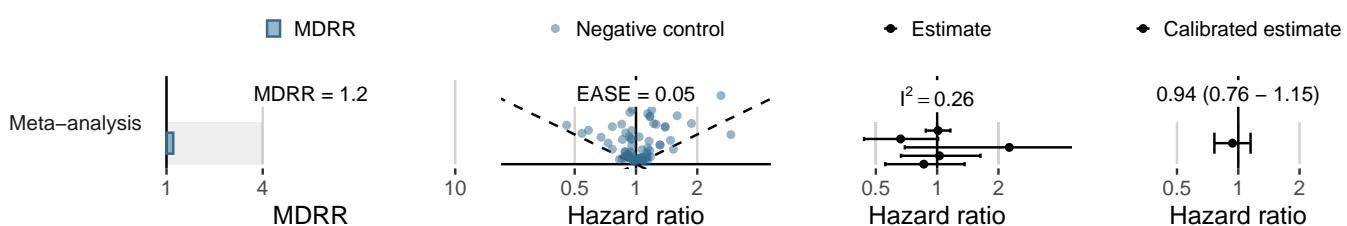
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	535,098	467,948	2,205	4.71
Merative CCAE	39,754	33,159	162	4.89
Merative MDCD	5,934	4,041	39	9.65
Merative MDCR	6,203	4,858	52	10.70
Optum Clininformatics	22,603	18,267	206	11.28
Optum EHR	49,863	23,877	189	7.92
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



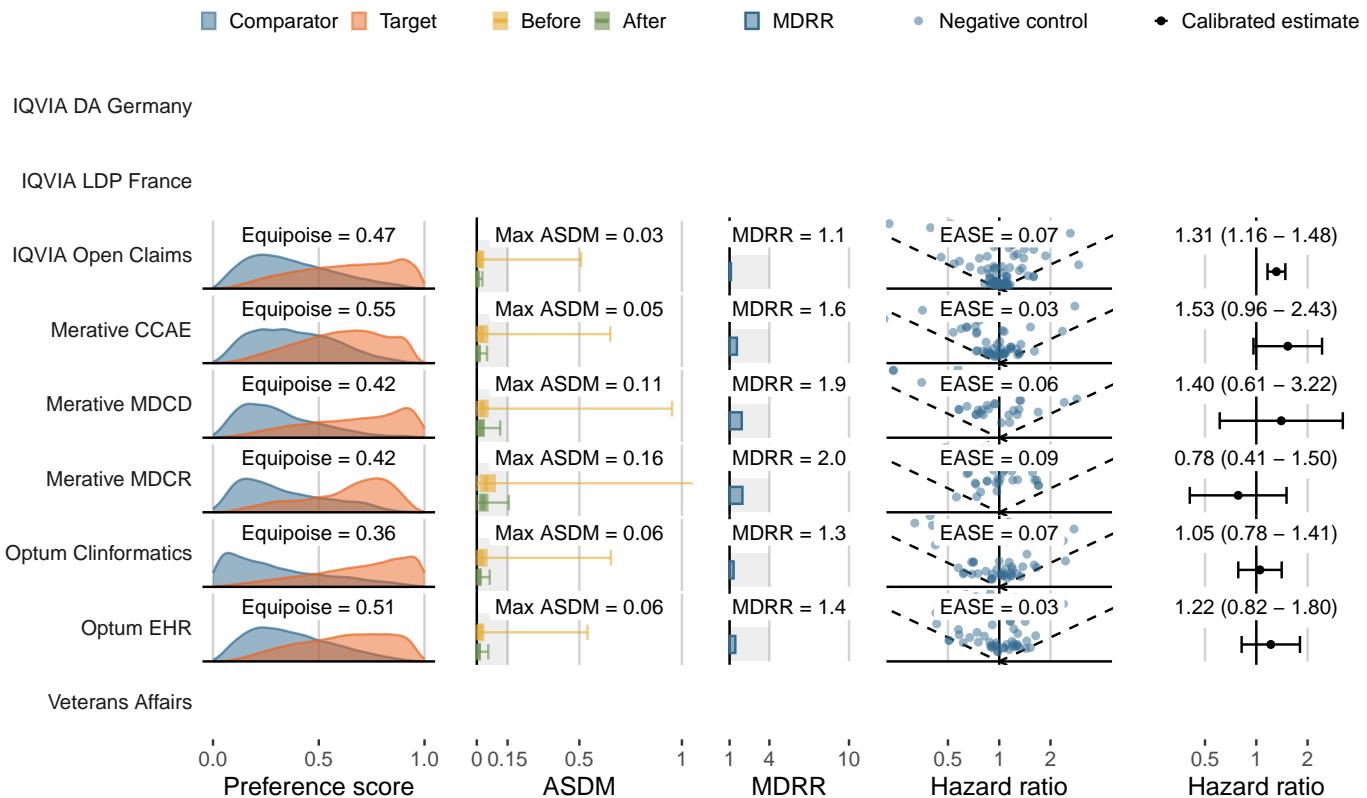
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Hospitalization with heart failure**

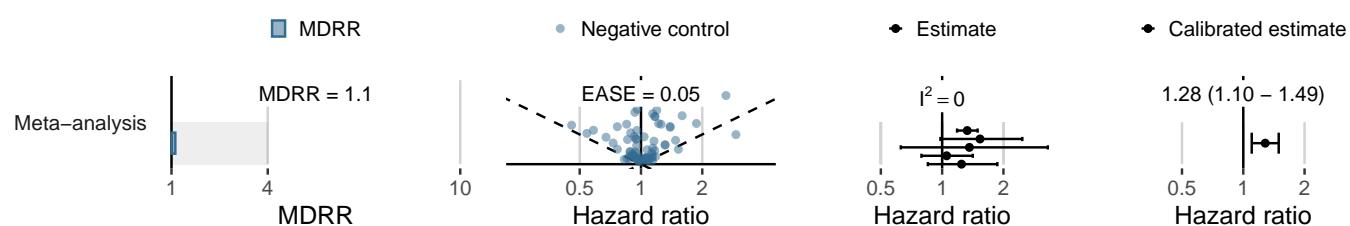
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	532,041	465,221	4,488	9.65
Merative CCAE	39,991	33,467	176	5.26
Merative MDCD	5,690	3,866	90	23.28
Merative MDCR	5,901	4,642	124	26.71
Optum Clininformatics	21,771	17,511	537	30.67
Optum EHR	50,230	24,043	325	13.52
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



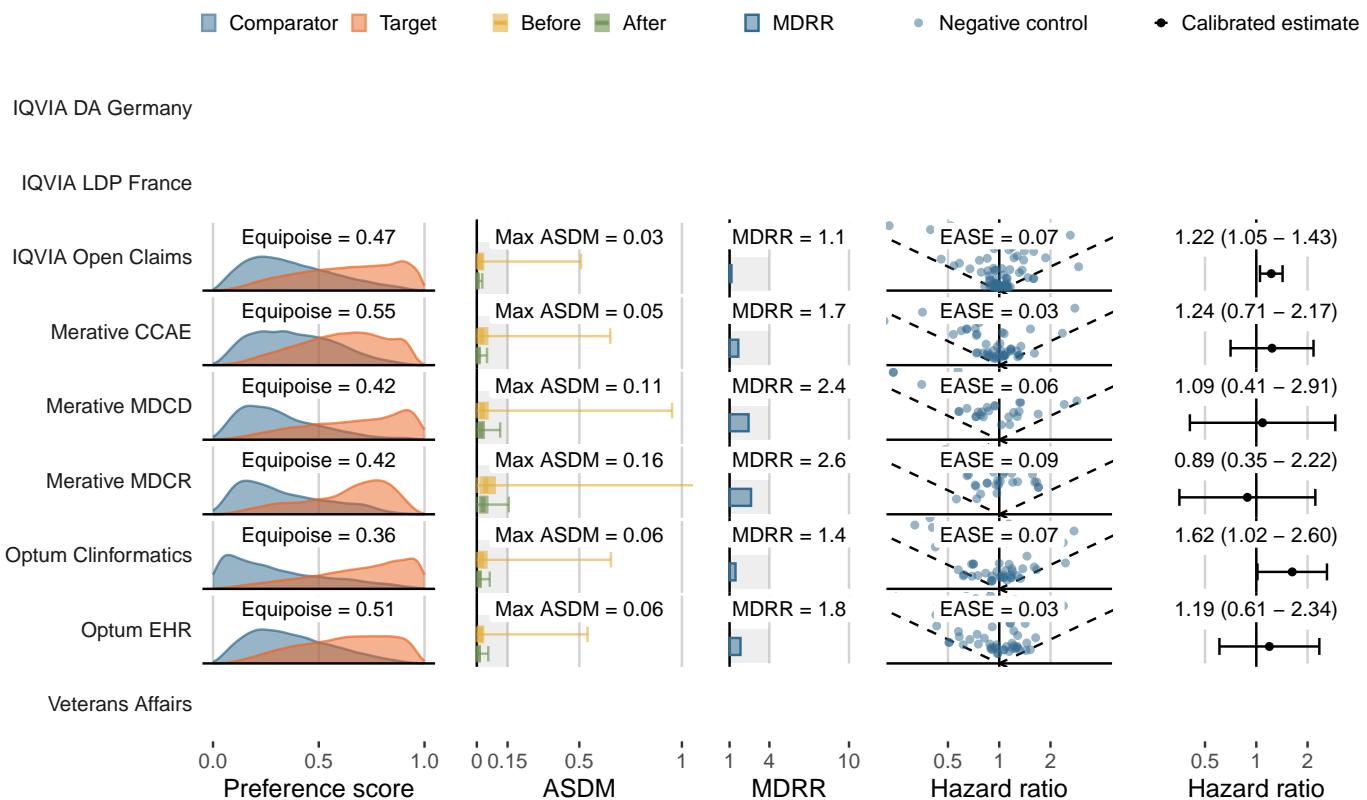
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dulaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Stroke**

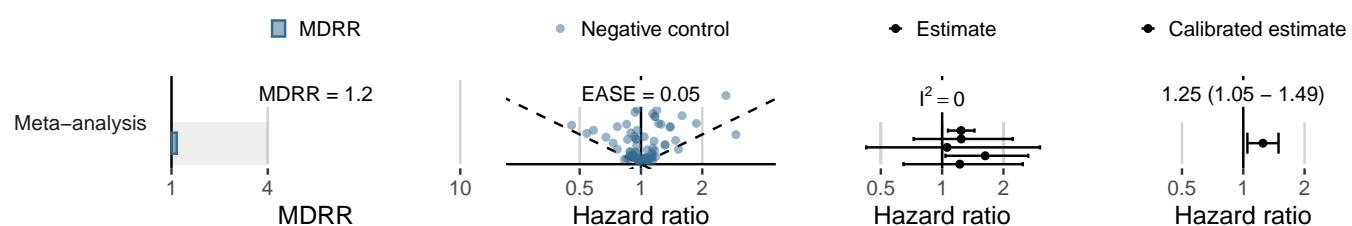
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	538,040	471,100	2,454	5.21
Merative CCAE	40,182	33,670	130	3.86
Merative MDCD	5,953	4,115	51	12.39
Merative MDCR	6,124	4,768	63	13.21
Optum Clininformatics	22,761	18,401	282	15.33
Optum EHR	50,740	24,418	120	4.91
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



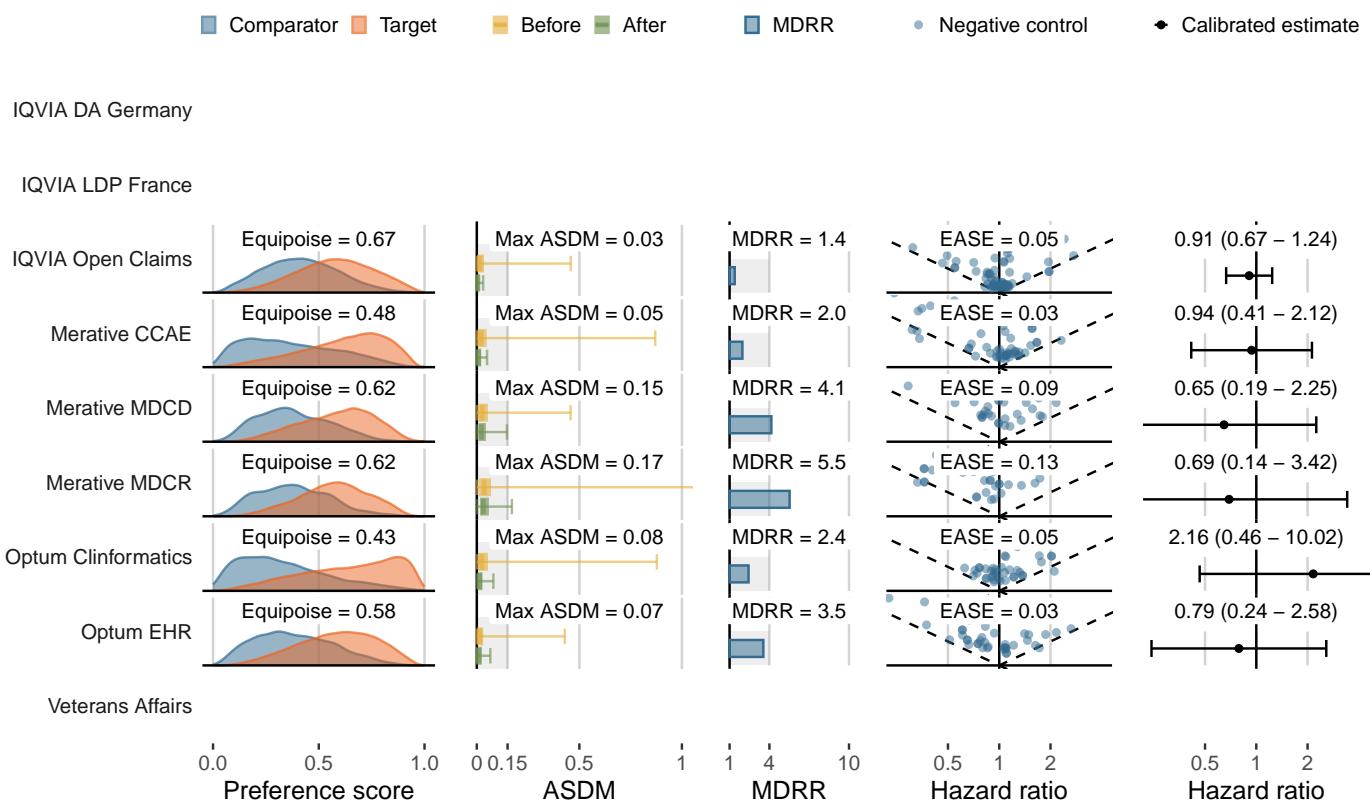
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Acute pancreatitis**

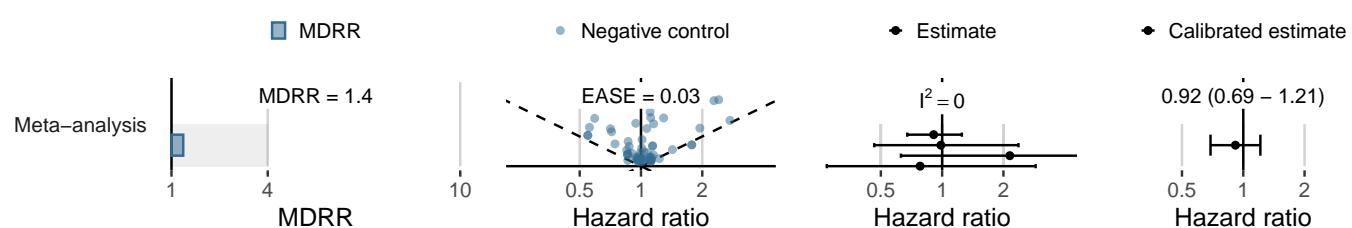
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	659,557	593,245	1,184	2.00
Merative CCAE	80,967	68,995	162	2.35
Merative MDCD	8,814	6,407	26	4.06
Merative MDCR	14,570	14,062	46	3.27
Optum Clininformatics	42,643	34,700	95	2.74
Optum EHR	67,290	31,056	68	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)



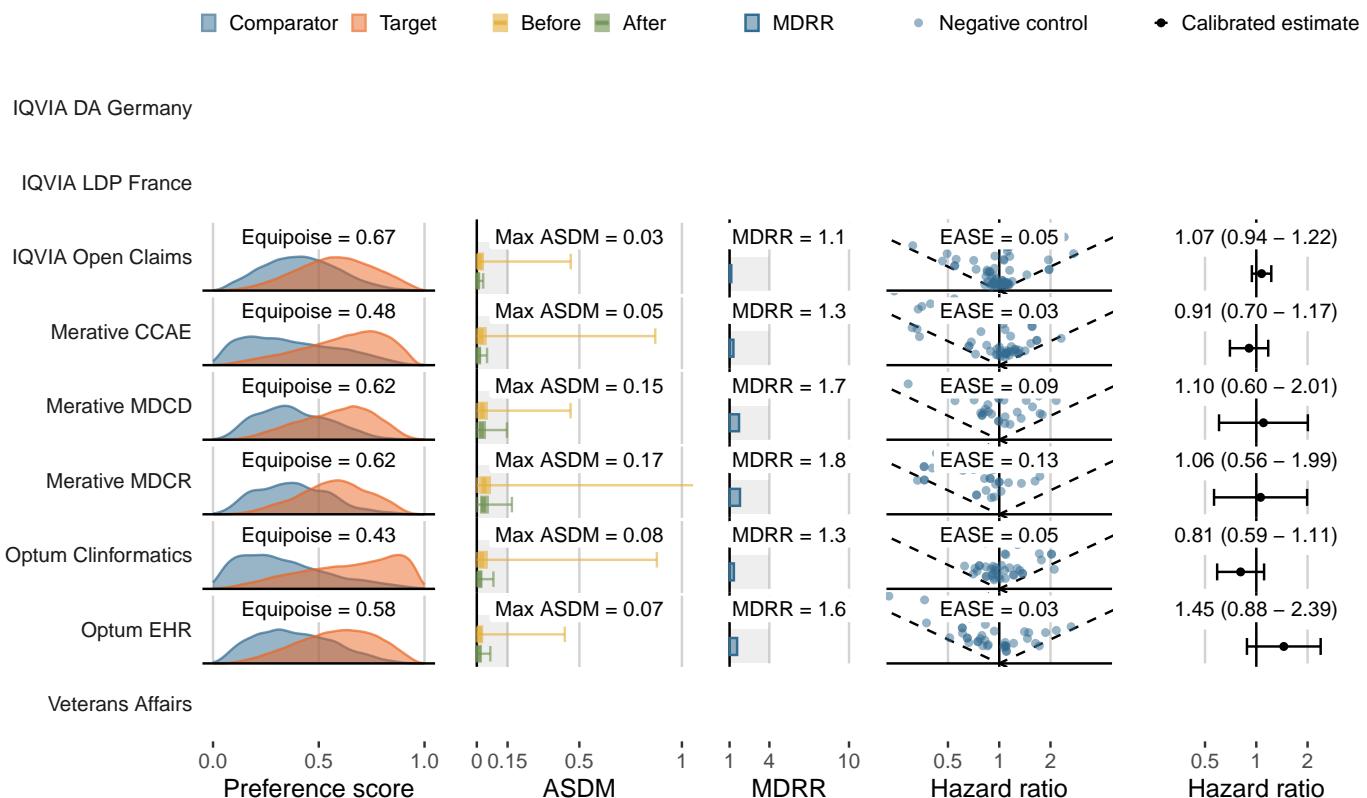
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Bone fracture**

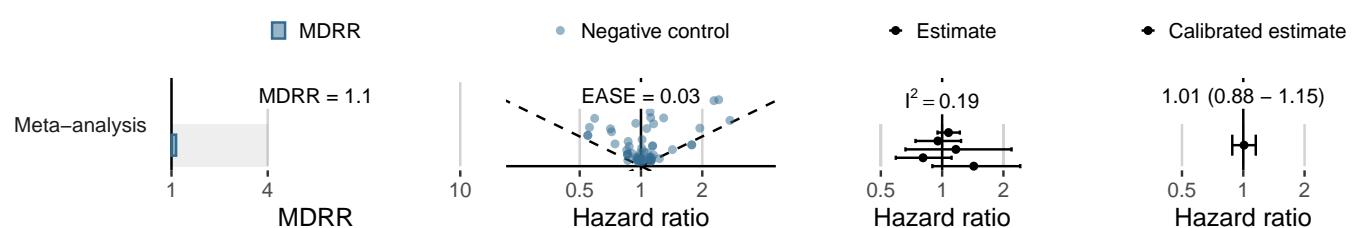
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	583,458	517,849	8,701	16.80
Merative CCAE	75,096	62,845	1,107	17.61
Merative MDCD	7,709	5,396	198	36.69
Merative MDCR	13,006	12,197	432	35.42
Optum Clininformatics	38,603	30,580	920	30.08
Optum EHR	63,201	28,709	552	19.23
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



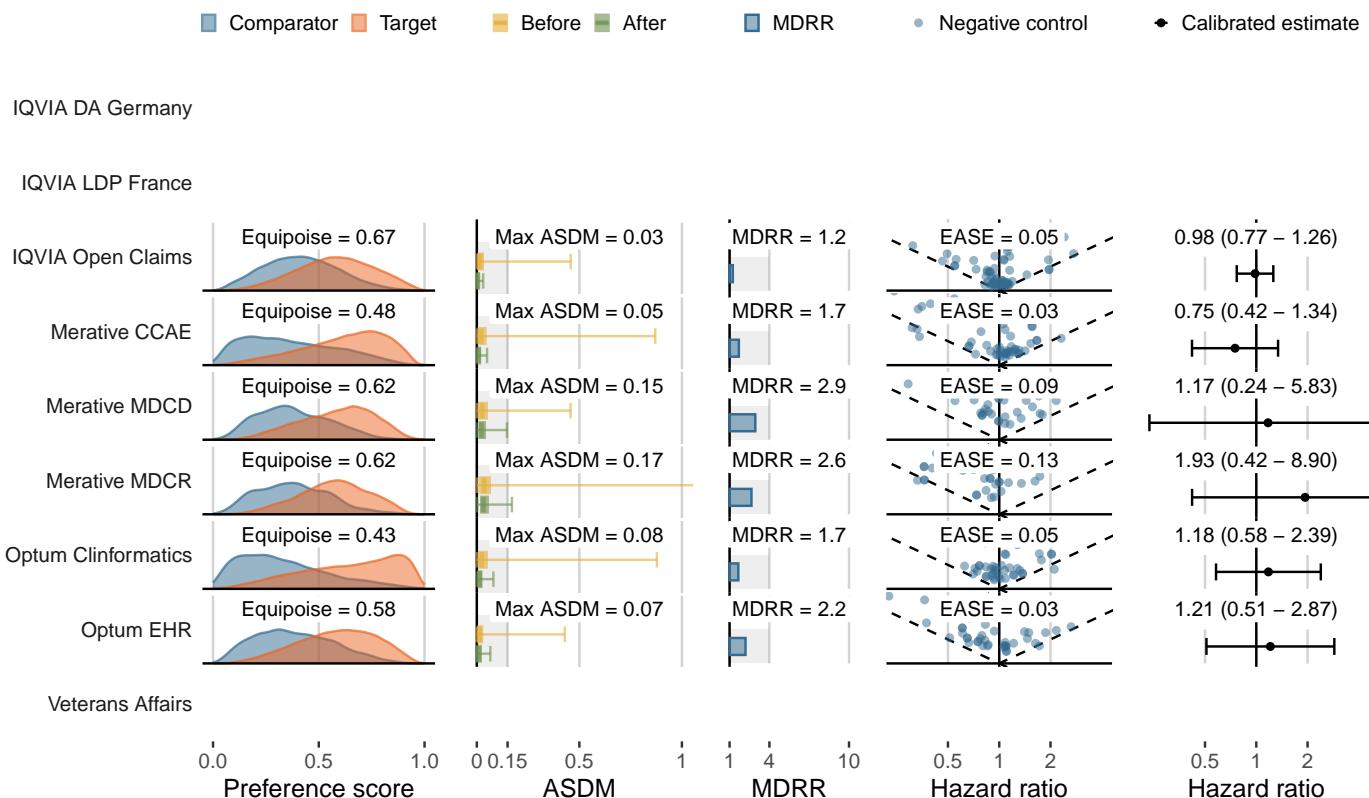
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Acute myocardial infarction**

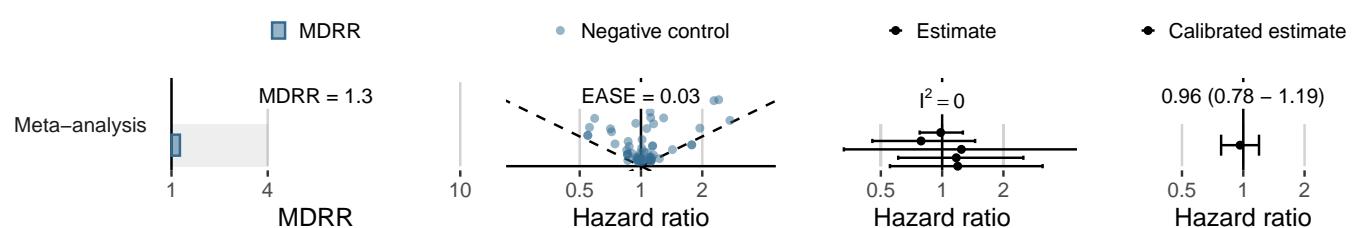
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	649,770	582,905	2,641	4.53
Merative CCAE	80,180	68,120	258	3.79
Merative MDCD	8,674	6,268	49	7.82
Merative MDCR	14,115	13,618	149	10.94
Optum Clininformatics	41,825	33,931	295	8.69
Optum EHR	66,832	30,746	179	5.82
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



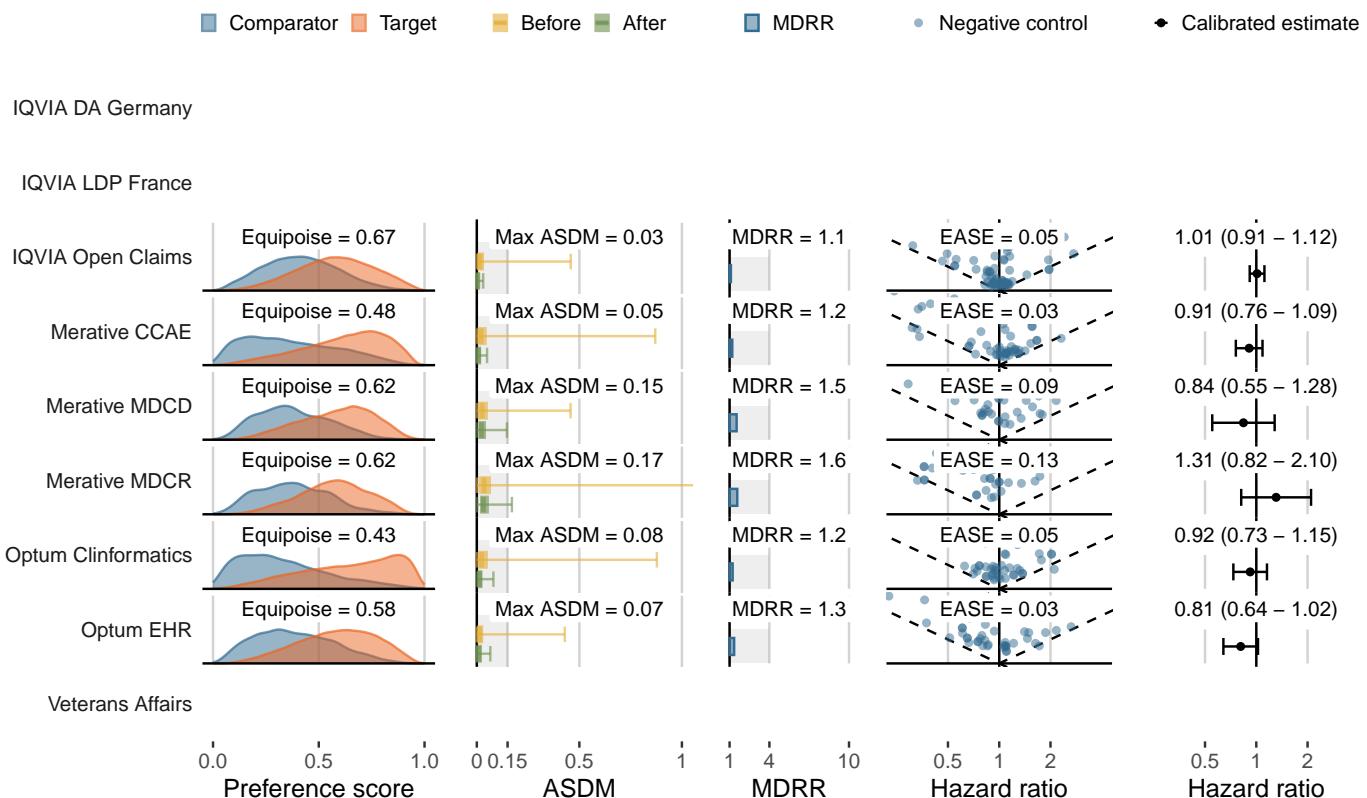
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Genitourinary infection**

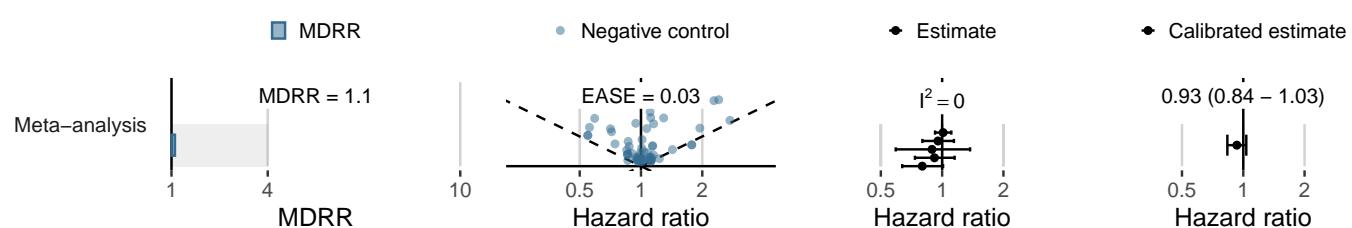
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	514,254	454,969	14,373	31.59
Merative CCAE	65,957	54,723	2,133	38.98
Merative MDCD	6,383	4,314	301	69.78
Merative MDCR	11,412	10,573	677	64.03
Optum Clininformatics	32,121	24,966	1,612	64.57
Optum EHR	57,276	25,223	1,220	48.37
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



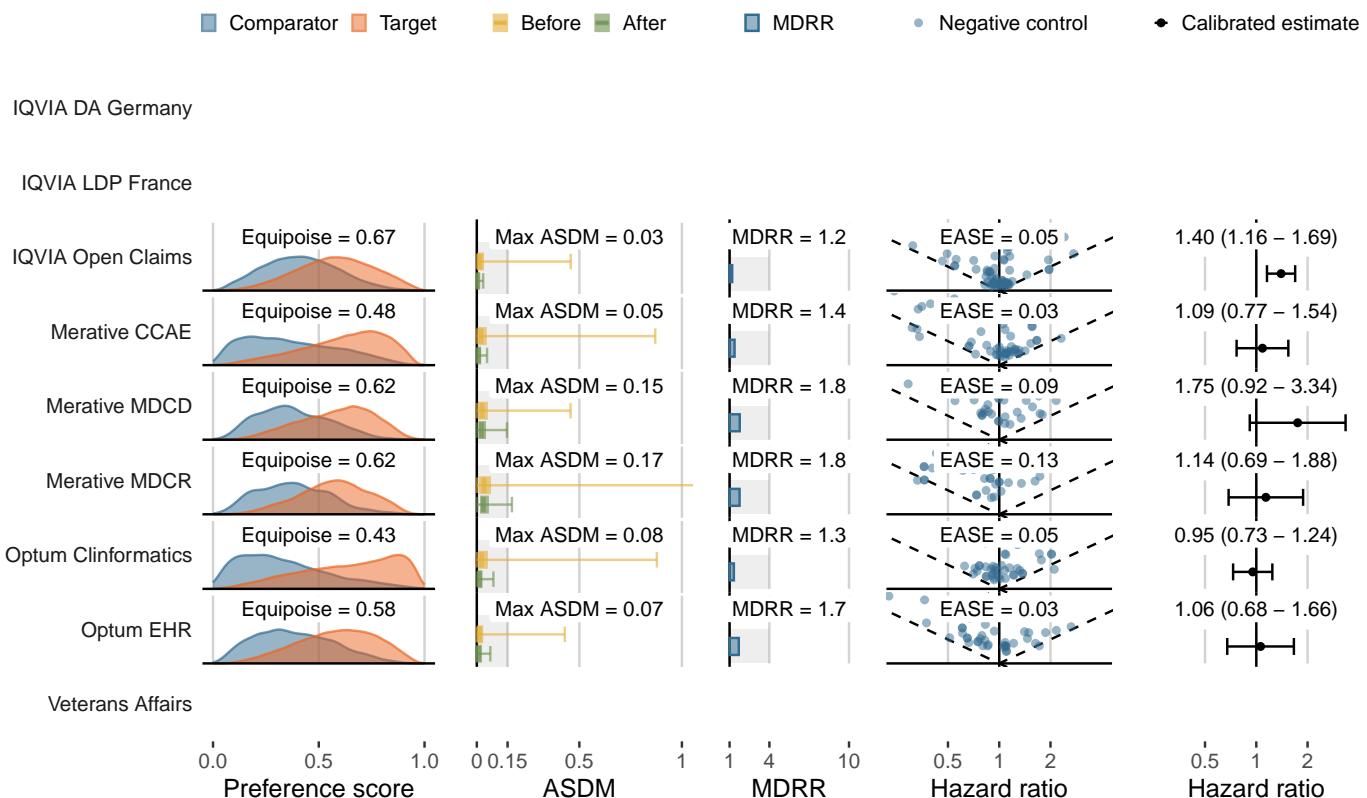
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Joint pain**

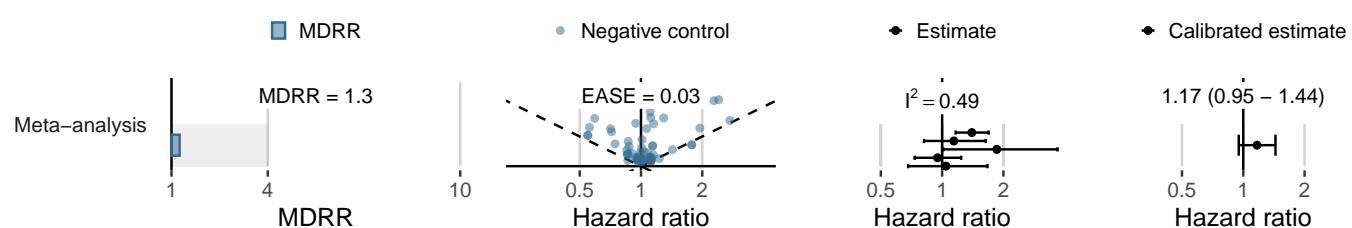
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	626,604	561,453	4,021	7.16
Merative CCAE	77,235	65,402	724	11.07
Merative MDCD	6,424	4,315	183	42.41
Merative MDCR	11,412	10,665	458	42.95
Optum Clininformatics	35,473	27,956	923	33.02
Optum EHR	63,978	29,079	391	13.45
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



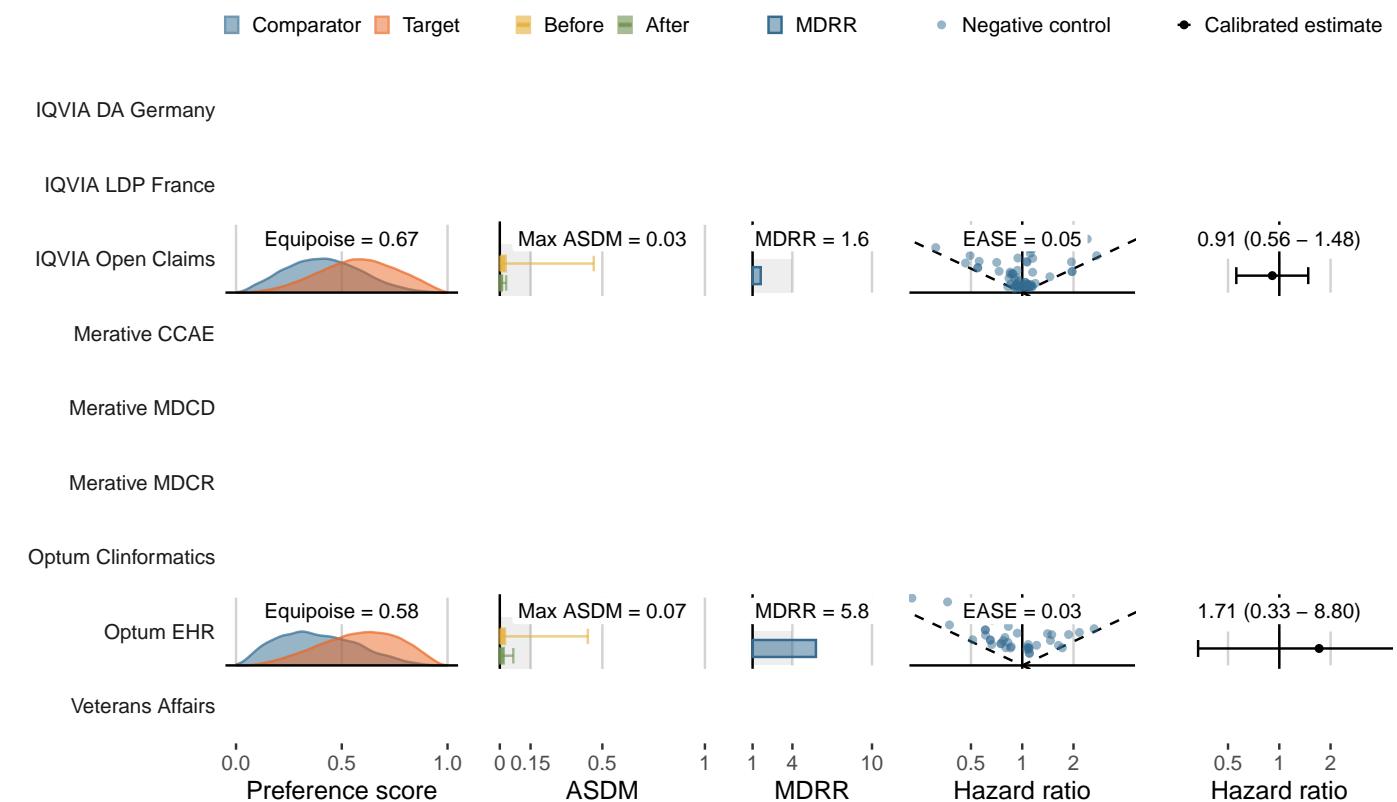
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Renal cancer**

