



Common Data Architecture for Life Sciences

CDA.LS.HCP Kernel Overview

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Owner: Arno Sosna

Overview

In the Life Sciences industry, a Healthcare Professional (HCP) is broadly defined as a person involved in the delivery or administration of healthcare services related to a medicine, medical device, medical diagnostic, or therapy. This encompasses not only individuals with professional healthcare training, such as physicians, nurses, and pharmacists, but also those in administrative, managerial, and support roles within healthcare organizations (HCOs), including office managers and administrative staff. HCP data is used for a wide variety of research and development, and commercial purposes.

The HCP kernel defines a standard nomenclature and format for the storage and exchange of HCP data. It describes the most common entities, attributes, and picklist items related to healthcare professionals. These are collectively referred to as components. Like all kernels, the HCP kernel is intentionally small and describes only the most common components.

Entities

The HCP kernel consists of the following entities.

Name	Label	Description
HCP	HCP	Information about a Healthcare Professional (HCP), broadly defined as an individual who plays a role in the development, testing, manufacturing, or commercialization of life science products, or in the delivery and administration of healthcare services related to these products.
HCP_Segment	Segment	A grouping of HCPs based on shared characteristics, behaviors, preferences, or needs. Typically used to tailor marketing, sales, and support efforts more effectively, by acknowledging that different groups may require different approaches or products.
Address	Address	Location information associated with an HCP.

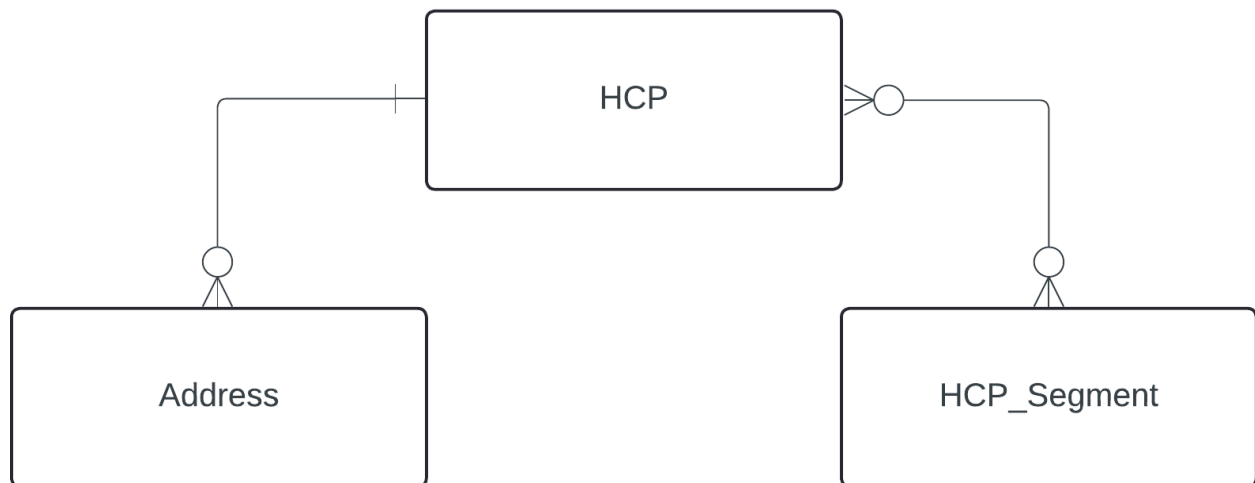
Entity Relationships

In practice, HCPs are often related to instances of other entities. For example, an HCP may be affiliated with multiple healthcare organizations (HCOs).

Within the context of the HCP kernel, relationships and their cardinalities are shown in the following table.

Relationship	Cardinality	Notes
HCP to Address	1:1 to 1:N	An HCP always has one or more addresses, and no address can exist without a related HCP. If an HCP has one or more addresses, exactly one is defined as the Primary address. This is the purpose of the Primary attribute in the HCP Address entity definition.
HCP to HCP_Segment	0:N to 0:N	An HCP can be related to any number of segments, and a segment can be related to any number of HCPs.

These relationships can be represented visually by the following entity relationship diagram.



HCP Attributes

The **HCP** entity consists of the following attributes.

