

Incorporating Maps into Software

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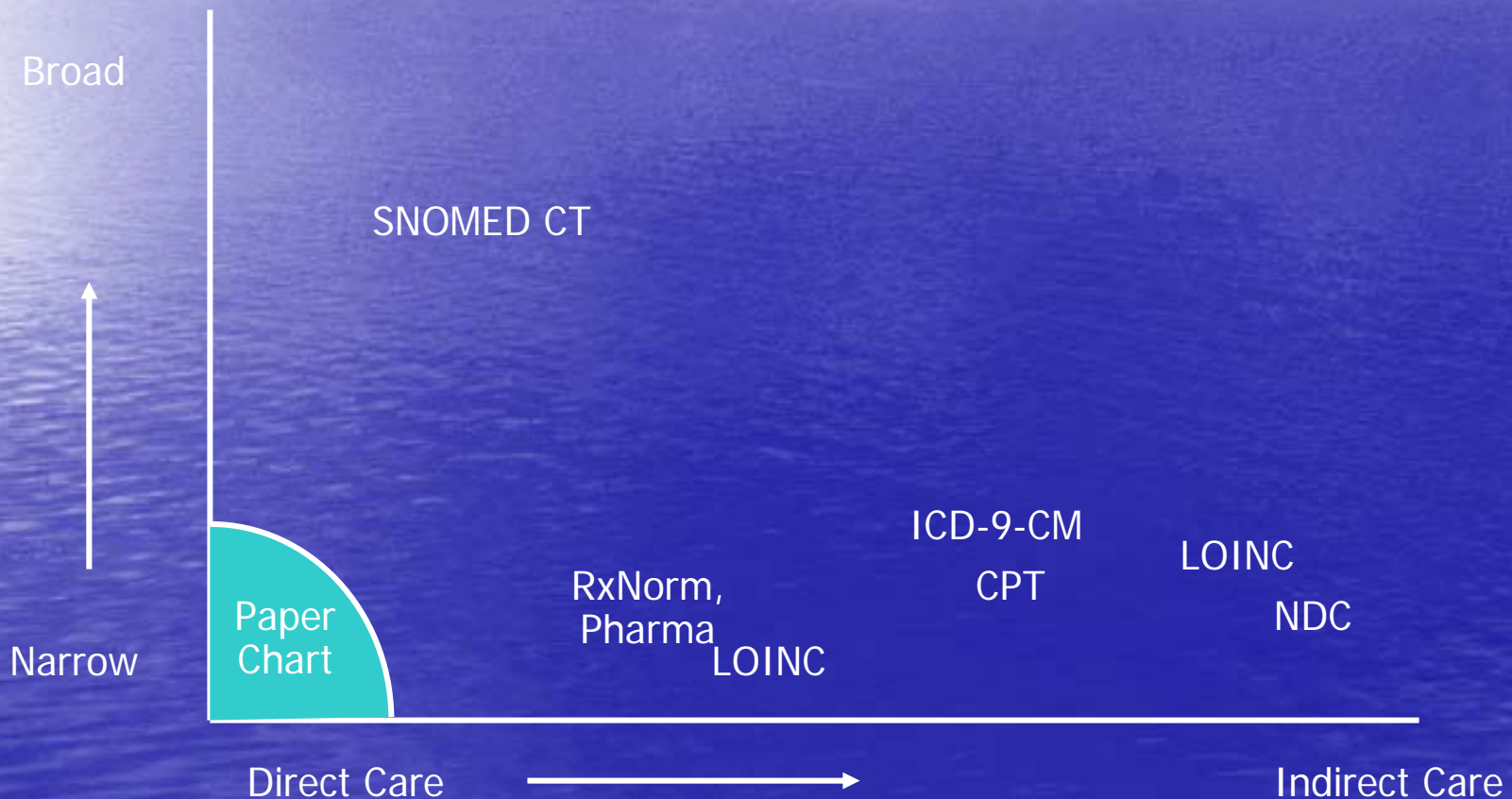
Chief Medical Officer and Senior Vice
President