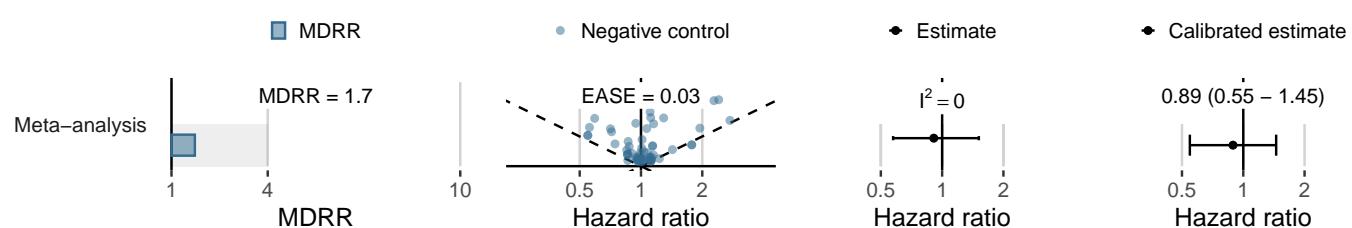
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	664,486	597,256	556	.93
Merative CCAE	81,496	69,417	65	.94
Merative MDCD	8,958	6,499	10	1.54
Merative MDCR	14,616	14,083	24	1.70
Optum Clininformatics	42,884	34,824	60	1.72
Optum EHR	67,408	31,116	33	1.06
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



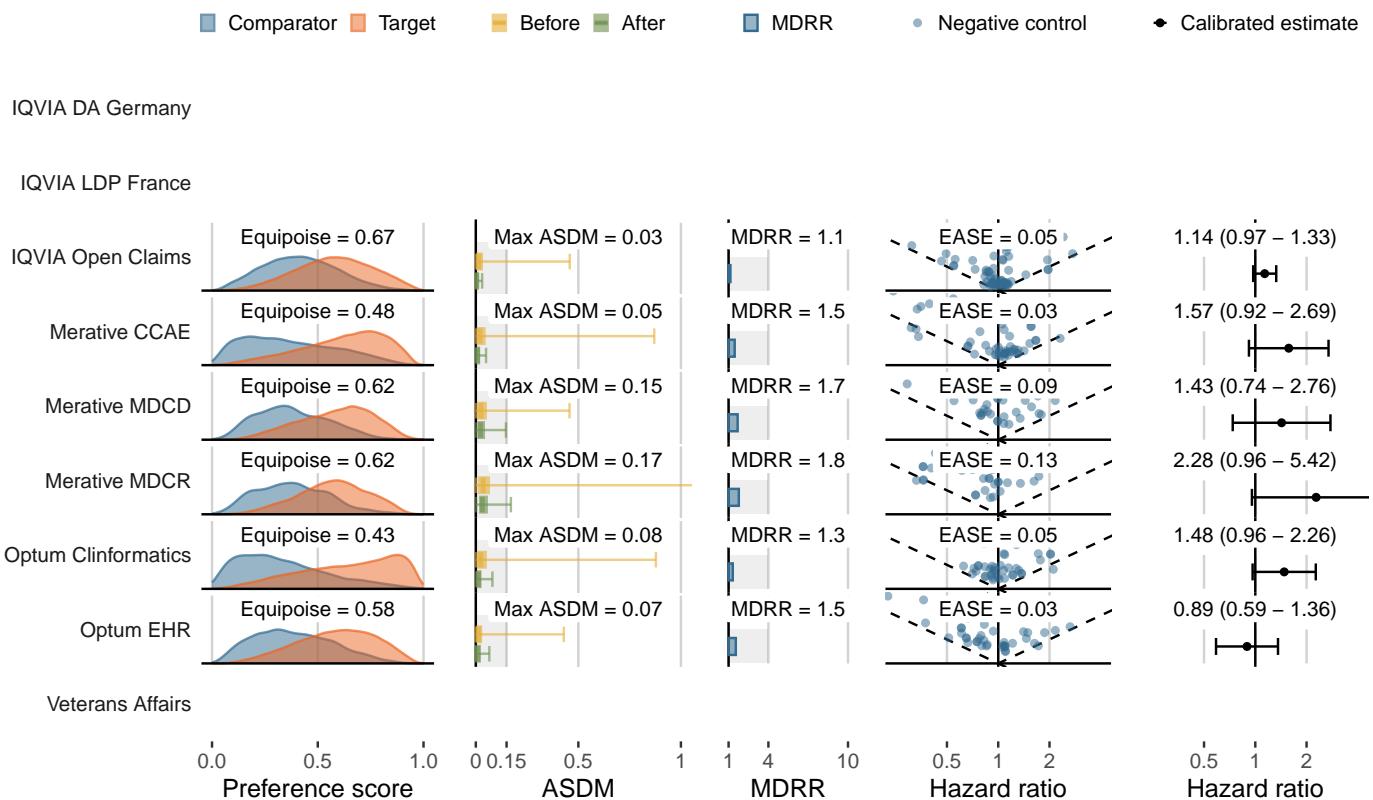
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Acute renal failure**

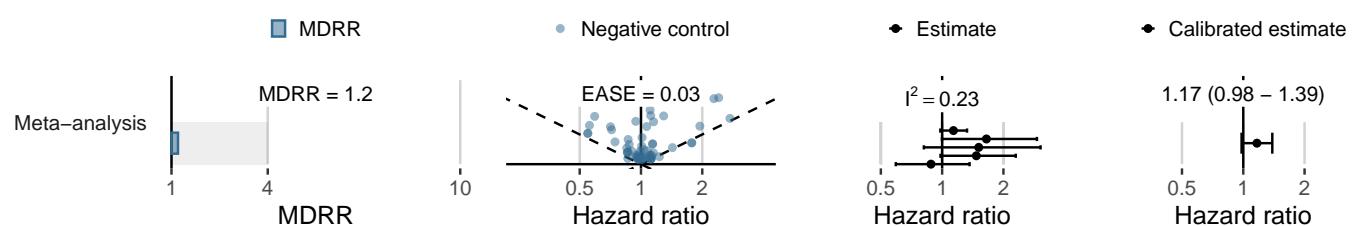
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	644,920	576,466	7,650	13.27
Merative CCAE	80,454	68,341	525	7.68
Merative MDCD	8,385	5,918	213	35.99
Merative MDCR	13,759	13,138	429	32.65
Optum Clininformatics	40,665	32,565	984	30.22
Optum EHR	66,372	30,290	579	19.12
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



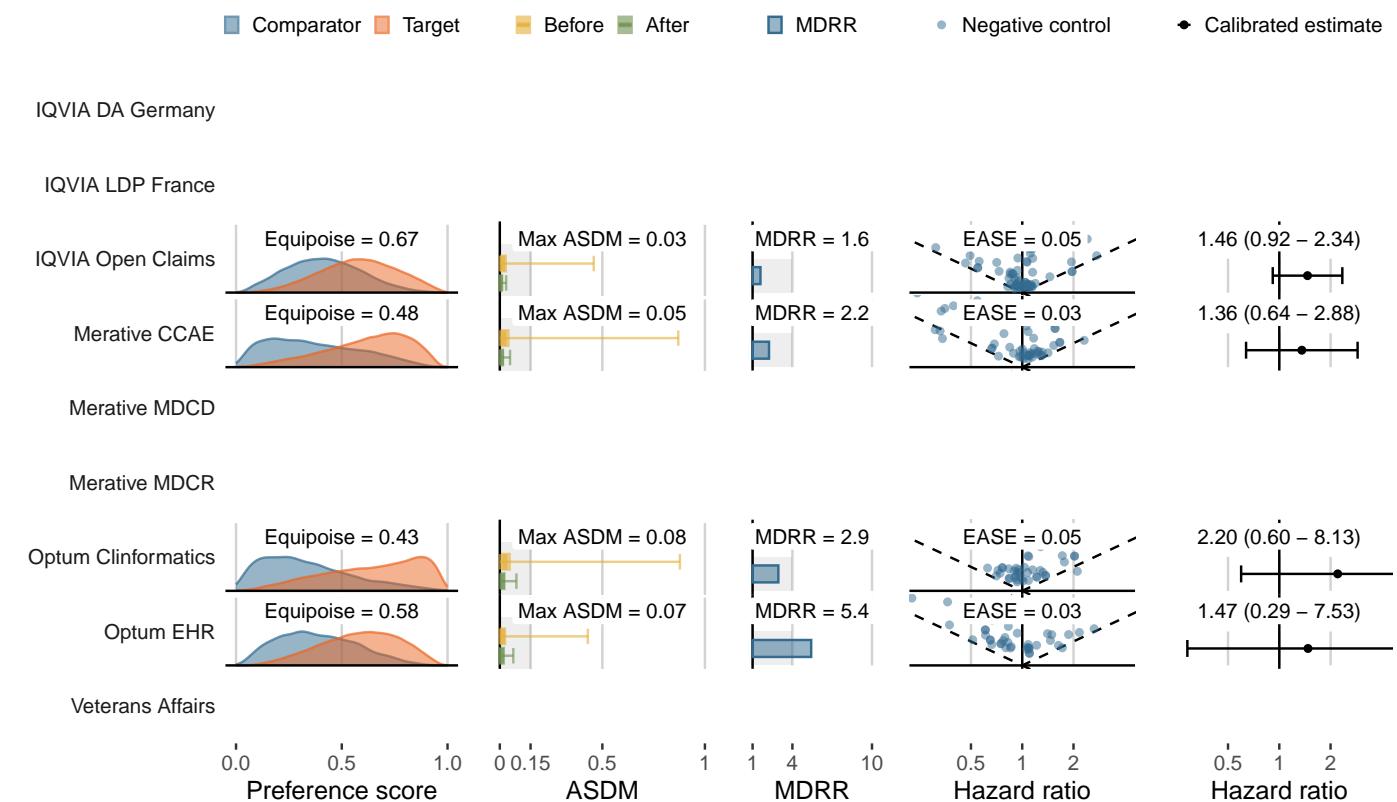
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Thyroid tumor**

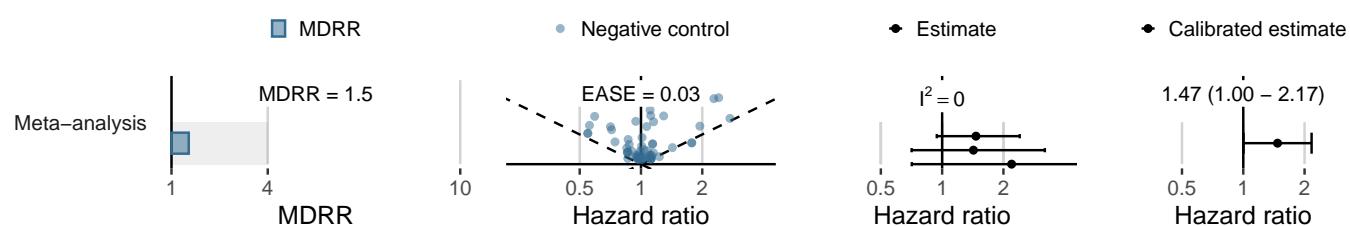
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	662,580	595,209	585	.98
Merative CCAE	81,226	69,167	106	1.53
Merative MDCD	8,947	6,488	8	1.23
Merative MDCR	14,594	14,047	26	1.85
Optum Clininformatics	42,808	34,761	63	1.81
Optum EHR	67,304	31,066	36	1.16
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



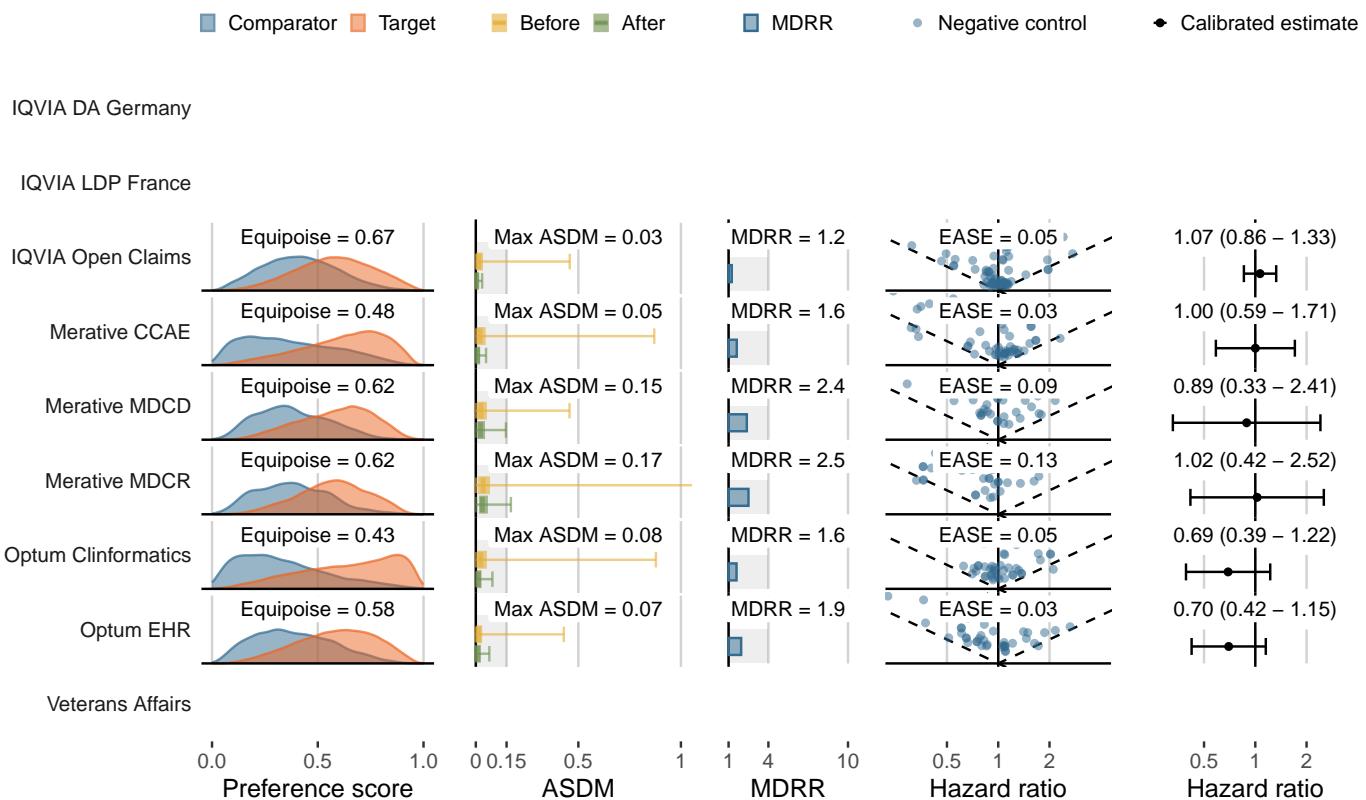
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Venous thromboembolic events**

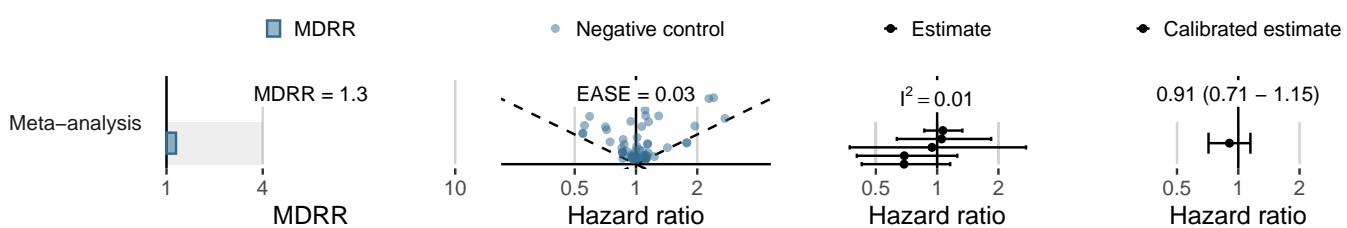
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	645,122	578,578	2,800	4.84
Merative CCAE	79,894	67,847	316	4.66
Merative MDCD	8,550	6,125	75	12.25
Merative MDCR	13,924	13,431	168	12.51
Optum Clininformatics	41,599	33,677	337	10.01
Optum EHR	65,870	30,162	240	7.96
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



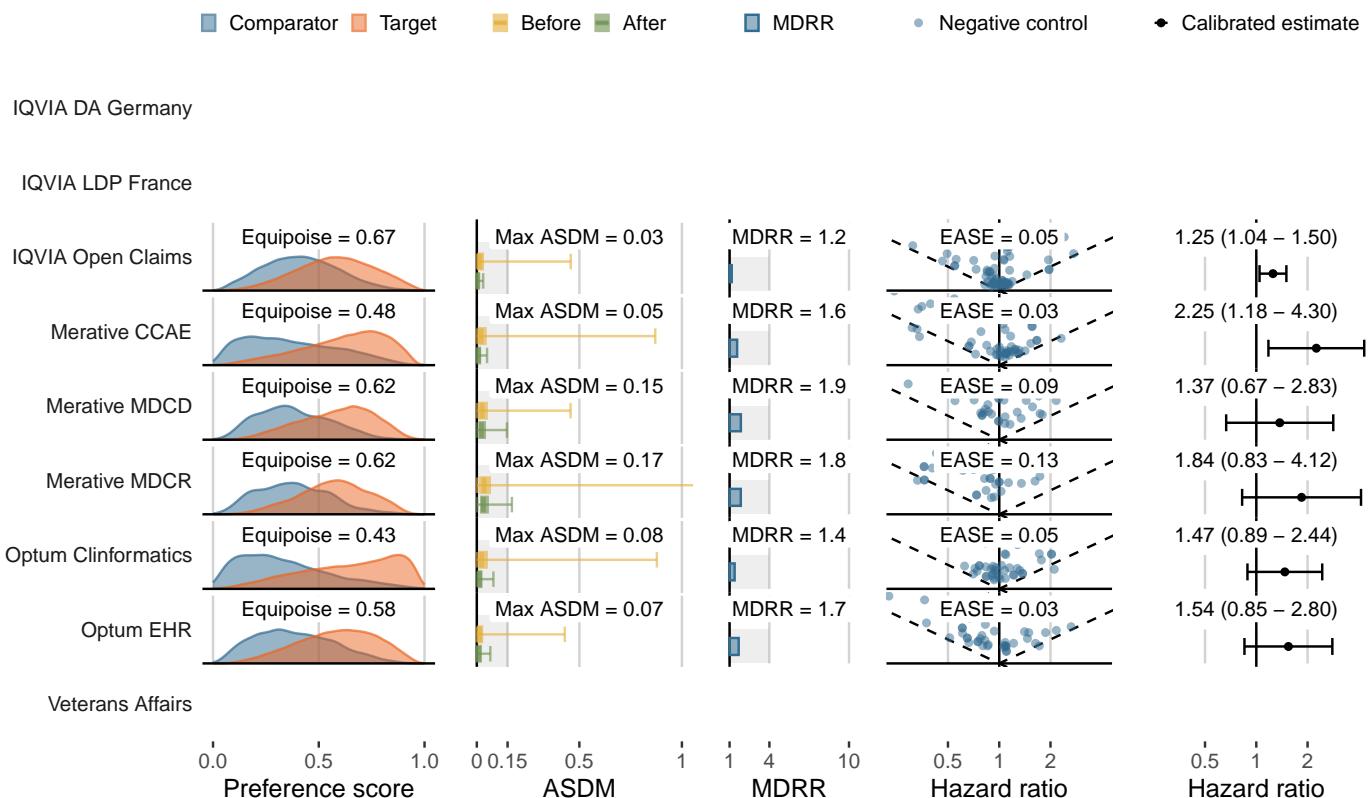
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Hospitalization with heart failure**

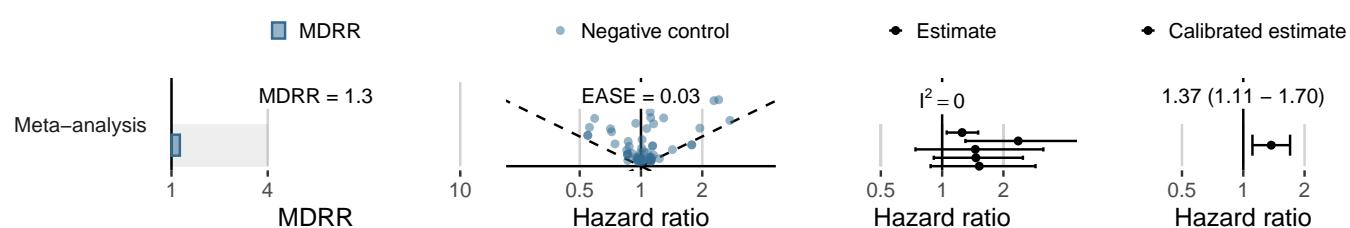
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	642,567	575,834	5,717	9.93
Merative CCAE	80,255	68,293	369	5.40
Merative MDCD	8,141	5,809	150	25.82
Merative MDCR	13,303	12,822	374	29.17
Optum Clininformatics	40,160	32,326	714	22.09
Optum EHR	66,325	30,332	411	13.55
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



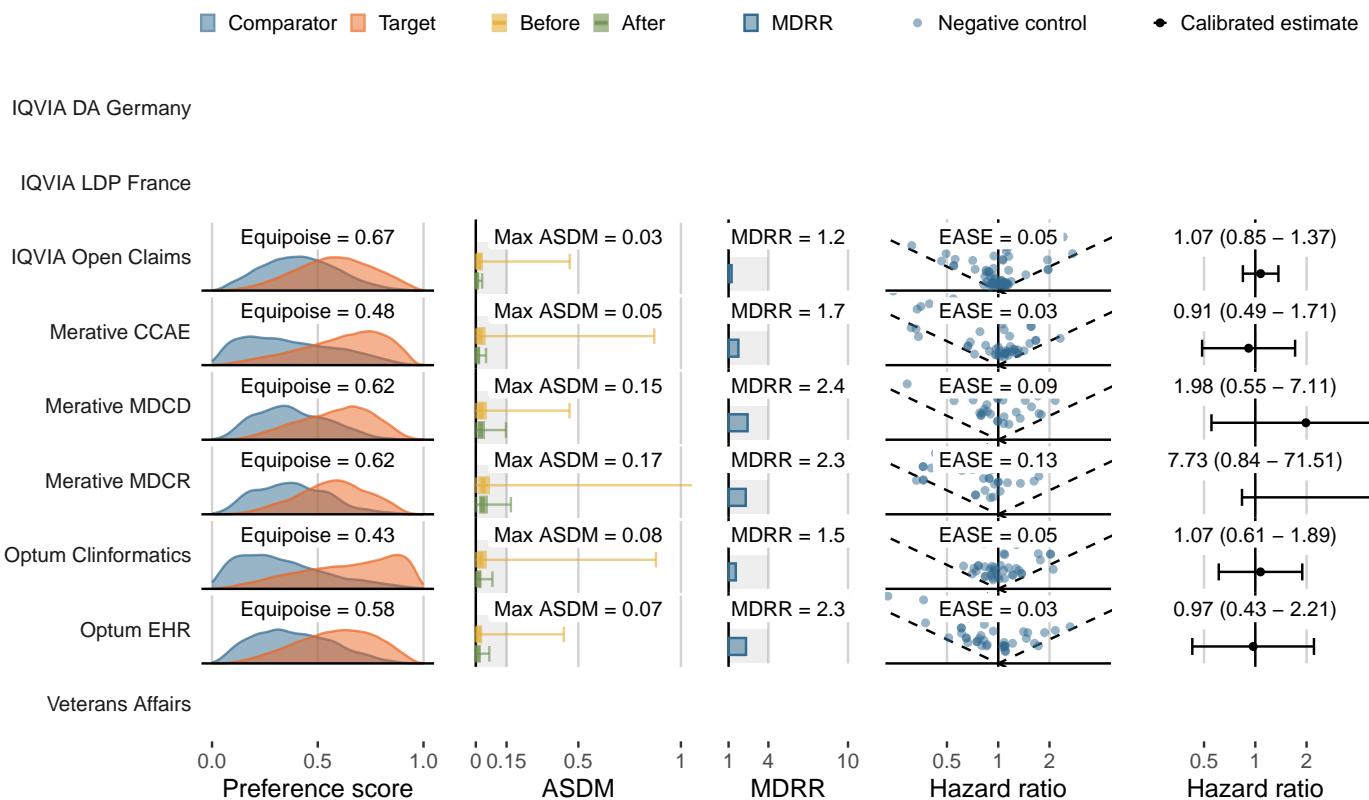
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Exenatide** (GLP-1 Receptor Agonists)
- Outcome: **Stroke**

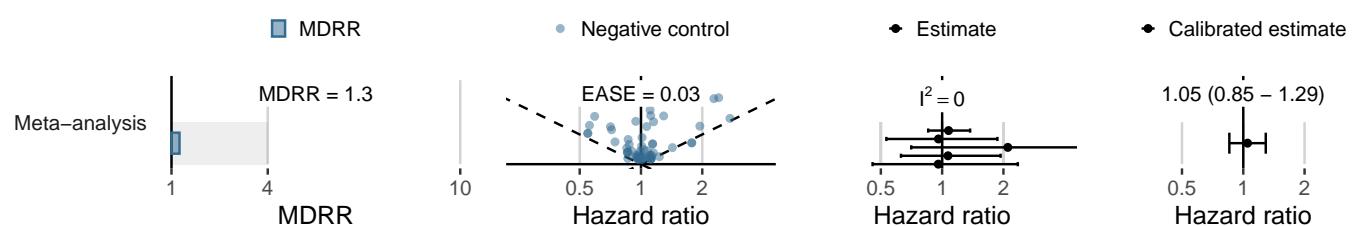
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	649,777	583,738	3,088	5.29
Merative CCAE	80,724	68,795	237	3.45
Merative MDCD	8,609	6,215	74	11.91
Merative MDCR	14,110	13,546	209	15.43
Optum Clininformatics	41,726	33,732	395	11.71
Optum EHR	67,001	30,848	156	5.06
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



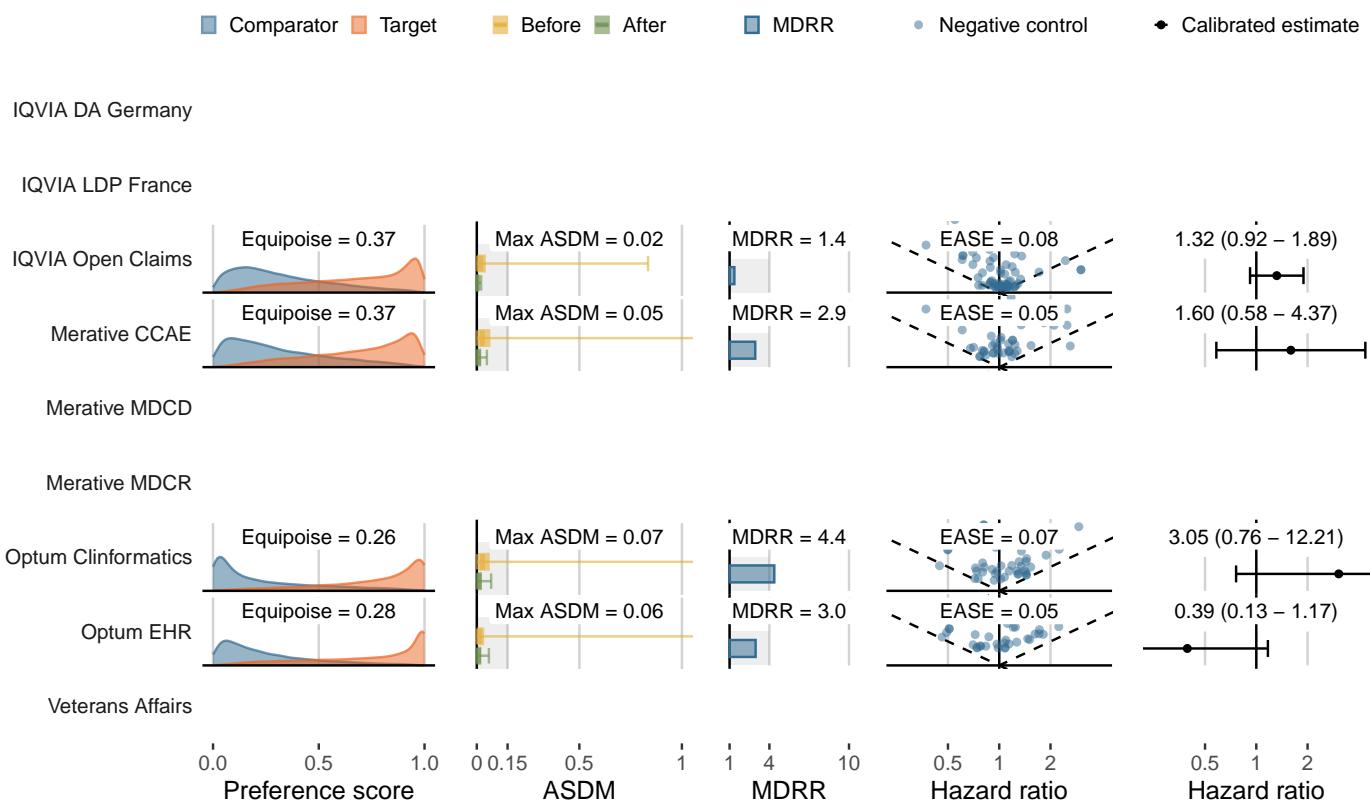
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute pancreatitis**

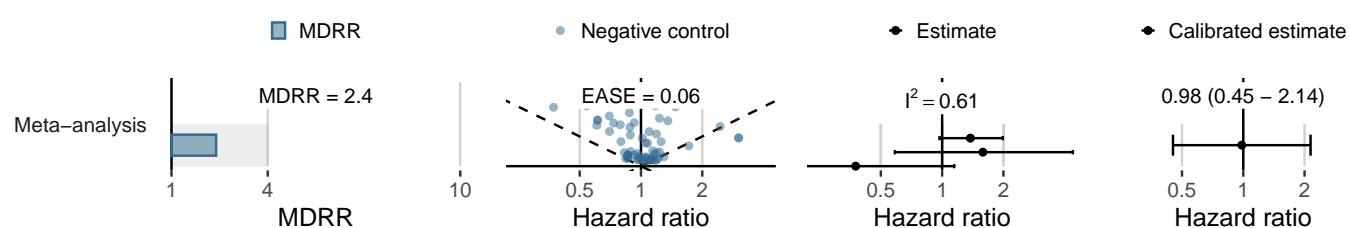
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	283,467	214,448	354	1.65
Merative CCAE	9,148	5,735	18	3.14
Merative MDCD	-	-	-	-
Merative MDCR	2,433	1,341	-	.00
Optum Clininformatics	5,458	3,195	8	2.50
Optum EHR	26,089	12,314	28	2.27
Veterans Affairs	58	21	-	.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



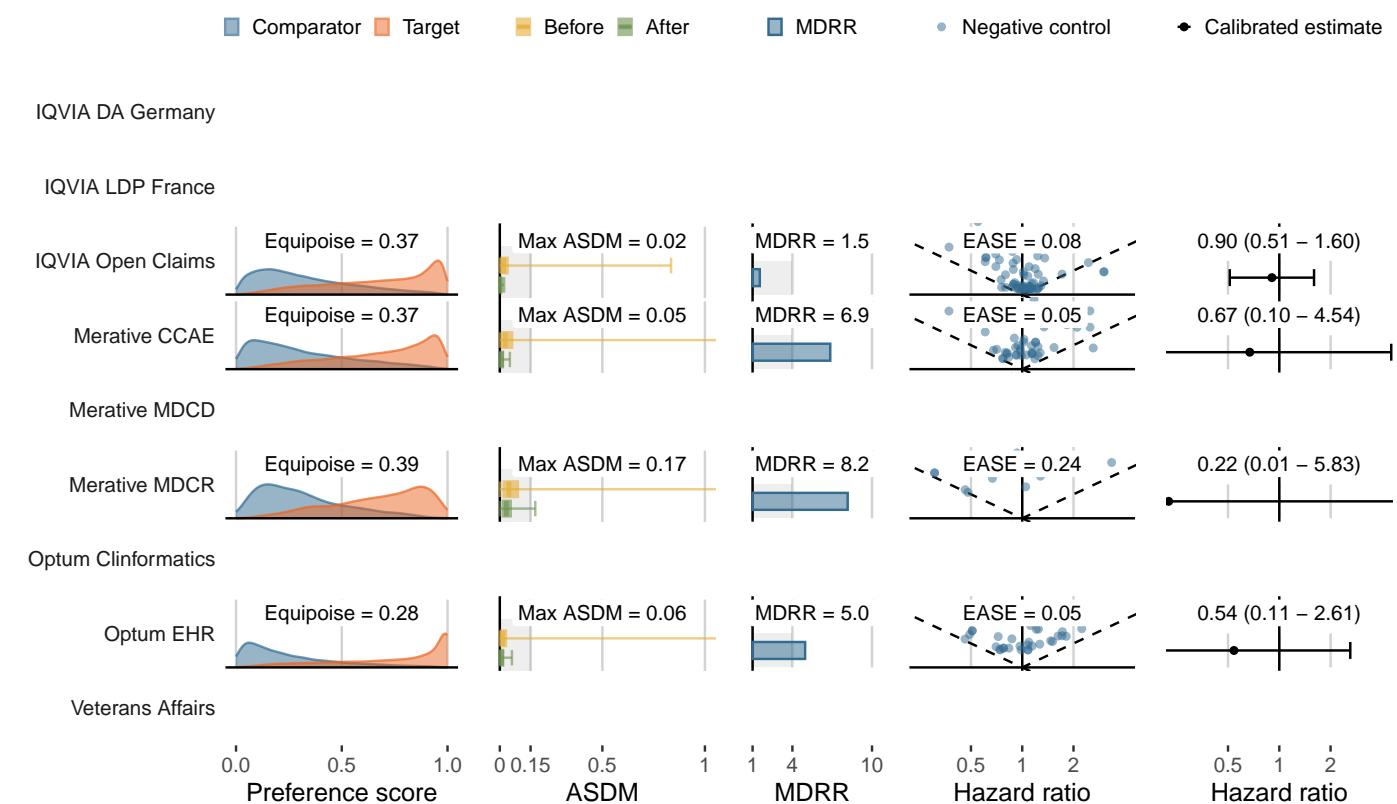
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Bladder cancer**

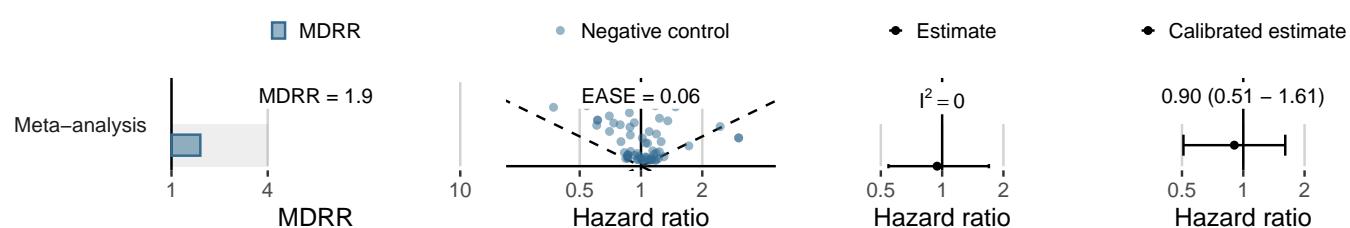
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	285,290	215,638	183	0.85
Merative CCAE	9,201	5,782	<5	<0.86
Merative MDCD	-	-	-	-
Merative MDCR	2,426	1,334	<5	<3.75
Optum Clininformatics	5,489	3,202	<5	<1.56
Optum EHR	26,121	12,321	12	0.97
Veterans Affairs	57	20	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



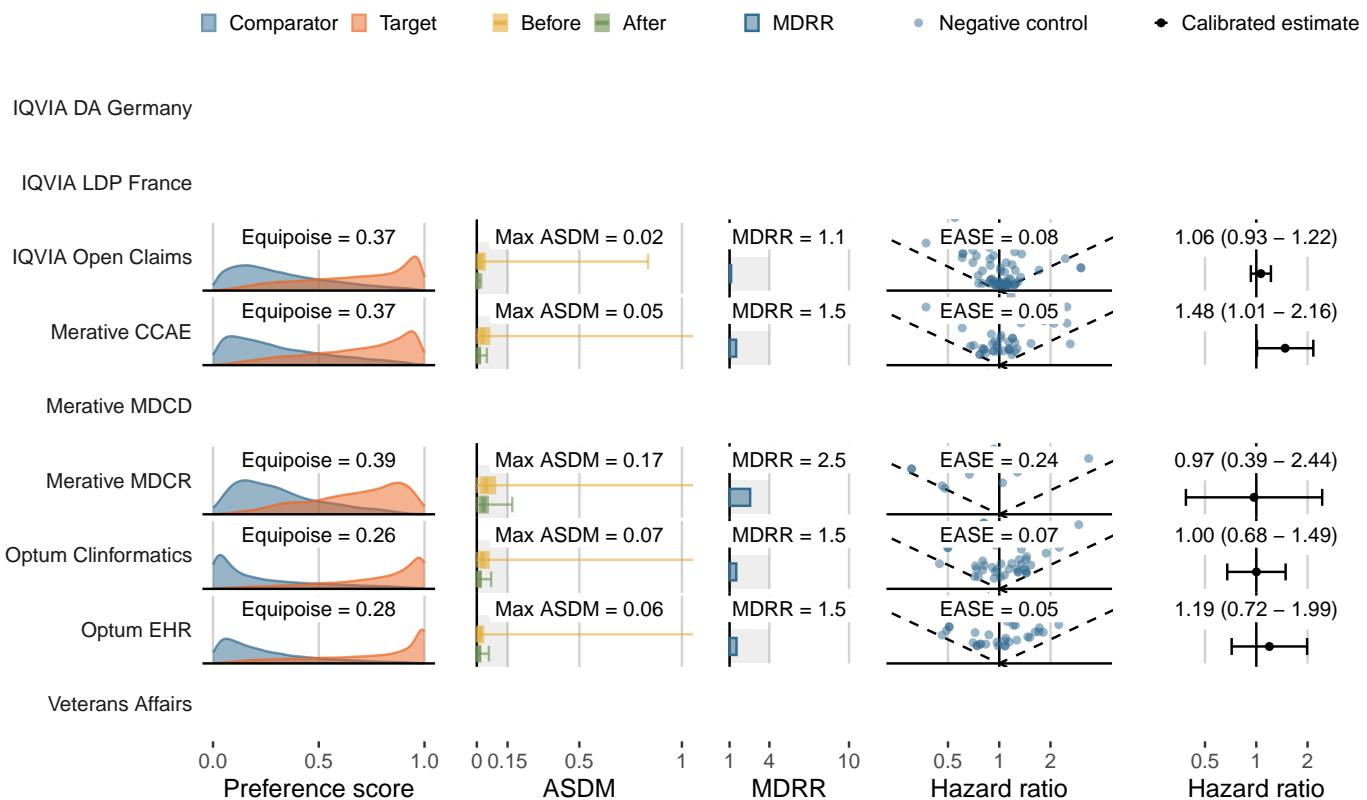
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Bone fracture**