Name	Label	Data Type	Description
VeevaID	Veeva ID	Text 25	Global identifier from Veeva data products

first_name	First Name	Text 50	Given name as officially recorded in professional or legal documents.
last_name	Last Name	Text 50	Family or surname as officially recorded in professional or legal documents.
middle_name	Middle Name	Text 50	Secondary given name or initial as officially recorded in professional or legal documents.
prefix	Prefix	Text 10	Salutation or title used before a person's name, such as Mr., Mrs., Dr., etc.
suffix	Suffix	Text 10	Includes professional credentials or generational titles such as I, II, III, IV, but excludes medical degrees.
language	Primary Language	Picklist	Primary spoken and written language.
email	Primary Email	Text 80	Primary email address.
mobile_phone	Mobile Phone	Text 40	Primary mobile phone number. May include country code including non-alphanumeric characters. e.g. +, -, (,)
office_phone	Office Phone	Text 40	Primary office phone number. May include country code including non-alphanumeric characters. e.g. +, -
fax	Fax	Text 40	Primary fax. May include country code including non-alphanumeric characters. e.g. +, -
country	Primary Country	Picklist	Country from primary address.
state	Primary State	Picklist	State, province, or regional area from primary address.
city	Primary City	Text 40	City or municipality from primary address.
postal_code	Primary Postal Code	Text 20	Postal code from primary address. May include non-alphanumeric characters. e.g. -
hcp_type	Type	Picklist	The role an individual plays in the life sciences industry, spanning from the development and commercialization of life science products to their delivery and administration in healthcare settings.

nhid	National Healthcare ID	Text 40	Unique identifier assigned to healthcare professionals within a country's healthcare system.
spec_1	Primary Speciality	Picklist	The primary medical field or expertise area to which the healthcare professional belongs. Uses the list of specialties.
all_spec	All Specialties	Multivalue Picklist	All medical fields and expertise areas to which the healthcare provider belongs. Uses the list of specialties.
spec_group_1	Primary Specialty Group	Picklist	The primary overarching medical field or expertise area to which the healthcare provider belongs. Uses the list of global specialties.
all_spec_group	All Specialty Groups	Multivalue Picklist	All overarching medical fields and expertise areas to which the healthcare provider belongs. Uses the list of global specialties.
prescriber	Prescriber	Boolean	Indicates whether the individual is authorized to prescribe medications.
degree_1	Primary Medical Degree	Picklist	The primary medical qualification or degree obtained.
all_degree	All Medical Degrees	Multivalue Picklist	Additional medical qualification or degree obtained.
status	Status	Picklist	Indicates whether the healthcare professional is currently active and working or not.
level	Level	Picklist	Indicates the level of importance of this individual to the company, where level 5 indicates the highest level of importance. Can be used to drive business rules. For example: You may want to limit personalized promotions to levels 3 and below. You may also require a single relationship owner for level 5.
adopter_type	Adopter Type	Picklist	A categorization of the individual based on their willingness and speed to adopt new medical technologies, treatments, practices, or products.
kol	Key Opinion Leader	Boolean	Recognized as a key opinion leader in the industry.

investigator	Investigator	Boolean	Indicates whether the individual is involved in running clinical research studies.
speaker	Speaker	Boolean	Indicates whether the individual is engaged in speaking roles at professional gatherings or educational events for the company.
target	Target	Boolean	Indicates whether the individual is a target for one or more brands of the company.

HCP Segment Attributes

The **HCP Segment** entity consists of the following attributes.

Name	Label	Data Type	Description
hcp	HCP	Entity (HCP)	HCP that belongs to this segment.
name	Name	Text 50	Name of the segment.
source	Source	Text 50	Source system the segment was created in.

HCP Address Attributes

The **HCP Address** entity consists of the following attributes.

Name	Label	Data Type	Description
hcp	HCP	Entity (HCP)	HCP associated with this address.
primary	Primary	Boolean	Indicates whether this represents the individual's primary address. Only one address can be marked as Primary.
street_address_1	Street Address 1	Text 80	Residential or business street address information including house number and street name.
street_address_2	Street Address 2	Text 100	Additional address details, such as apartment, suite, or building number.
country	Country	Picklist	Name of country.

state	State	Picklist	Name of state, province, or regional area.
city	City	Text 40	Name of city or municipality.
postal_code	Postal Code	Text 20	May include non-alphanumeric characters. e.g. -
latitude	Latitude	Text 15	Geographic coordinate specifying north-south position.
longitude	Longitude	Text 15	Geographic coordinate indicating east-west position.
phone	Phone	Text 40	Phone number. May include country code including non-alphanumeric characters. e.g. +, -
fax	Fax	Text 40	Fax number. May include country code including non-alphanumeric characters. e.g. +, -
status	Status	Picklist	Indicates whether this address is currently usable for contact purposes.
home	Home	Boolean	Indicates whether this represents a home address.
business	Business	Boolean	Indicates whether this represents a business address.
billing	Billing	Boolean	Indicates whether this represents a billing address.
shipping	Shipping	Boolean	Indicates whether this represents a shipping address.
sample_shipping	Sample Shipping	Boolean	Indicates whether this represents a shipping address that can accept medical shipments.