Health Language

Outline

- Overview
- Users
- Distribution
- Updating

Co-existence of Multiple Terminologies



Rough estimate of terminology placement according to intended use

Mapping among Terminologies

- Mapping is dependant on the 'use case'
 - Thus there may be many kinds of maps between two terminologies.
- Maps in one direction are often different than their 'reverse' map counterparts
 - *Biventricular CHF to CHF, unspecified (428.0)*
 - *CHF, unspecified (428.0) to CHF*
- Most use cases require maps to be manually created by content domain experts

Types of Maps

- Clinical terminology to classification
 - Support billing and reporting
- Classification to clinical terminology
 - Support data analysis and research
- Legacy to terminology
 - Allow migration of non-standard terminologies already in use to adopted standards

Users of Maps


- Governments - National health service level
 - Support creation and distribution of maps nationwide
- Integrators
 - Support access to maps from multiple EHR vendors. E.g. access to Read to SNOMED maps by the LSP's in England
- EHRs
 - Incorporate maps into software products
- Hospitals
 - Use maps for billing and reporting. Migrate legacy data.

Example EMR Use of Map (Cerner)

The screenshot displays a Cerner EMR interface. At the top, there is a blue title bar with standard window controls. Below it is a toolbar with various icons for navigation and actions. A status bar shows "e-mail: <No Data>". The main content area is titled "Diagnosis Selection" and features a tabbed interface with "Favorites", "Previous", "Problems", "Search", and "Clinical Diagnosis". The "Clinical Diagnosis" tab is selected and highlighted with an orange arrow pointing to a text box that says "Select Clinical Diagnosis Tab". Below the tabs, a list of diagnoses is displayed. The first entry is "070.51" and the second is "P Anemia 406636013", which is highlighted with a dashed border and an orange arrow pointing to a text box that says "Previously associated Clinical Diagnoses will be displayed". At the bottom right, there are "Add" and "Sign" buttons.

Cross Mapping [Anemia]

Terminology: ICD-9-CM

Term	Code	Mapped Type	Terminology Axis	Terminology
 ANEMIA, UNSPECIFIED	285.9	One to one SNOMED to ICD-9-CM map	Diseases & injuries	ICD-9-CM