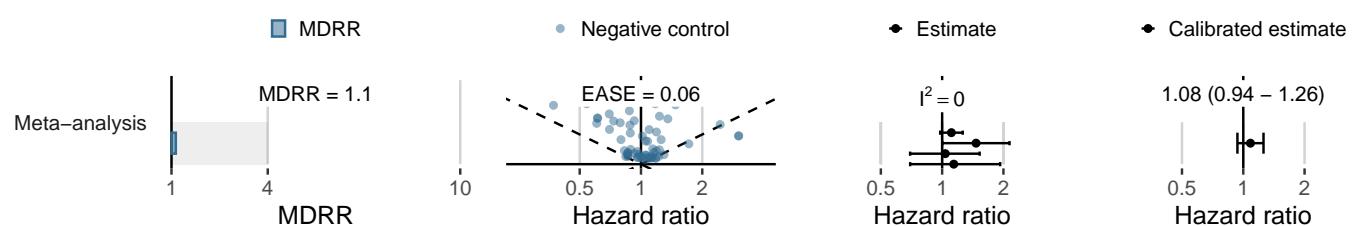
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	245,937	184,105	2,775	15.07
Merative CCAE	8,327	5,120	105	20.51
Merative MDCD	-	-	-	-
Merative MDCR	2,164	1,171	38	32.44
Optum Clininformatics	4,906	2,831	88	31.09
Optum EHR	24,054	11,218	209	18.63
Veterans Affairs	52	19	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



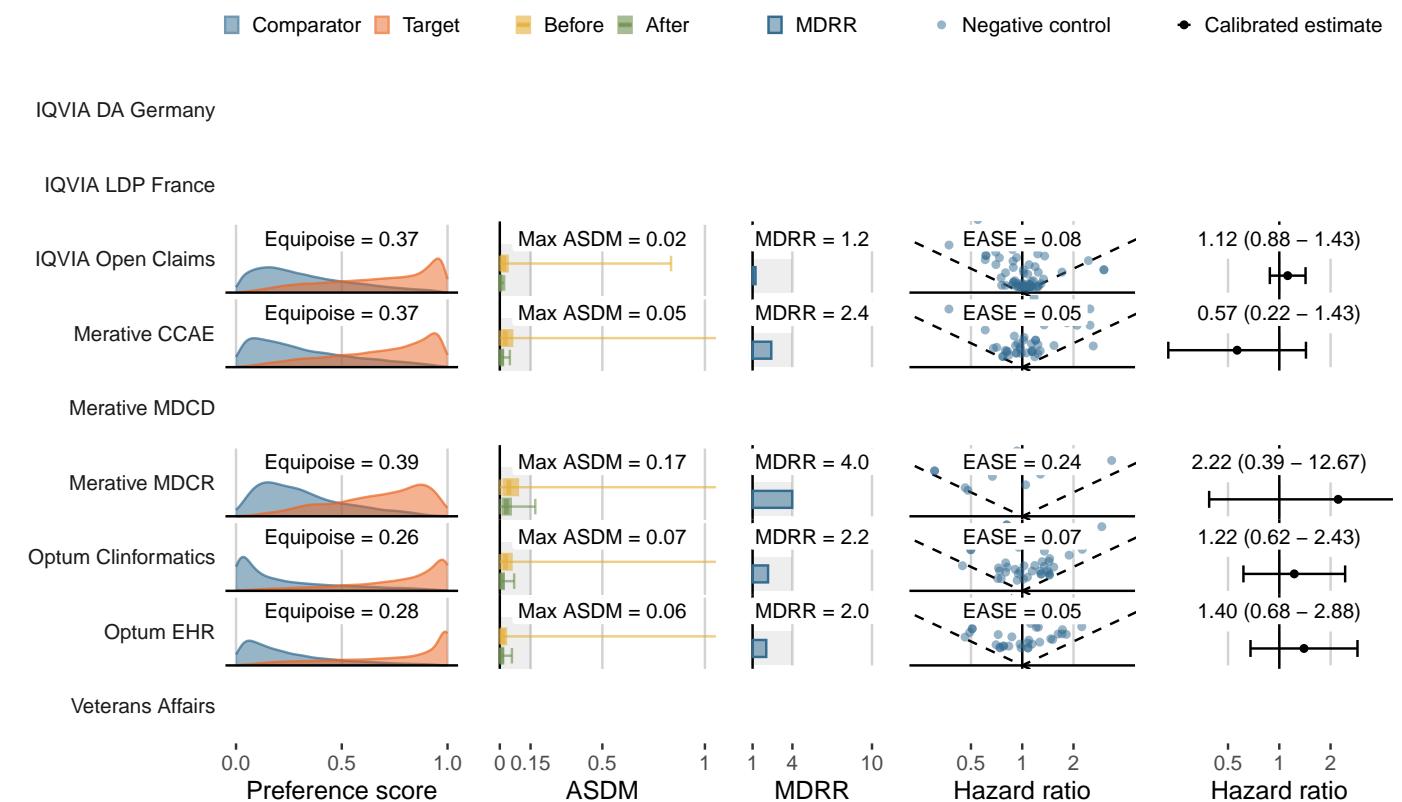
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute myocardial infarction**

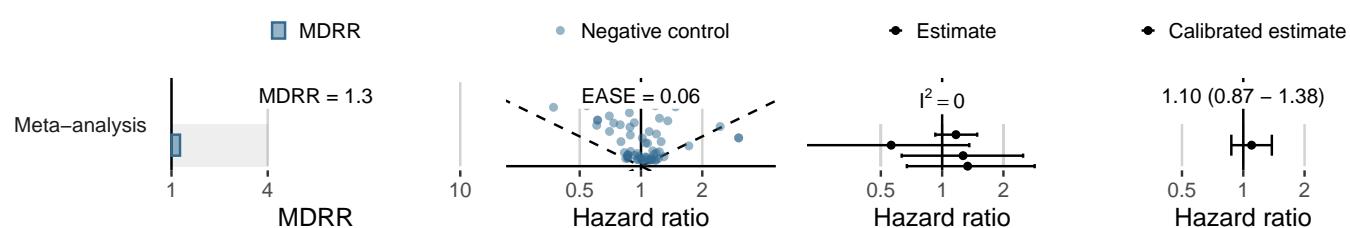
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	278,377	210,350	847	4.03
Merative CCAE	9,050	5,694	15	2.63
Merative MDCD	-	-	-	-
Merative MDCR	2,370	1,305	18	13.79
Optum Clininformatics	5,346	3,120	31	9.93
Optum EHR	25,847	12,176	73	6.00
Veterans Affairs	56	20	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



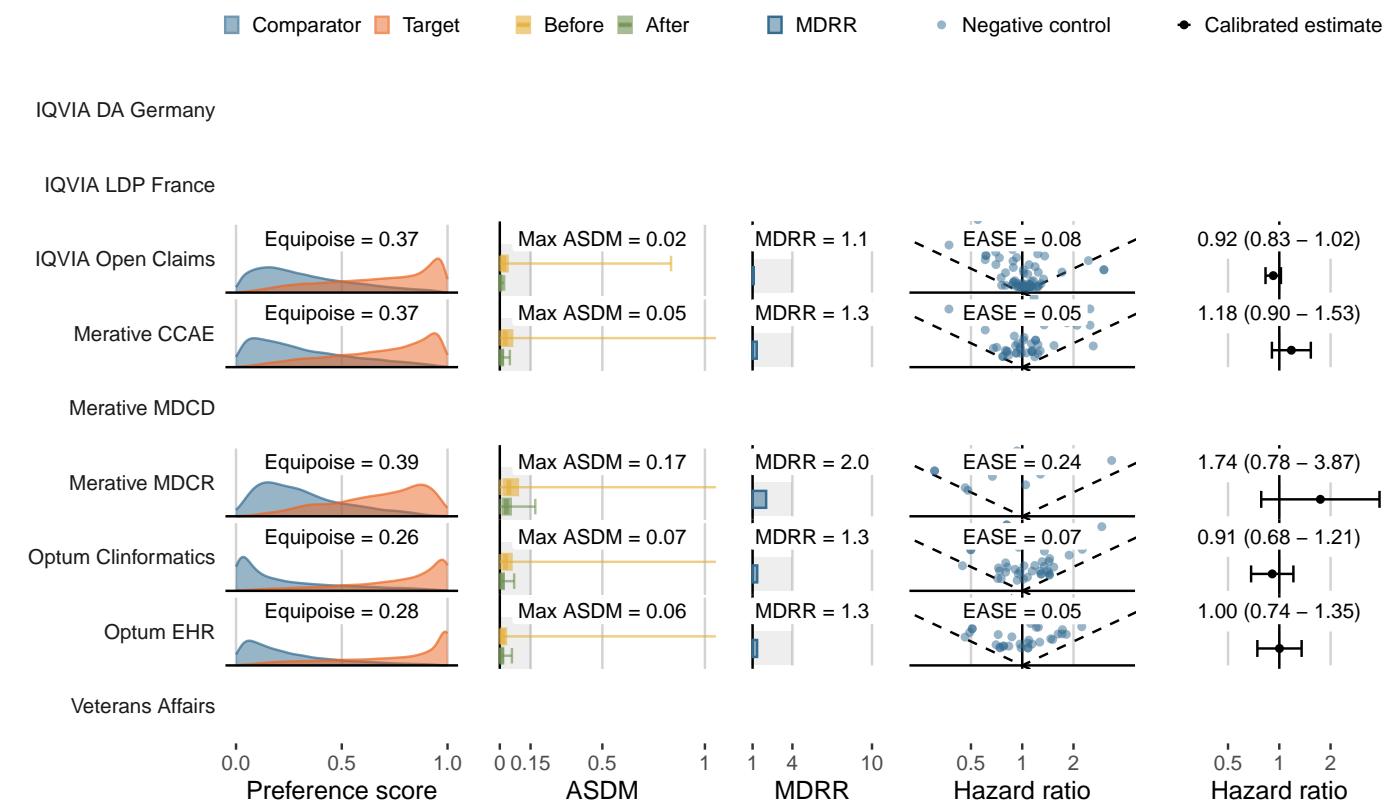
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Genitourinary infection**

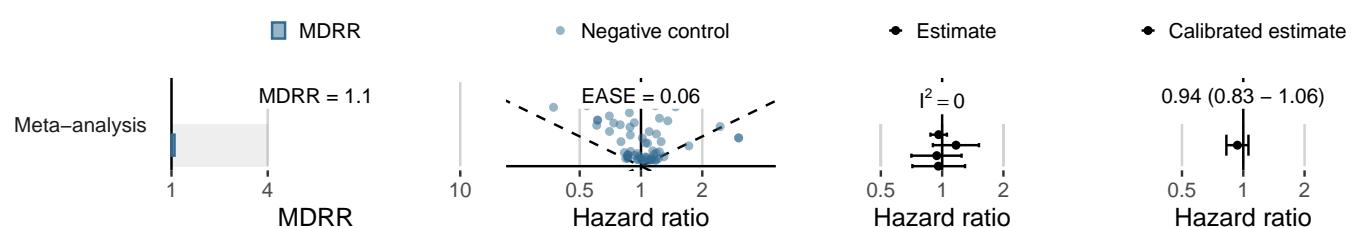
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	211,683	158,911	4,323	27.20
Merative CCAE	7,317	4,488	182	40.55
Merative MDCD	-	-	-	-
Merative MDCR	1,946	1,013	73	72.08
Optum Clininformatics	4,113	2,314	154	66.56
Optum EHR	21,879	9,972	410	41.11
Veterans Affairs	54	17	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



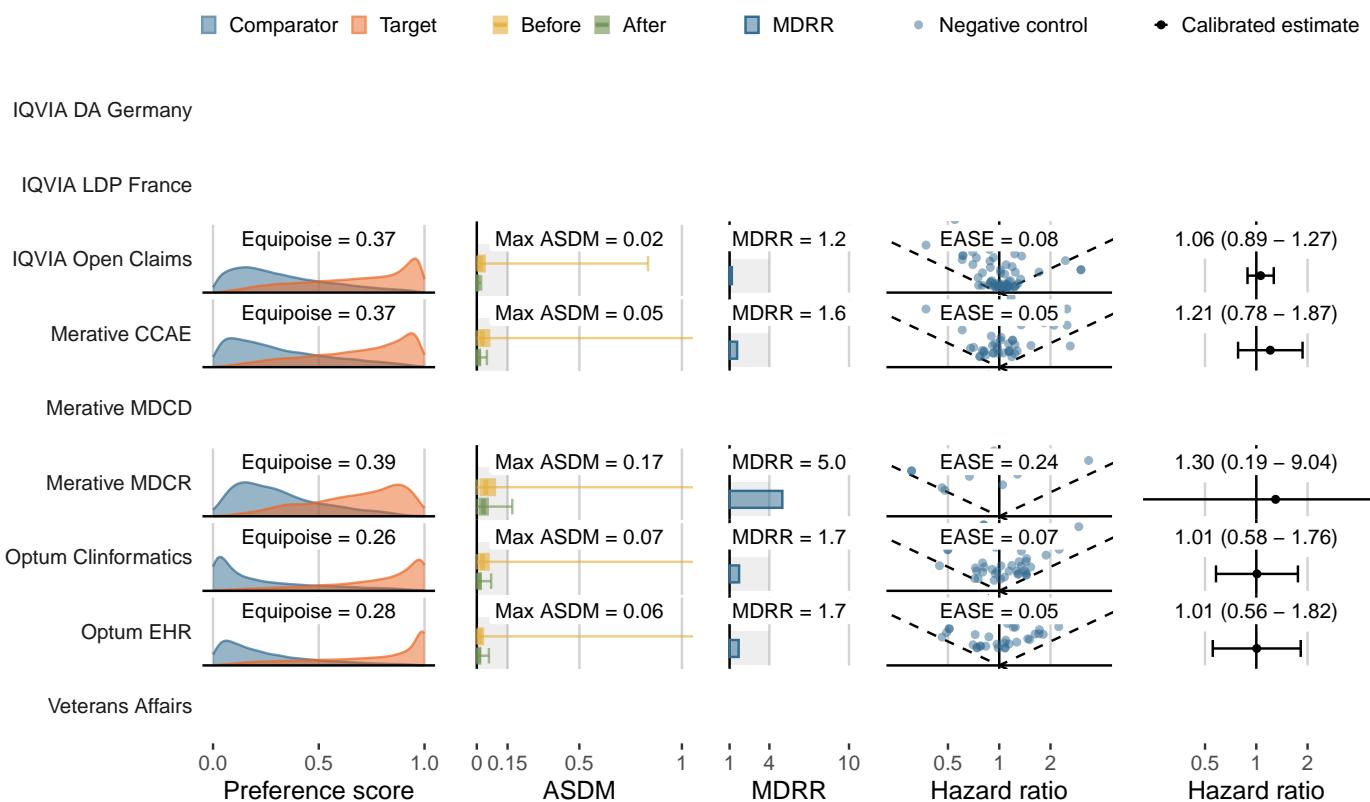
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Joint pain**

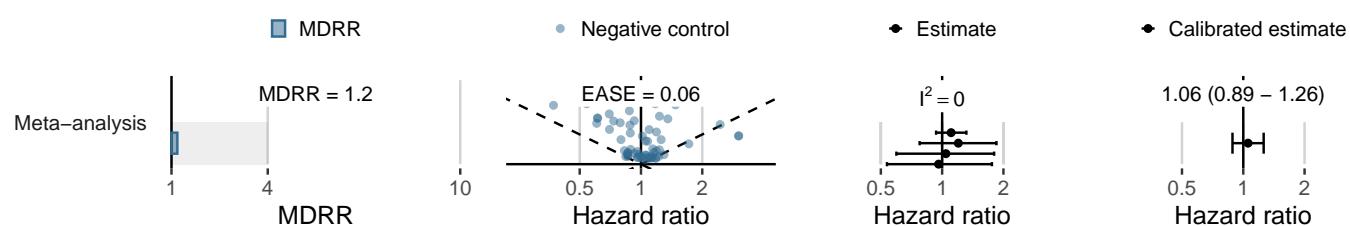
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	266,206	201,206	1,258	6.25
Merative CCAE	8,507	5,301	68	12.83
Merative MDCD	-	-	-	-
Merative MDCR	2,208	1,183	12	10.14
Optum Clininformatics	4,832	2,759	45	16.31
Optum EHR	24,597	11,485	135	11.75
Veterans Affairs	41	16	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



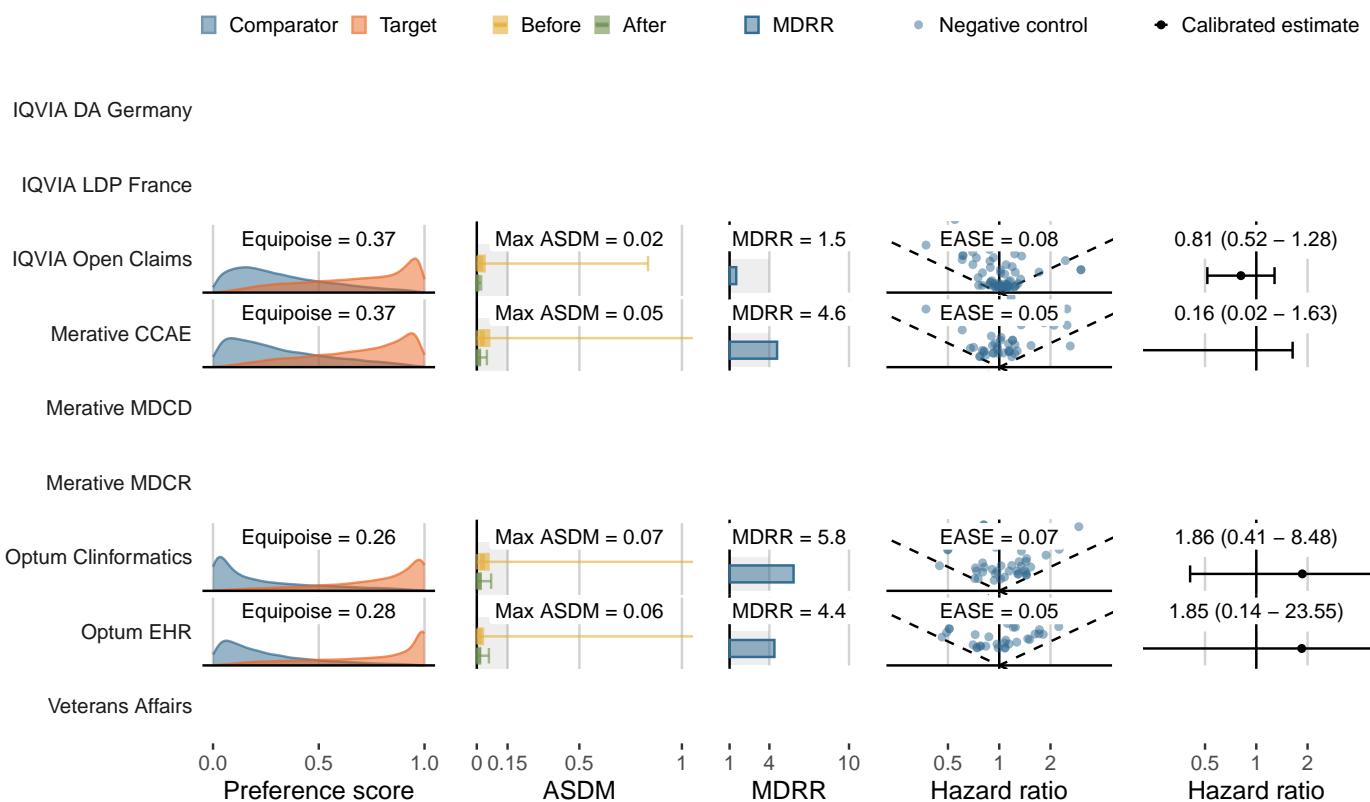
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Renal cancer**

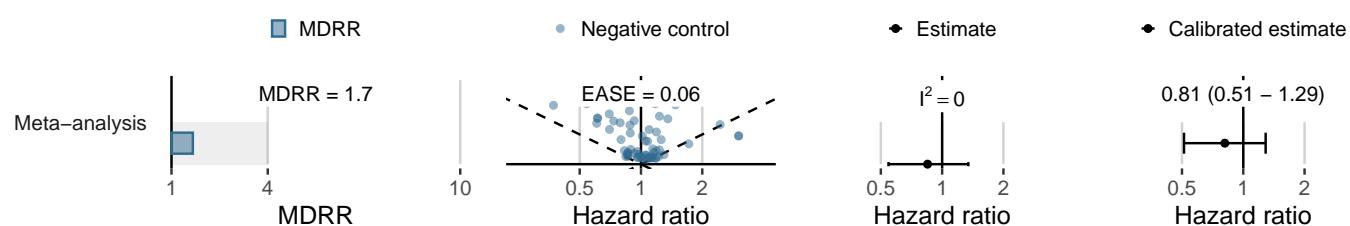
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	285,707	216,033	195	0.90
Merative CCAE	9,191	5,777	<5	<0.87
Merative MDCD	-	-	-	-
Merative MDCR	2,432	1,337	<5	<3.74
Optum Clininformatics	5,485	3,202	9	2.81
Optum EHR	26,141	12,337	15	1.22
Veterans Affairs	58	21	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



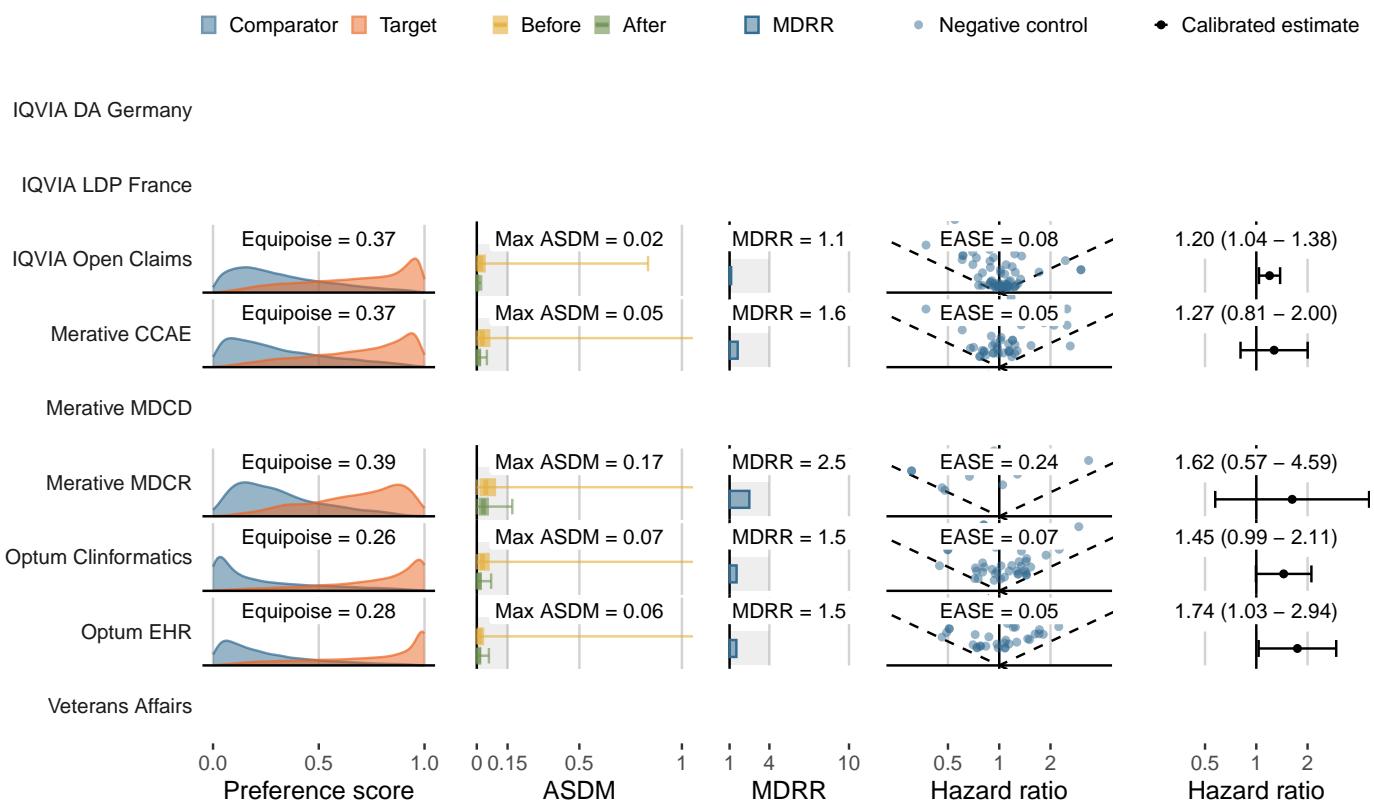
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Acute renal failure**

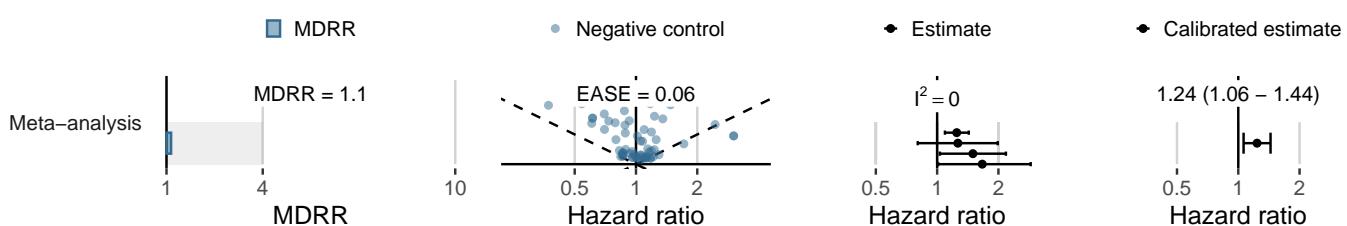
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	274,160	206,587	2,724	13.19
Merative CCAE	9,001	5,661	75	13.25
Merative MDCD	-	-	-	-
Merative MDCR	2,220	1,210	46	38.03
Optum Clininformatics	5,189	3,014	106	35.17
Optum EHR	25,669	11,998	229	19.09
Veterans Affairs	56	20	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



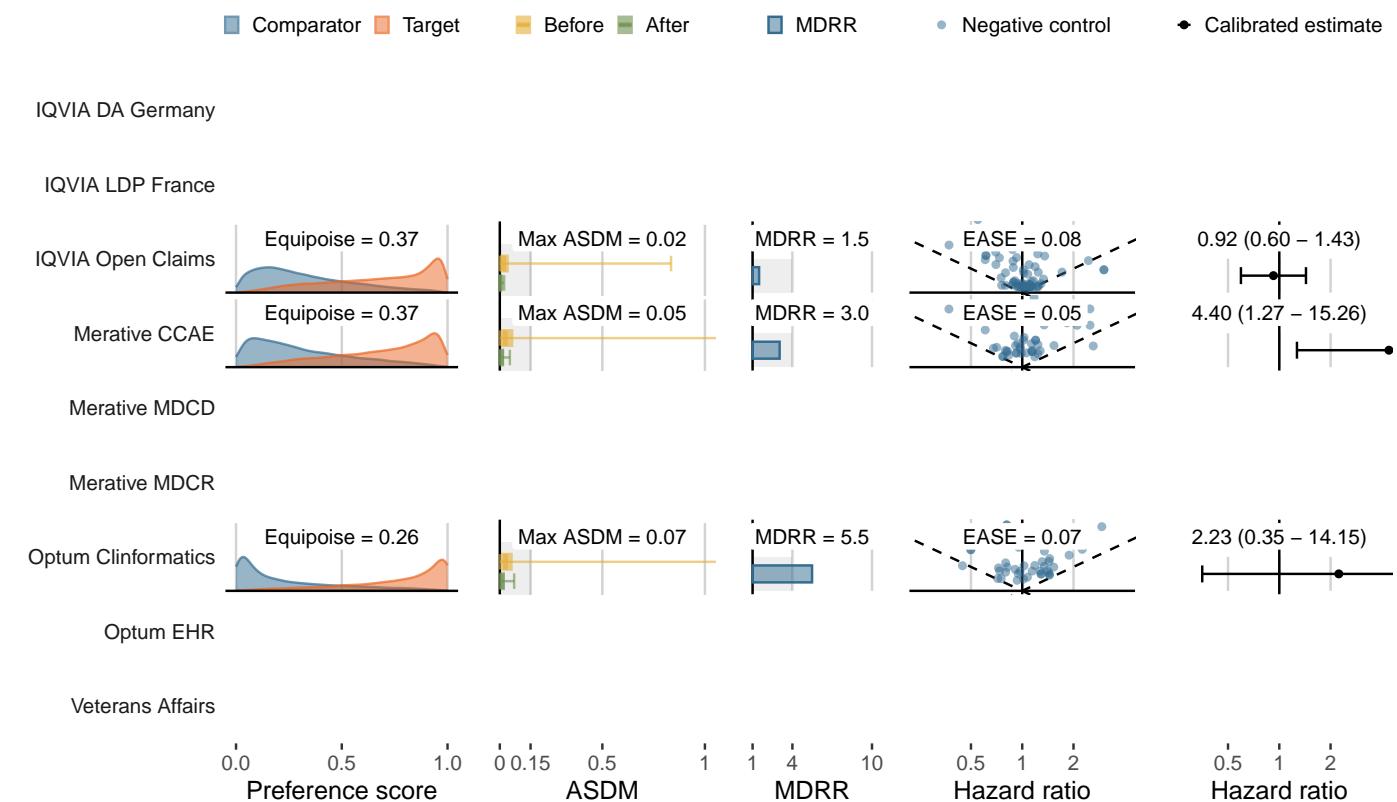
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Thyroid tumor**

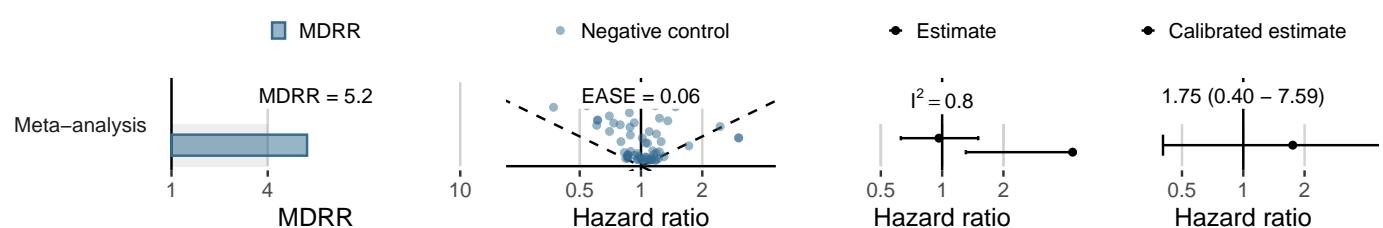
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	284,630	215,137	194	0.90
Merative CCAE	9,141	5,710	14	2.45
Merative MDCD	-	-	-	-
Merative MDCR	2,431	1,329	<5	<3.76
Optum Clininformatics	5,477	3,200	<5	<1.56
Optum EHR	26,090	12,328	19	1.54
Veterans Affairs	58	21	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



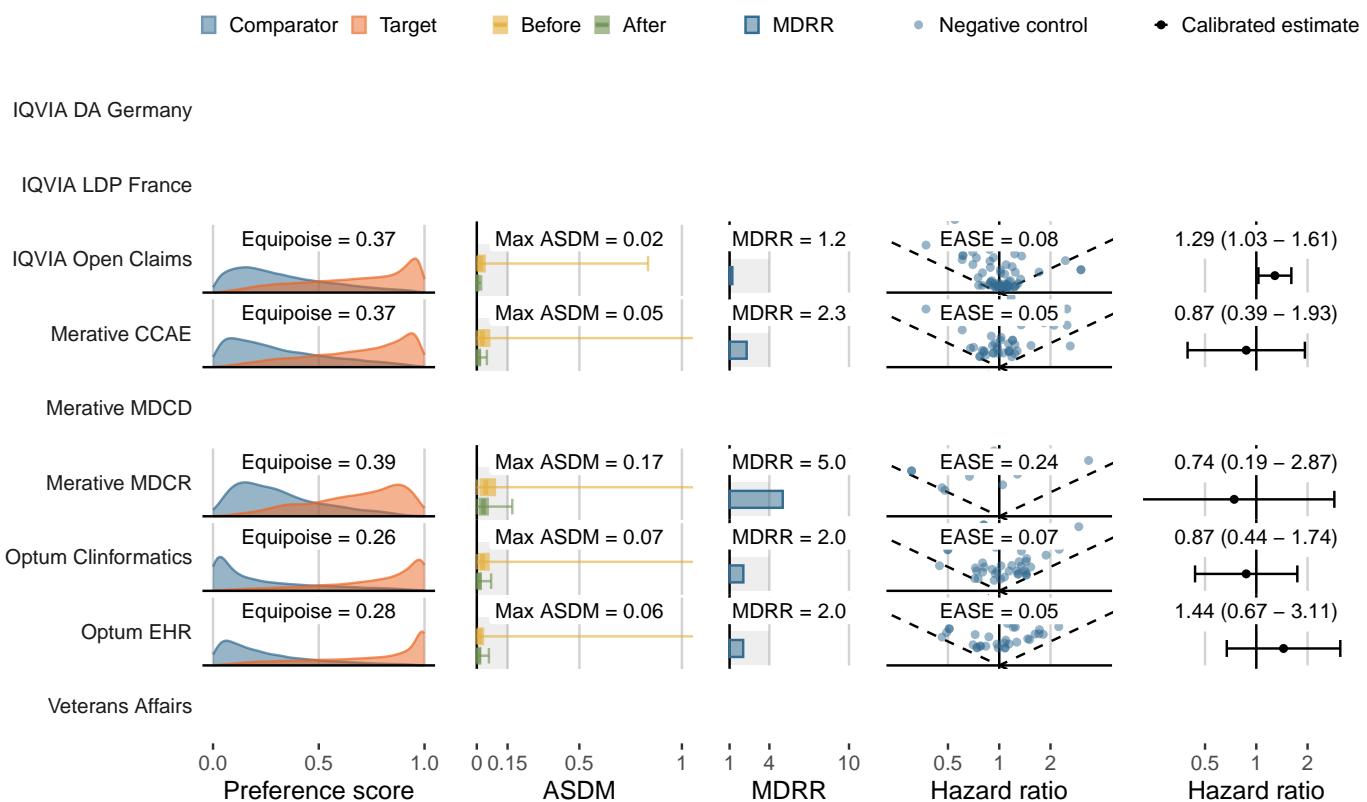
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Venous thromboembolic events**

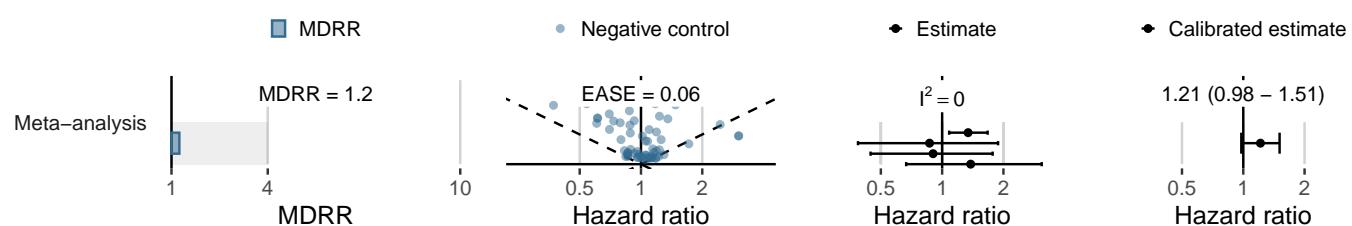
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	276,046	208,420	936	4.49
Merative CCAE	8,982	5,643	22	3.90
Merative MDCD	-	-	-	-
Merative MDCR	2,359	1,294	12	9.28
Optum Clininformatics	5,259	3,068	27	8.80
Optum EHR	25,491	11,936	77	6.45
Veterans Affairs	56	21	-	-.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



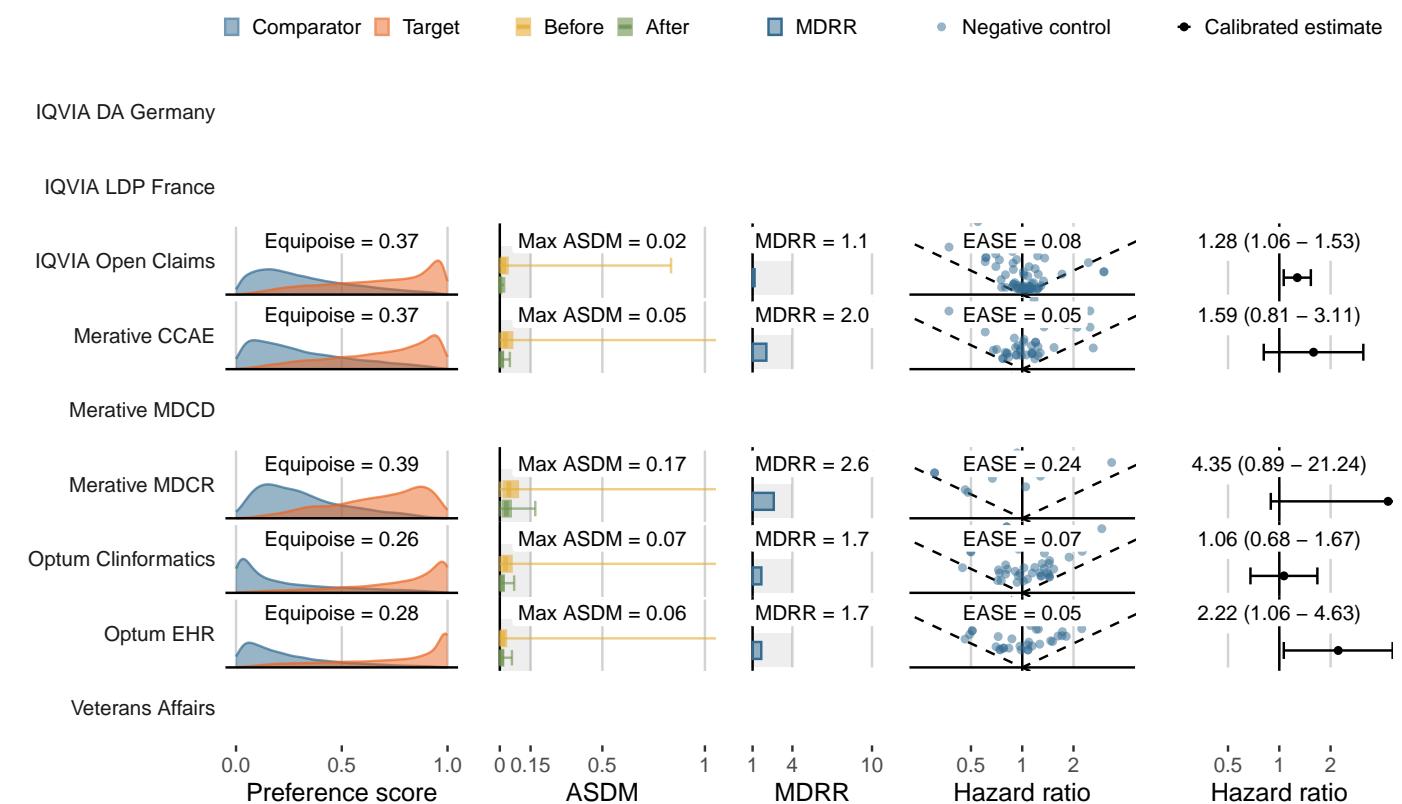
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Hospitalization with heart failure**

