SNOMED CT
International Release
July 2014

General Practitioner/Family Practitioner subsets Candidate Baseline release

Release Notes

Date 20141020
Version 2.0

Amendment History

Version	Date	Editor	Comments
0.1			
1.1	20140919	IGR	Updated version following feedback received during Technical Preview process
2.0	20141020	RTU	Updated for candidate baseline release

INTERNATIONAL HEALTH TERMINOLOGY
STANDARDS DEVELOPMENT ORGANISATION

Table of Contents

1 Introduction

The SNOMED CT International General/Family Practice subset set (hereafter called the GP/FP Subset) and the map from the GP/FP Subset to the International Classification of Primary Care (ICPC-2) were both developed between 2010 and 2013 by the GP/FP Subset and ICPC mapping project group. This project ended on December 31, 2013 after field testing of the products was completed.

2 Background

In December 2009 a harmonization agreement was finalized between the IHTSDO and WONCA to promote co-operation and collaboration between the two organizations.

This agreement led to the formation of the International Family Physician/General Practitioner Special Interest Group (IFP/GP SIG) under the auspices of the IHTSDO. The IFP/GP SIG was established to suggest content for the Systematized Nomenclature of Medicine – Clinical Terms (SNOMED CT®) related to general/family practice and to provide quality assurance for SNOMED CT content from the general/family practice perspective. The IHTSDO's existing Primary Care Special Interest Group was converted to the IFP/GP SIG after the agreement was signed.

The agreement contained a commitment to develop a mapping program, mapping relevant content in SNOMED CT to the International Classification of Primary Care, Version 2 (ICPC-2). Under the terms of the agreement, each task or project in the mapping program was to be managed by a mapping project group, comprised of members from the IFP/GP SIG, the WONCA International Classification Committee (WICC) and the IHTSDO's Mapping Special Interest Group. This project group was established in early 2010 and called the 'International GP/FP subset and ICPC mapping project group'

3 Release content

3.1 Overview

As part of the project described above, a decision was made to focus on two semantic data types commonly used in general/family practice electronic health records:

- Reasons For Encounter (RFEs)
- Health Issues.

A reason for encounter was defined as:
"An agreed statement of the reason(s) why a person enters the health care system, representing the demand for care by that person. The terms written down and later classified by the provider clarify the reason for encounter and consequently the patient's demand for care without interpreting it in the form of a diagnosis. The reason for encounter should be recognized by the patient as an acceptable description of the demand for care" (WONCA Dictionary of General/Family Practice, 2003).

A health issue was defined as an:
"issue related to the health of a subject of care, as identified or stated by a specific health care party". This is further defined in the notes as "according to this definition, a health issue can correspond to a health problem, a disease, an illness" (Health informatics – System of concepts to support continuity of care – Part 1: basic concepts (CEN/ISO FDIS 13940-1)).

Details of the scope of the subsets and ICPC-2 map can be found in GP/FP Refset and ICPC-2 mapping project – scoping document https://csfe.aceworkspace.net/sf/go/doc2231?nav=1

3.2 Status of content

This General Practitioner/Family Practitioner subsets release is a Candidate Baseline release. IHTSDO expects to confirm it as the Baseline release following the January 2015 release of the SNOMED CT International Edition. However, if a significant issue is reported in its format or content, IHTSDO reserves the right to re-release a corrected candidate baseline to resolve the issue. IHTSDO does not commit to this being an actual Baseline release until shortly before the due date for the next release of that module (or of the SNOMED CT International Release if the module will be included in that release) maintaining the FULL release history trail.

4 Implementation of the GP/FP Subset

4.1 General information about the GP/FP subset

Subsets act as the extensibility mechanism in SNOMED CT, allowing developers and users to customize SNOMED CT content to meet specific use cases.

The international general/family practice subset (the GP/FP subset), has been developed by the IHTSDO's General/Family Practice and ICPC-2 mapping project group. It is designed for use in general/family practice clinical settings within electronic health records (EHRs) and is intended to be used as the 'core' subset for two commonly used data fields — reasons for encounter and health issues.

The subsets are aligned to the July 2014 SNOMED CT International Release

4.2 Purpose of the GP/FP subset

To provide a subset of frequently used SNOMED CT concepts for use in general/family practice EHRs within the following data fields:
- Reason for encounter
- Health issue.

4.3 Some example use cases of the GP/FP subset

4.3.1 Data entry – direct entry of SNOMED CT concepts from the GP/FP subset

During an encounter in his/her general/family practice, a GP/FP sees a patient who has presented with a newly identified health issue. The GP/FP enters the new health issue into the data field for 'health issue', and into a problem list (if appropriate) in his/her EHR using the GP/FP subset that has been incorporated in his/her EHR by the EHR software vendor. The GP/FP is presented with a validated list of potential terms from the subset, from which he/she selects the SNOMED CT concept that best represents the patient's health issue.