HCP Primary Language Picklist Items

The HCP **Primary Language** picklist consists of the following items based on names from the [ISO 639 standard](#) for language classification. This list is a subset of the ISO 639 language codes.

Label	Name
Albanian	SQ
Amharic	AM
Arabic	AR

Azerbaijani	AZ
Belarusian	BE
Bengali	BN
Bosnian	BS
Bulgarian	BG
Burmese	MY
Catalan	CA
Chinese	ZH
Croatian	HR
Czech	CS
Danish	DA
Dutch	NL
English	EN
Estonian	EE
Filipino	TL
Finnish	FI
French	FR
Georgian	KA
German	DE
Greek	EL
Hebrew	HE
Hindi	HI
Hungarian	HU
Icelandic	IS
Irish	GA
Italian	IT
Japanese	JA
Kannada	KN
Kazakh	KK
Korean	KO
Latvian	LV
Lithuanian	LT
Macedonian	MK
Malay	MS
Malayalam	ML

Mongolian	MN
Nepali	NE
Norwegian	NO
Oromo	OM
Pashto	PS
Persian	FA
Polish	PL
Portuguese	PT
Punjabi	PA
Romanian	RO
Russian	RU
Serbian	SR
Slovak	SK
Slovenian	SL
Spanish	ES
Swahili	SW
Swedish	SV
Tamil	TA
Thai	TH
Turkish	TR
Ukrainian	UK
Urdu	UR
Uzbek	UZ
Vietnamese	VI
Yoruba	YO

HCP Primary Country Picklist Items

See *Country Picklist Items* below.

HCP Primary State Picklist Items

See *State Picklist Items* below.

HCP Type Picklist Items

The HCP **Type** picklist consists of the following items.

Label	Name	Description
Office Staff	STAF	Manages organizational tasks, processes, and makes decisions for healthcare organizations. Not normally directly involved in patient care.
Pharmacist	PHAR	Analyzes, formulates, dispenses, and advises on medications.
Executive	EXEC	Involved in decision-making at a healthcare-related organization. Not normally directly involved in patient care.
Nurse	NURS	Performs patient care, technical procedures, and administrative tasks. Normally holds a nursing degree. Does not regularly prescribe medicine.
Physician	PHYS	Provides general and specialized medical treatment to patients. Normally holds an MD (Doctor of Medicine) or DO (Doctor of Osteopathic Medicine) degree.
Caregiver	CARE	Provides care on a paid basis but does not hold the most advanced medical degrees. Includes dentists, nurse practitioners, physician assistants, emergency medical technicians, physical therapists, psychologists, dental assistants, opticians, veterinarians, and other allied health professionals.
Other	OTHR	A healthcare professional who does not fit into one of the above categories.

HCP Specialty Picklist Items

The HCP **Primary Specialty** and HCP **All Specialties** picklists consist of the following items. Each specialty belongs to a specialty group. See *HCP Specialty to Specialty Group Mapping* below.

Label	Name	Description
Abdominal Surgery	SUAB	Diagnosis and surgical treatment of abdominal conditions. Includes visceral surgery.
Addiction Medicine	AM	Diagnosis, treatment, and prevention of addiction. Includes Addiction Psychology & Counseling.
Addiction Psychiatry	AMPY	Diagnosis and treatment of drug, alcohol, and other substance-related disorders with psychotherapy and prescriptions.
Administrative Medicine	AD	Management and administration in a healthcare organization.