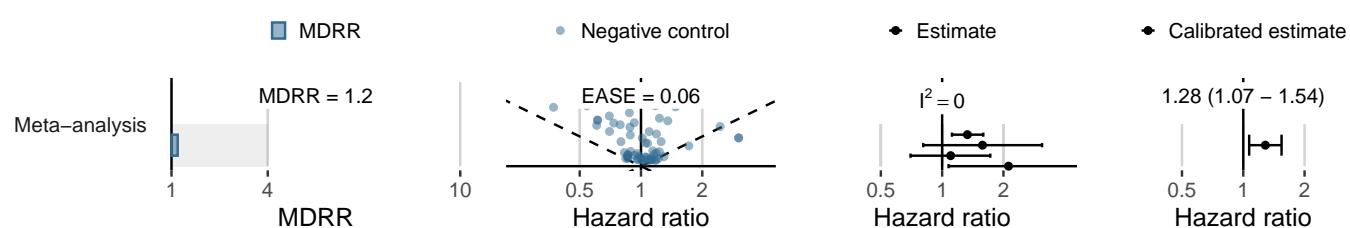
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	274,122	207,146	1,789	8.64
Merative CCAE	9,020	5,641	33	5.85
Merative MDCD	-	-	-	-
Merative MDCR	2,247	1,243	43	34.60
Optum Clininformatics	5,136	2,991	78	26.08
Optum EHR	25,617	11,998	160	13.34
Veterans Affairs	55	19	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



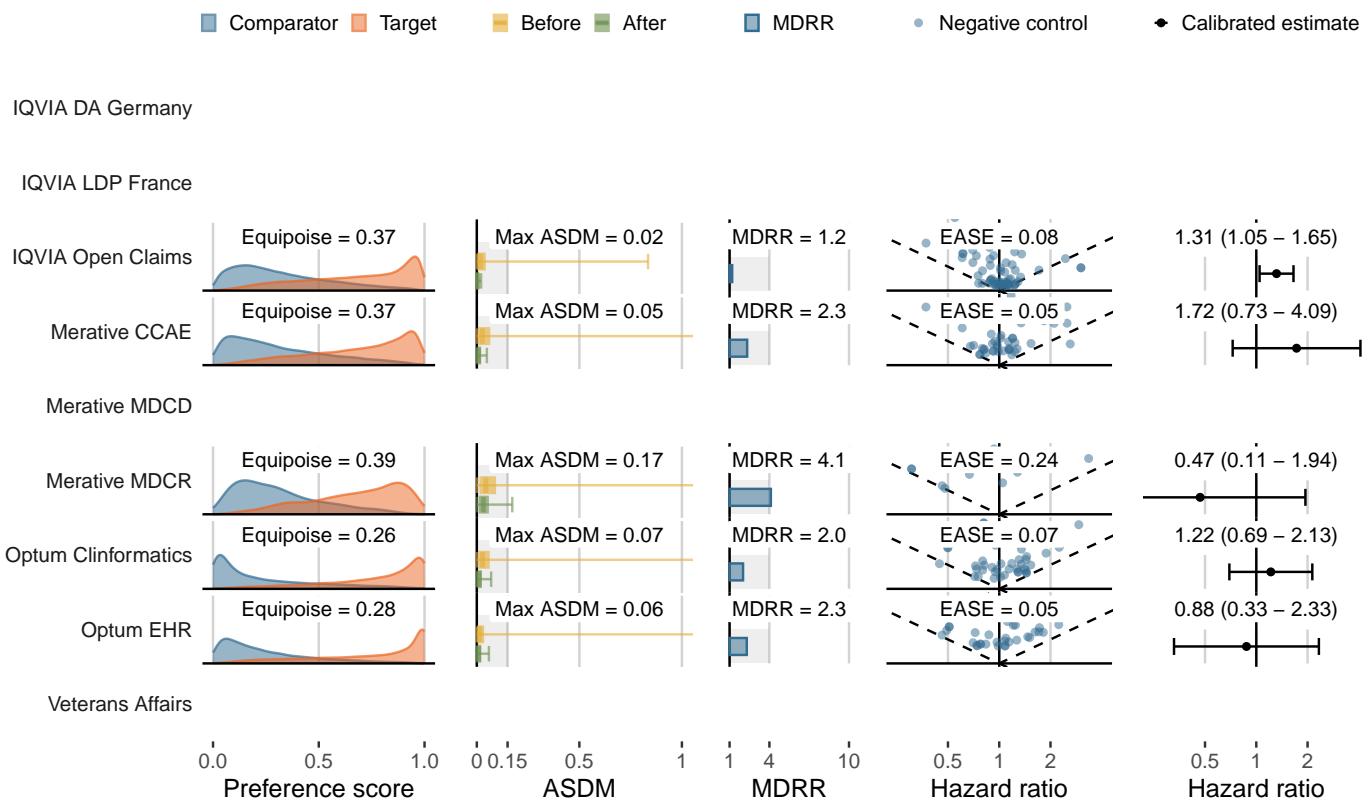
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Semaglutide** (GLP-1 Receptor Agonists)
- Outcome: **Stroke**

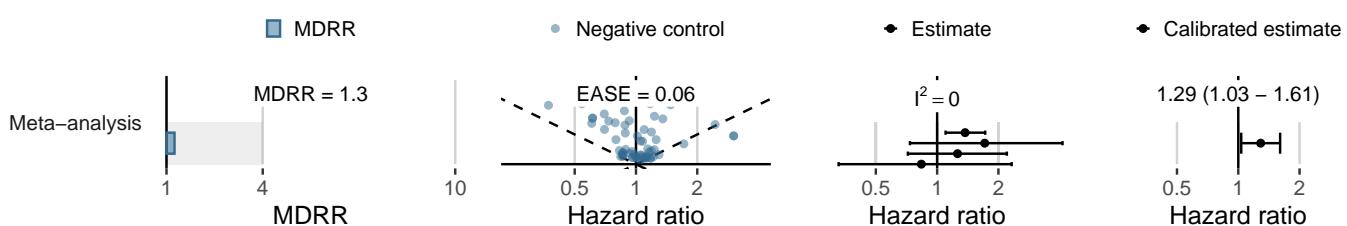
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	278,133	210,342	1,075	5.11
Merative CCAE	9,073	5,707	21	3.68
Merative MDCD	-	-	-	-
Merative MDCR	2,353	1,296	16	12.34
Optum Clininformatics	5,332	3,113	41	13.17
Optum EHR	25,917	12,201	54	4.43
Veterans Affairs	58	21	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



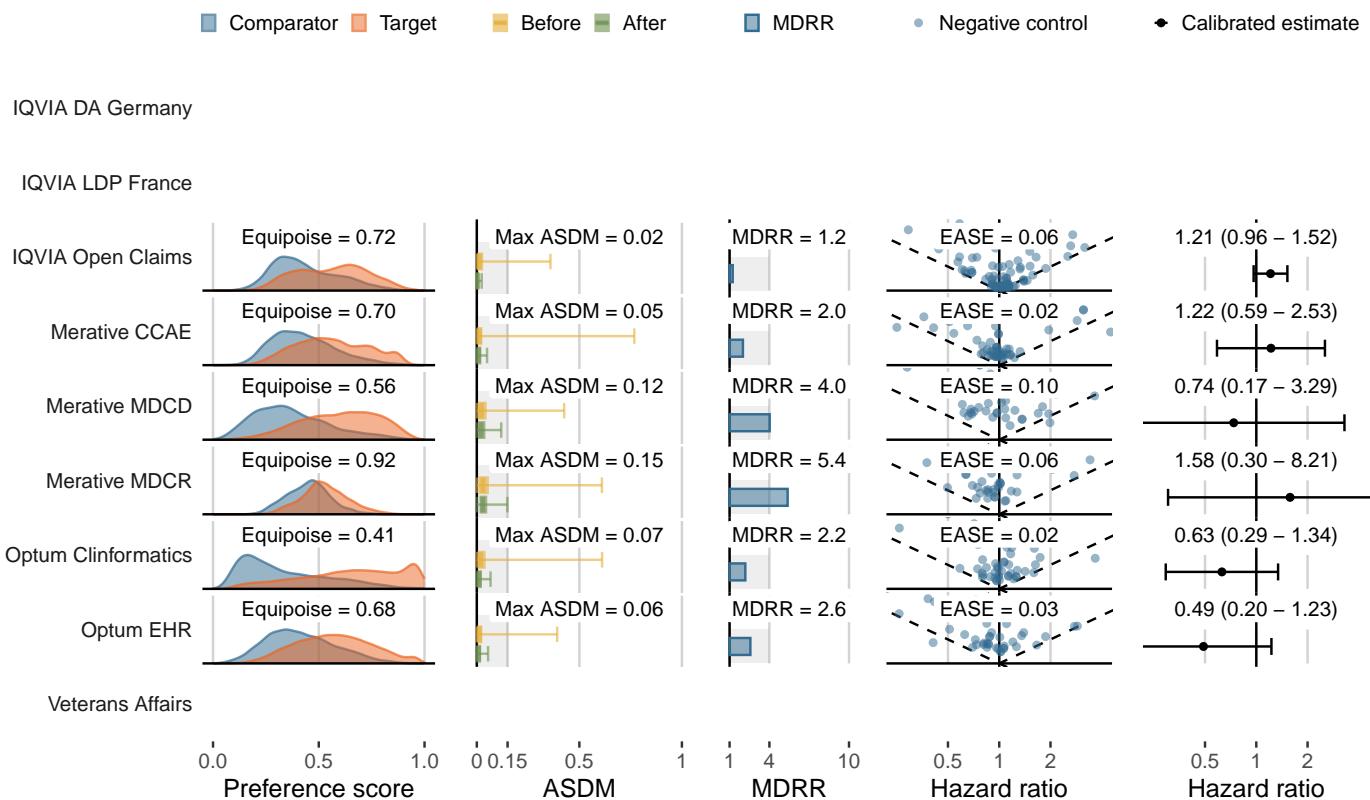
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

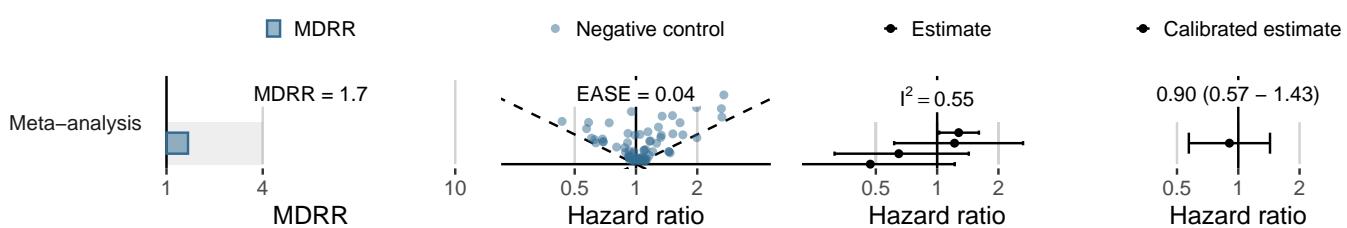
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	666,517	596,811	1,190	1.99
Merative CCAE	50,475	41,743	99	2.37
Merative MDCD	7,202	5,049	22	4.36
Merative MDCR	8,578	7,042	22	3.12
Optum Clininformatics	27,246	21,765	65	2.99
Optum EHR	61,131	29,084	61	2.10
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): **Sitagliptin** (DPP-4 inhibitors)
- 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	670,360	599,891	542	0.90
Merative CCAE	50,789	41,995	26	0.62
Merative MDCD	7,335	5,137	<5	<0.97
Merative MDCR	8,558	7,044	14	1.99
Optum Clininformatics	27,449	21,865	33	1.51
Optum EHR	61,218	29,115	33	1.13
Veterans Affairs	-	-	-	-

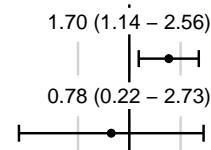
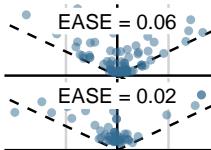
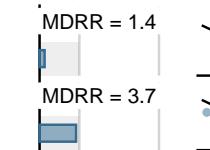
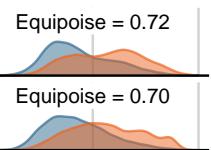
How Reliable Are the Effect Estimates? (Objective diagnostics)

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

IQVIA DA Germany

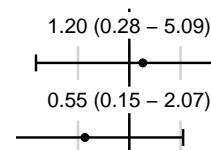
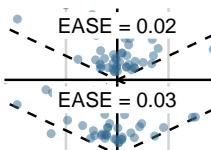
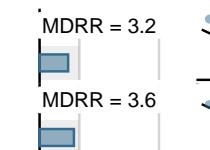
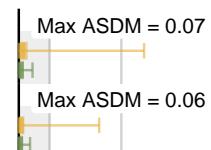
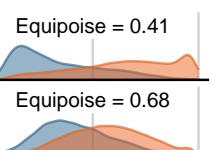
IQVIA LDP France

IQVIA Open Claims



Merative MDCD

Merative MDCR



Optum Clininformatics

Optum EHR

Preference score

ASDM

MDRR

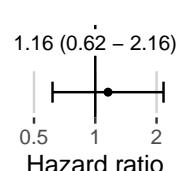
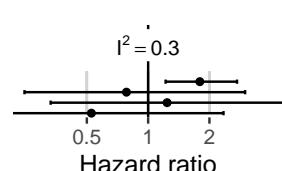
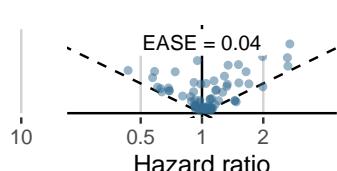
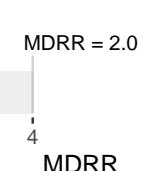
Hazard ratio

Hazard ratio

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

■ MDRR ■ Negative control ■ Estimate ■ Calibrated estimate

Meta-analysis



Hazard ratio

Hazard ratio

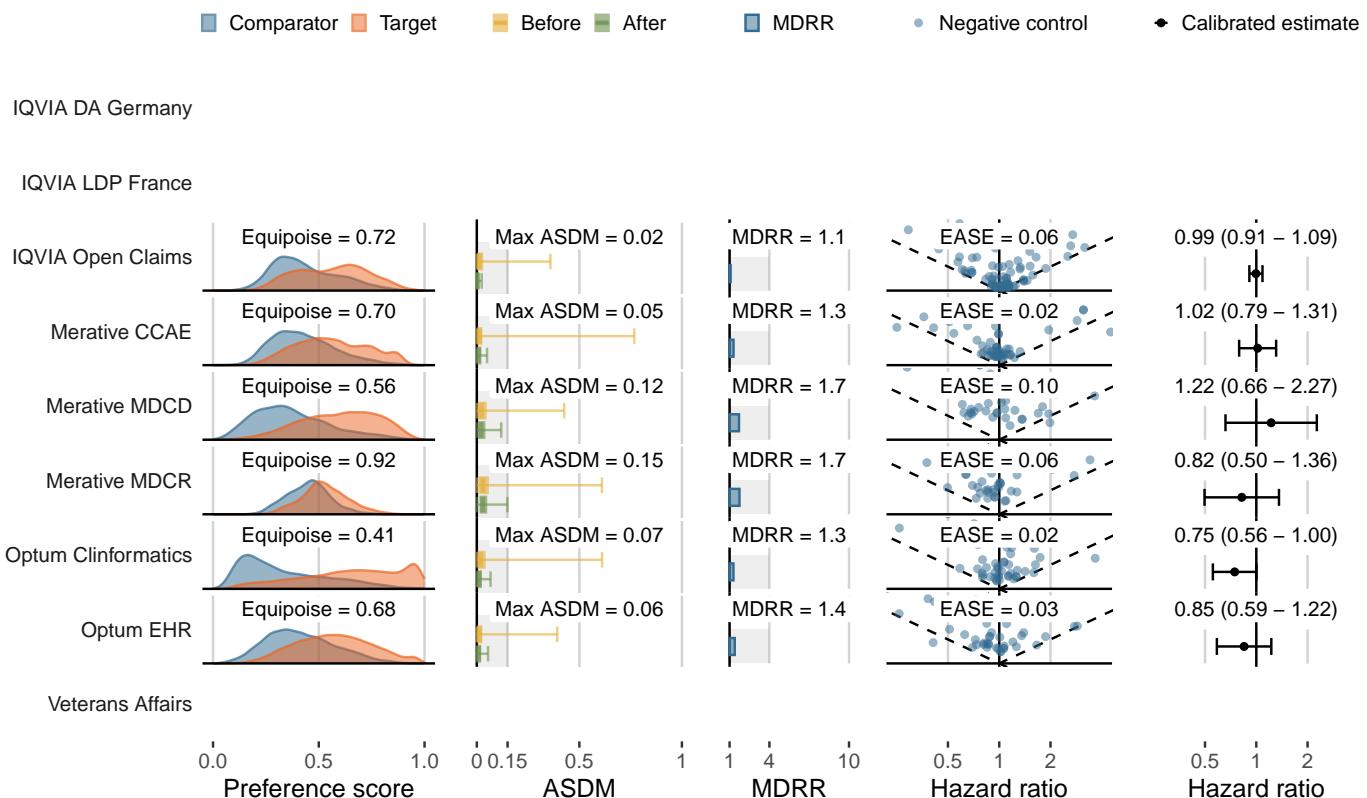
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

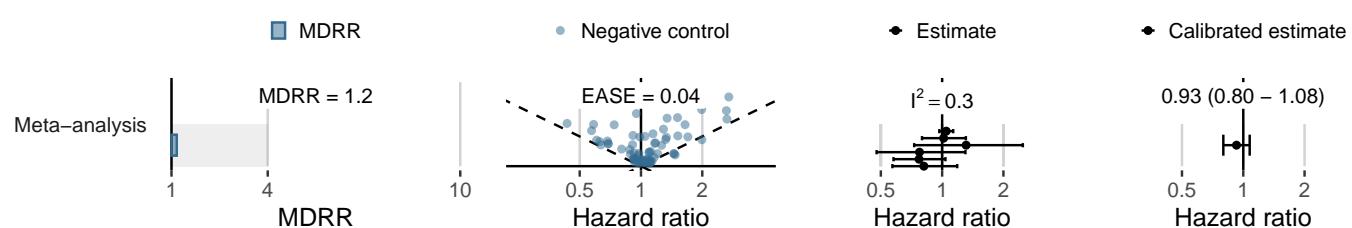
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	590,259	521,468	8,889	17.05
Merative CCAE	46,453	37,744	658	17.43
Merative MDCD	6,256	4,224	153	36.22
Merative MDCR	7,593	6,046	216	35.72
Optum Clininformatics	24,481	19,084	640	33.54
Optum EHR	57,108	26,759	520	19.43
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



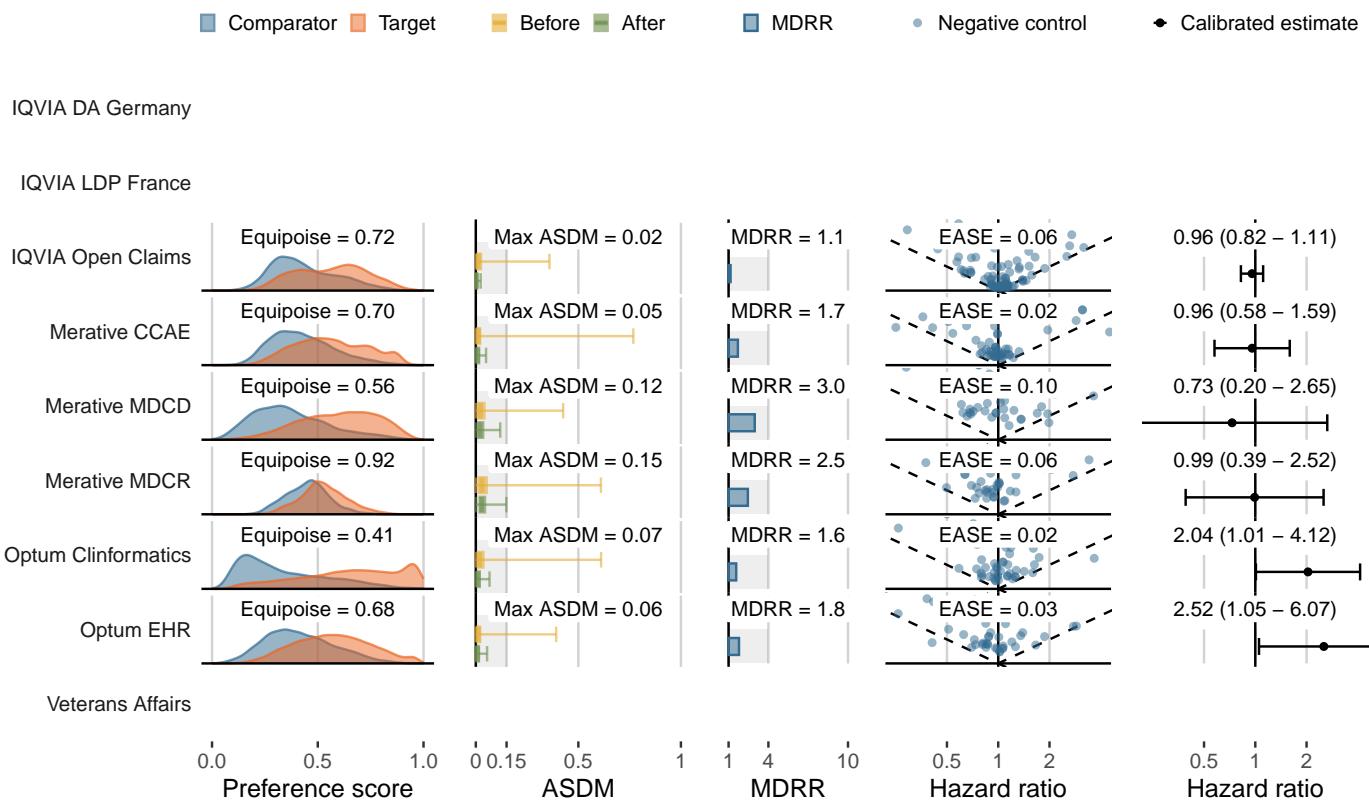
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

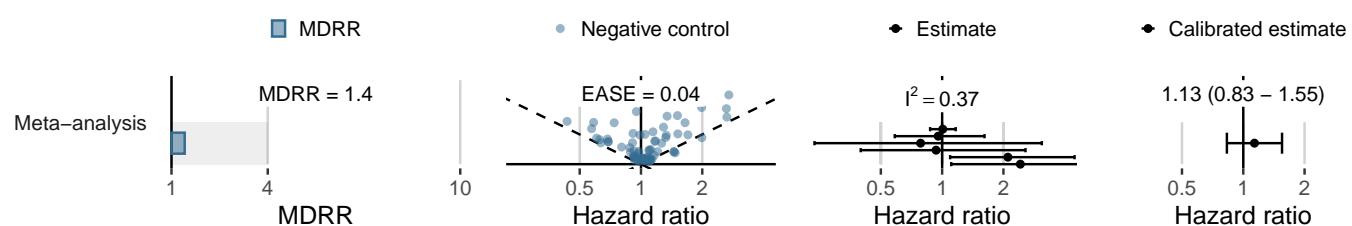
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	655,247	585,263	2,733	4.67
Merative CCAE	49,994	41,224	154	3.74
Merative MDCD	7,080	4,928	39	7.91
Merative MDCR	8,305	6,835	86	12.58
Optum Clininformatics	26,780	21,367	219	10.25
Optum EHR	60,643	28,754	178	6.19
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



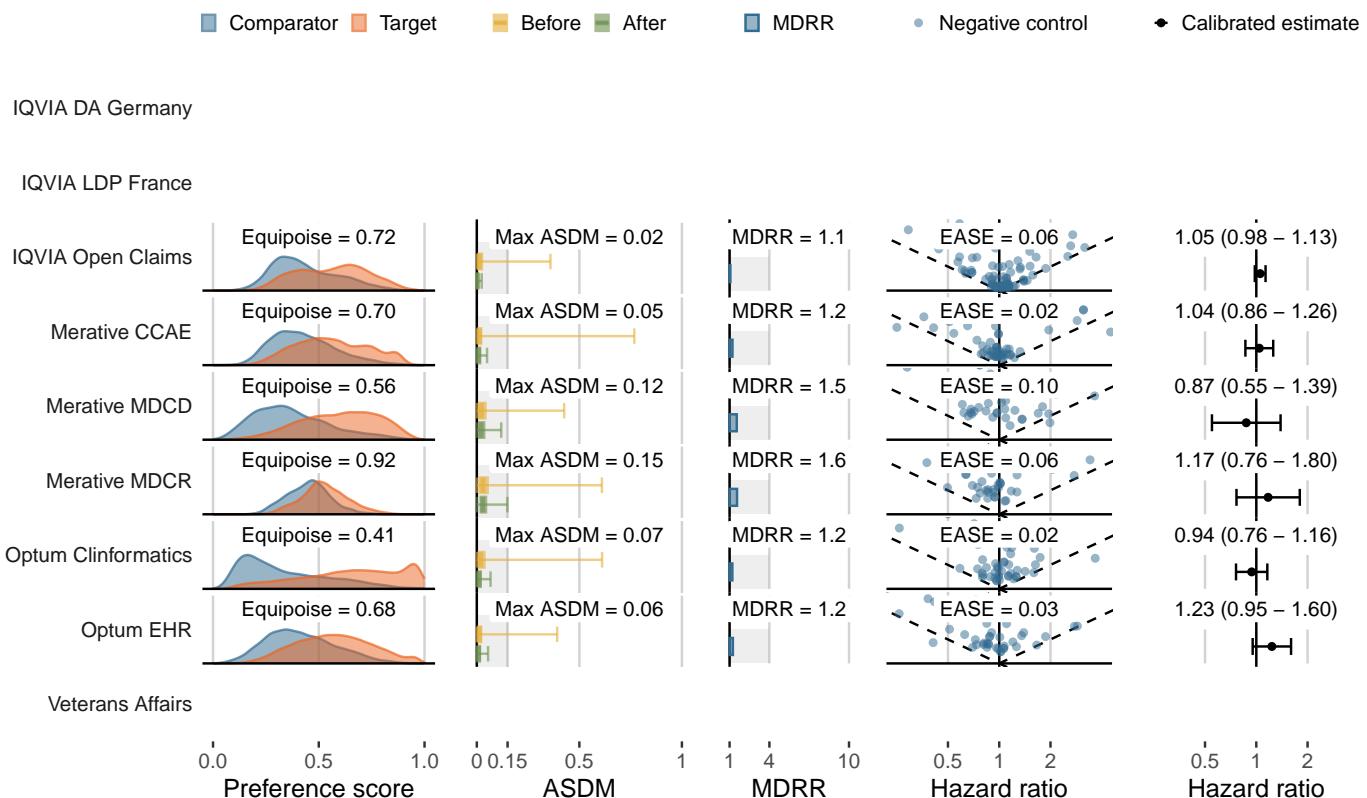
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

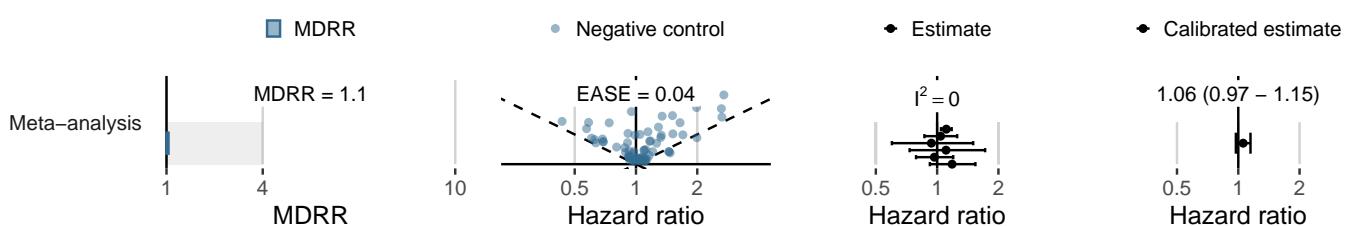
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	517,255	455,625	14,558	31.95
Merative CCAE	40,878	33,131	1,163	35.10
Merative MDCD	5,218	3,413	219	64.17
Merative MDCR	6,568	5,192	320	61.63
Optum Clininformatics	20,150	15,380	1,107	71.98
Optum EHR	51,698	23,488	1,122	47.77
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



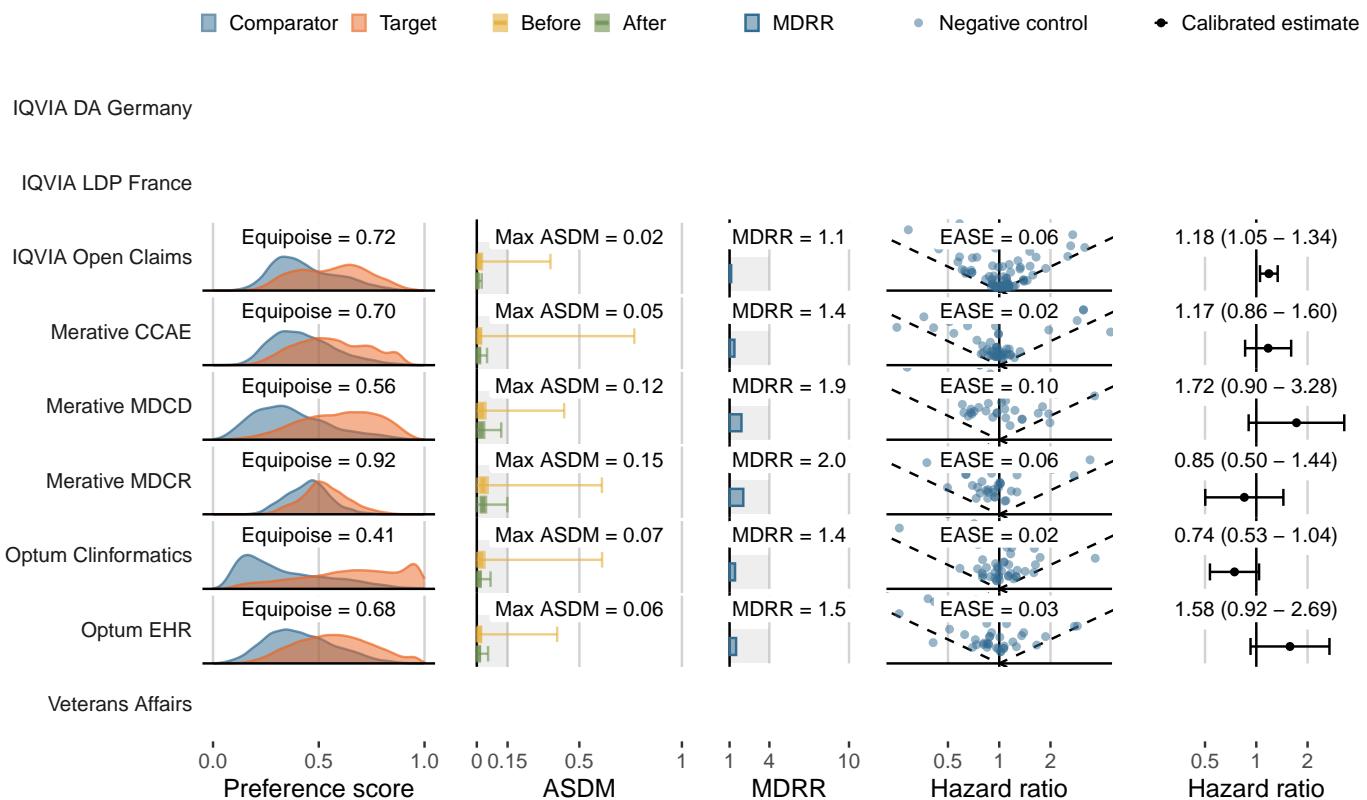
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

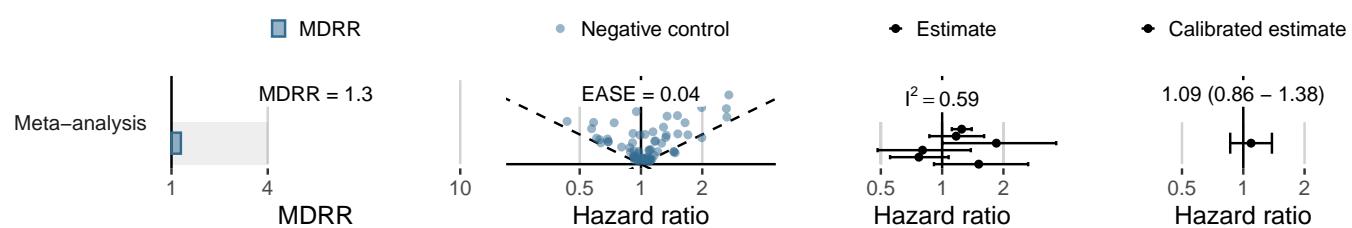
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	632,738	564,456	4,032	7.14
Merative CCAE	47,811	39,204	464	11.84
Merative MDCD	5,343	3,504	107	30.54
Merative MDCR	6,879	5,525	127	22.99
Optum Clininformatics	23,059	18,082	347	19.19
Optum EHR	57,977	27,196	359	13.20
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



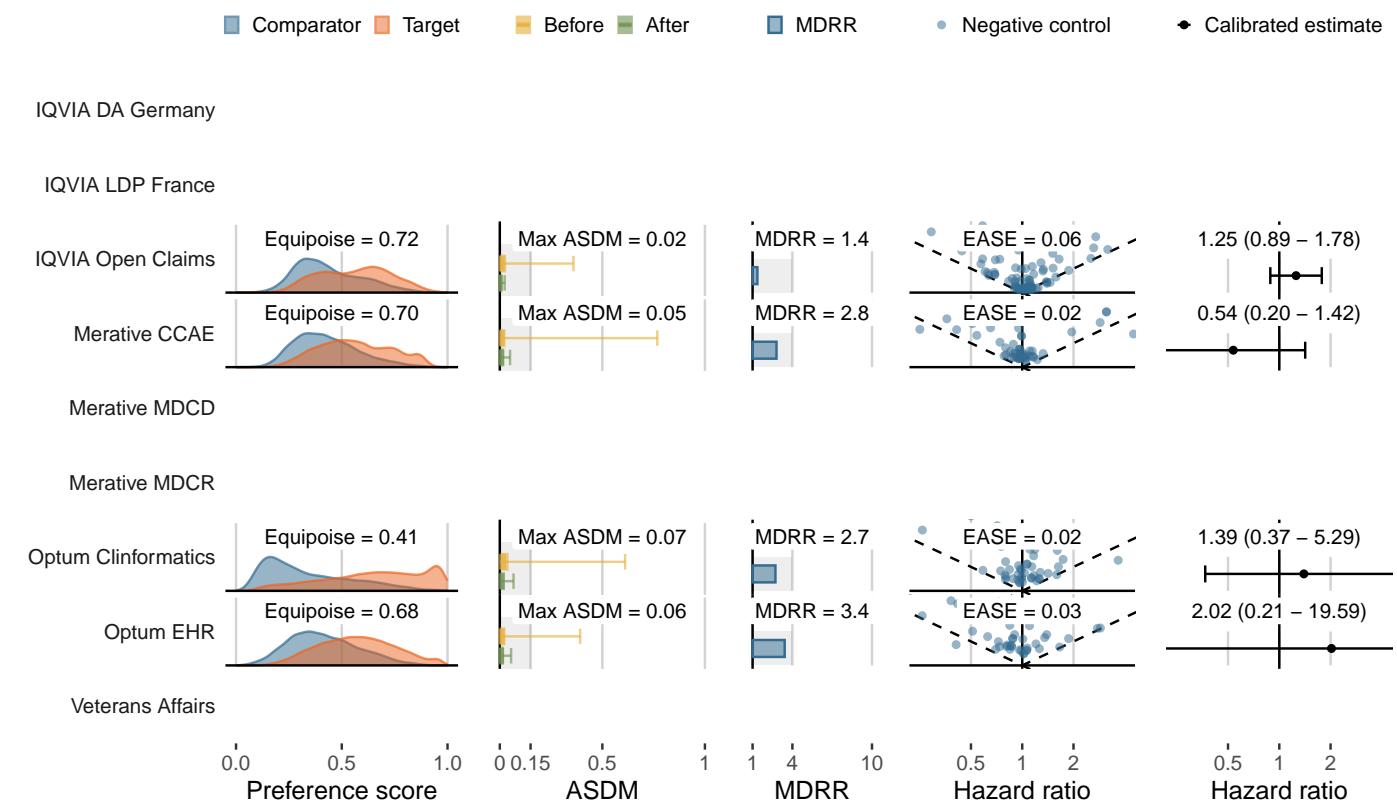
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

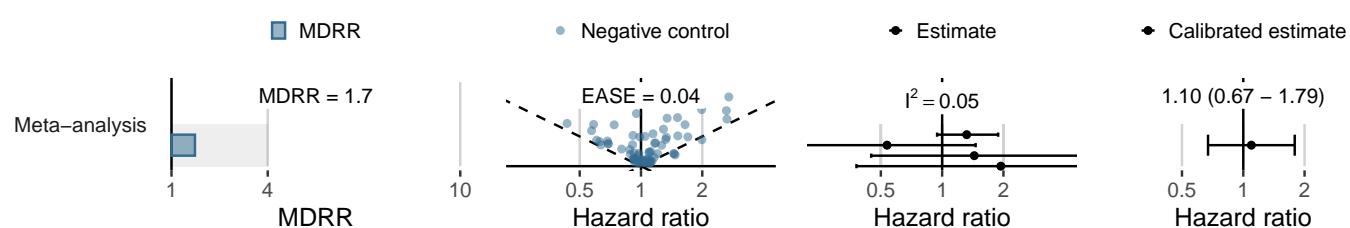
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	671,207	600,618	562	.94
Merative CCAE	50,774	41,983	40	.95
Merative MDCD	7,324	5,123	7	1.37
Merative MDCR	8,591	7,054	16	2.27
Optum Clininformatics	27,473	21,894	45	2.06
Optum EHR	61,254	29,138	36	1.24
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



