

Databases available for pharmacoepidemiology researches in Japan (information obtained from survey answers as of August 2021)

Database name	Hospital-based										Insurance-based										Pharmacy-based					Others	
	NHO NCDAMA	4DN	HCRWD	LIS	MID-NET	MDV	JMDC	NCD	NDB	JMDC	Cross Fact	Jammet	MDV	DEIC	Cross Fact	KHVA NPA data	Nihon-Chourei	PFR	NHWS	PatientsMap							
Database organizer	National Hospital Organization	4DN (N.R. CC1)	Real World Data, Co., Ltd.	Life Data Institute	Pharmaceuticals and Medical Devices Agency	Medical Data Vision Co., Ltd.	JMDC Inc.	NCD	Ministry of Health, Labour and Welfare	JMDC Inc.	RYFACE Real World Inc.	Jammet	Medical Data Vision Co., Ltd.	DEIC	RYFACE Real World Inc.	KIVA Solutions Japan K.K.	Nihon-Chourei Institute Co., Ltd.	PFR	NHWS	ESPC TOKAI							
Database name	National Hospital Organization Clinical Data Archives NCDAM Medical Information Analysis	4DN Research Network	RWD database	Millennium Record	Medical Information Database Network (MD-NET)	EBM Provider®	JMDC Hospital-based Database	National Clinical Database	National Database of Health Insurance Claims and Specific Health Checkups of Japan	JMDC Payer-based Database	Cross Fact	Jammet database	EBM Provider®	DEIC data base	Cross Fact	KHVA NPA data	NHON-CHOZAN/Pharmacy Claims DB	PFR	NHWS	PatientsMap							
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Web site URL	https://www.nho.go.jp/ncdam/	https://4dn.com	https://www.rwd.co.jp	https://www.life-data.jp	https://www.md-net.jp	https://www.ebm-provider.jp	https://www.jmdc.jp	https://www.nccdb.jp	https://www.nccdb.jp	https://www.jmdc.jp	https://www.ryface.jp	https://www.jammet.jp	https://www.mdv.jp	https://www.deic.jp	https://www.crossfact.jp	https://www.khva.jp	https://www.nihon-chourei.jp	https://www.pfr.jp	https://www.nhws.jp	https://www.espc.jp							
General description of the database	Clinical database based on 87 NHO hospital information systems and 141 DPC/Receipt data	electronic collect, identify and summarize various data from medical institutions	Integrated database of medical information such as electronic medical record, claims and DPC data.	Database consists of electronic medical records from university hospitals, cancer hospitals.	The medical information Database network system for utilizing in safety assessment, managed by PMDA under the Act on the Pharmaceuticals and Medical Devices Agency	Administrative database for inpatient and outpatient records of 449 acute (mainly tertiary) hospitals in Japan	A case database that uses electronic medical records (clinical test results), and DPC survey data collected from 450+ DPC / non-DPC hospitals nationwide as sources. Includes a wealth of information on the elderly and inpatients.	Multidisciplinary registry platform initially developed by surgery related professional societies in Japan. Currently managing nationwide registries for various surgeries, interventions, pathology, as well as cancer registries. Also collects hospital based DPC claims data which can be used together with the registry data for research.	Database of health insurance claims for specific health checkups for implementation and evaluation of medical cost optimization policy.	Japan's largest epidemiological database consisting of medical claims, health checkup results, and subject-level data held by health insurance associations nationwide. Excellent patient follow-up ability (up to 15 years) and possession of a population including healthy individuals makes it possible to evaluate the prevalence and incidence of disease. In addition, it is connected to the PMO panel and it is possible to directly approach patients by questionnaire and article distribution.	Database based on health insurance, include all inpatient/outpatient dental receipt(except of Organ transplant patient and comment field for all patients).	Claims database using insurance programs	Health claims database from inpatient, outpatient, and pharmacy claims consists of 138 health insurance societies in Japan	The database is composed of anonymously processed information, based on claims data, medical history data, collected from Employee Health Insurance, National Health Insurance and Medical care system for the advanced elderly.	Pharmacy claims database combines edumail dispense records	Pharmacy claims database collecting dispense claims from 9,600 pharmacies nationwide. # of prescriptions: 1.47 million in 2020.	Claims database with pharmaceutical primary data (e.g. OTC, Formulations) visited one of the Nihon-Chourei/Pharmacies. Nihon-Chourei is the largest chain in Japan with 679 pharmacies nationwide	Analysis service of Pharmacy claims information listed in the Pharmacy claims is available. Reporting without the time lag is possible.	NHWS is a database based on a questionnaire survey of more than 2 million adults in 12 major countries, and provides for more than 200 diseases and conditions, not only prevalence, diagnosis, and treatment rates, but also characteristics such as QOL, WHL, severely comorbidities, medications used, and thoughts and behaviors (including adherence) toward medical care.	PatientsMap is a database developed by ESPI and ML, Inc. The database uncovers consultation rates and patient numbers of approximately 400 diseases in addition to new therapeutic needs and sales; no visitation rate for over 50 pharma companies based on online survey with 38,000+ physicians in Japan, UK and China.							
