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# Current Status of SNOMED CT National Extensions and Terminology Managements

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**Abstract.** We reviewed and surveyed 15 SNOMEDCT national member countries for SNOMED CT national extensions and terminology managements. We found that national extensions were used for adding new contents, developing reference sets, translating, and mapping with other classification system; and terminology management varies in composition and content due to healthcare environment of each member country, eHealth strategy, and infrastructure of national release centers.

**Keywords.** SNOMED CT, national extension, terminology management

## 1. Introduction

Korea joined SNOMED International as the 39th member in 2020. To promote active use of SNOMED CT in Korea, it is necessary to develop SNOMED CT Korean extension and prepare the strategy for terminology management as SNOMD CT national extensions are mechanisms to support customization [1].

## 2. Methods

As of September 2021, we reviewed the browsers of SNOMED CT national extension in 15 member countries to analyze the features of the SNOMED CT national extension by each member country. We also conducted a survey of each member country's National Release Center to identify the status of terminology management with national extensions. The survey was conducted using a questionnaire via e-mail with the help of SNOMED International office between November 10, 2021, and November 30, 2021.

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## 3. Results

Most of the member countries with national extensions added new concepts, such as national drug concepts, to their own extensions. Argentinian extension had the most number of concepts with more than 40,744 concepts. Various reference sets were developed to meet needs of national requirements. Australia, which has the largest number of reference sets, developed numerous reference sets for various purposes, such as anatomical site and body structure foundation. To create terminology resources in the national languages, descriptions with the national languages were added. Netherlands, Belgium, Denmark, and Sweden added descriptions in their national languages as synonyms. In addition, there were cross-maps between various terminology systems and SNOMED CT added. The United States (US) extension had mapping information between SNOMED CT and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM).

Four out of 15 countries, Australia, Canada, US, and United Kingdom (UK) were identified that they use license tools developed by themselves. The other countries used Member Licensing and Distribution Services provided by SNOMED international. Twelve out of 15 countries replied to the SNOMED CT education and training services. Seven out of 12 countries, including Canada, New Zealand, UK, Argentina, Netherlands, Spain, and Sweden, replied that they provide education and training programs developed by themselves. Twelve out of 15 countries replied to the stakeholder engagement for successful implementation of SNOMED CT. Eight out of 12 countries, Canada, Sweden, UK, Argentina, Belgium, Netherlands, New Zealand, and Uruguay, replied that they held national conferences for stakeholder engagement. Six countries including Belgium, Netherlands, New Zealand, Canada, Estonia, and UK, used newsletters as a means of stakeholder engagement. The other six countries (Canada, Estonia, Uruguay, New Zealand, US, and UK) used online user communities.

## 4. Conclusions

The findings of the survey study will be used for the development of SNOMED CT Korean extension and terminology management. With introduction of SNOMED CT Korean extension, we expect that use of SNOMED CT will be increased in Korea, which in turn will lead to increased exchange and use of healthcare data in Korea.

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## Reference

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