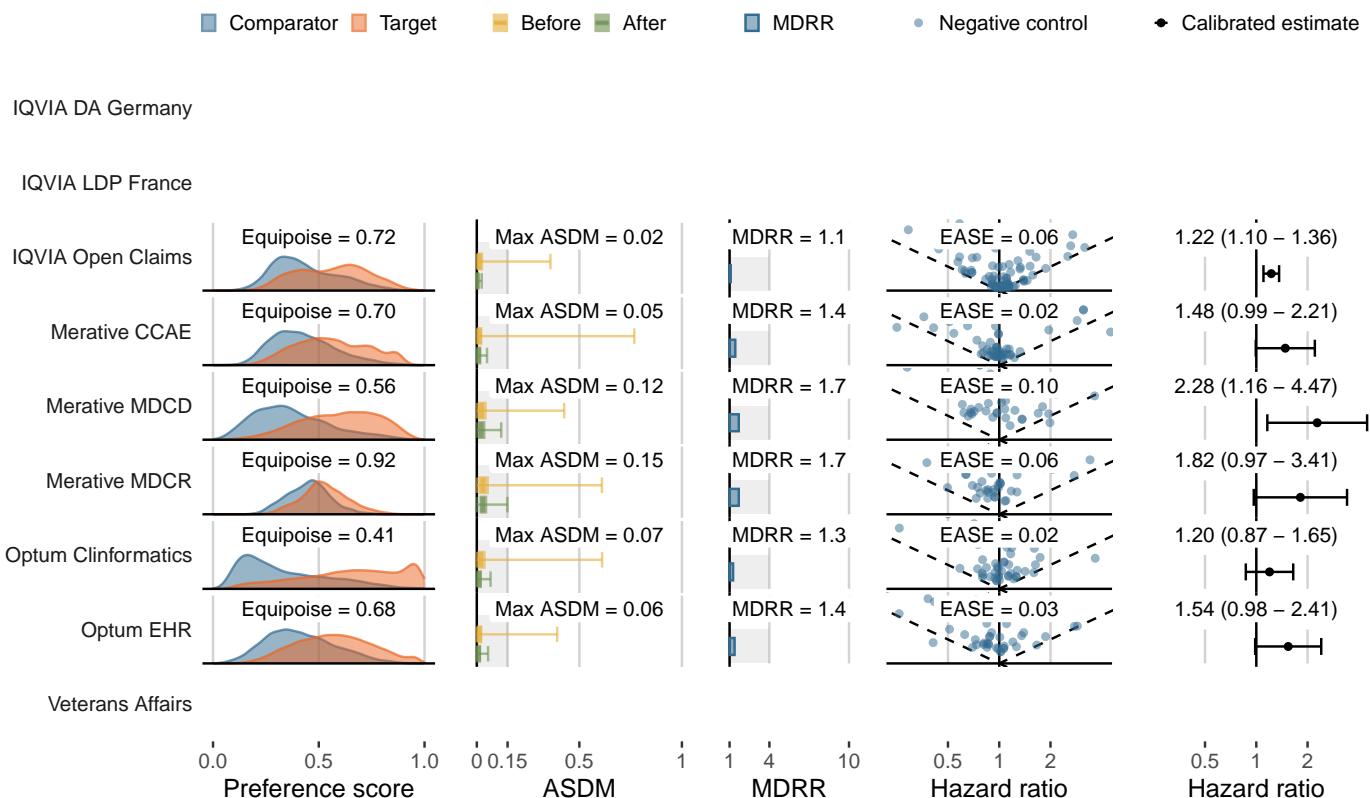
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

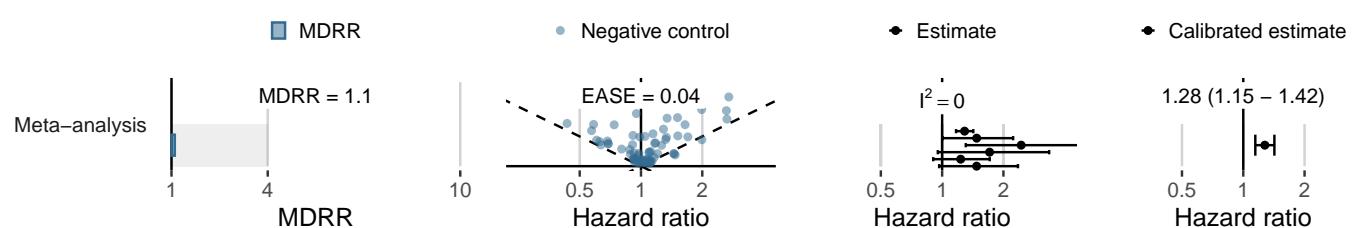
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	650,202	578,728	7,912	13.67
Merative CCAE	49,845	41,083	365	8.88
Merative MDCD	6,791	4,624	171	36.98
Merative MDCR	8,040	6,521	250	38.34
Optum Clininformatics	25,402	19,948	805	40.35
Optum EHR	60,349	28,376	574	20.23
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



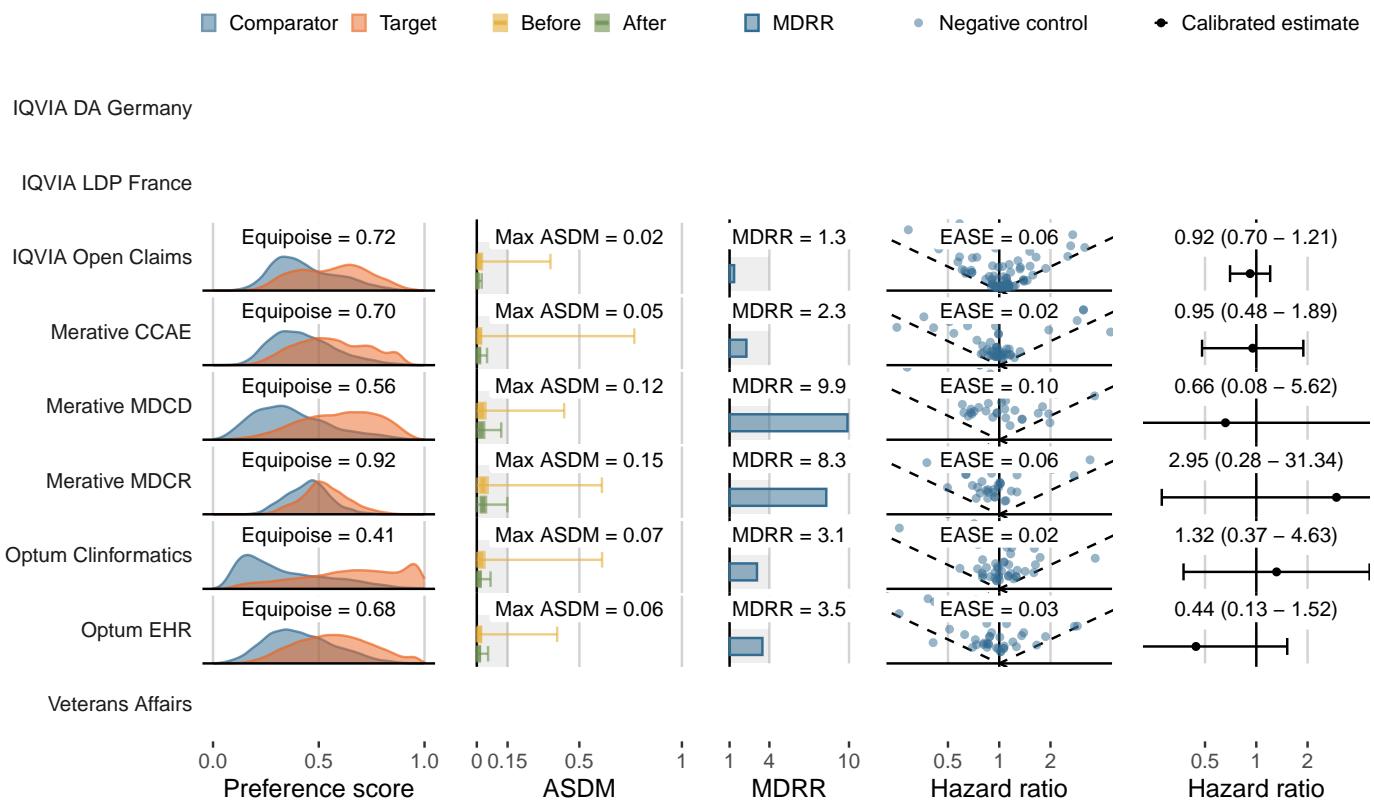
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

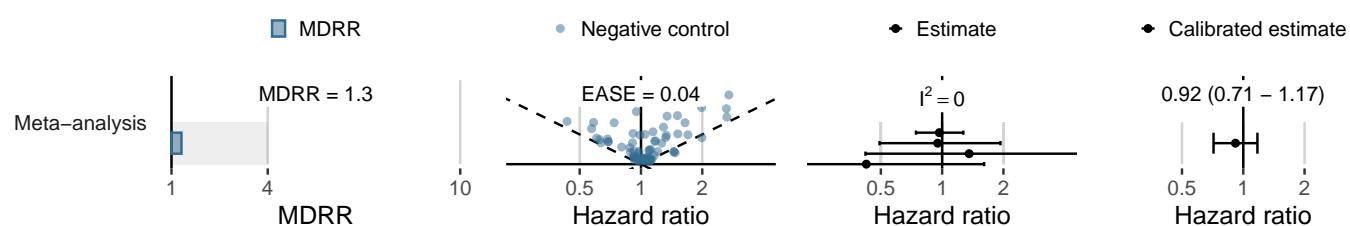
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	669,109	598,413	589	.98
Merative CCAE	50,597	41,840	63	1.51
Merative MDCD	7,317	5,123	5	.98
Merative MDCR	8,582	7,026	12	1.71
Optum Clininformatics	27,461	21,890	34	1.55
Optum EHR	60,981	29,015	34	1.17
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



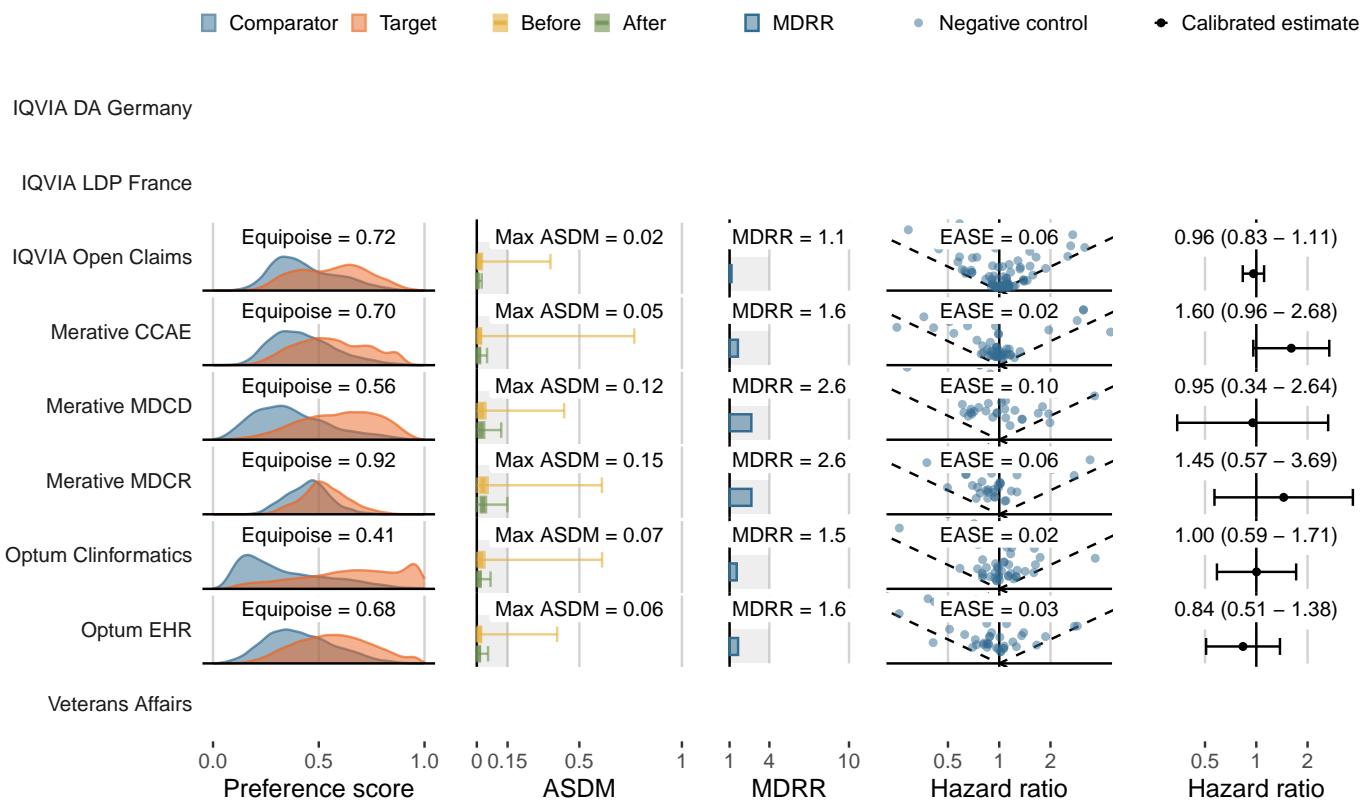
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

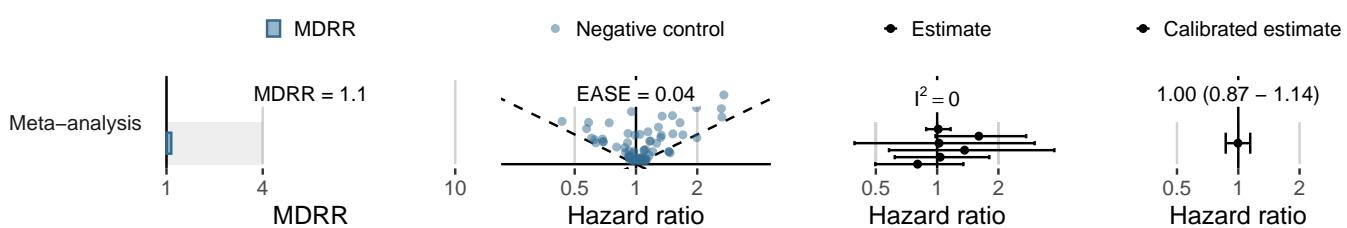
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	651,213	581,589	2,894	4.98
Merative CCAE	49,621	40,899	200	4.89
Merative MDCD	6,978	4,829	45	9.32
Merative MDCR	8,237	6,747	74	10.97
Optum Clininformatics	26,512	21,058	235	11.16
Optum EHR	59,701	28,184	223	7.91
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



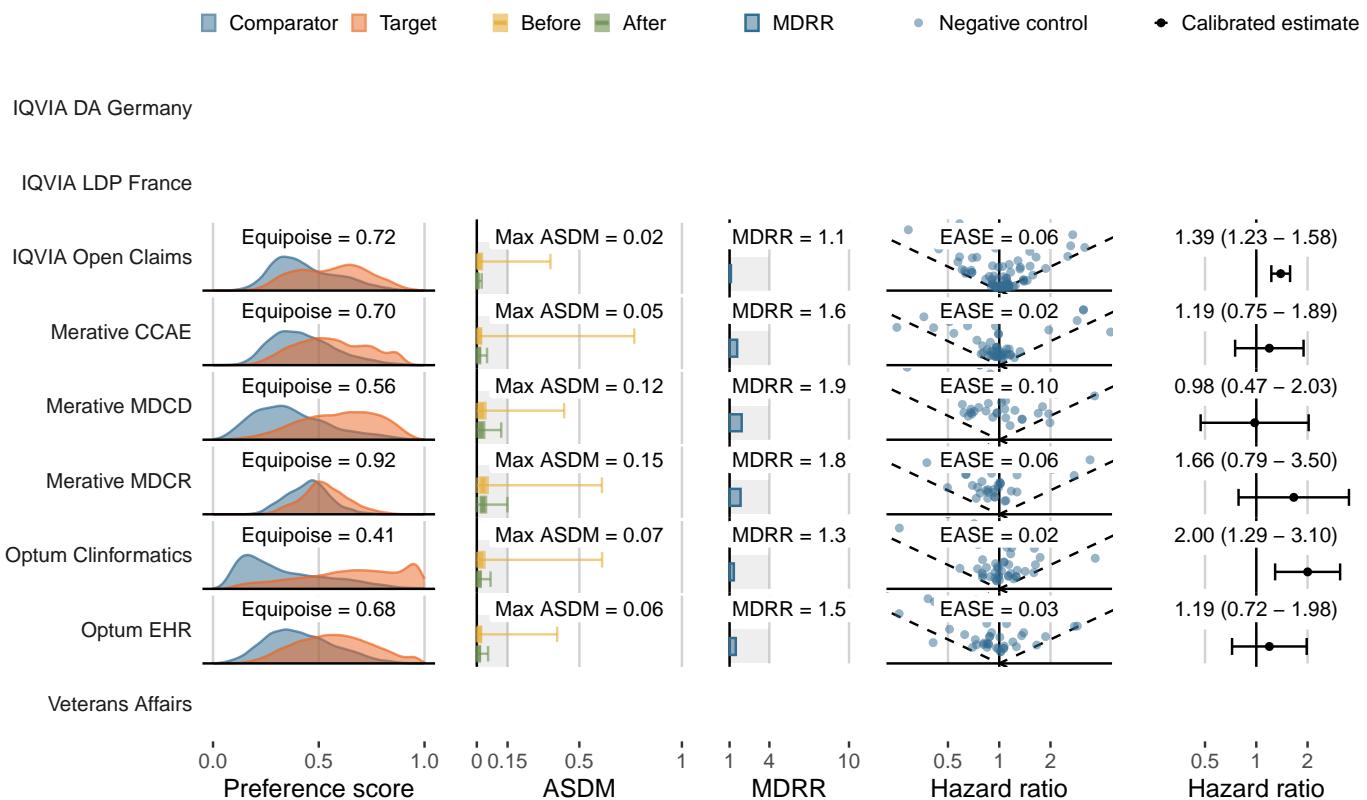
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

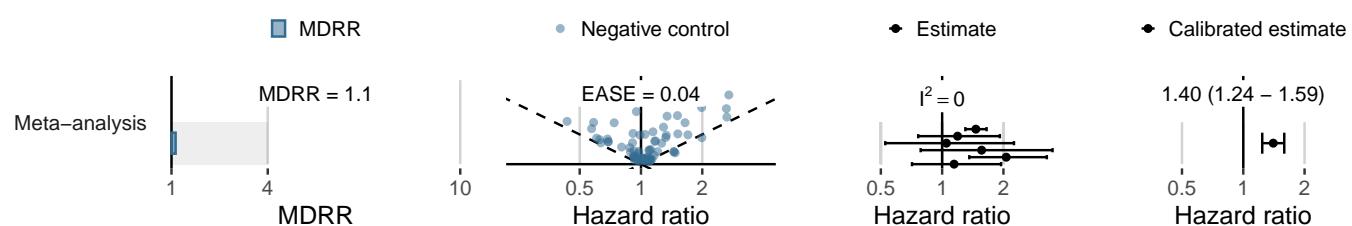
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	646,420	577,073	5,865	10.16
Merative CCAE	49,943	41,262	224	5.43
Merative MDCD	6,658	4,573	105	22.96
Merative MDCR	7,889	6,482	193	29.77
Optum Clininformatics	25,109	19,943	580	29.08
Optum EHR	60,087	28,320	396	13.98
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



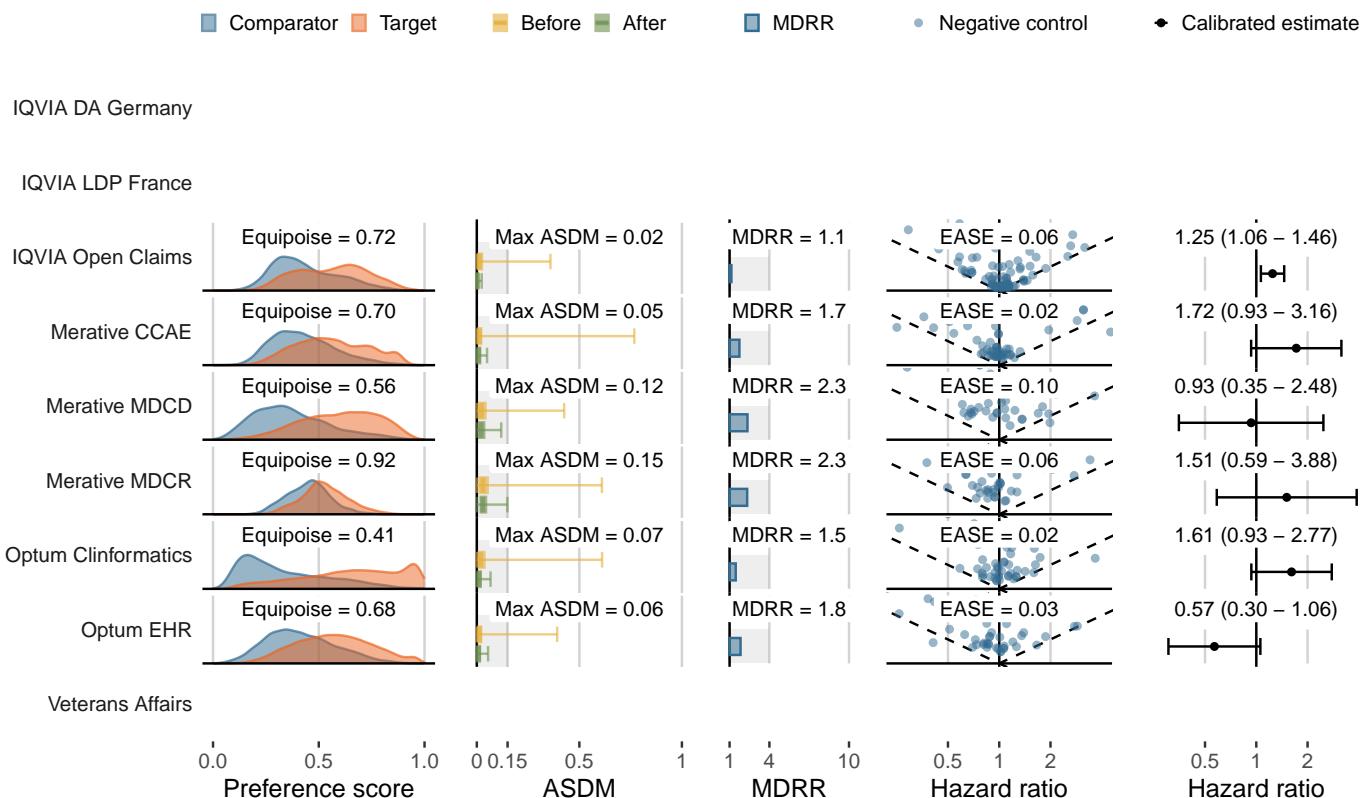
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Canagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

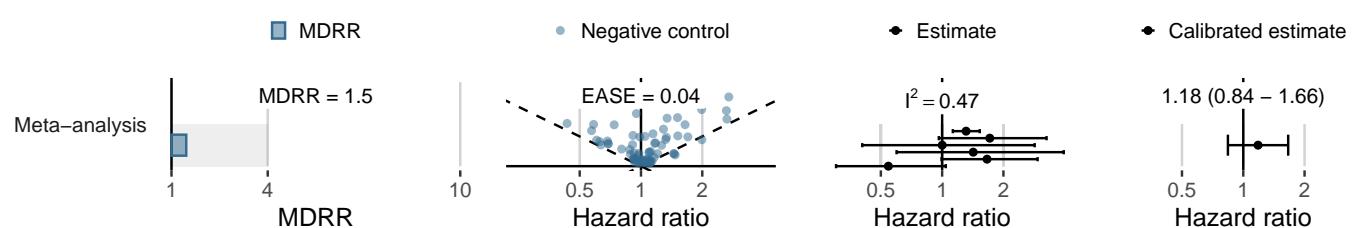
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	-	-	-	-
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	655,097	585,948	3,193	5.45
Merative CCAE	50,167	41,520	151	3.64
Merative MDCD	6,994	4,873	65	13.34
Merative MDCR	8,252	6,736	98	14.55
Optum Clininformatics	26,512	20,984	318	15.15
Optum EHR	60,803	28,844	154	5.34
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



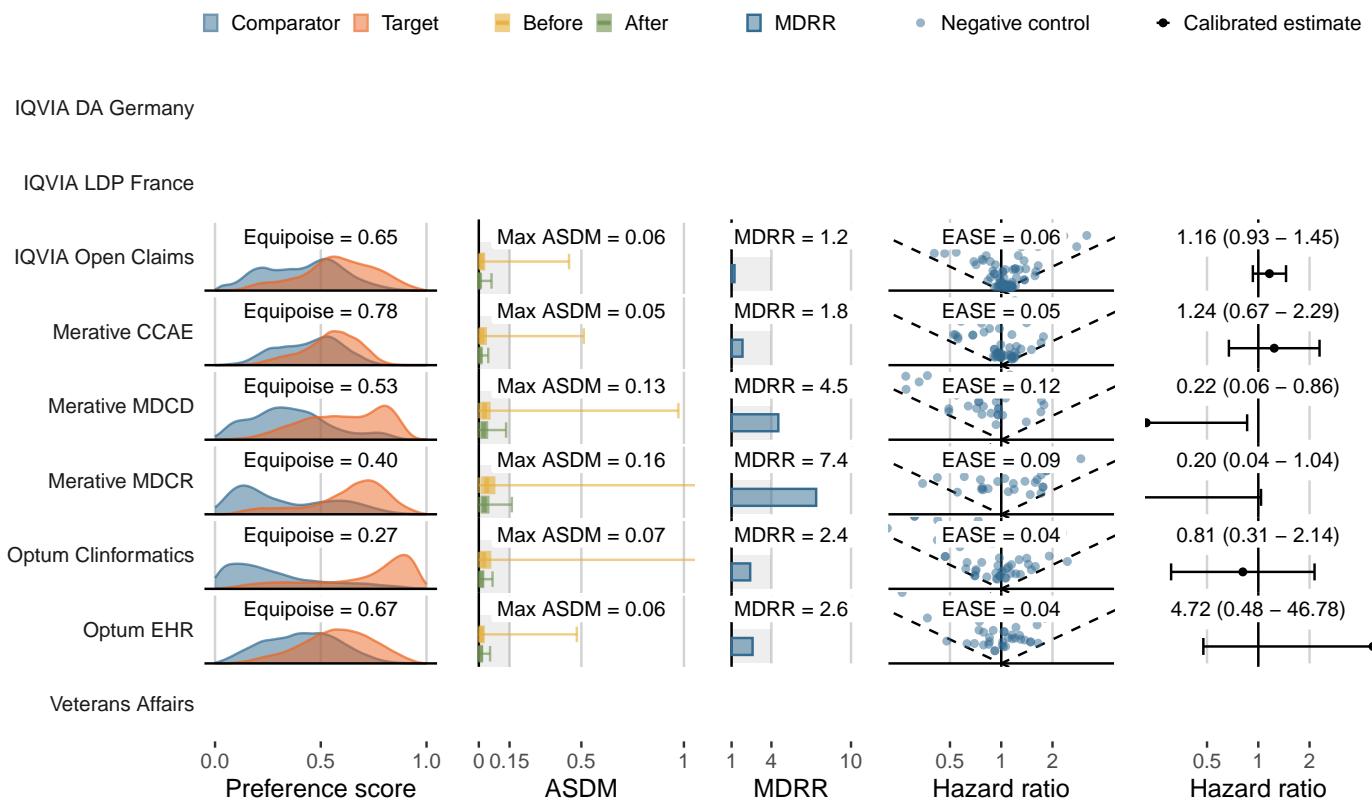
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

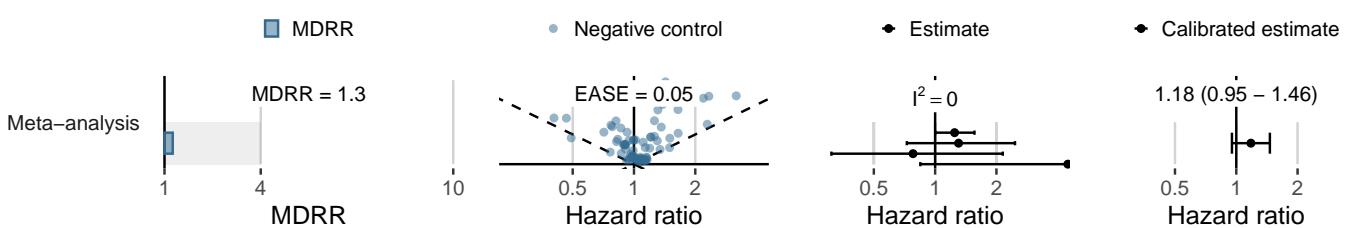
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,552	18,535	-	.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	617,657	549,200	1,085	1.98
Merative CCAE	46,143	38,298	91	2.38
Merative MDCD	6,736	4,686	20	4.27
Merative MDCR	7,475	6,096	15	2.46
Optum Clininformatics	25,021	19,894	61	3.07
Optum EHR	56,679	27,156	58	2.14
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



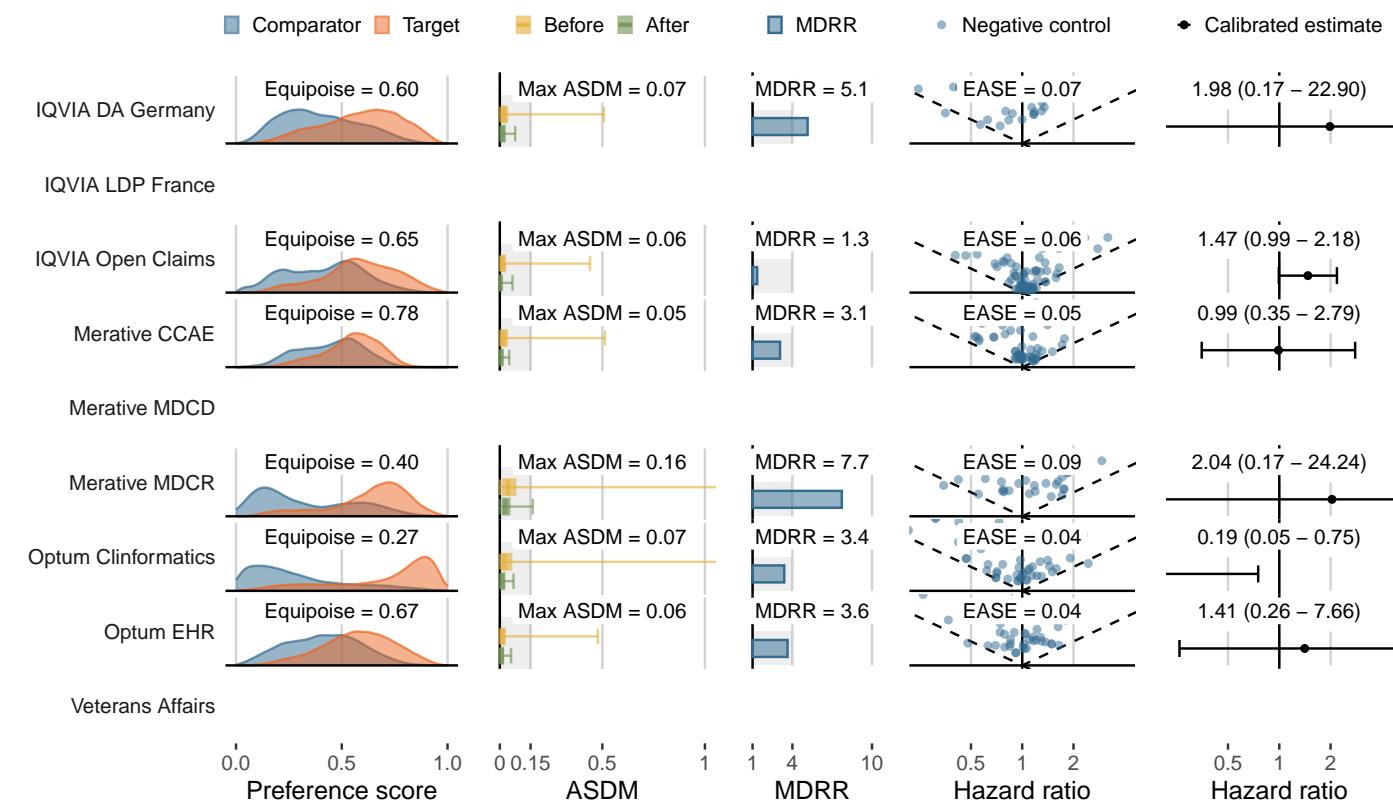
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

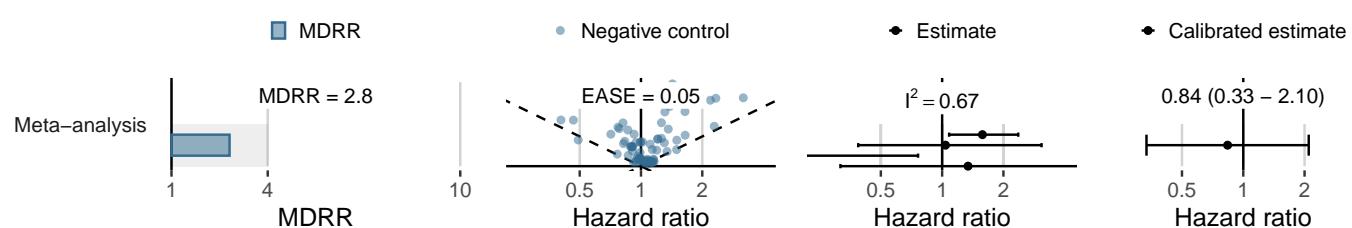
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,474	18,447	13	0.70
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	621,298	552,075	503	0.91
Merative CCAE	46,431	38,540	24	0.62
Merative MDCD	6,866	4,768	<5	<1.05
Merative MDCR	7,457	6,085	14	2.30
Optum Clininformatics	25,134	19,918	29	1.46
Optum EHR	56,849	27,238	29	1.06
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



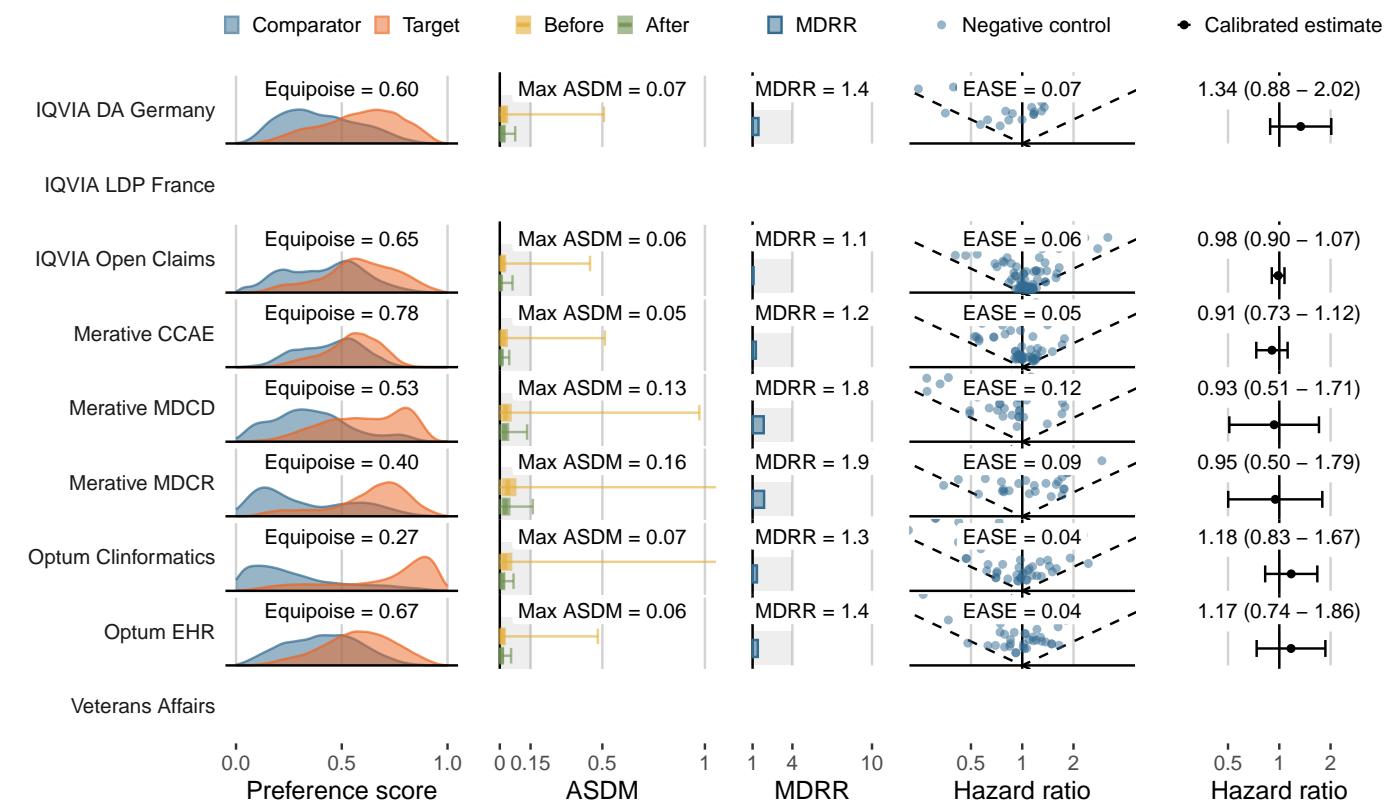
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

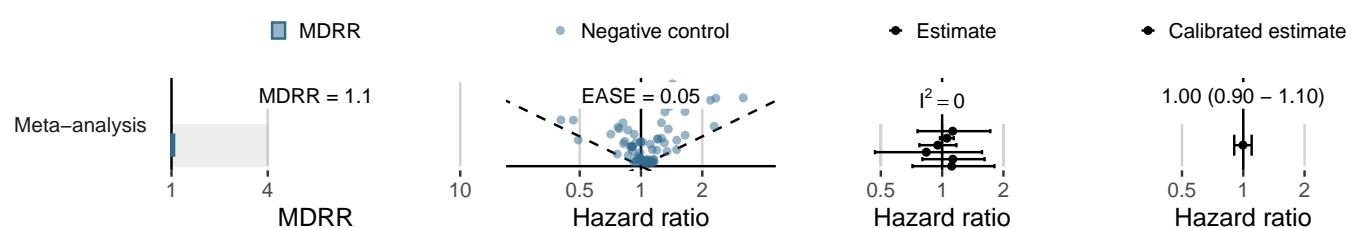
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	15,306	15,860	312	19.67
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	545,412	478,810	8,086	16.89
Merative CCAE	42,447	34,591	609	17.61
Merative MDCD	5,848	3,907	132	33.79
Merative MDCR	6,627	5,244	183	34.90
Optum Clininformatics	22,525	17,446	597	34.22
Optum EHR	52,816	24,966	482	19.31
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