OK Cancel

Diagnosis Selection

Favorites Previous Problems Search Clinical Diagnosis

Diagnoses

- 070.51
- Anemia 406636013

Add

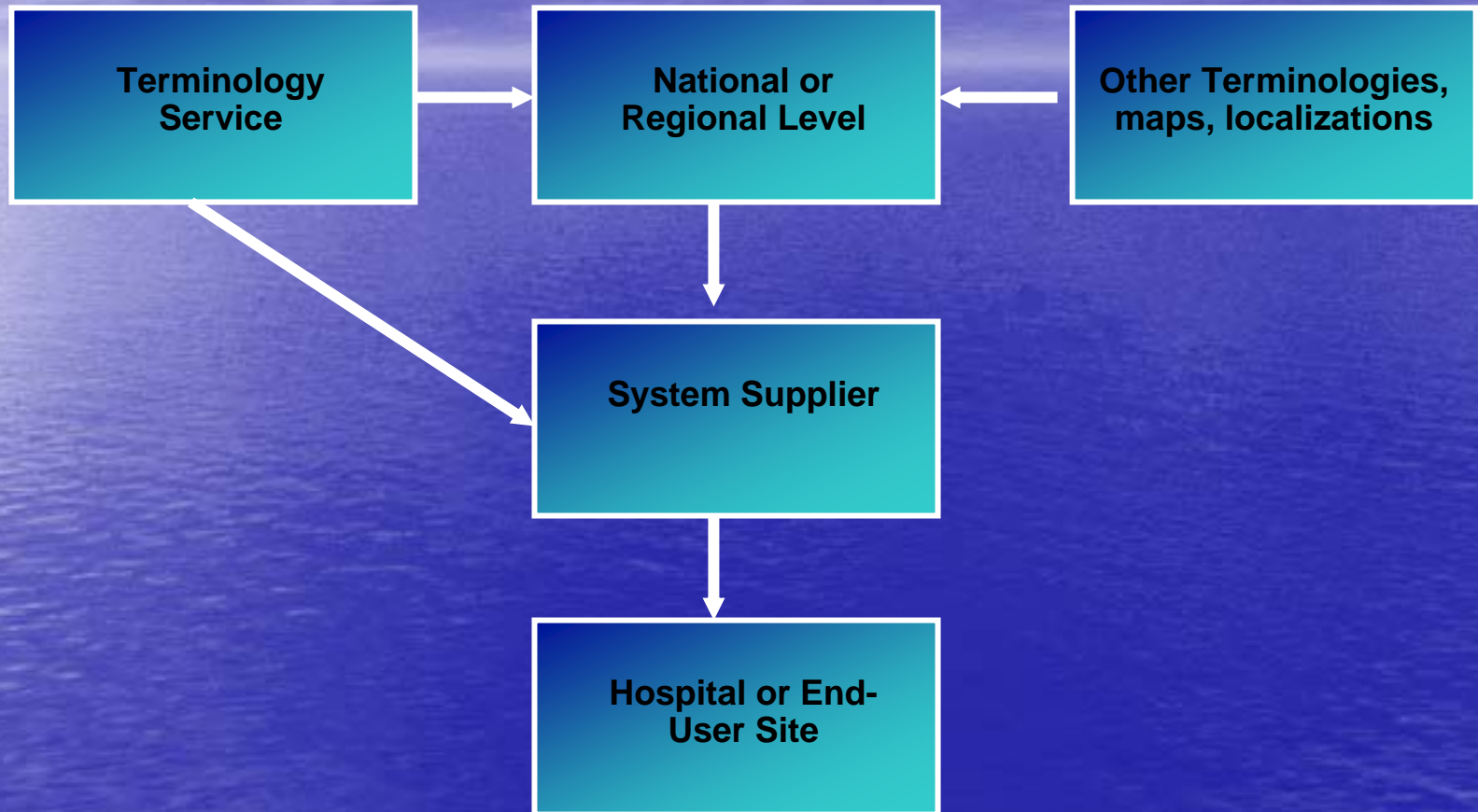
Sign

Charge Diagnosis List