Advanced Heart Failure	CDHF	Treatment of heart failure patients with persistent symptoms despite previous therapies.
Allergy	IYAL	Diagnosis and treatment of allergies. Also known as Allergology.
Alternative Medicine	AL	Non-conventional treatment of conditions. Includes Acupuncture, Homeopathy, Oriental Medicine, and Naturopathic Medicine.
Anesthesiology	AE	Management of consciousness, pain control, and muscle relaxation during medical procedures.
Angiology	IMAN	Diagnosis, treatment, and prevention of diseases of the arteries, veins, and lymph system. Includes Phlebology and Vascular Medicine.
Cardiac Electrophysiology	CDEP	Diagnosis, treatment, and management of disorders of the heart's electrical system. Also known as Clinical Cardiac Electrophysiology.
Cardiology	CD	Diagnosis, treatment, and prevention of disorders of the cardiovascular system. Including Congenital Heart Diseases.
Cardiothoracic Surgery	SUCT	Surgical treatment of diseases affecting organs within the thorax, including the heart, lungs, and esophagus. Includes Congenital Cardiac Surgery. Also known as Cardiothoracic Surgery.
Colorectal Surgery	SUCR	Surgical treatment of the rectum, anus, and colon. Also known as Proctology.
Dentistry	DT	Diagnosis, treatment, and prevention of diseases and conditions of the oral cavity. Includes Orthodontics, Periodontics, Endodontics, Prosthodontics, and Aesthetic Dentistry.
Dermatologic Surgery	SUDM	Surgical treatment of specific types of high-risk and complex skin cancers. Also known as Micrographic Dermatologic Surgery.
Dermatology	DM	Diagnosis and treatment of benign and malignant disorders of the skin, hair, nails, and adjacent mucous membranes. Includes Dermatopathology.
Diabetes	EDDM	Diagnosis, treatment, and prevention of Diabetes Mellitus. Also known as Diabetology.
Emergency Medicine	EM	Treatment of acute illnesses or injuries requiring immediate attention.
Endocrinology	ED	Diagnosis and treatment of hormone-related diseases and conditions.
Endoscopy	IMEN	Diagnosis, treatment, and prevention of diseases by procedures conducted inside the patient's body using

		direct visualization.
Family Medicine	GPFM	Diagnosis, treatment, and prevention for all family members across all ages, genders, diseases, and parts of the body. Includes Family Practice.
Gastroenterology	GE	Diagnosis, treatment, and prevention of diseases of the digestive system, including stomach, intestines, liver, gallbladder, biliary tree, and pancreas.
General Practice	GP	Diagnosis, treatment, and prevention of common and chronic diseases in children and adults. Includes General Medicine.
Genetics	GN	Diagnosis, management, and counseling of patients with, or at risk of, hereditary disorders. Includes Medical and Clinical Genetics.
Geriatric Psychiatry	GRPY	Diagnosis, treatment, and prevention of mental disorders in elderly patients.
Geriatrics	GR	Diagnosis, treatment, and prevention of physical, mental, and social health issues with respect to elderly patients. Includes Gerontology.
Gynecological Oncology	ONGY	Diagnosis, treatment, and prevention of cancers of the female reproductive tract.
Gynecology	GY	Diagnosis, treatment, and prevention of diseases and conditions of the female reproductive system. Includes surgical treatment and Uro-Gynecology. Also known as Women's health.
Hand Surgery	SUHN	Surgical treatment of hand disorders.
Hematology	HM	Diagnosis and treatment of diseases of the blood and blood-forming organs. Excludes cancers. Includes Transfusion Medicine.
Hematology/Oncology	ONHM	Diagnosis and treatment of blood cancers.
Hepatology	GEHP	Diagnosis, treatment, and prevention of diseases of the hepatic system including liver, gallbladder, biliary tree, and pancreas.
Hospital Medicine	GPHM	Management of acutely ill patients through the continuum of hospital care.
Immunology	IY	Clinical and laboratory care of patients with diseases due to disordered immunity.
Infectious Diseases	ID	Diagnosis, treatment, and prevention of infections, including bacterial, viral, fungal, and parasitic infections. Includes Sexually Transmitted Diseases, also known as Venereology, such as HIV Medicine.
Intensive Care Medicine	IMIC	Diagnosis and treatment of life-threatening conditions that may require life support and monitoring. Also known as

		Critical Care Medicine.
Internal Medicine	IM	Diagnosis, non-surgical treatment, and prevention of diseases from internal organs in adult patients. Includes Adult Health.
Interventional Cardiology	CDIC	Interventional diagnosis and treatment of cardiovascular diseases using catheters.
Laboratory Medicine	PTLM	Diagnosis and prevention of diseases via laboratory analysis.
Legal Medicine	ADLG	Study and application of scientific and medical knowledge to legal problems. Also known as Medical Jurisprudence.
Maxillofacial Surgery	SUMX	Surgical treatment of diseases, injuries, and defects of the face, oral cavity, head, neck, and jaws.
Microbiology	IDMB	Identification of microorganisms for the diagnosis and treatment of infectious diseases. Includes Virology, Bacteriology, and Parasitology.
Midwifery	GYMY	Care for childbearing women, newborn infants, and families before, during, and shortly after pregnancy.
Nephrology	NP	Diagnosis and treatment of kidney diseases. Includes Dialysis.
Neurology	NY	Diagnosis and treatment of conditions affecting the nervous system. Includes Stroke Medicine, Brain Injury Medicine, and Vascular Neurology.
Neuromuscular Medicine	NYNO	Diagnosis and treatment of abnormalities and diseases of the motor neurons, nerve roots, peripheral nerves, neuromuscular junction, and muscles.
Neurophysiology	NYPG	Diagnosis and treatment via measurement and assessment of the neuro system's function. Also known as Clinical Neurophysiology.
Neurosurgery	SUNY	Diagnosis and surgical treatment of diseases of the nervous system.
Nuclear Medicine	RYNM	Diagnosis and treatment of diseases via application of radioactive substances. Includes Nuclear Radiology.
Nursing	NU	General autonomous and collaborative care for patients.
Nutrition	GPNT	Diagnosis, treatment, and prevention of conditions related to food intake.
Obesity Medicine	EDOB	Treatment and prevention of Obesity. Also known as Bariatric Medicine.
Obstetrics	GYOS	Care of women during pregnancy and childbirth and the diagnosis and treatment of diseases of the female reproductive organs.
Occupational Medicine	GPOC	Prevention and treatment of work-related injuries and