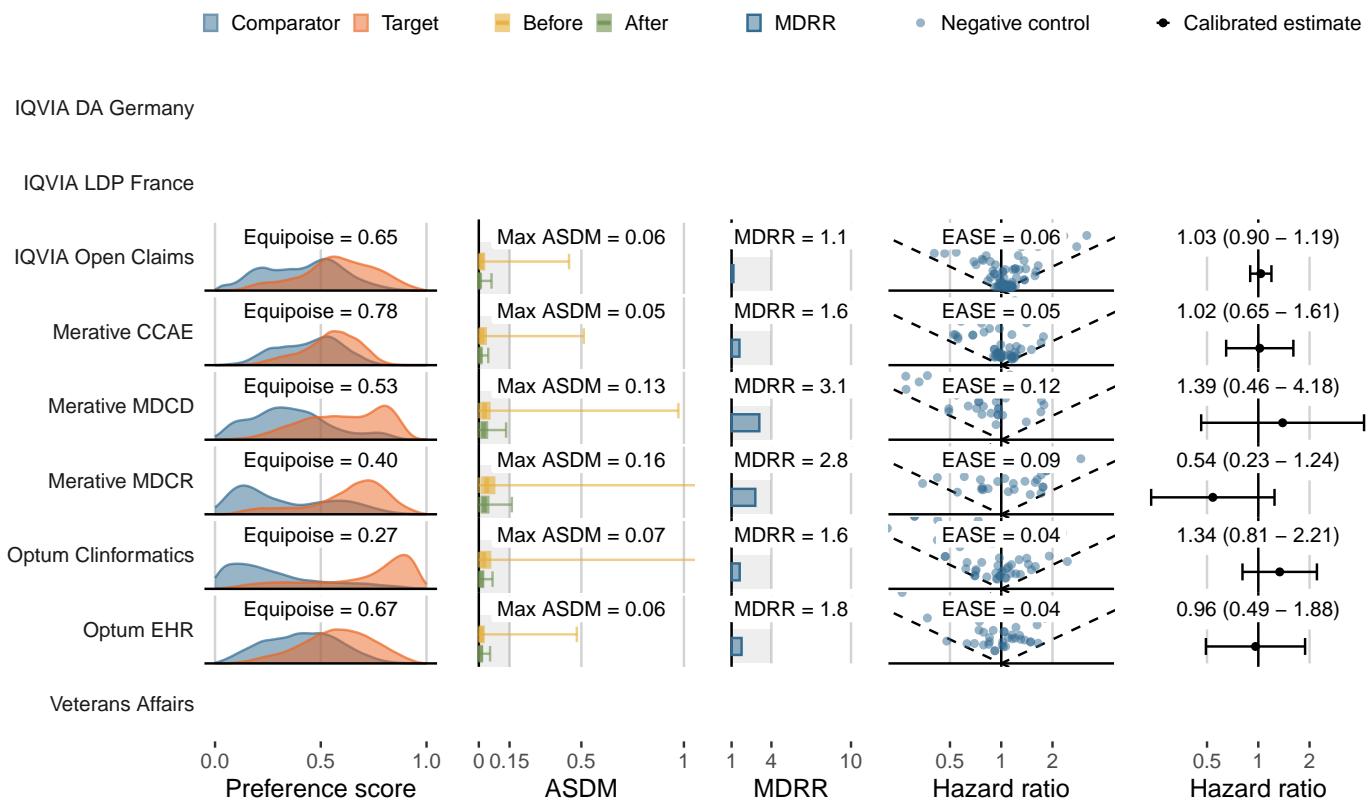
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

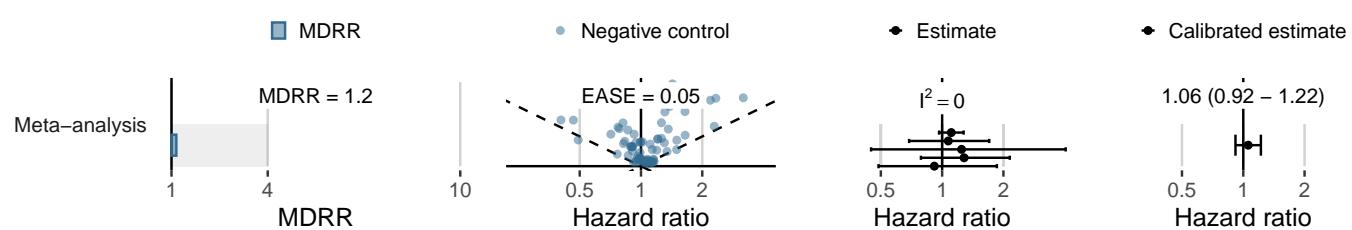
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,552	18,535	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	607,170	538,475	2,494	4.63
Merative CCAE	45,695	37,834	142	3.75
Merative MDCD	6,613	4,554	38	8.34
Merative MDCR	7,219	5,905	67	11.35
Optum Clininformatics	24,428	19,430	206	10.60
Optum EHR	56,306	26,891	167	6.21
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



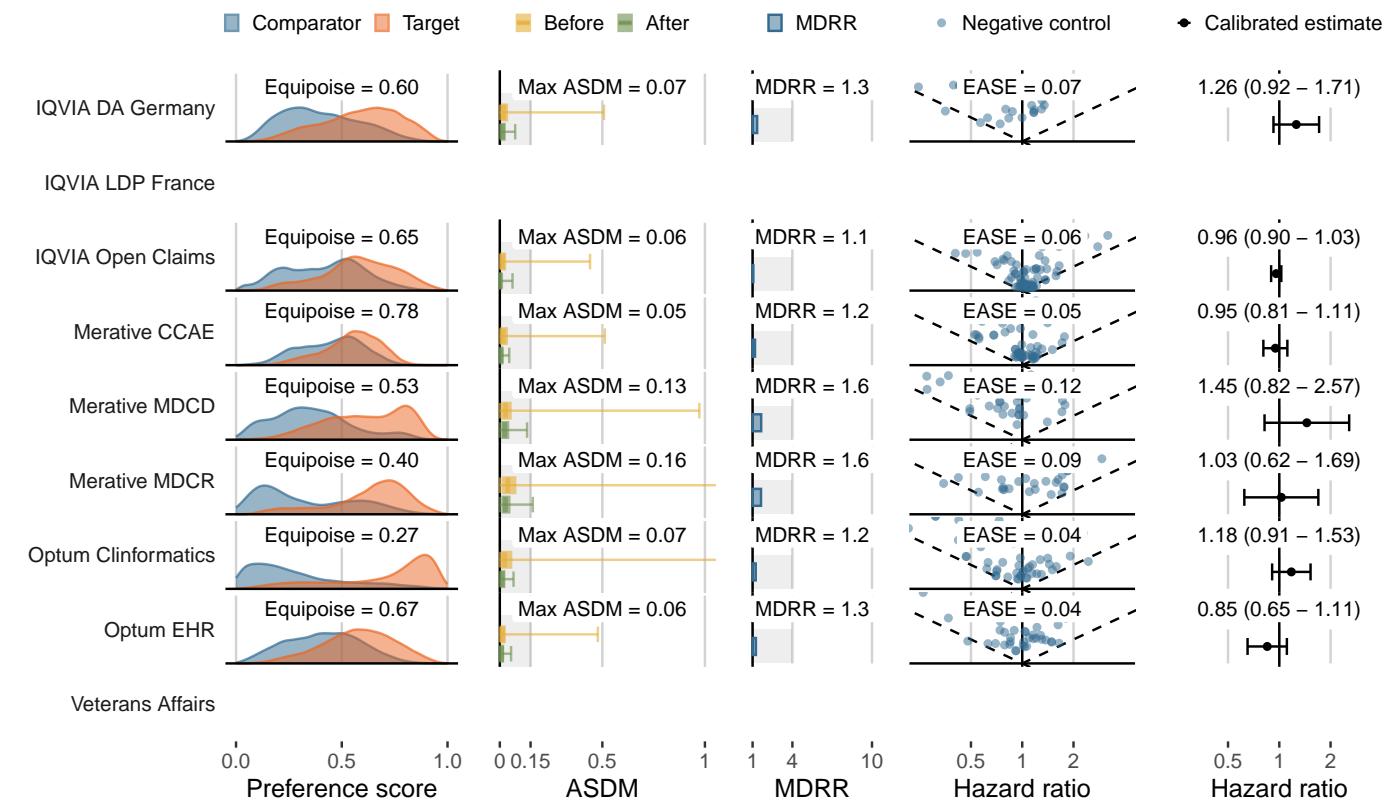
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

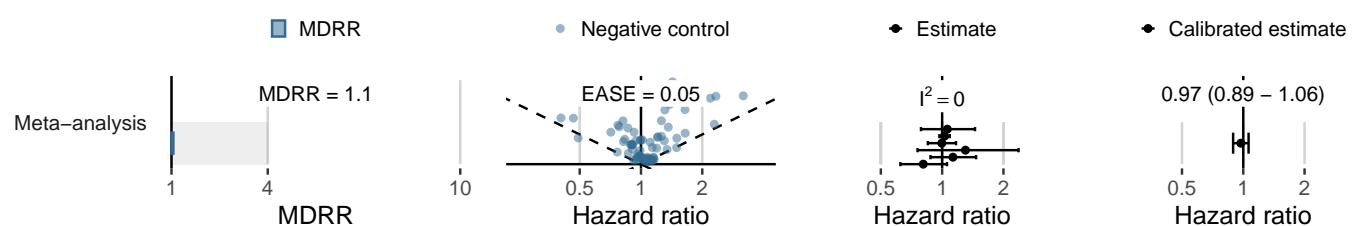
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	13,664	13,855	467	33.71
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	476,857	417,601	13,106	31.38
Merative CCAE	37,285	30,315	1,064	35.10
Merative MDCC	4,893	3,171	202	63.70
Merative MDCR	5,809	4,543	290	63.84
Optum Clininformatics	18,581	14,160	1,030	72.74
Optum EHR	47,869	21,943	1,011	46.07
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



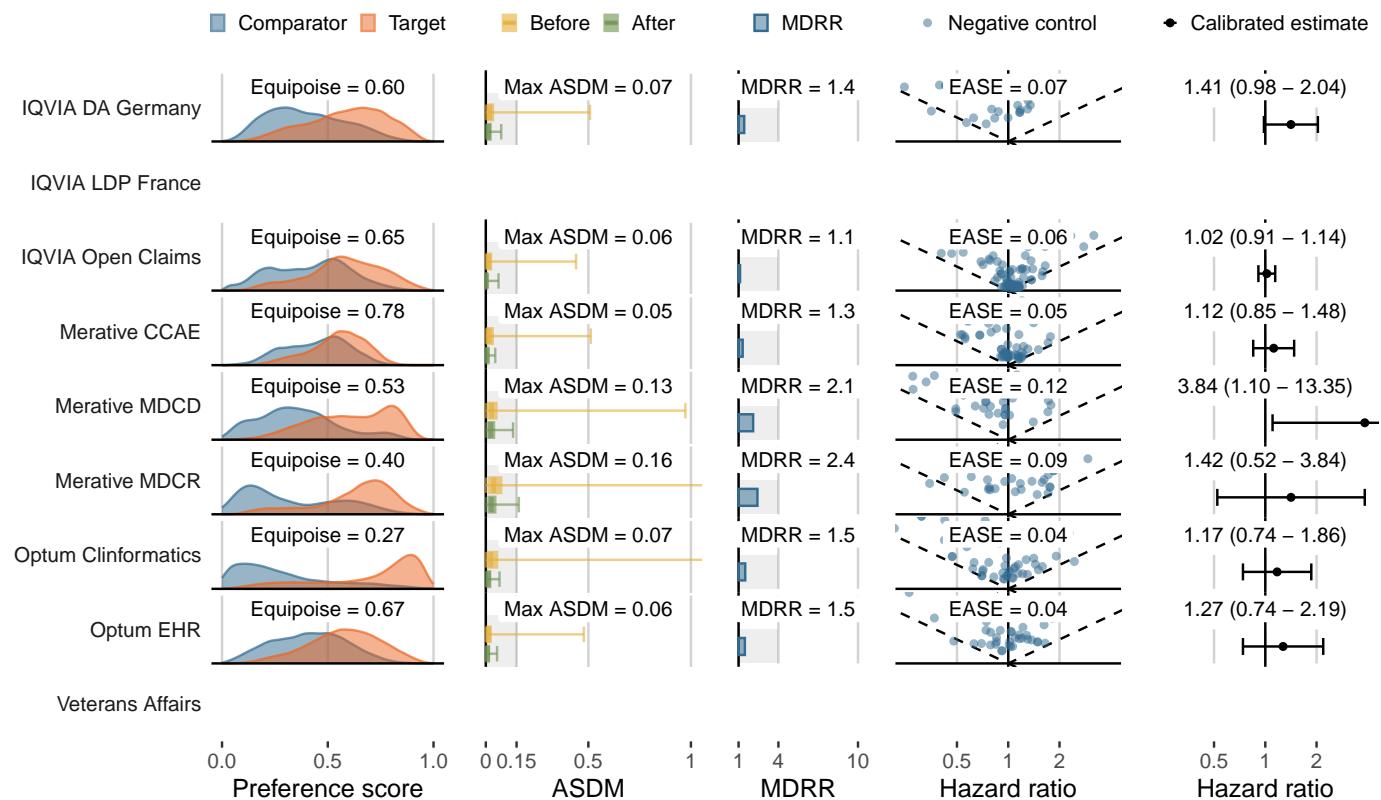
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

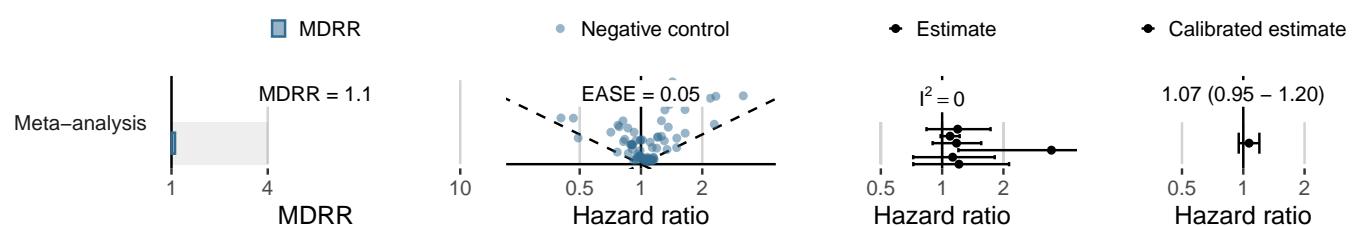
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	14,840	15,316	337	22.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	585,506	518,827	3,693	7.12
Merative CCAE	43,646	35,934	431	11.99
Merative MDCD	5,047	3,291	91	27.65
Merative MDCR	6,110	4,901	90	18.36
Optum Clininformatics	20,978	16,330	282	17.27
Optum EHR	53,875	25,480	342	13.42
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



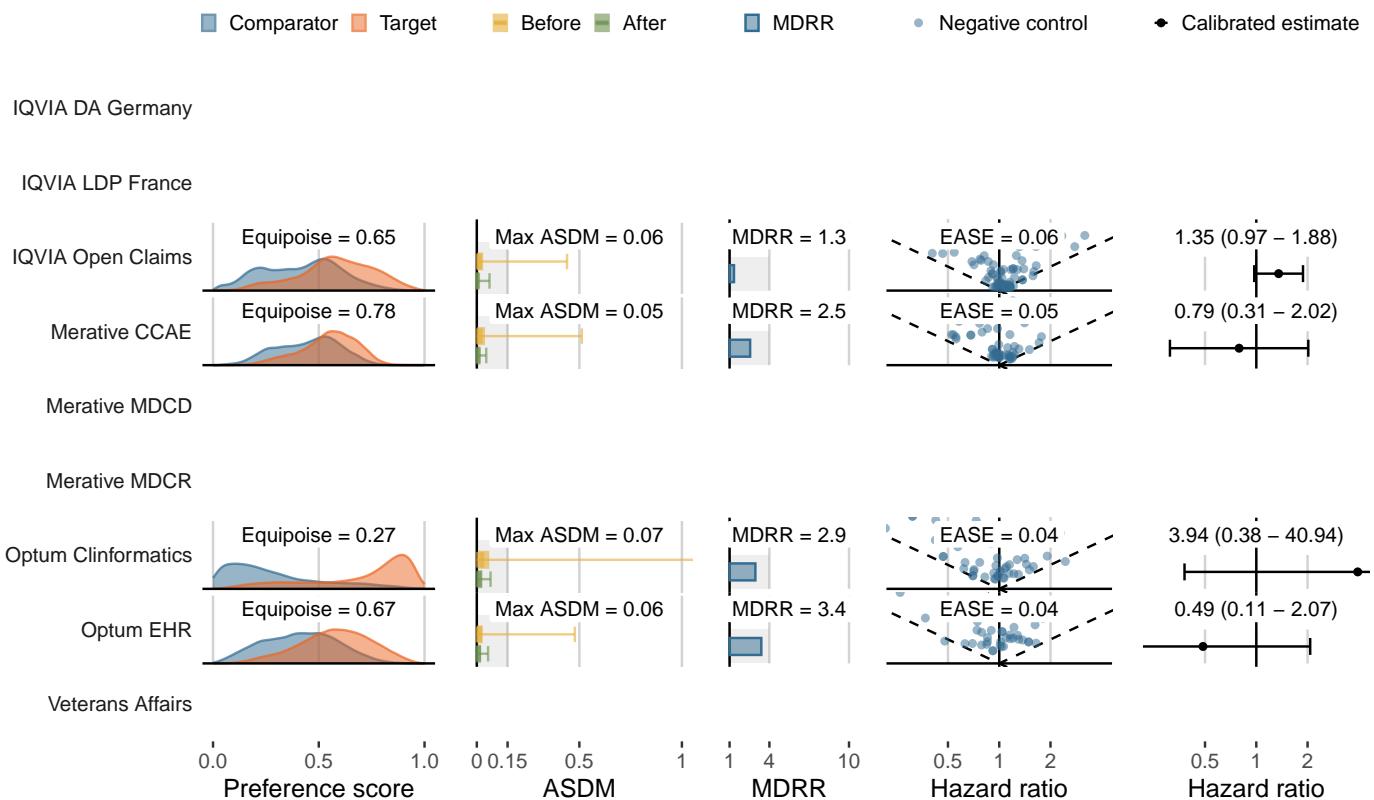
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

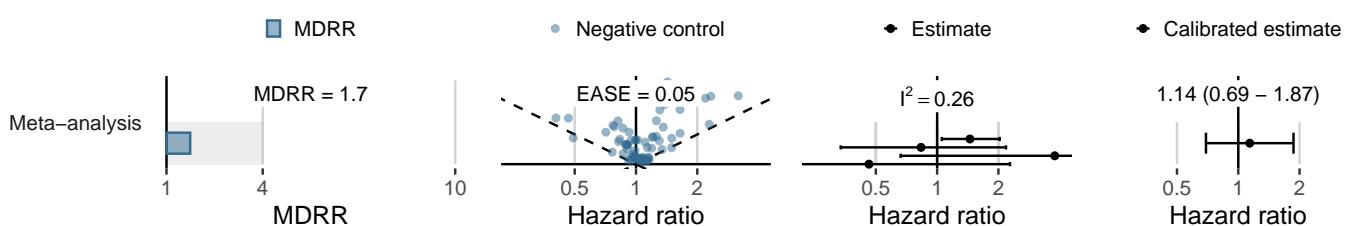
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,481	18,430	22	1.19
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	622,031	552,627	518	.94
Merative CCAE	46,416	38,530	37	.96
Merative MDCD	6,855	4,754	7	1.47
Merative MDCR	7,481	6,100	14	2.30
Optum Clininformatics	25,141	19,940	41	2.06
Optum EHR	56,887	27,260	33	1.21
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



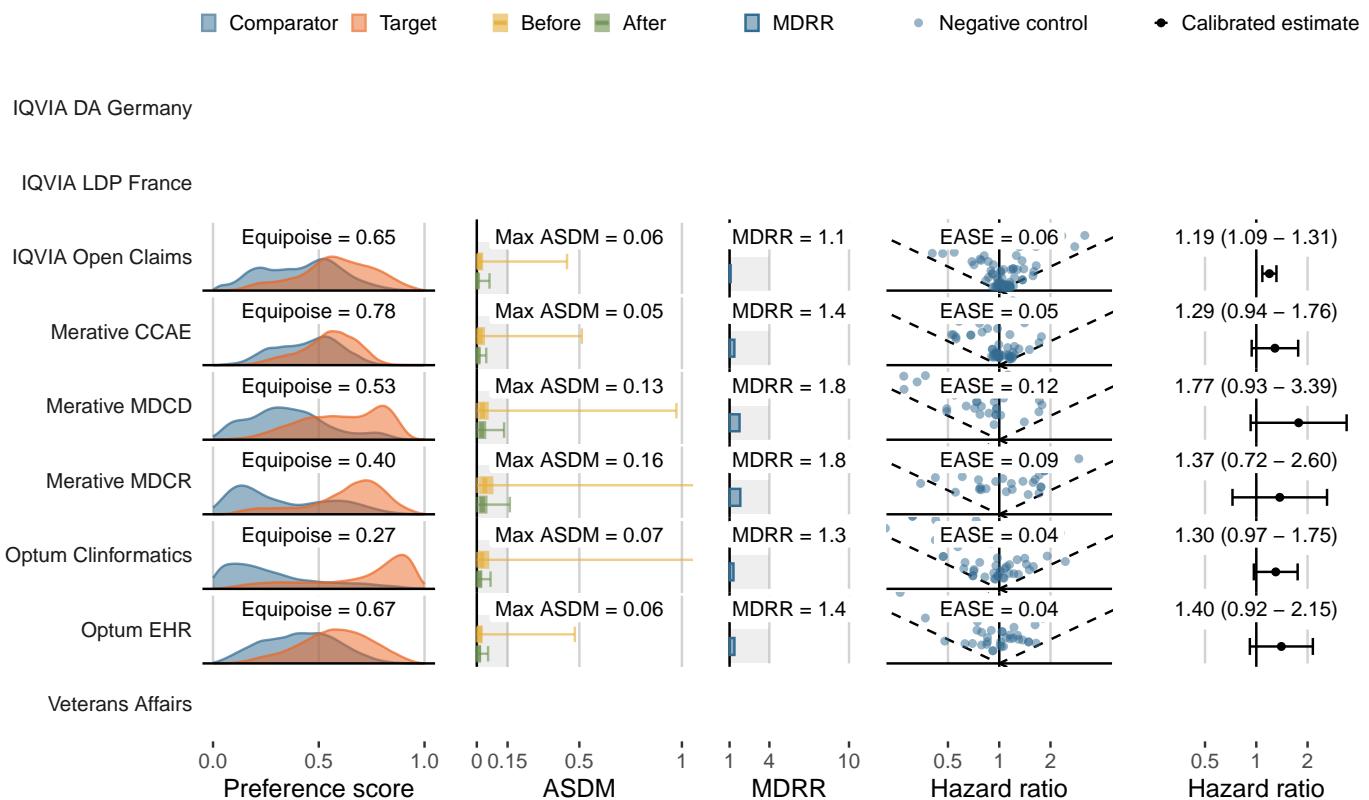
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

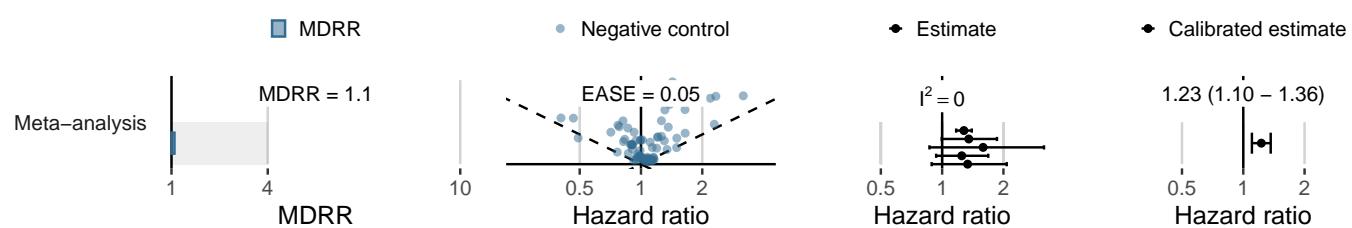
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,552	18,535	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	601,979	532,207	7,277	13.67
Merative CCAE	45,534	37,670	334	8.87
Merative MDCD	6,332	4,259	165	38.74
Merative MDCR	6,994	5,642	212	37.58
Optum Clininformatics	23,196	18,103	718	39.66
Optum EHR	56,070	26,566	548	20.63
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



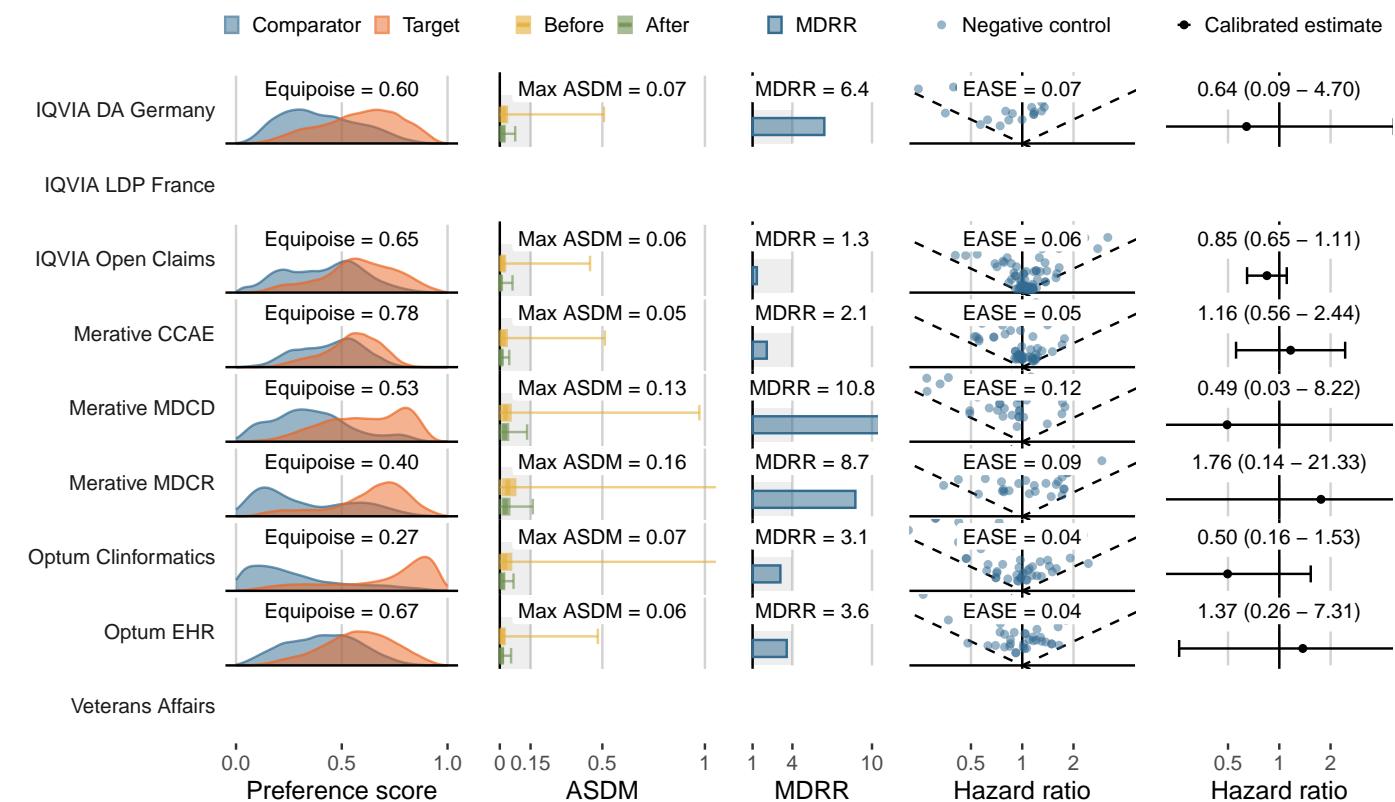
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

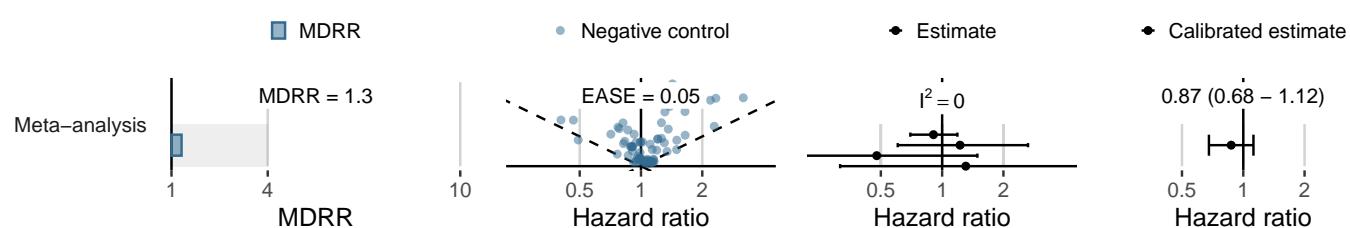
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,427	18,387	9	.49
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	620,034	550,627	524	.95
Merative CCAE	46,250	38,402	60	1.56
Merative MDCD	6,849	4,756	5	1.05
Merative MDCR	7,475	6,067	12	1.98
Optum Clininformatics	25,127	19,926	33	1.66
Optum EHR	56,788	27,220	30	1.10
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



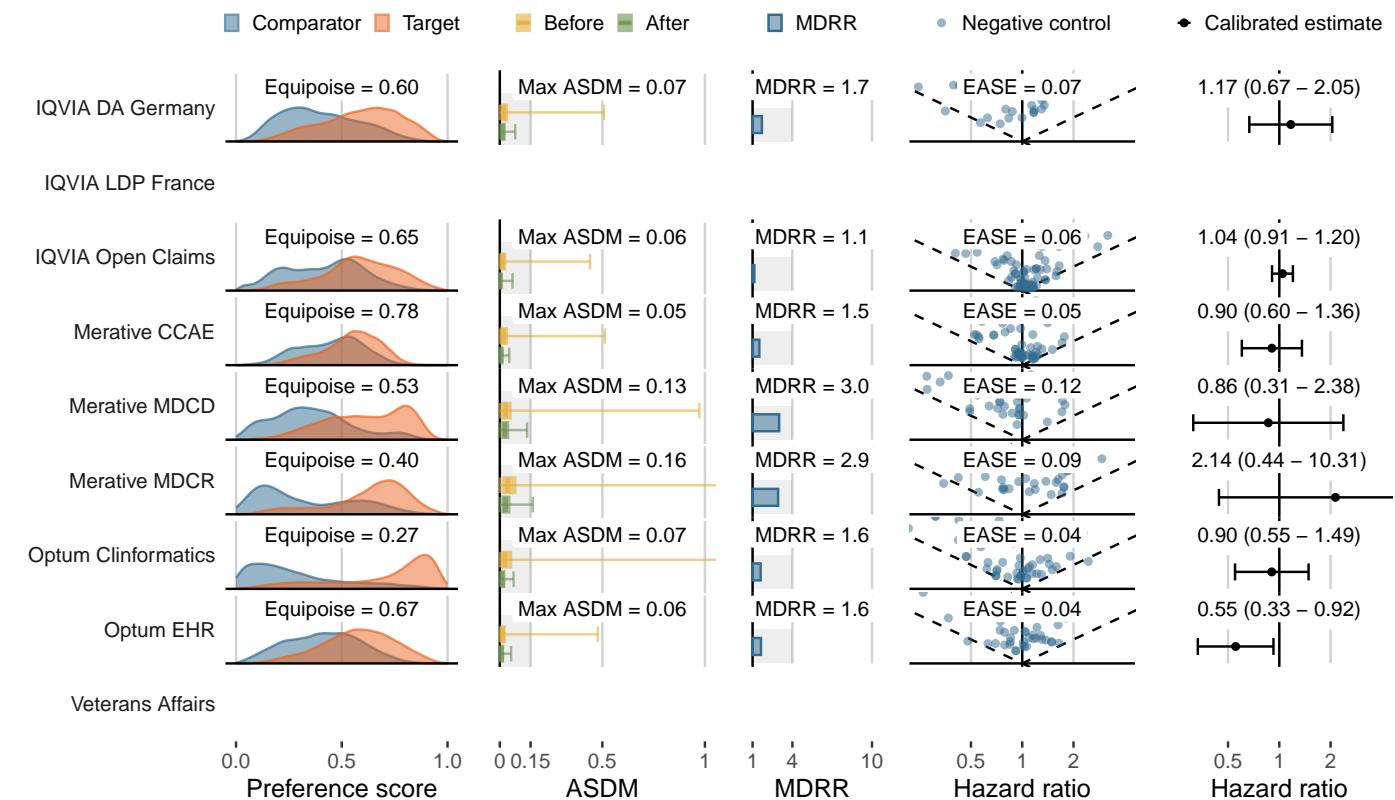
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

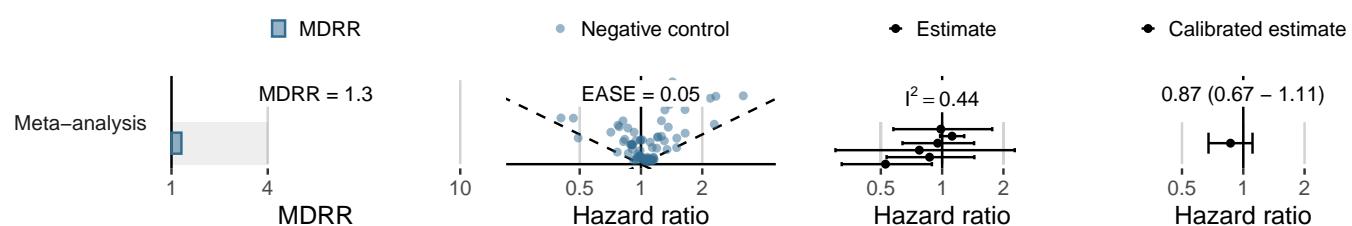
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,332	17,079	145	8.49
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	603,252	535,094	2,604	4.87
Merative CCAE	45,352	37,513	182	4.85
Merative MDCD	6,523	4,478	39	8.71
Merative MDCR	7,183	5,848	64	10.94
Optum Clininformatics	24,127	19,069	200	10.49
Optum EHR	55,533	26,424	209	7.91
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



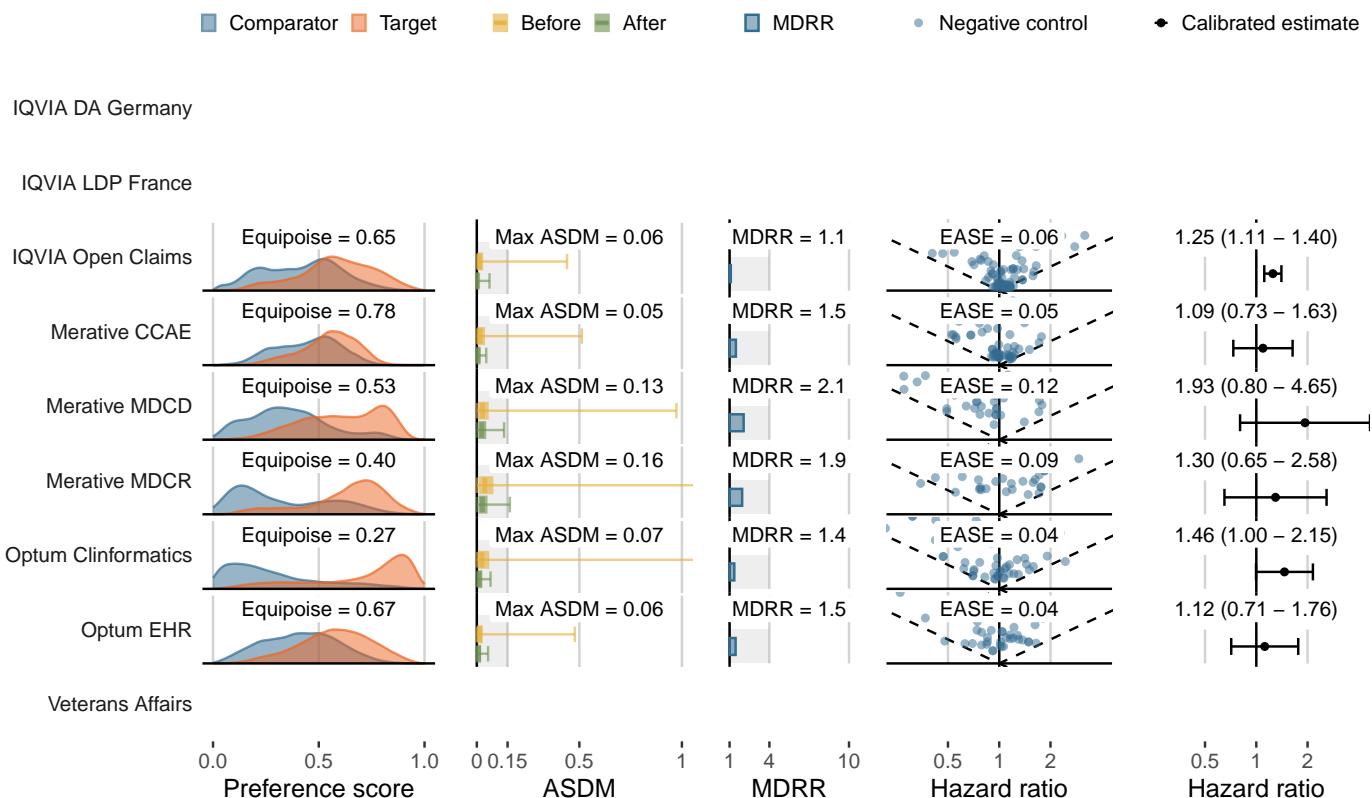
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

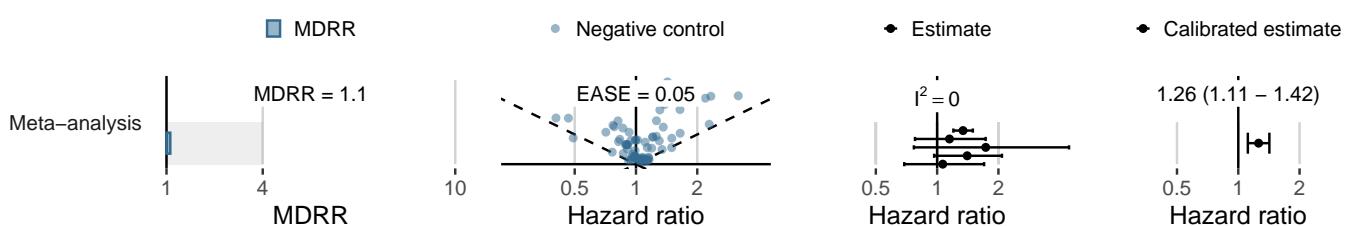
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,552	18,535	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	599,165	531,197	5,318	10.01
Merative CCAE	45,636	37,858	201	5.31
Merative MDCD	6,225	4,227	100	23.66
Merative MDCR	6,857	5,601	163	29.10
Optum Clininformatics	23,149	18,207	523	28.73
Optum EHR	55,752	26,473	370	13.98
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