4.3.2 Data entry – use of a local interface terminology mapped to the GP/FP subset

During an encounter in his/her general/family practice, a GP/FP sees a patient who has presented with a newly identified health issue. The GP/FP enters this health issue into his/her EHR by searching for and selecting a term from a local interface terminology into the data field for 'health issue'. A map from the local interface terminology to the SNOMED CT GP/FP Subset allows the term entered to also be represented as a concept from the GP/FP subset for clinical decision support and interoperability.

4.3.3 Electronic transfer of care (referrals, admissions, handovers, discharge)

A GP/FP wishes to transfer the care of a patient to a medical specialist for further investigation. The GP/FP's EHR contains the SNOMED CT GP/FP subset, and the GP/FP

has entered all the patient's health issues into the EHR using the subset. An HL7 referral message is then constructed; containing SNOMED CT coded concepts from the patient's problem list. The message is sent electronically to the specialist who populates his/her EHR using the data contained in the message. This reduces the time needed to take a patient history and enter this data into the specialist's EHR.

4.3.4 Constraint of terminology use for population and subpopulation analysis

A group of GPs are interested in comparing aspects of care across populations of GPs and their patients. The adoption of a subset will, to an extent, constrain the variability of coding of similar issues, conditions and situations that may confound data analysis where very large terminologies such as SNOMED CT are used without constraint.

4.4 Obtaining the GP/FP subset

Initially, the GP/FP subset and map to ICPC-2 was released as a 'technology preview' in February 2014. Subsequently, it is planned that the RF2 files for the GP/FP Subset and map to ICPC-2 will be provided every year, starting in January 2015.
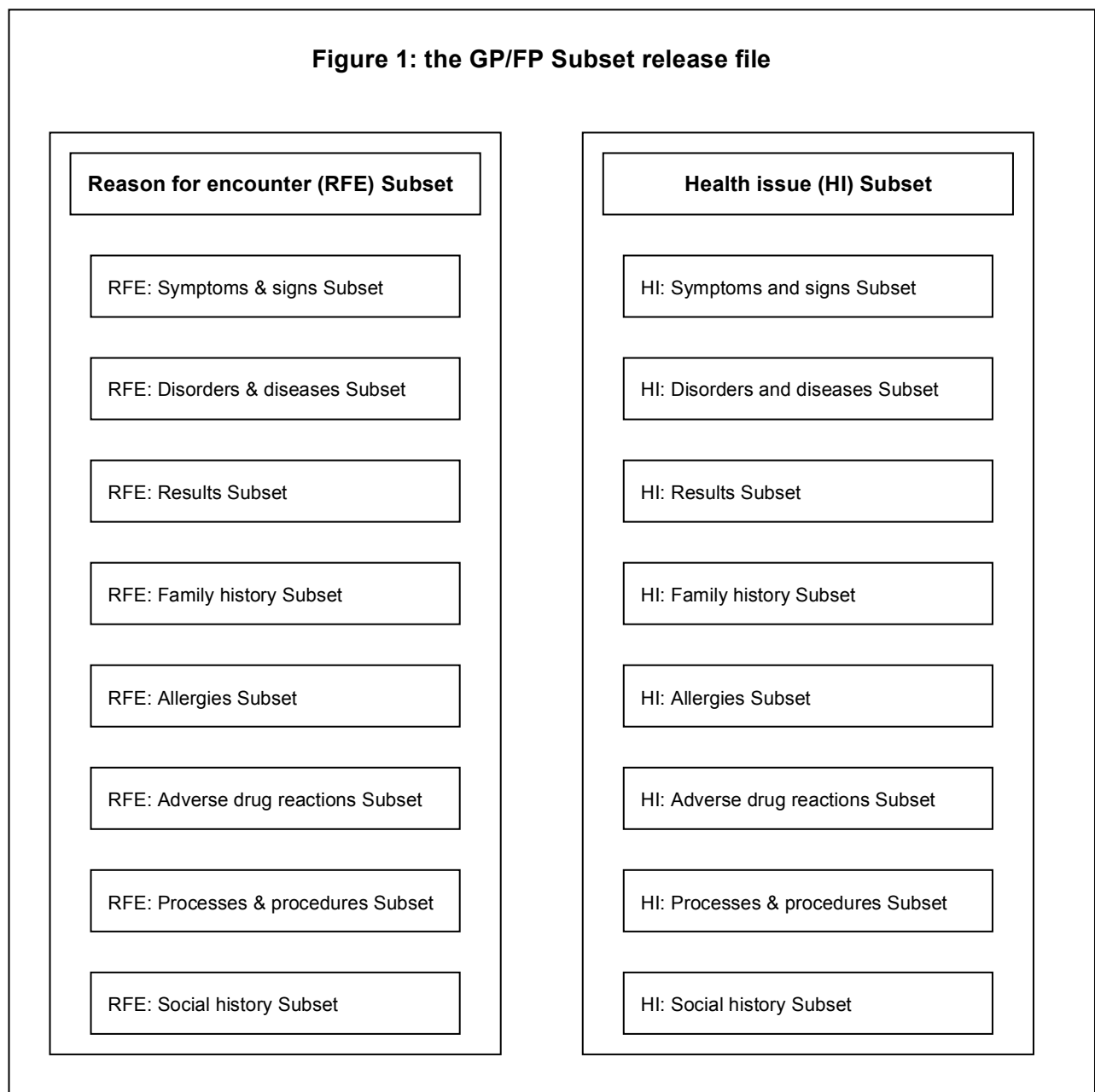
4.5 Design of the GP/FP subset