		illnesses.
Oncology	ON	Diagnosis, treatment, and prevention of cancers using systemic therapy, including chemotherapy, hormone therapy, and biological agents. Includes Medical Oncology and Clinical Oncology.
Ophthalmology	OH	Diagnosis and treatment of eye disorders. Includes Orthoptics.
Optometry	OHOP	Diagnosis and non-surgical treatment of vision defects.
Orthopedic Surgery	SUOP	Diagnosis and surgical treatment of disorders of the musculoskeletal system, including muscles, bones, joints, ligaments, and tendons. Includes Orthopedic and Trauma Surgery, Foot & Ankle Surgery, and Orthopedic Sports Surgery.
Otolaryngology	OT	Diagnosis and treatment, including surgical treatment of diseases of the ear, nose, throat, and related parts of the head and neck. Includes Otology and Neurotology. Also known as Ear Nose Throat and Otorhinolaryngology.
Pain Medicine	PN	Diagnosis and treatment of acute or chronic pain.
Palliative Medicine	PV	Care of patients with severe and incurable conditions. Includes Hospice Medicine.
Pathology	PT	Diagnosis and assessment through knowledge gained by laboratory analyses of specimens, tissue organs, or organisms. Includes Anatomic/Clinical Pathology and Neuropathology.
Pediatric Cardiology	PDCD	Diagnosis and treatment of children with heart diseases.
Pediatric Dentistry	PDDT	Diagnosis, treatment, and prevention of oral health in children.
Pediatric Endocrinology	PDED	Diagnosis and treatment of children with diseases of the endocrine system.
Pediatric Gastroenterology	PDGE	Diagnosis, treatment, and prevention of diseases of the digestive system in children, including stomach, intestines, liver, gallbladder, biliary tree, and pancreas. Includes Pediatric Hepatology.
Pediatric Neurology	PDNY	Diagnosis and treatment of children with diseases related to the nervous system.
Pediatric Oncology	PDON	Diagnosis and treatment of cancer in children. Includes Pediatric Hematology-Oncology.
Pediatric Psychiatry	PDPY	Diagnosis and treatment of mental disorders in children, including biological, social, and psychological aspects of behavioral, emotional, and developmental disorders. Also known as Child and Adolescent Psychiatry.
Pediatric Pulmonology	PDPL	Diagnosis and treatment of children with diseases related

		to the lungs.
Pediatric Surgery	PDSU	Surgical treatment of diseases in children. Includes Pediatric Surgical Oncology, Pediatric Neurosurgery und Pediatric Cardiothoracic Surgery.
Pediatrics	PD	Diagnosis, treatment, and prevention of physical, mental, and social health of newborns, infants, children, and adolescents.
Perinatology	GYPI	Diagnosis, treatment, and prevention of diseases of mother and child before and after birth. Includes Perinatal Medicine, Neonatal-Perinatal Medicine, and Maternal & Fetal Medicine.
Pharmacology	PH	Study of medications and other substances and their efficacy and safety, including toxic effects of natural and artificial substances. Includes Clinical Pharmacology and Toxicology.
Pharmacy Specialty	PC	Formulation, dispensing, clinical application, management, and commercialization of medication. Includes Community Pharmacy and Hospital Pharmacy.
Physical Therapy	RMPS	Physical treatment and prevention. Includes Chiropractic Medicine and Massage Therapy. Also known as Physiotherapy.
Plastic Surgery	SUPL	Repair, reconstruction, or replacement of physical defects of form or function. Includes Cosmetic Surgery.
Podiatry	SUPO	Diagnosis and treatment of disorders of the feet.
Preventive Medicine	PM	Promotion of the absence of disease. Includes Hygiene.
Psychiatry	PY	Diagnosis, treatment, and prevention of mental, emotional, and behavioral disorders. Includes Neuropsychiatry.
Psychology	PYPG	Diagnosis, treatment, and counseling of mental disorders. Includes Clinical Psychology, Mental Health Counselor, and Marriage & Family Therapy.
Psychosomatic Medicine	PYPM	Diagnosis and treatment in the relation between mental and physical illness. Also known as Consultation-Liaison Psychiatry.
Public Health	PMPH	Protecting the safety and improving the health of communities through education, policy making, and research for disease and injury prevention. Includes Epidemiology, Community Medicine, and Social Work.
Pulmonology	PL	Diagnosis and treatment of diseases of the respiratory system. Includes Respiratory Care Therapy.
Radiation Oncology	RYON	Treatment of cancers using radiation therapy. Includes Therapeutic Radiology.

