New concept proposal
Country

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Dataset release	2024.1	**Consulted expert**	

1   Rationale

The need for a concept Country became apparent when two independent new concepts planned for release 2024.1 of the SPHN ontology made use of a composedOf country (or country code), namely the concepts Birth and Home Address. To ensure semantic consistency it was decided to create a separate concept Country.

Moreover, many other concepts can be envisioned which use information on a country, e.g., a city or a region, making this concept a promising candidate for concept reuse.

2   Comparison to other standards/data models

2.1   SNOMED CT

SNOMED CT uses the code 223369002 (Country (geographic location)). It is a descendant of 223496003 | Geographical and/or political region of the world (geographic location) | and itself has eight subordinate codes. These split further into countries on the different continents (e.g., 223508008 | African country (geographic location) | or 223633000 | European country (geographic location) |), in part subsequently into specific regions (e.g., 223634006 | Central European country (geographic location) |), and finally arrive on the level of political countries (e.g., 223642007 | Switzerland (geographic location) |).

2.2   NCIT

The NCIT code C25464 defines country as "A collective generic term that refers here to a wide variety of dependencies, areas of special sovereignty, uninhabited islands, and other entities in addition to the traditional countries or independent states.". The more concise CDISC Definition specifies a country with a different focus: "A sovereign nation occupying a distinct territory and ruled by an autonomous government.".

2.3 HL7 FHIR

FHIR defines a base set of codes for countries with 747 entries (https://build.fhir.org/valueset-country.html). Many of those represent regions rather than independent or sovereign countries in the political sense, e.g., Aruba (code AW), the Falkland Islands (Malvinas) (code FK), or the British Virgin Islands (code VGB).

3   Concept information

Concept or concept compositions or inherited	General concept name	General description	Contextualized concept name	Contextualized description	Type	Standard	Value set or subset	Meaning binding	Cardinality for composedOf
concept	Country	distinct part of the world, such as a state, nation, or other political entity, often but not necessarily a sovereign state	Country	distinct part of the world, such as a state, nation, or other political entity, often but not necessarily a sovereign state				SNOMED CT: 223369002	Country (geographic location)		
composedOf	code	coded information specifying the concept	country code	coded information specifying the country	Code	SNOMED CT	descendant of: 223369002 |Country (geographic location)|		1:1

General concept name	Cardinality for concept to Administrative Case	Cardinality for concept to Data Provider	Cardinality for concept to Subject Pseudo Identifier	Cardinality for concept to Source System
Country				

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4   Impact on the SPHN Dataset

The concept Country will be used by the concepts [Birth](#) and [Home Address](#) (new concepts planned for release 2024.1).

5   Discussion

The SNOMED CT country codes are currently available [here](#) (compare 2.1 SNOMED CT). The additional use of [ISO 3166-2 country codes](#) has been considered but not followed up for simplicity of the concept ([overview article)](#).

SNOMED CT also features the code [315354004](#) | Country of birth (observable entity) |. While this code set seems more appropriate to describe a country in the context of the Birth concept, the code-attribute of Country should be considered independently of potential applications. Hence, the more general code set [223369002](#) | Country (geographic location) | was chosen.

6   Example

Country

> code
>
>> identifier: 223621005
>> name: Australia (geographic location)
>> coding system and version: SNOMED-CT-2023-07-31

Country

> code
>
>> identifier: 223701004
>> name: Cuba (geographic location)
>> coding system and version: SNOMED-CT-2023-07-31

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