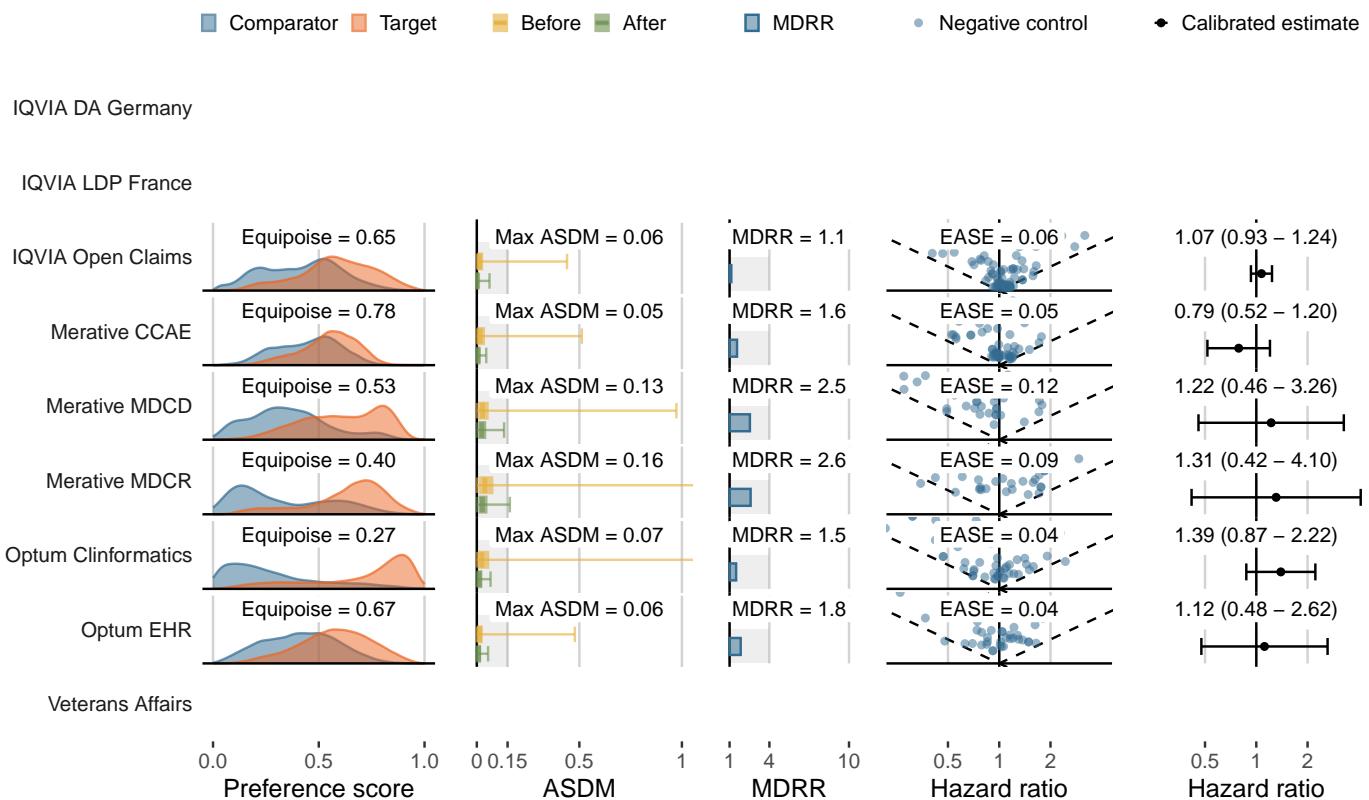
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Dapagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

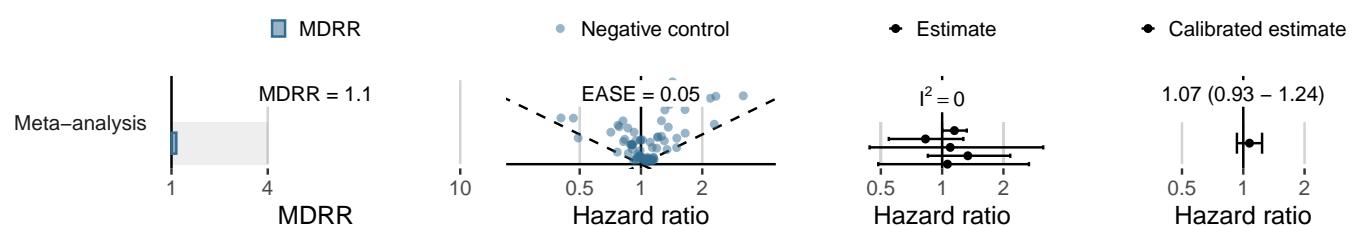
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	17,552	18,535	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	607,134	539,186	2,876	5.33
Merative CCAE	45,850	38,088	144	3.78
Merative MDCD	6,548	4,515	60	13.29
Merative MDCR	7,154	5,802	82	14.13
Optum Clininformatics	24,367	19,199	297	15.47
Optum EHR	56,480	26,988	144	5.34
Veterans Affairs	-	-	-	-

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



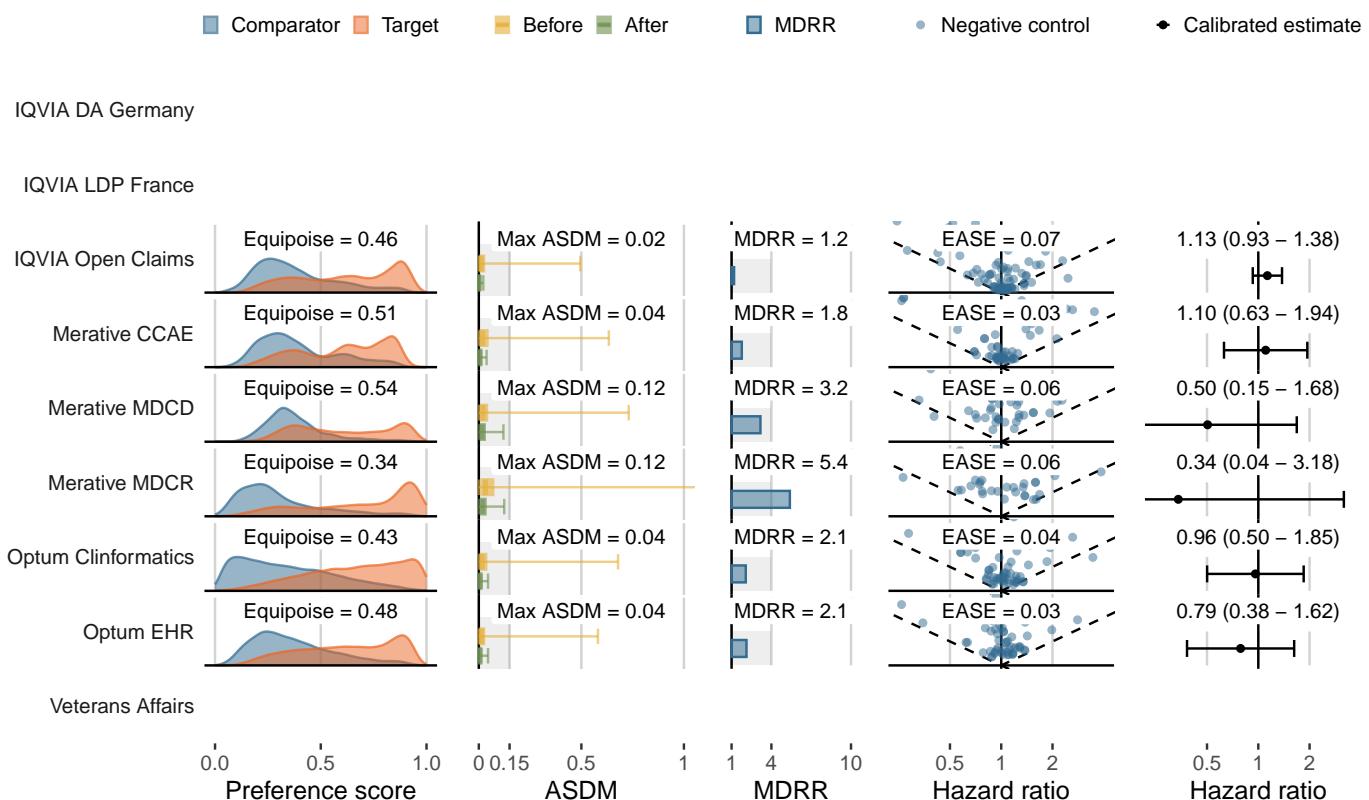
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute pancreatitis**

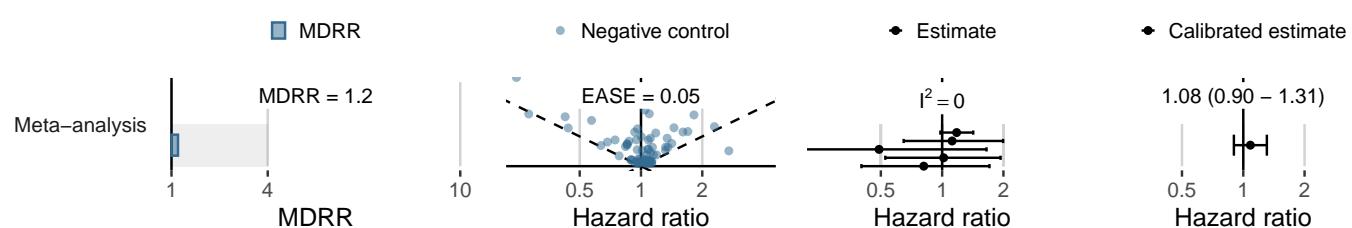
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,125	16,602	-	.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	575,733	507,057	1,006	1.98
Merative CCAE	42,141	35,010	84	2.40
Merative MDCD	6,583	4,585	21	4.58
Merative MDCR	6,394	4,969	10	2.01
Optum Clininformatics	13,733	10,032	30	2.99
Optum EHR	53,231	25,734	53	2.06
Veterans Affairs	247	175	-	.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



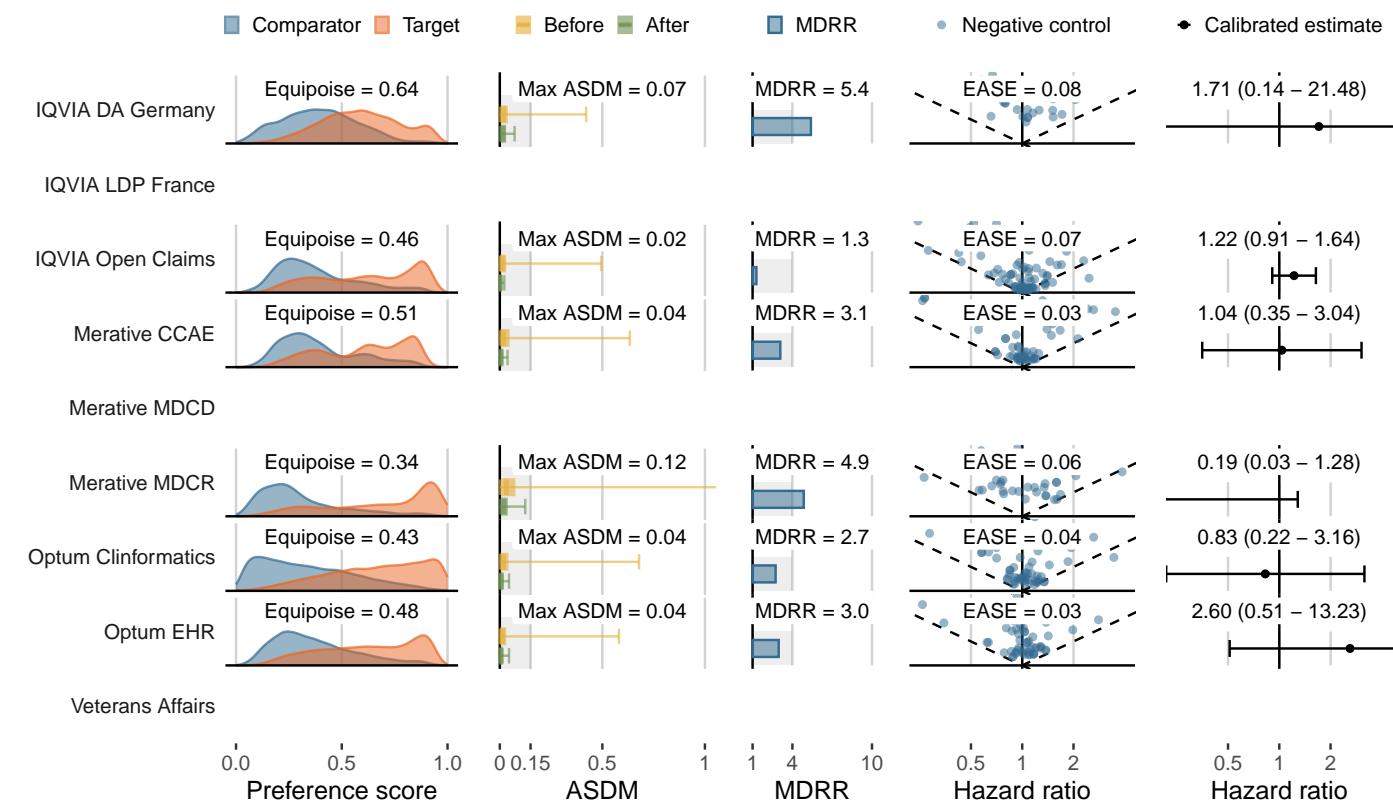
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bladder cancer**

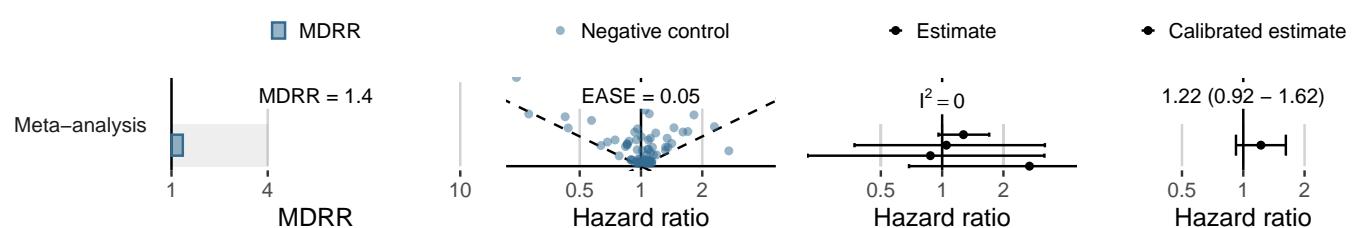
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,052	16,526	13	0.79
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	579,163	509,755	470	0.92
Merative CCAE	42,404	35,227	21	0.60
Merative MDCD	6,709	4,665	<5	<1.07
Merative MDCR	6,382	4,959	12	2.42
Optum Clininformatics	13,824	10,065	13	1.29
Optum EHR	53,291	25,754	27	1.05
Veterans Affairs	245	173	<10	<57.92

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



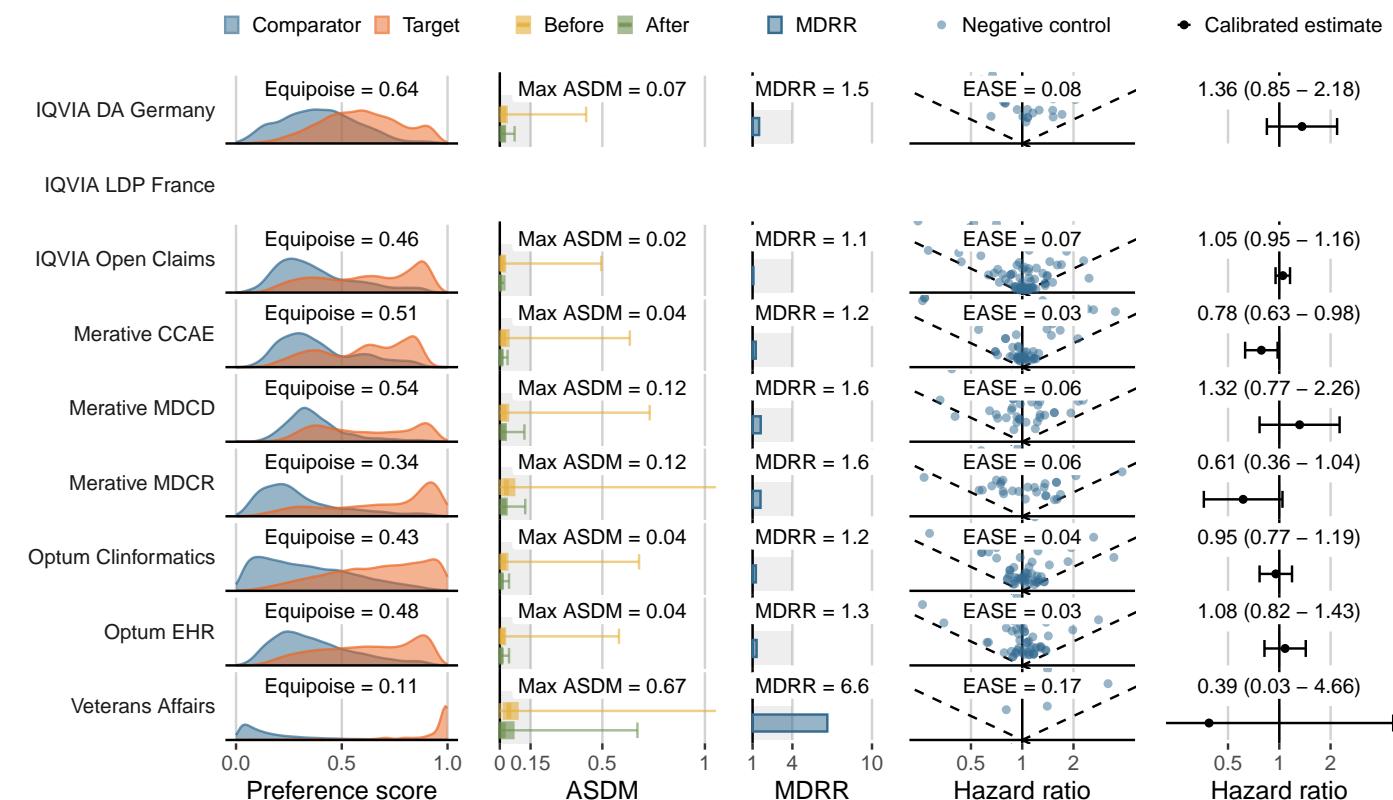
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Bone fracture**

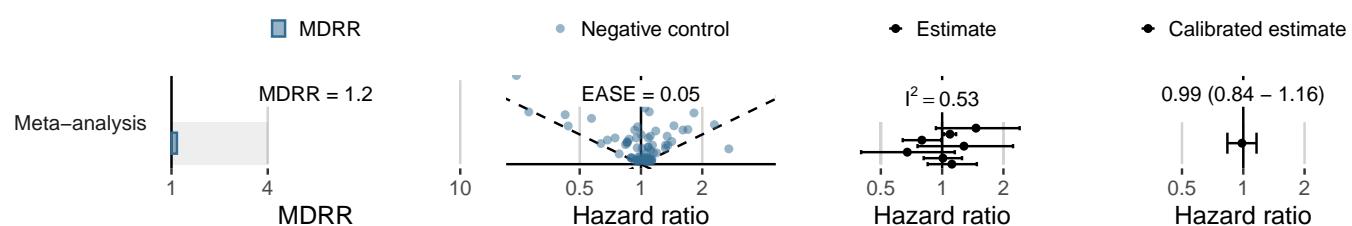
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	13,985	14,190	278	19.59
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	507,827	441,747	7,439	16.84
Merative CCAE	38,742	31,637	548	17.32
Merative MDCD	5,725	3,821	135	35.33
Merative MDCR	5,699	4,311	149	34.56
Optum Clininformatics	12,401	8,964	277	30.90
Optum EHR	49,585	23,651	460	19.45
Veterans Affairs	229	164	<10	<60.92

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



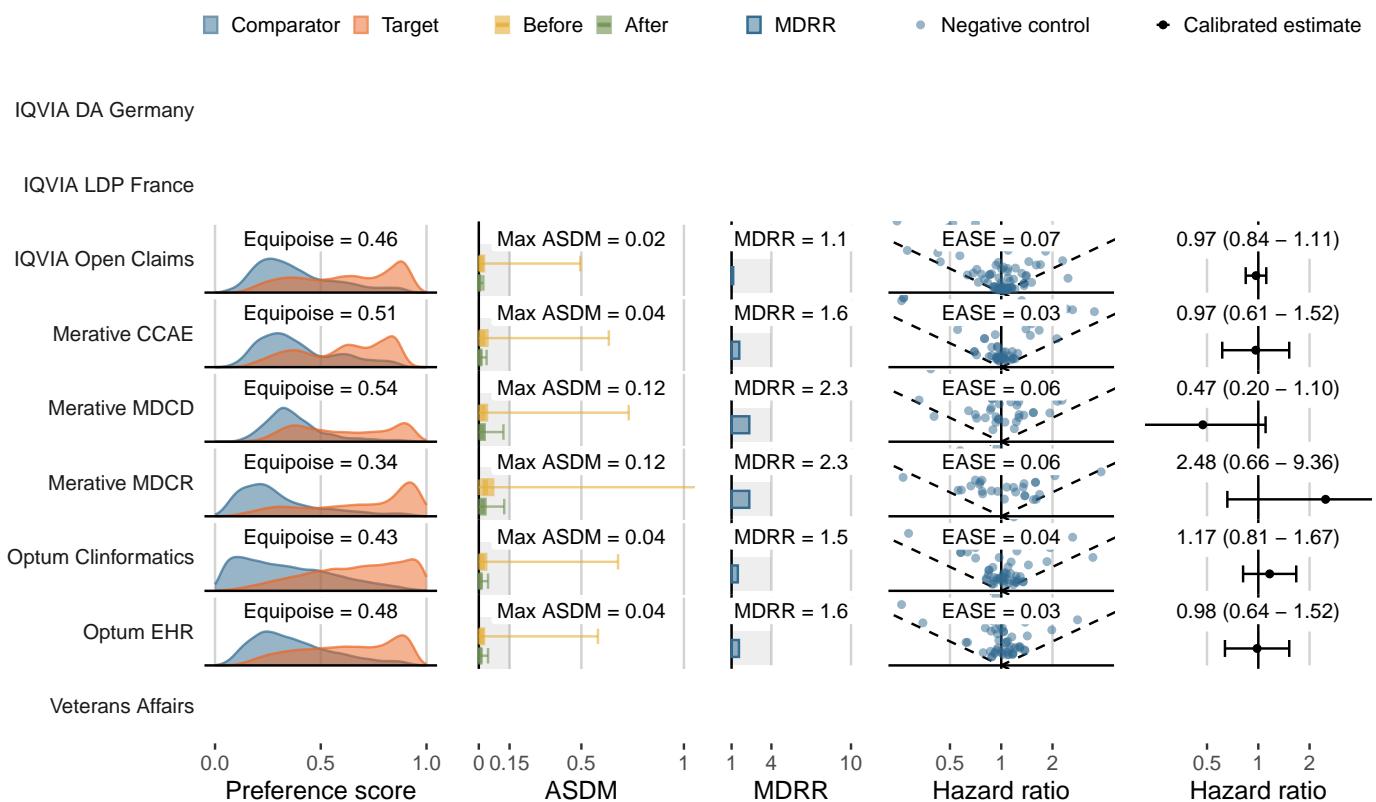
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute myocardial infarction**

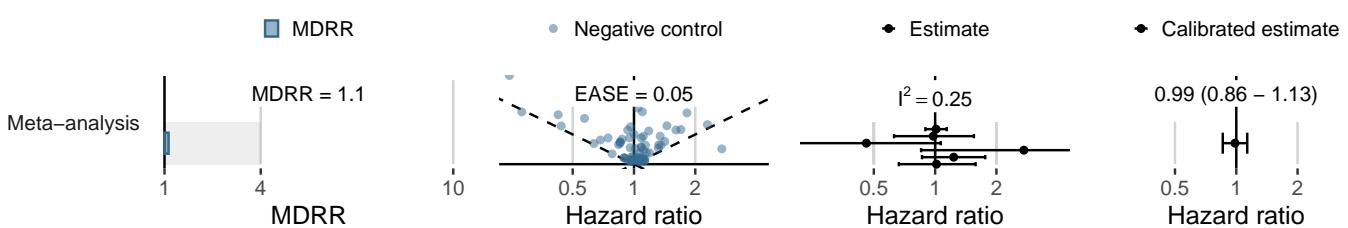
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,125	16,602	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	565,855	497,105	2,307	4.64
Merative CCAE	41,723	34,574	128	3.70
Merative MDCD	6,459	4,462	38	8.52
Merative MDCR	6,189	4,824	51	10.57
Optum Clininformatics	13,420	9,779	98	10.02
Optum EHR	52,765	25,423	156	6.14
Veterans Affairs	239	172	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



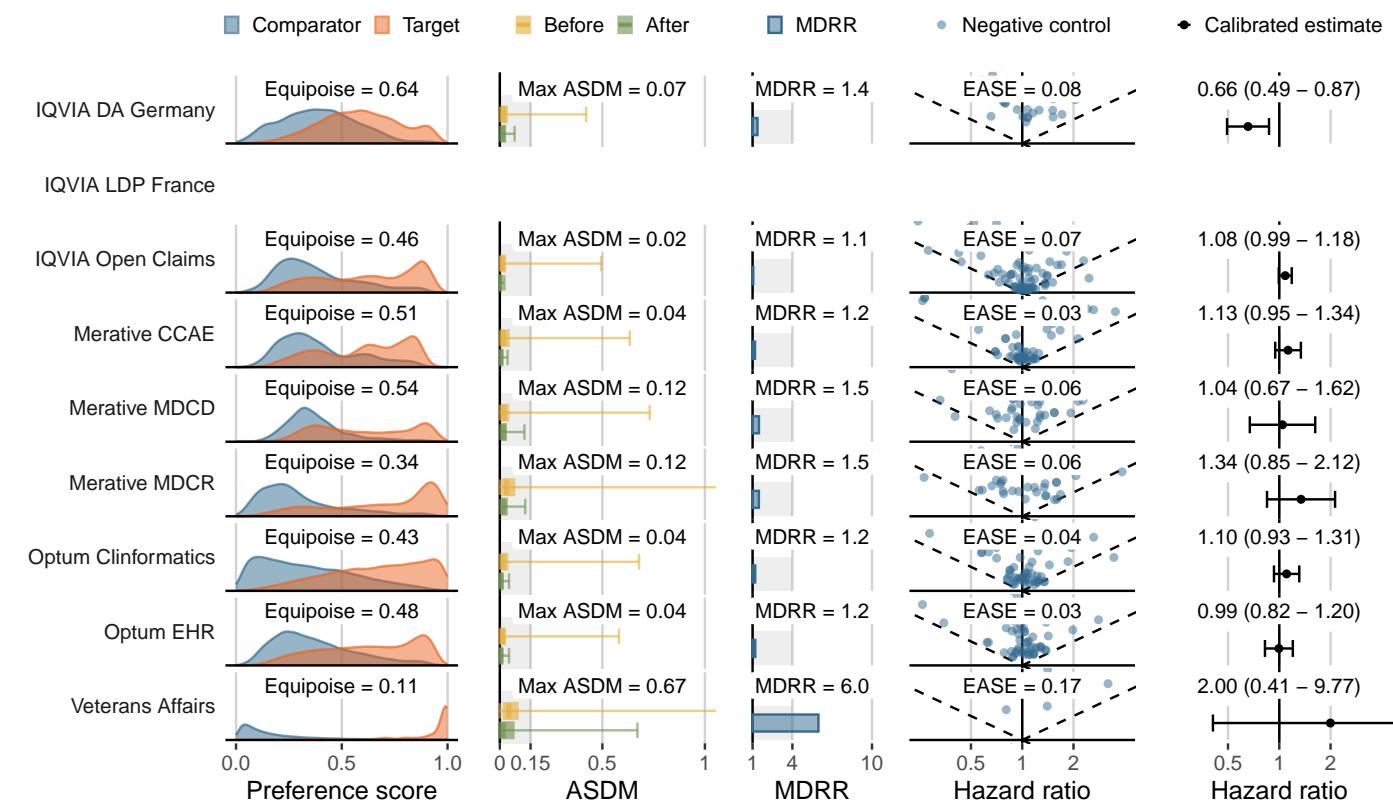
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Genitourinary infection**

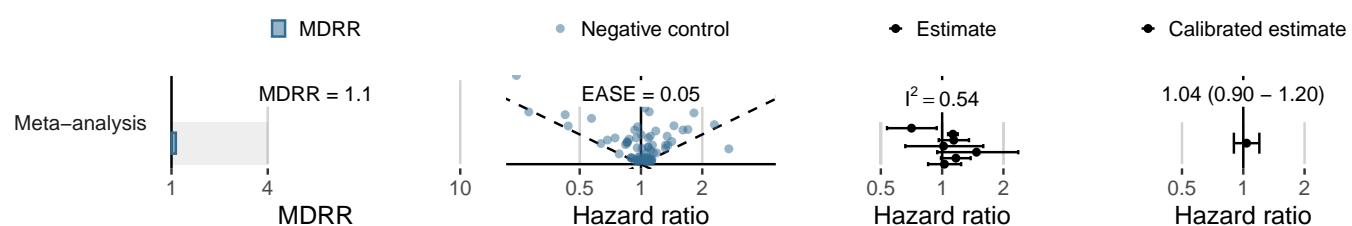
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	12,500	12,418	420	33.82
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	442,333	383,995	11,902	31.00
Merative CCAE	34,010	27,691	969	34.99
Merative MDCD	4,762	3,095	201	64.95
Merative MDCR	5,024	3,774	229	60.68
Optum Clininformatics	10,541	7,496	458	61.10
Optum EHR	44,966	20,810	945	45.41
Veterans Affairs	221	157	<10	<63.71

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



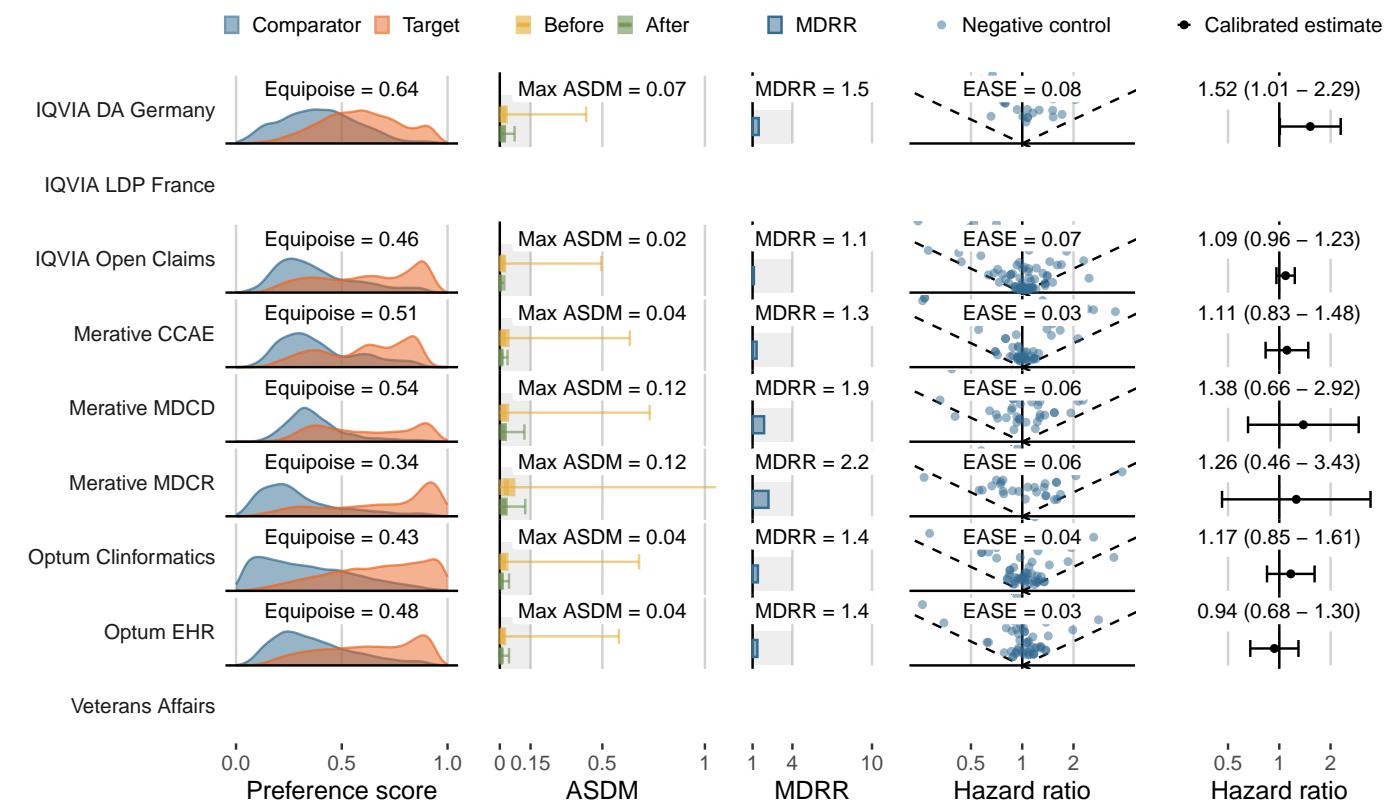
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Joint pain**

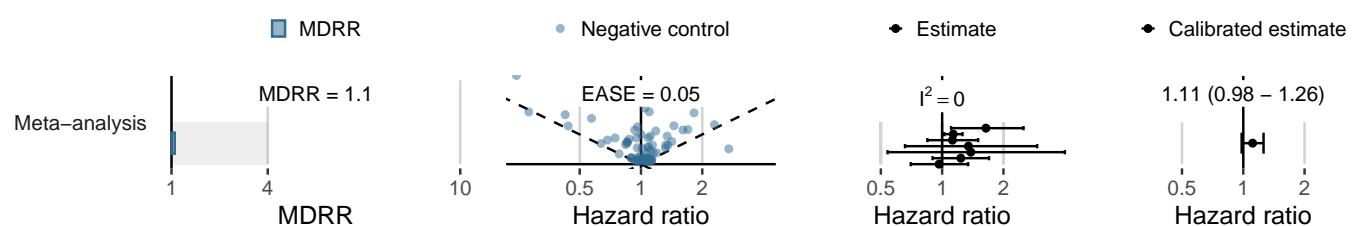
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	13,580	13,714	303	22.09
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	545,167	478,634	3,370	7.04
Merative CCAE	39,801	32,804	392	11.95
Merative MDCC	4,943	3,231	78	24.14
Merative MDCR	5,261	4,019	56	13.93
Optum Clininformatics	12,123	8,724	124	14.21
Optum EHR	50,448	24,065	324	13.46
Veterans Affairs	175	138	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



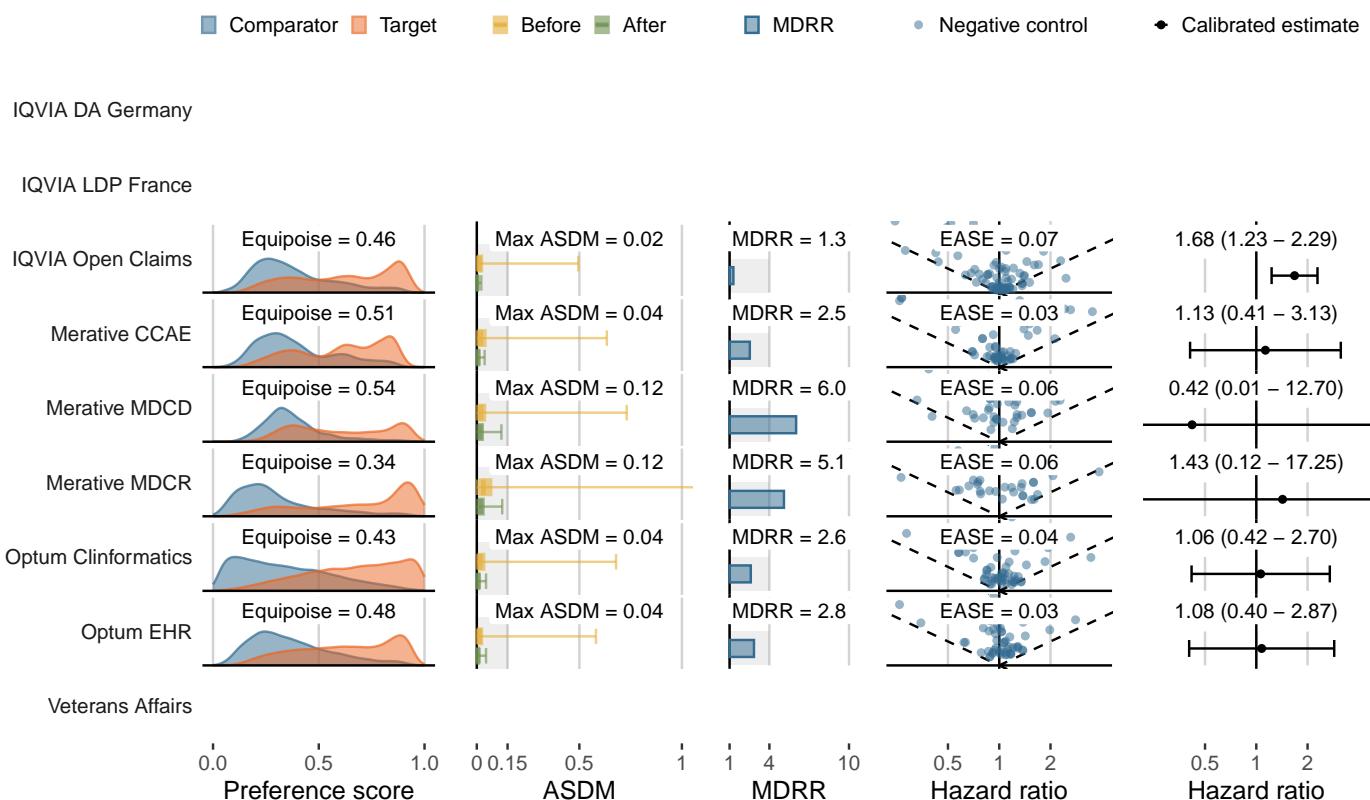
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Renal cancer**

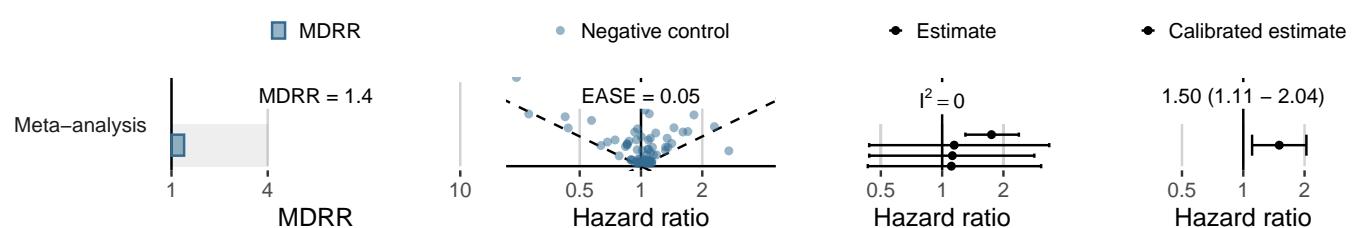
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,061	16,513	20	1.21
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	579,867	510,290	483	.95
Merative CCAE	42,390	35,218	34	.97
Merative MDCD	6,698	4,652	7	1.50
Merative MDCR	6,399	4,974	11	2.21
Optum Clininformatics	13,829	10,067	18	1.79
Optum EHR	53,324	25,773	29	1.13
Veterans Affairs	244	173	-	-.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