A graphical representation of the SNOMED CT GP/FP subset release file is shown in Figure 1. The release file contains multiple individual subsets that can be grouped for different purposes. Firstly, the release file can be split into subsets for the core clinical headings of 'Reason for encounter' and 'Health issue'. Within each of these core clinical headings, there are separate subsidiary subsets that represent semantic data types used to populate the core clinical headings.

These subsidiary subsets represent 'building blocks' from which the Reason for encounter and Health issue subsets can be created to aid different implementations. For example, during the development of the project scope some end users indicated that they would never include procedures within a 'Health issue' core clinical heading. Others indicated that the inclusion of procedures as health issues was acceptable in their clinical setting. Including procedures as a separate subset in the Health issue core clinical heading allows users to customize the subset for their purposes, so that the Procedures subset can be either included or excluded as required by the user.

Although the table below shows that both the 'Reason for encounter' and 'Health issue' subsets contain the same semantic data types, the content within each subset will not be identical. That is, although the structure is identical, the content in each subset will differ. For example, the SNOMED CT concept *'Medication requested'* (concept identifier: 182888003) could be used to represent the reason for encounter if a patient saw a GP/FP to request a repeat for a medication. However, the clinical condition relating to the medication request would be recorded as the health issue. As a result, the SNOMED CT concept *'Medication requested'* is not included in the Health issue subset.

The aim is to revise the content of the subsets overtime to ensure the continued clinical relevance of the subsets. Ongoing review of the subsets will include the content of each subset, but may also include the subsets themselves.

Figure 1: the GP/FP Subset release file

Reason for encounter (RFE) Subset	Health issue (HI) Subset
RFE: Symptoms & signs Subset	HI: Symptoms and signs Subset
RFE: Disorders & diseases Subset	HI: Disorders and diseases Subset
RFE: Results Subset	HI: Results Subset
RFE: Family history Subset	HI: Family history Subset
RFE: Allergies Subset	HI: Allergies Subset
RFE: Adverse drug reactions Subset	HI: Adverse drug reactions Subset
RFE: Processes & procedures Subset	HI: Processes & procedures Subset
RFE: Social history Subset	HI: Social history Subset

4.6 Benefits of the subset

SNOMED CT is regarded as the leading global clinical terminology for use in EHRs, however its size makes it unwieldy for use in general/family practice. The GP/FP subset utilises the power of SNOMED CT as a global healthcare terminology, while restricting the concepts available to GPs/FPs to those commonly used in general/family practice. This increases the usefulness of SNOMED CT for GPs/FPs because searches are targeted to the SNOMED CT concepts that GPs/FPs use most often, and, if implemented properly, users should be able to search and select a SNOMED CT concept quickly and easily.

As stated in Section 4.4, the SNOMED CT GP/FP subset will be maintained and distributed with each release of the SNOMED CT core. As a result, the GP/FP subset is available free of charge to users in IHTSDO member countries.

4.7 Characteristics of the GP/FP subset

The GP/FP Subset contains the following characteristics:
- All subsets included in the GP/FP set are simple reference sets.
- All non-human concepts are not included
- Only concepts with a status of 'current' (status = 0) have been included, ensuring that the only concepts included are active and able to be used for data entry.
- The Reason for encounter and Health issue subsets are not mutually exclusive. The presence of identical concepts in both subsets indicates the use of the same clinical concept in a different context.
- A series of principles for the development of the GP/FP subset were created during the development phase of the project. These principles are documented in the *SNOMED CT GP/FP subset and ICPC mapping project: Phase 2 project report*.
- The GP/FP subset will be released using Release Format 2 (RF2) See Section 5.1 of the *Technical Implementation Guide* for further information about SNOMED CT release formats and RF2.