Radiology	RY	Diagnosis and treatment including interventional radiology or guidance of the treatment of injuries and diseases using medical imaging. Includes Diagnostic Radiology and Vascular & Interventional Radiology, and Nuclear Cardiology.
Rehabilitation Medicine	RM	Enhancement and restoration of functional ability for physical impairments or disabilities.
Reproductive Medicine	RP	Diagnosis, treatment, and prevention of reproductive issues, including fertility treatment. Includes Reproductive Health and Andrology.
Research and Development	RD	Design and development of new diagnostics and therapies for patients via bench research and translational medicine. Includes Chemistry, Biochemistry, Biology, Biotechnology, Biomedicine, Physics, and related.
Rheumatology	RH	Diagnosis and treatment of immune-mediated diseases, especially of the musculoskeletal system.
Sleep Medicine	NYSM	Diagnosis, treatment, and prevention of sleep disorders and disturbances.
Spinal Cord Injury Medicine	RMSC	Diagnosis, treatment, and rehabilitation of injuries to the spinal cord.
Sports Medicine	SUSP	Diagnosis, treatment, prevention, and rehabilitation of conditions and injuries related to sports or physical activity.
Surgery	SU	Surgical treatment of diseases of the whole patient. Also known as General Surgery.
Surgical Oncology	SUON	Surgical treatment of tumors.
Tropical Medicine	IDTM	Diagnosis, treatment, and prevention of diseases prevalent in, or unique to, tropical and subtropical regions. Includes Travel Medicine.
Urgent Care Medicine	EMUC	Emergency diagnosis and treatment for non-severe acute conditions. Includes Acute Care.
Urology	UR	Diagnosis and treatment of the urinary tract including kidneys, ureters, bladder, urethra, adrenal glands, as well as the male reproductive tract.
Vascular Surgery	SUVS	Diagnosis and surgical treatment of diseases of the arterial, venous, and lymphatic systems.
Veterinary	VT	Diagnosis and treatment of medical conditions in animals.

HCP Specialty Group Picklist Items

The HCP **Primary Specialty Group** and HCP **All Specialty Groups** picklists consist of the following items. Each specialty belongs to a specialty group. See *HCP Specialty to Specialty Group Mapping* below.

Label	Name	Description
Addiction Medicine	AM	Diagnosis, treatment, and prevention of addiction. Includes Addiction Psychology & Counseling.
Administrative Medicine	AD	Management and administration in a healthcare organization.
Alternative Medicine	AL	Non-conventional treatment of conditions. Includes Acupuncture, Homeopathy, Oriental Medicine, and Naturopathic Medicine.
Anesthesiology	AE	Management of consciousness, pain control, and muscle relaxation during medical procedures.
Cardiology	CD	Diagnosis, treatment, and prevention of disorders of the cardiovascular system. Including Congenital Heart Diseases.
Dentistry	DT	Diagnosis, treatment, and prevention of diseases and conditions of the oral cavity. Includes Orthodontics, Periodontics, Endodontics, Prosthodontics, and Aesthetic Dentistry.
Dermatology	DM	Diagnosis and treatment of benign and malignant disorders of the skin, hair, nails, and adjacent mucous membranes. Includes Dermatopathology.
Emergency Medicine	EM	Treatment of acute illnesses or injuries requiring immediate attention.
Endocrinology	ED	Diagnosis and treatment of hormone-related diseases and conditions.
Gastroenterology	GE	Diagnosis, treatment, and prevention of diseases of the digestive system, including stomach, intestines, liver, gallbladder, biliary tree, and pancreas.
General Practice	GP	Diagnosis, treatment, and prevention of common and chronic diseases in children and adults. Includes General Medicine.
Genetics	GN	Diagnosis, management, and counseling of patients with, or at risk of, hereditary disorders. Includes Medical and Clinical Genetics.
Geriatrics	GR	Diagnosis, treatment, and prevention of physical, mental, and social health issues with respect to elderly patients. Includes Gerontology.
Gynecology	GY	Diagnosis, treatment, and prevention of diseases and conditions of the female reproductive system. Includes