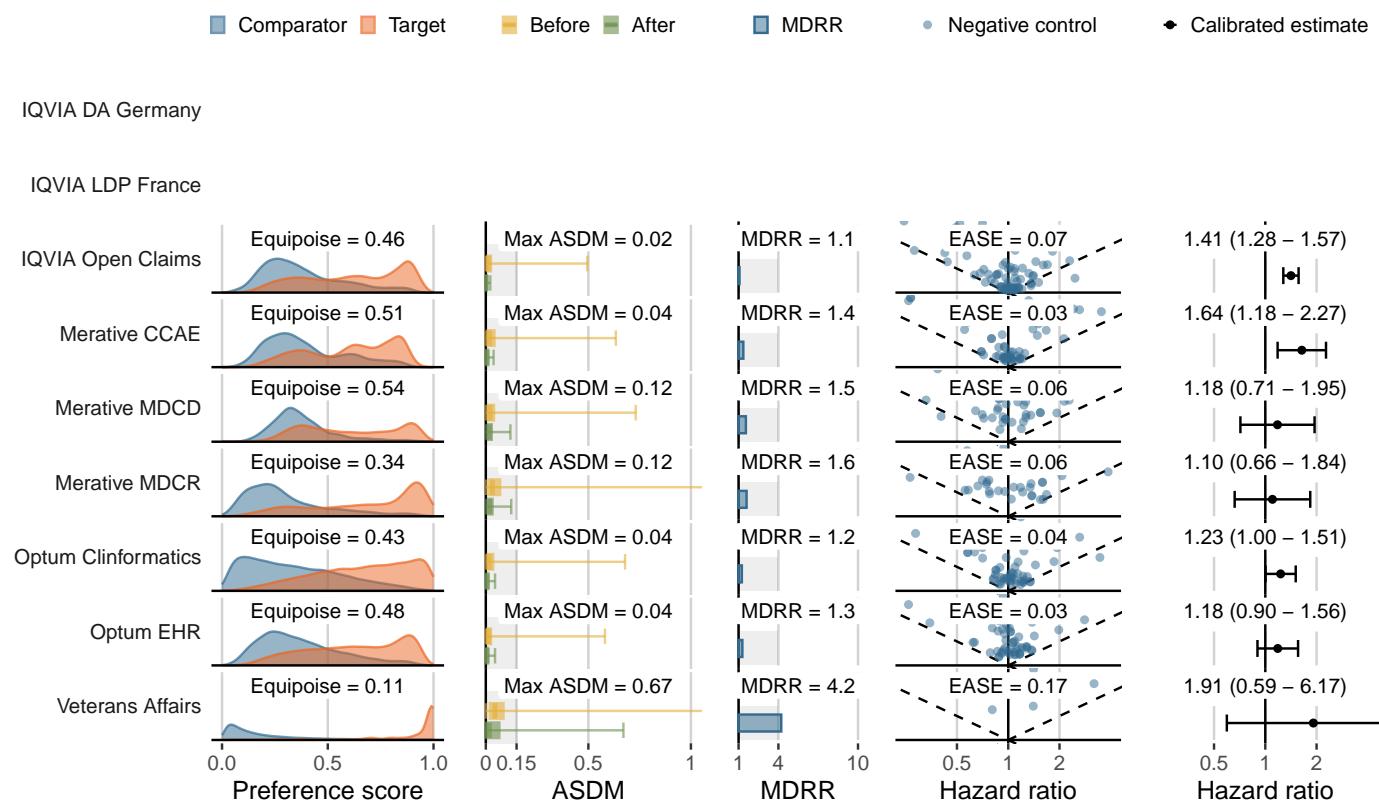
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Acute renal failure**

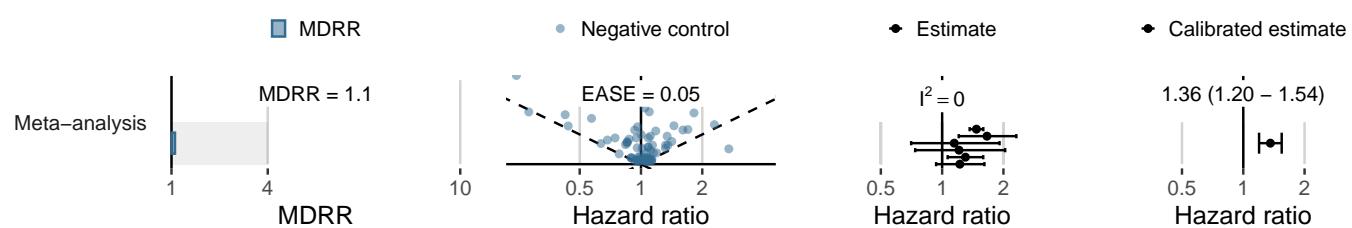
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,125	16,602	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	560,450	490,892	6,803	13.86
Merative CCAE	41,545	34,393	308	8.96
Merative MDCD	6,185	4,182	155	37.06
Merative MDCR	6,005	4,630	158	34.12
Optum Clininformatics	13,022	9,389	342	36.43
Optum EHR	52,491	25,070	519	20.70
Veterans Affairs	233	162	<10	<61.64

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



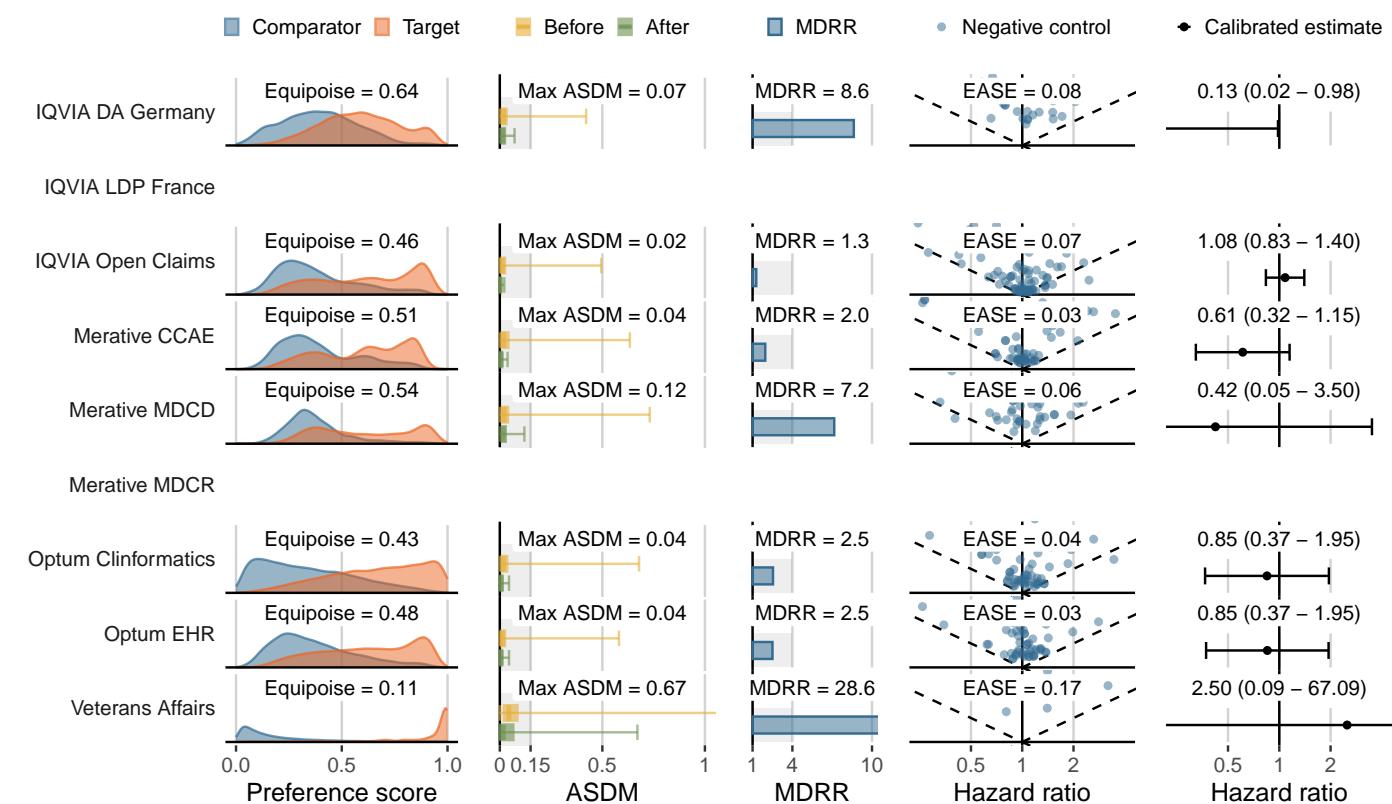
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Thyroid tumor**

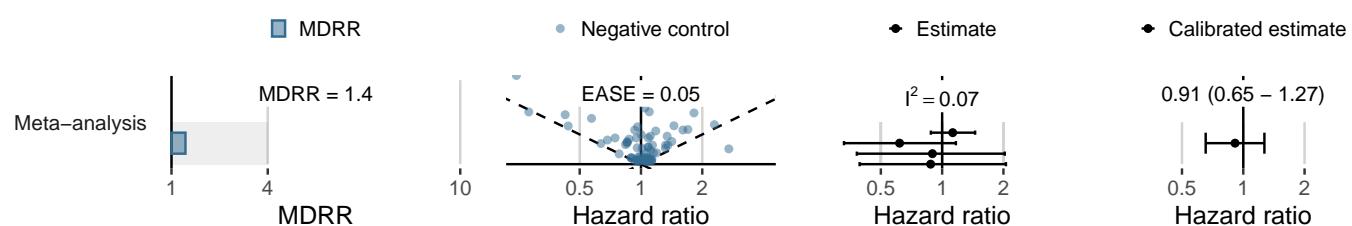
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,010	16,479	6	0.36
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	578,004	508,461	484	0.95
Merative CCAE	42,232	35,094	56	1.60
Merative MDCD	6,692	4,655	5	1.07
Merative MDCR	6,399	4,946	9	1.82
Optum Clininformatics	13,808	10,046	17	1.69
Optum EHR	53,242	25,741	31	1.20
Veterans Affairs	246	175	<10	<57.29

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



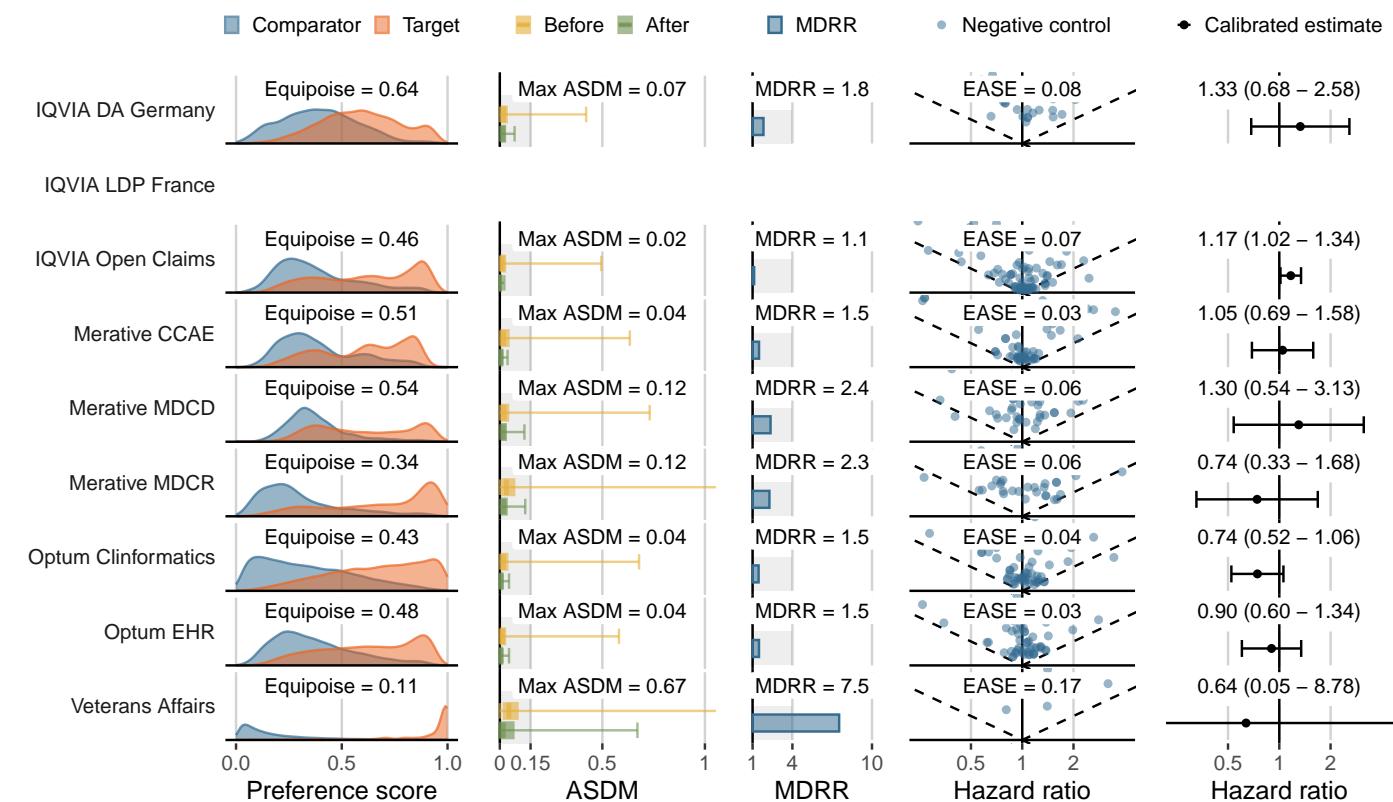
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Venous thromboembolic events**

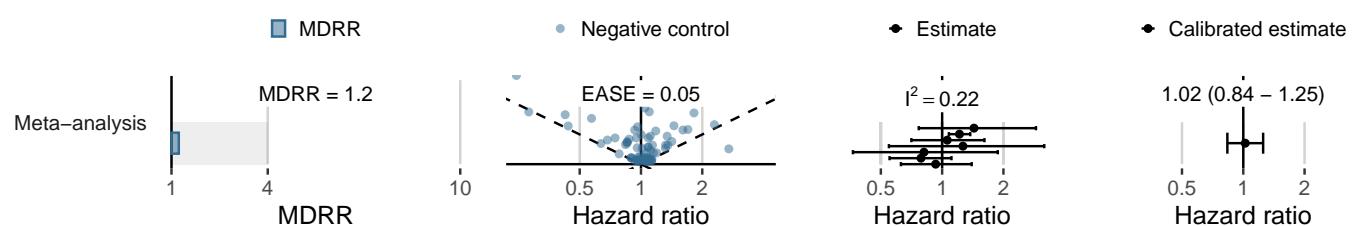
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	14,979	15,278	126	8.25
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	561,992	493,786	2,381	4.82
Merative CCAE	41,406	34,273	169	4.93
Merative MDCD	6,375	4,371	42	9.61
Merative MDCR	6,131	4,747	47	9.90
Optum Clininformatics	13,325	9,695	87	8.97
Optum EHR	52,007	24,938	201	8.06
Veterans Affairs	238	171	<10	<58.39

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



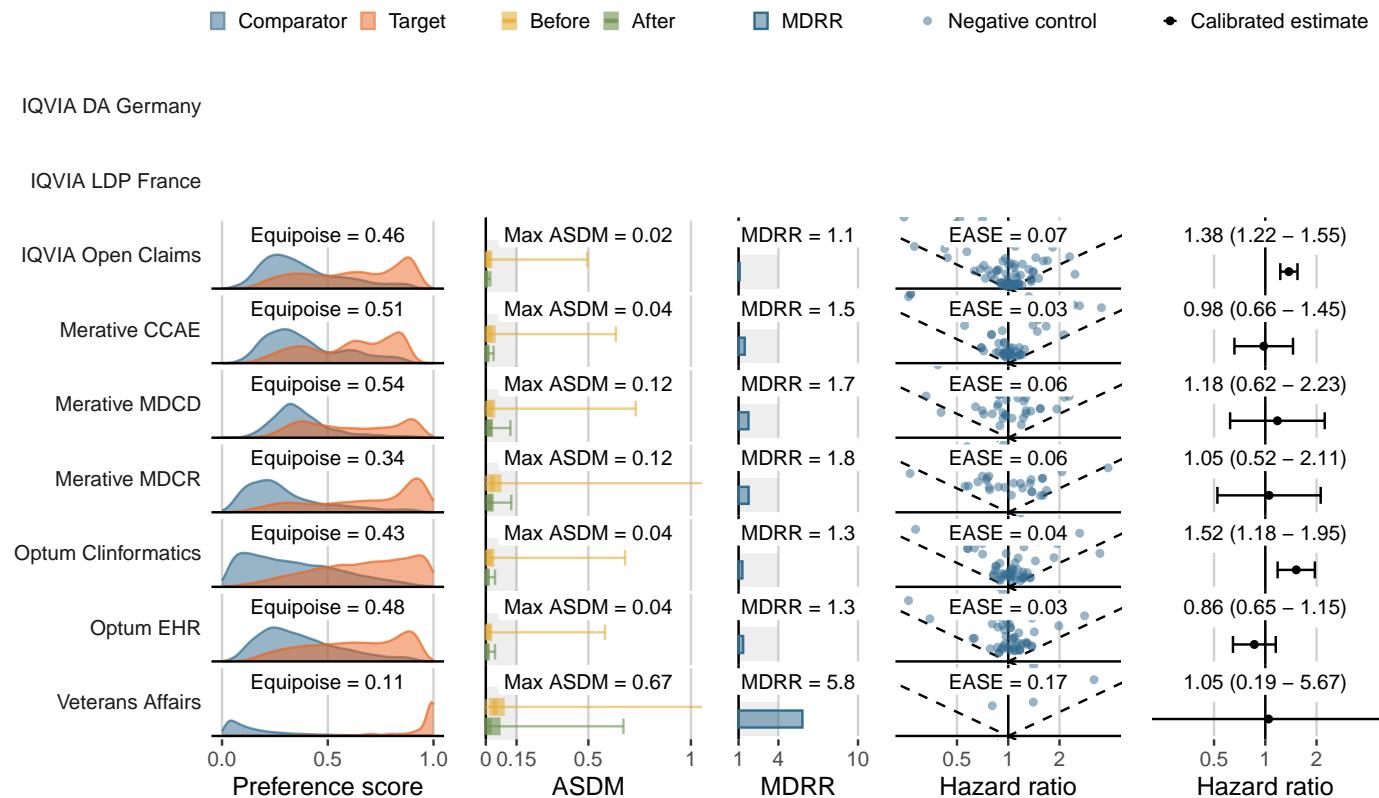
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Hospitalization with heart failure**

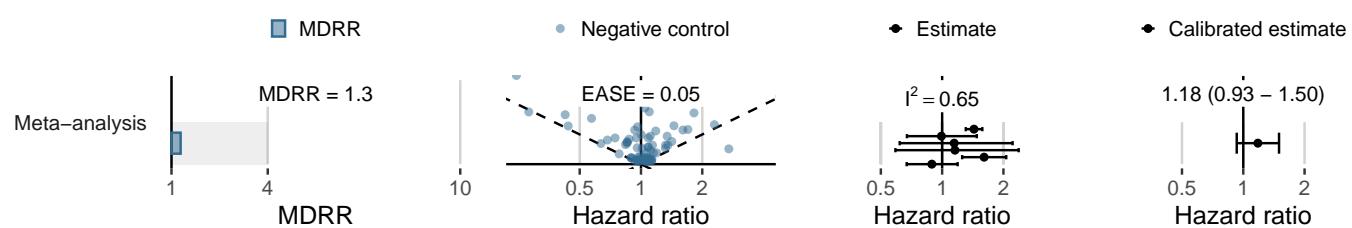
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,125	16,602	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	558,182	490,284	4,908	10.01
Merative CCAE	41,657	34,585	183	5.29
Merative MDCD	6,086	4,154	99	23.83
Merative MDCR	5,894	4,607	113	24.53
Optum Clininformatics	12,854	9,274	271	29.22
Optum EHR	52,350	25,080	347	13.84
Veterans Affairs	231	163	<10	<61.20

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



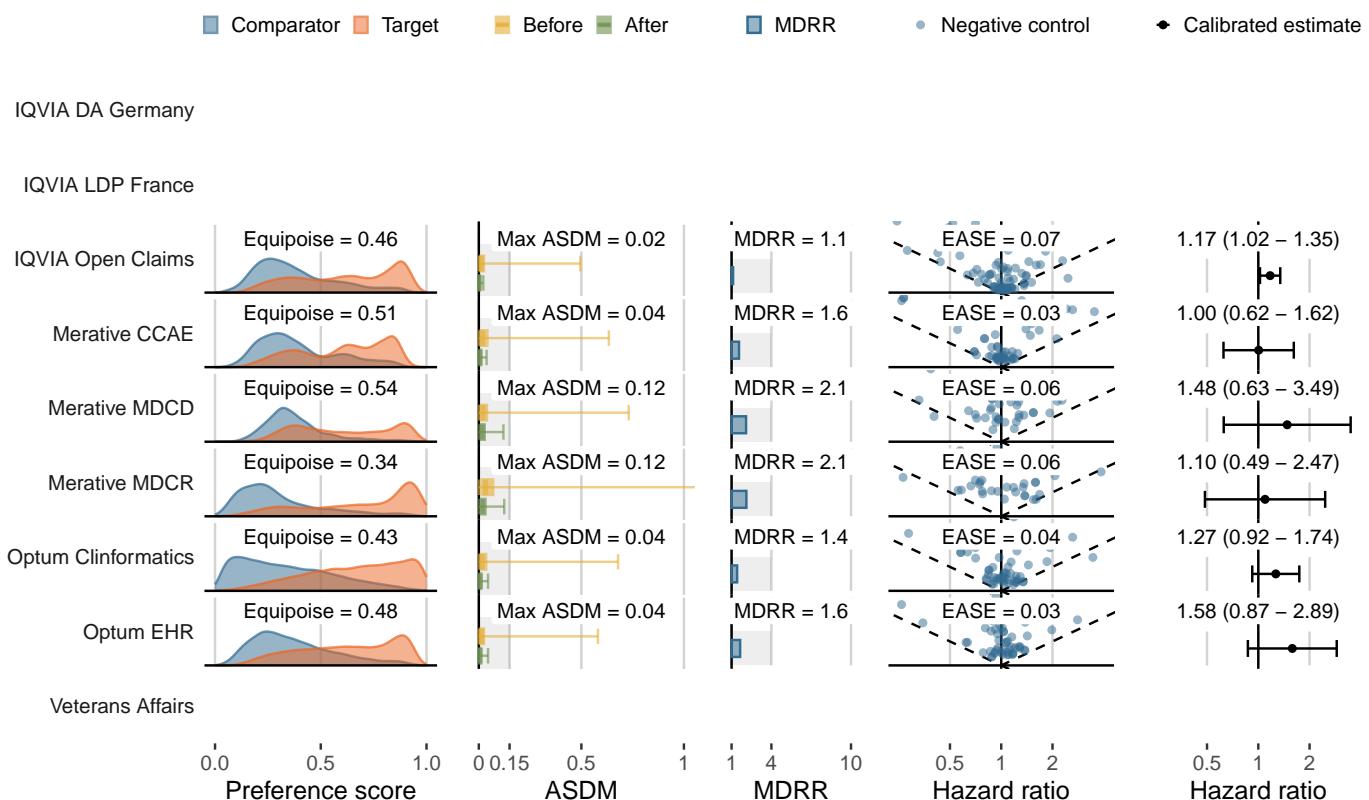
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Empagliflozin** (SGLT2 Inhibitors)
- Outcome: **Stroke**

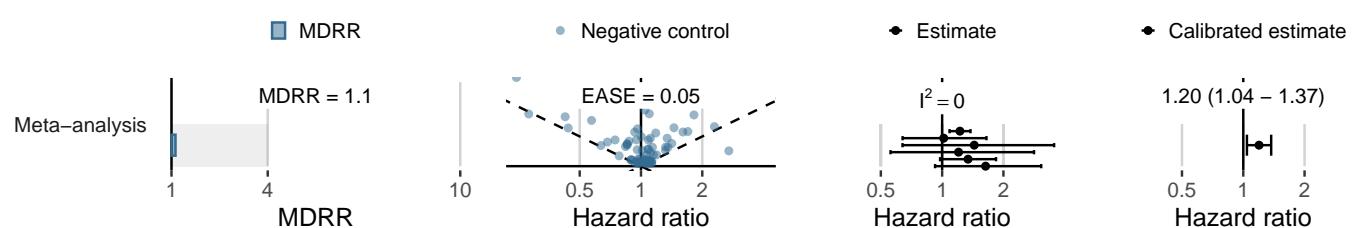
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	16,125	16,602	-	0.00
IQVIA LDP France	-	-	-	-
IQVIA Open Claims	565,413	497,410	2,654	5.34
Merative CCAE	41,858	34,808	133	3.82
Merative MDCD	6,381	4,429	59	13.32
Merative MDCR	6,125	4,738	58	12.24
Optum Clininformatics	13,378	9,711	139	14.31
Optum EHR	52,917	25,493	132	5.18
Veterans Affairs	241	180	-	0.00

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



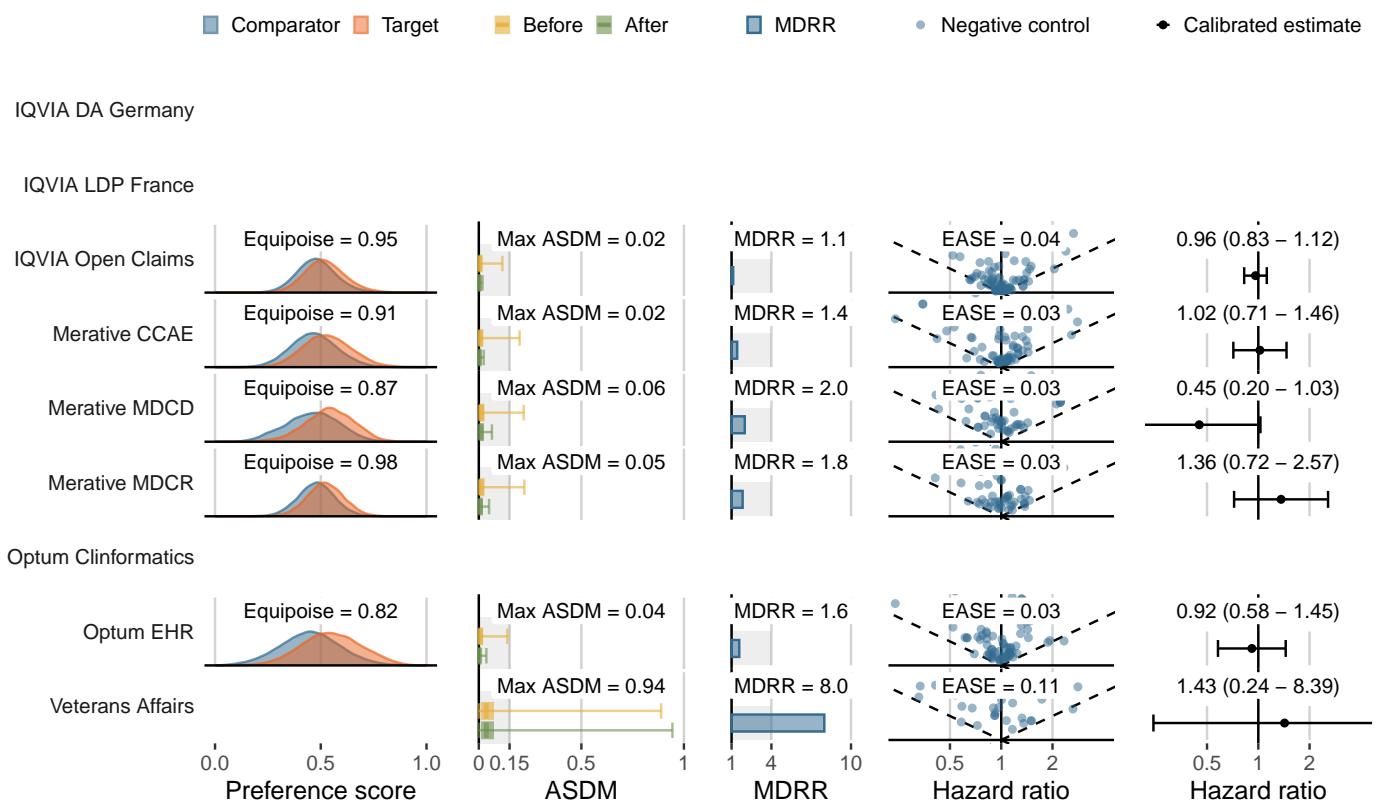
LEGEND-T2DM Evidence Dissemination Summary

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

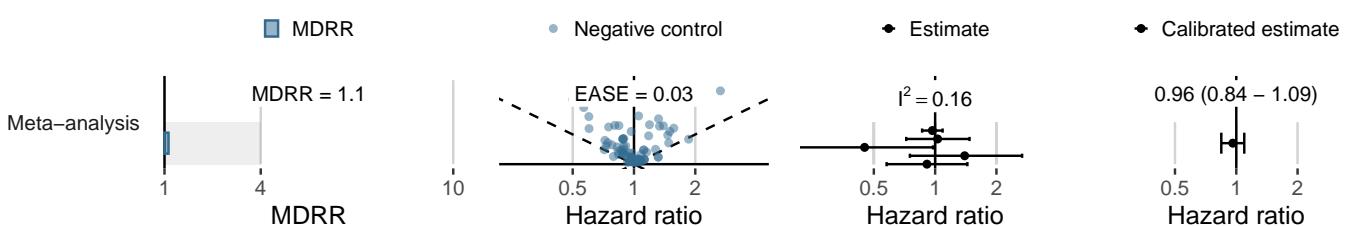
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,155	21,706	-	0.00
IQVIA LDP France	8,600	4,571	-	0.00
IQVIA Open Claims	671,326	601,962	1,205	2.00
Merative CCAE	81,531	69,285	162	2.34
Merative MDCD	6,949	5,059	21	4.15
Merative MDCR	15,268	14,523	50	3.44
Optum Clininformatics	-	-	-	-
Optum EHR	69,316	32,118	70	2.18
Veterans Affairs	1,064	1,125	<10	<8.89

How Reliable Are the Effect Estimates? (Objective diagnostics)



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



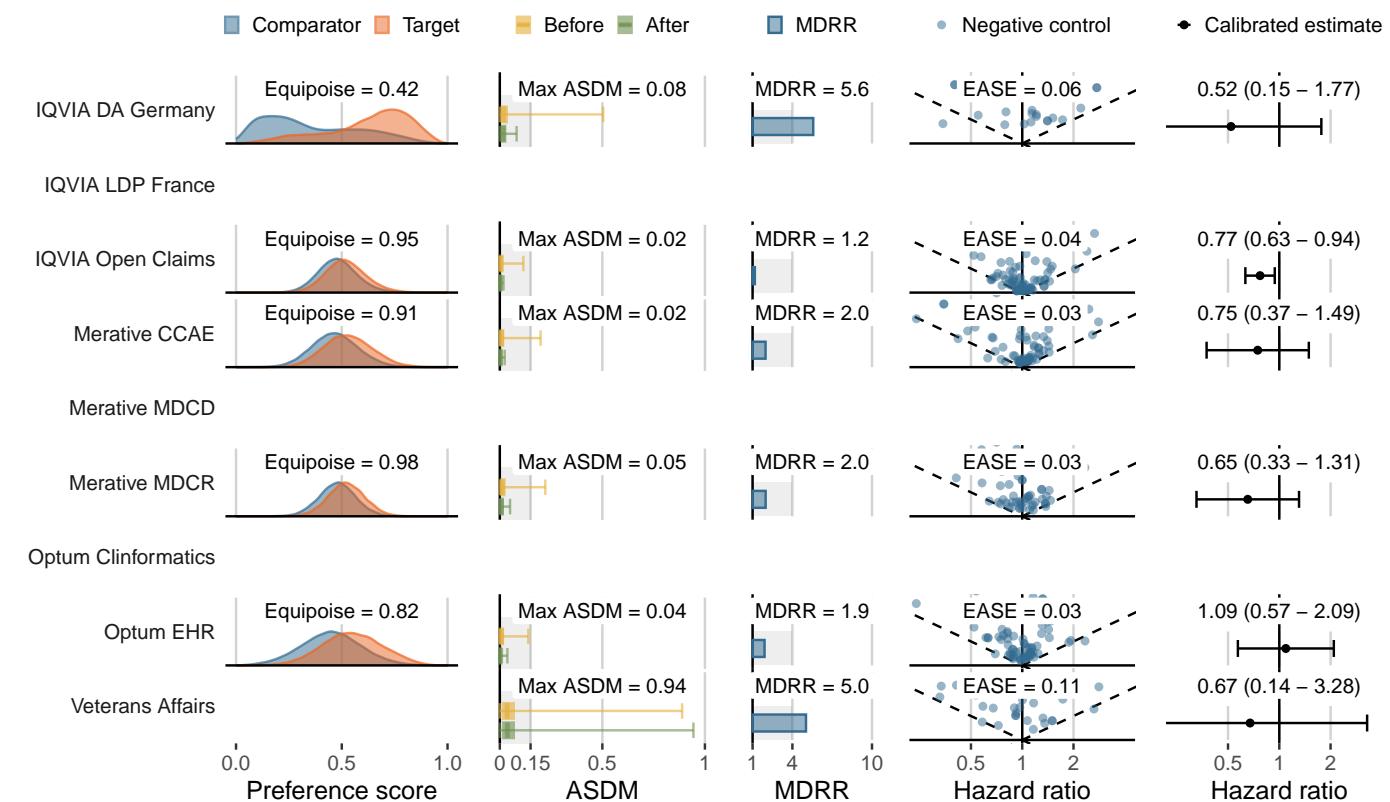
LEGEND-T2DM Evidence Dissemination Summary

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

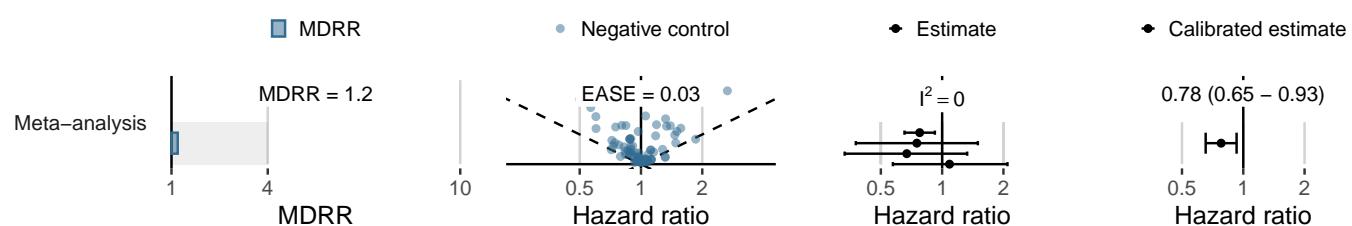
How Often? (Incidence rates in the PS-matched target cohorts)

Data source	Persons exposed	Person-time (yrs)	Persons with outcome	IR (/1,000 PY)
IQVIA DA Germany	20,066	21,606	15	0.69
IQVIA LDP France	8,593	4,564	<5	<1.10
IQVIA Open Claims	675,164	605,030	549	0.91
Merative CCAE	81,983	69,680	43	0.62
Merative MDCD	7,090	5,167	<5	<0.97
Merative MDCR	15,266	14,527	34	2.34
Optum Clininformatics	-	-	-	-
Optum EHR	69,393	32,144	36	1.12
Veterans Affairs	1,055	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)



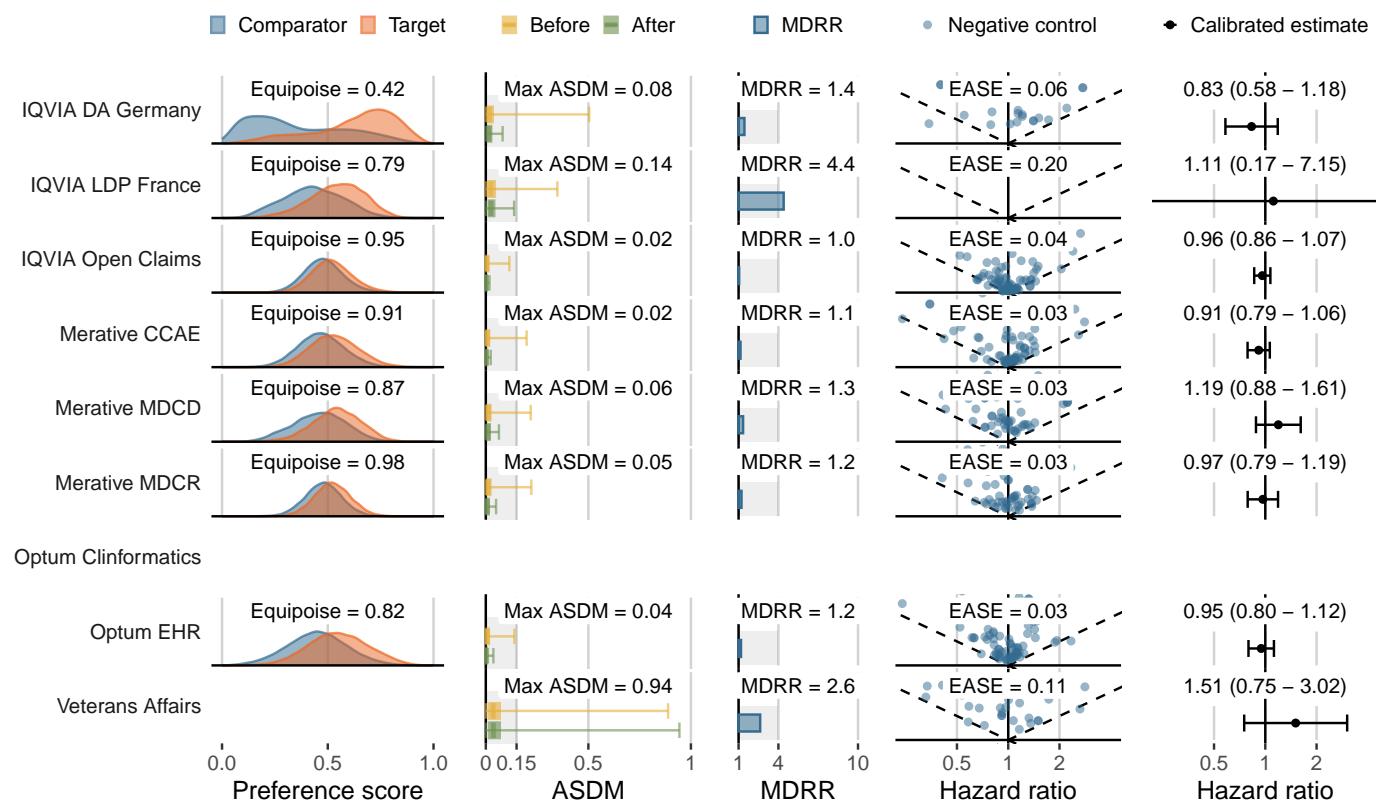
LEGEND-T2DM Evidence Dissemination Summary

- Target (class): **Sitagliptin** (DPP-4 inhibitors)
- Comparator (class): **Glimepiride** (Sulfonylureas)
- Outcome: **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	17,646	18,628	381	20.45
IQVIA LDP France	8,277	4,377	29	6.63
IQVIA Open Claims	594,442	525,895	8,980	17.08
Merative CCAE	75,456	63,017	1,111	17.63
Merative MDCC	6,133	4,299	153	35.59
Merative MDCR	13,518	12,510	445	35.57
Optum Clininformatics	-	-	-	-
Optum EHR	64,987	29,628	577	19.48
Veterans Affairs	988	1,028	11	10.70

How Reliable Are the Effect Estimates? (Objective diagnostics)



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