4.8 Implementation of the GP/FP subsets

Background about the creation and maintenance of subsets can be found in Section 7.9 of the *SNOMED CT Technical Implementation Guide*, and Section 7.6.3 discusses the application of Subsets.

4.8.1 SNOMED CT target content

The GP/FP subset only contains SNOMED CT content from the following hierarchies:
- Clinical finding
- Event
- Procedures
- Situation with explicit context.

4.8.2 Implementation levels

Section 3.3 of the *SNOMED CT Technical Implementation Guide* describes three implementation levels for some aspects of SNOMED CT deployment. The three levels represent incremental capabilities for implementation broken down into specific dimensions including scope of use, record structure, expression storage, data entry, data retrieval and communication. Guidance provided in this section of the *Technical Implementation Guide* is also applicable to implementation of the GP/FP subset.

It must be noted that the GP/FP subset does not inherently contain structures or content to support the implementation of postcoordinated expressions, as required for the highest implementation level within some dimensions. The decision to implement postcoordinated expressions must be made at the local level, with implementers choosing to allow users to created postcoordinated expressions in conjunction with use of the GP/FP subset.

4.8.3 How to use the building block subsets

As described in Figure 1, the GP/FP subset comprises two groups of Subsets representing two core clinical headings used in general/family practice:
- Reasons for encounter
- Health issues.

Each of these groups is made of up small subsets, called subsidiary subsets, comprising semantic data types that may apply to the core clinical heading. The semantic data types included in each of the Reason for encounter and Health issues subsets includes:
- Adverse drug reactions
- Allergies
- Disorders and diseases
- Family history
- Results
- Processes and procedures
- Social history
- Symptoms and signs.

These subsidiary subsets can be regarded as building blocks, with implementers able to join the subsets together as required for specific implementation scenarios. For example, SNOMED CT procedure concepts may not be valid within the 'health issue' data field in some clinical use cases. Similarly, some implementations may support the inclusion of precoordinated concepts relating to family history as reasons for encounter or health issues, while others may not. The building block subsets allow implementers to customize the GP/FP subset for their particular use case, while still maintaining international comparability.

4.8.4 The user interface

Section 7.6 of the *SNOMED CT Technical Implementation Guide* provides recommendations and information for vendors about creating a user interface facilitating access to SNOMED CT concepts.

4.8.5 Use of a secondary search mechanism

The GP/FP Subset contains concepts that are commonly used by GPs/FPs on an international basis, restricting the SNOMED CT concepts available to GPs/FPs to those concepts they are likely to use frequently. However, rare conditions are managed in general/family practice, and GPs/FPs may occasionally need to access a wider source of SNOMED CT concepts to populate their reasons for encounter or health issues.

For this reason, when implementing the GP/FP Subset implementers are strongly encouraged to implement a two-stage search mechanism, where users search for concepts in the GP/FP Subset in the first instance. Then, if a suitable concept cannot be found in the GP/FP Subset, a 'secondary search' is activated, allowing the search to be repeated using a broader set of relevant SNOMED CT concepts.

5 Summary of development activity

5.1 Implementation overview

There are a variety of ways in which the GP/FP subset and map to ICPC-2 can be implemented, and it would be impossible to outline each possible scenario in this report. Vendors are encouraged to contact members of the IFP/GP SIG to discuss specific implementation scenarios.

5.2 Licenses for the GP/FP subset

Vendors can obtain the GP/FP subset through a license for SNOMED CT, called an Affiliate license. Information about obtaining licenses for SNOMED CT is available from: http://www.ihtsdo.org/licensing/.

End users of the GP/FP subset must be sub-licensed to use SNOMED CT through their vendor.

The use of SNOMED CT is free within IHTSDO member countries. The list of current member countries is found at: http://www.ihtsdo.org/members/. SNOMED CT may be licensed in non-member countries, and details can be found at the IHTSDO's licensing webpage.

5.3 Effective date

This release is aligned to the July 2014 SNOMED CT International Edition, and is therefore effective retroactively to that release. This release supersedes prior releases of these files, preserves no history and assumes no continuity with prior releases.

5.4 Maintenance of the subset and ICPC-2 map

Agreement of changes to both products will be handled through the International Family Practice/General Practice SIG (IFP/GP SIG).

IHTSDO would welcome feedback on the release, by December 31st, 2014. Feedback should be emailed to info@ihtsdo.org, with "GP/FP subsets feedback" in the subject line.