		surgical treatment and Uro-Gynecology. Also known as Women's health.
Hematology	HM	Diagnosis and treatment of diseases of the blood and blood-forming organs. Excludes cancers. Includes Transfusion Medicine.
Immunology	IY	Clinical and laboratory care of patients with diseases due to disordered immunity.
Infectious Diseases	ID	Diagnosis, treatment, and prevention of infections, including bacterial, viral, fungal, and parasitic infections. Includes Sexually Transmitted Diseases, also known as Venereology, such as HIV Medicine.
Internal Medicine	IM	Diagnosis, non-surgical treatment, and prevention of diseases from internal organs in adult patients. Includes Adult Health.
Nephrology	NP	Diagnosis and treatment of kidney diseases. Includes Dialysis.
Neurology	NY	Diagnosis and treatment of conditions affecting the nervous system. Includes Stroke Medicine, Brain Injury Medicine, and Vascular Neurology.
Nursing	NU	General autonomous and collaborative care for patients.
Oncology	ON	Diagnosis, treatment, and prevention of cancers using systemic therapy, including chemotherapy, hormone therapy, and biological agents. Includes Medical Oncology and Clinical Oncology.
Ophthalmology	OH	Diagnosis and treatment of eye disorders. Includes Orthoptics.
Otolaryngology	OT	Diagnosis and treatment, including surgical treatment of diseases of the ear, nose, throat, and related parts of the head and neck. Includes Otology and Neurotology. Also known as Ear Nose Throat and Otorhinolaryngology.
Pain Medicine	PN	Diagnosis and treatment of acute or chronic pain.
Palliative Medicine	PV	Care of patients with severe and incurable conditions. Includes Hospice Medicine.
Pathology	PT	Diagnosis and assessment through knowledge gained by laboratory analyses of specimens, tissue organs, or organisms. Includes Anatomic/Clinical Pathology and Neuropathology.
Pediatrics	PD	Diagnosis, treatment, and prevention of physical, mental, and social health of newborns, infants, children, and adolescents.
Pharmacology	PH	Study of medications and other substances and their efficacy and safety, including toxic effects of natural and

		artificial substances. Includes Clinical Pharmacology and Toxicology.
Pharmacy Specialty	PC	Formulation, dispensing, clinical application, management, and commercialization of medication. Includes Community Pharmacy and Hospital Pharmacy.
Preventive Medicine	PM	Promotion of the absence of disease. Includes Hygiene.
Psychiatry	PY	Diagnosis, treatment, and prevention of mental, emotional, and behavioral disorders. Includes Neuropsychiatry.
Pulmonology	PL	Diagnosis and treatment of diseases of the respiratory system. Includes Respiratory Care Therapy.
Radiology	RY	Diagnosis and treatment including interventional radiology or guidance of the treatment of injuries and diseases using medical imaging. Includes Diagnostic Radiology and Vascular & Interventional Radiology, and Nuclear Cardiology.
Rehabilitation Medicine	RM	Enhancement and restoration of functional ability for physical impairments or disabilities.
Reproductive Medicine	RP	Diagnosis, treatment, and prevention of reproductive issues, including fertility treatment. Includes Reproductive Health and Andrology.
Research and Development	RD	Design and development of new diagnostics and therapies for patients via bench research and translational medicine. Includes Chemistry, Biochemistry, Biology, Biotechnology, Biomedicine, Physics, and related.
Rheumatology	RH	Diagnosis and treatment of immune-mediated diseases, especially of the musculoskeletal system.
Surgery	SU	Surgical treatment of diseases of the whole patient. Also known as General Surgery.
Urology	UR	Diagnosis and treatment of the urinary tract including kidneys, ureters, bladder, urethra, adrenal glands, as well as the male reproductive tract.

HCP Specialty to Specialty Group Mapping

Each Specialty item maps to a Specialty Group item. This mapping can be determined from the first two characters of each Specialty item's name. For example, the Radiation Oncology (RYON) speciality maps to the Radiology (RY) specialty group.

HCP Medical Degree Picklist Items

The HCP **Primary Medical Degree** and HCP **All Medical Degrees** picklists consist of the following items.