Data source	DPC (Formal 11), DPC (EE list), Medical claim, Pharmaco-claim, Electronic medical chart	Yes, Yes, Limited, Limited	Yes, Limited, Limited, Limited	Yes, Yes, Yes, Yes	Yes, Yes, Yes, Yes	Yes, Yes, Yes, Yes	Yes, Yes, Yes, Yes	Yes, Yes, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes	No, No, Yes, Yes							
Lab test results	Yes	Limited	Yes	Yes	Yes	Limited	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No							
Health checkups	No	Limited	No	No	No	No	No	No	No	No	Limited	No	Limited	No	No	No	No	No	No	No							
Reimbursement	No	Limited	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No							
Others, notes	No	No	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Limited	No	No	No	Yes	Yes	Yes	Yes							
Data source	No	No	Pathological diagnosis and results of pulmonary function tests are under development	No	DPC (DMS) DPC claims/blood test data is limited to some hospitals	H	DPC (non-DMS) (nonmonitoring/hospital care level)	sub-panel holders and patient panel connected to the claims	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Pharmacy	Pharmacy	Pharmacy	Pharmacy	Pharmacy							
Others, notes	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Insurance claims and special health checkups and specific health guidance data from all health insurance associations	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Pharmacy	Pharmacy	Pharmacy	Pharmacy	Pharmacy								
Number of organizations	141	218	49	23	449	454	5200	243	95	138	65	2444	9600	1500	38000	2000	2000	2000	2000								
Starting year	2016	2021	2015	2009	2008	2014	2011	2008	2005	2012	2008	2012	2021	2015	2015	2001	2021	2018	2011								
Notes	Starting year MA - 2011	By participating Hospitals	Depends on the timing of introduction of electronic medical records at medical institutions	Limited to patients consent to policy about opting out after July 2020. Data back periods for up to 6 years. Some hospitals are now planned to provide data since 2002 retrospectively.	Mainly from April 2010	2019	2021	2021	January 2005 - the latest month	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021								
Handling Anonymously	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Processed information	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Number of unique identifiers (approx. 10K people)	500	480	2300	530	3669	1400	1500	12000	1200	216	687	200	7434	1760	1050	200	1050	200	200								
Notes				As of December 2020				almost equal to total population in Japan	Cumulative number of patients since January 2005	Unique patient approx 8.3 million	Subscribers who have enrolled at least once during the total data period is counted as the total number of subscribers below.	Subscribers who have enrolled at least once during the total data period is counted as the total number of subscribers below.	Subscribers who have enrolled in the last year	Net number of patients since April 2015	The registrants are not faced because patients who visit pharmacies are targeted.	Net number of patients since April 2008	Aggregate of 1500 pharmacies	Aggregate of 1500 pharmacies	Aggregate of 1500 pharmacies								
Annual number of unique identifiers (latest)	200	40	151	1155	290	200	850	387	194	341	150	866	5012	310	230	3	2	2	2								
Notes	2020	2020	2020	2020	2020	2019	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020								