Label	Name	Description
MD	MD	Doctor of Medicine
DO	DO	Doctor of Osteopathic Medicine
Nurse	NU	Ranges from diploma and associate degrees to bachelor, master, and doctor of Nursing degrees
Advanced Practice Nurse	NUAP	Includes Certified Nurse Practitioners (CNP), Clinical Nurse Specialists (CNS), Certified Registered Nurse Anesthetists (CRNA), and Certified Nurse-Midwives (CNM)
Physician Assistant	PA	Master of Science in Physician Assistant Studies
PharmD	PHMD	Doctor of Pharmacy (pharmaciae doctor) including pharmacists with diplomas and accredited pharmacists
DMD	DMD	Doctor of Dental Medicine
DVM	DVM	Doctor of Veterinary Medicine
PhD	PHD	Doctor of Philosophy (philosophiae doctor)
Master of Medicine	MSCM	Master's degree
Bachelor of Medicine	BSCM	Bachelor's degree

HCP Status Picklist Items

The HCP **Status** picklist consists of the following items.

Label	Name	Description
Active	ACT	Actively practicing as a healthcare professional.
Inactive	IACT	Not actively practicing as a healthcare professional.

HCP Level Picklist Items

The HCP **Level** picklist consists of the following items.

Label	Name	Description
Level 1	1	Limited engagement with the company and minimal impact on its business objectives.
Level 2	2	Engage occasionally with the company, influencing only a small scope

		of business activities.
Level 3	3	Interact with the company regularly and contribute to business outcomes.
Level 4	4	Significantly involved with the company, having a major impact on business strategies and results. Personalized promotions are typically not sent to HCPs at this level.
Level 5	5	Critical to the company's success and require dedicated management effort, including a single relationship owner, to maintain and enhance the relationship. Personalized promotions are typically not sent to HCPs at this level.

HCP Adopter Type Picklist Items

The HCP **Adopter Type** picklist consists of the following items.

Label	Name	Description
Innovator	INNO	Innovators are the first to adopt new medical innovations. They are willing to take risks and are often seen as pioneers in their field. Innovators are crucial for the initial introduction and testing of new concepts or technologies in healthcare.
Early	EARL	Early adopters are quick to embrace new innovations after seeing their initial success or potential. They usually have a high degree of opinion leadership within the medical community and their endorsement helps new ideas to gain further acceptance.
Middle	MIDD	The middle majority who adopt new innovations once they have been proven and accepted by Innovators and Early adopters. They rely on evidence and assurance that the innovation is beneficial and practical before integrating it into their practice.
Late	LATE	Late adopters are cautious and skeptical about new innovations and will only adopt them after a significant portion of their peers have done so. They need substantial evidence and peer pressure, and may only adopt due to necessity or external pressures.

HCP Address Country Picklist Items

See *Country Picklist Items* below.

HCP Address State Picklist Items

See *State Picklist Items* below.

HCP Address Status Picklist Items

The HCP Address **Status** picklist consists of the following items.

Label	Name	Description
Active	ACT	Currently in use as an address.
Inactive	IACT	Not currently in use as an address.

Country Picklist Items

The HCP **Primary Country** picklist attribute and the HCP Address **Country** picklist attribute consist of picklist items based on [ISO 3166-1 standard country codes and names](#). For the full list of items, see the [Country Items worksheet in the HCP Kernel spreadsheet](#).

State Picklist Items

The HCP **Primary State** picklist attribute and the HCP Address **State** picklist attribute consists of picklist items based on [ISO 3166-2](#) codes for identifying the principal subdivisions (e.g., provinces or states) of all countries coded in [ISO 3166-1](#). For the full list of items, see the [State Items worksheet in the HCP Kernel spreadsheet](#).

Internationalization

Translated labels are provided for the following languages in a separate translation file (See the HCP.LS.HCP Kernel Translations file):

1. German
2. French (France)
3. Spanish (Spain)
4. Italian (Italy)
5. Chinese (Simplified)
6. Japanese
7. Korean
8. Portuguese (Brazil)

It is up to application developers and data providers to choose how to handle support for different languages and locales.

Change Management

CDA kernels are treated as a Data API, with a specific support and deprecation policy similar to developer APIs:

- The names of components will not change after they are published.
- Component labels and descriptions may change to provide clarity or correct errors.
- New components may be added in any new version.
- Components can be deprecated annually at the start of a calendar year, initiating a 3-year notice period. After this period, deprecated components will be removed.

Change History

As new versions of the HCP kernel are released, a summary of changes will be included here.

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