% coverage of population	NHWS 2.1% of Japanese population, MA approx. 17% of Japanese population	About 3.8% of Japanese population	1.2% (Annual number of unique identifiers divided by Japan's total population)	6.2% (covers 49 out of 779 hospitals with 400 beds or more nationwide (according to the report of Medical Facility Dynamics Survey Hospitals in the first year of Review))	about 9% of Japanese population (about 20% of total number for acute hospitals)	5.3% of the number of DPC/non-DPC hospitals	More than 95% of the surgeries performed in Japan	about 7% of the Japanese population (about 28% of the people belong to health insurance association)	Covers 5.62% of the total population in Japan (total population in 2020)	approx 2% of insurance programs	about 5.4% of Japanese population	1.6% (The Japanese population)	5% of annual prescription (Survey by Japan Pharmaceutical Association)	approx. 18.8% of total edumail dispense claims (based on Survey by Japan Pharmaceutical Association)	1.7% (annual prescription/Dispense/Pharmaco-claim/Association)	Aggregate of 1500 pharmacies	0.03% of adult population in Japan	7.5% Japan's total Number of doctors	7.5% Japan's total Number of doctors								
Annual N of outpatients (latest) (approx. 10K people)	200	30	126	1063	287	648	388.5	193	340	130	866	5012	310	230	3	2	2	2	2								
Annual N of inpatients (latest) (approx. 10K people)	63	10	22	212	52	34	19.4	3.1	18	8	58	60	191	68	80	66	66	66	66								
Annual N of treated diabetes patients (latest) (approx. 10K people)		11	75	172	45	47	45.2	28	21	70	48.4	20	20	20	20	20	20	20	20								
Definition		The number of patients with the disease of ICD10 E10-E14. The number of patients that a diabetes medicine was prescribed.	patients diagnosed with diabetes mellitus (ICD10 E10-E14)	ICD10 E10-E14 (exclude suspected cases)	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14	ICD10 E10-E14								
Annual N of influenza (diagnosed patients) (latest) (approx. 10K people)		1.3	16	0.8	0.925	2	40.1	4.4	16	6	0.65	0	0	0	0	0	0	0	0								
Definition		The number of patients with the disease of ICD10 J10, J11. The number of patients that a influenza medicine was prescribed.	patients diagnosed with influenza virus infection (ICD10 J10, J11)	ICD10 J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11	ICD10 J09, J10, J11								
Number of patients followed	21 year (approx. 10K people)	368	1504	1054	587.8	107	515	165	543	130	866	5012	310	230	3	2	2	2	2								
Notes	23 year (approx. 10K people)	258	882	610	326.1	109	541	160	561	130	866	5012	310	230	3	2	2	2	2								
Age Distribution	0 - 14 years old (approx. 3%)	7	11.2	4.8	12	14.2	8	17	20.28	19	21.8	7.4	15	14.2	9.1	0	0	0	0								
Age distribution notes	15 - 64 years old (approx. 58%)	38	53.1	55.3	48	48	77.21	58	77.21	58	77.21	58	77.21	58	77.21	58	77.21	58	77.21								
Age distribution notes	65 - 74 years old (approx. 14%)	23	14.6	12.8	19	16.4	21	4	3.49	17	2.1	18.8	14	15.1	17.5	33	33	33	33								
Age distribution notes	75 years old or older (approx. 5%)	30	21.1	27	21	18.7	30	0	0.04	6	0	15.3	15	18.3	21.4	20	20	20	20								
Procedures (data availability)	Any available master	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Reimbursement code	Yes	Limited	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Hospital original code	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Others, notes	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Limited	No	No	No	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	No	No	Yes	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Date of prescription	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Date of dispensing	Yes	Limited	No	Limited	No	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Date of supply	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (out-of-hospital)	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Procedures (data availability)	Dispensing (in-hospital)	Yes																									