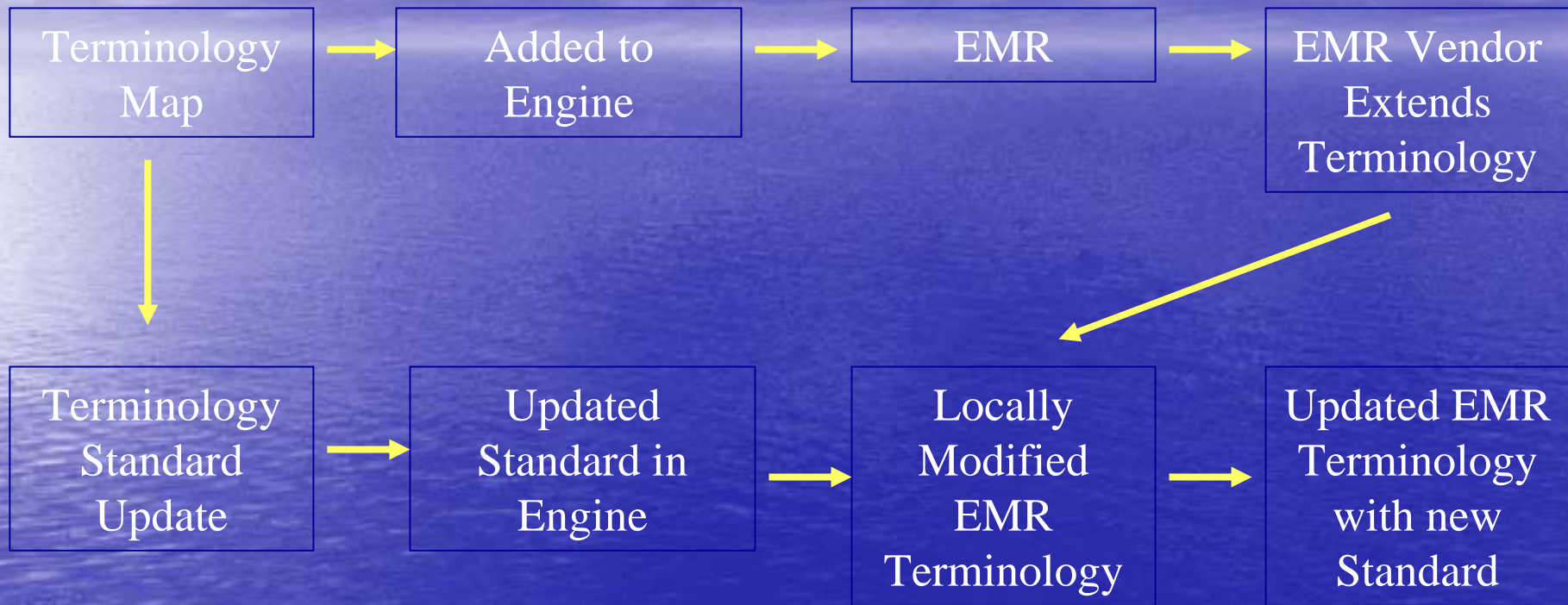
ANEMIA, UNSPECIFIED 285.9

Billable diagnosis
code available as
charge diagnosis

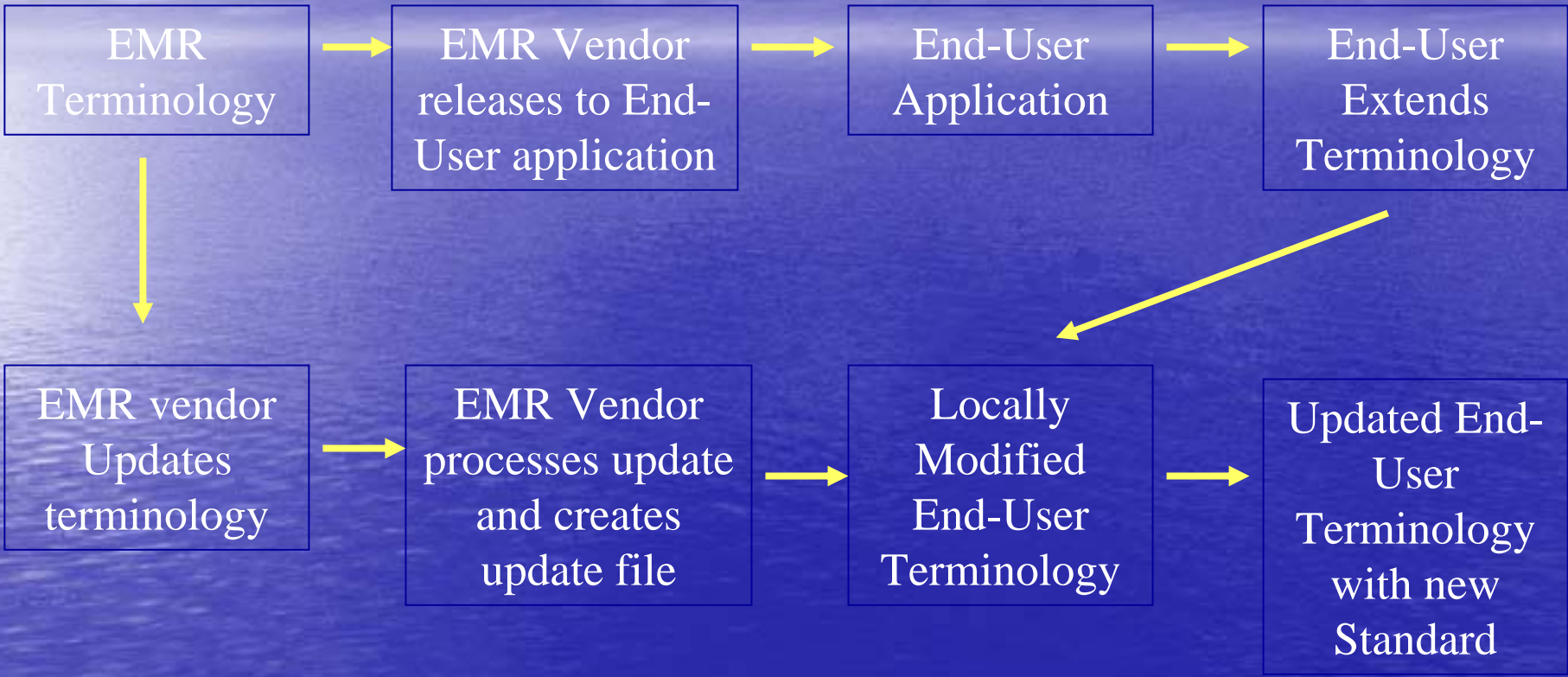
Distribution of Maps



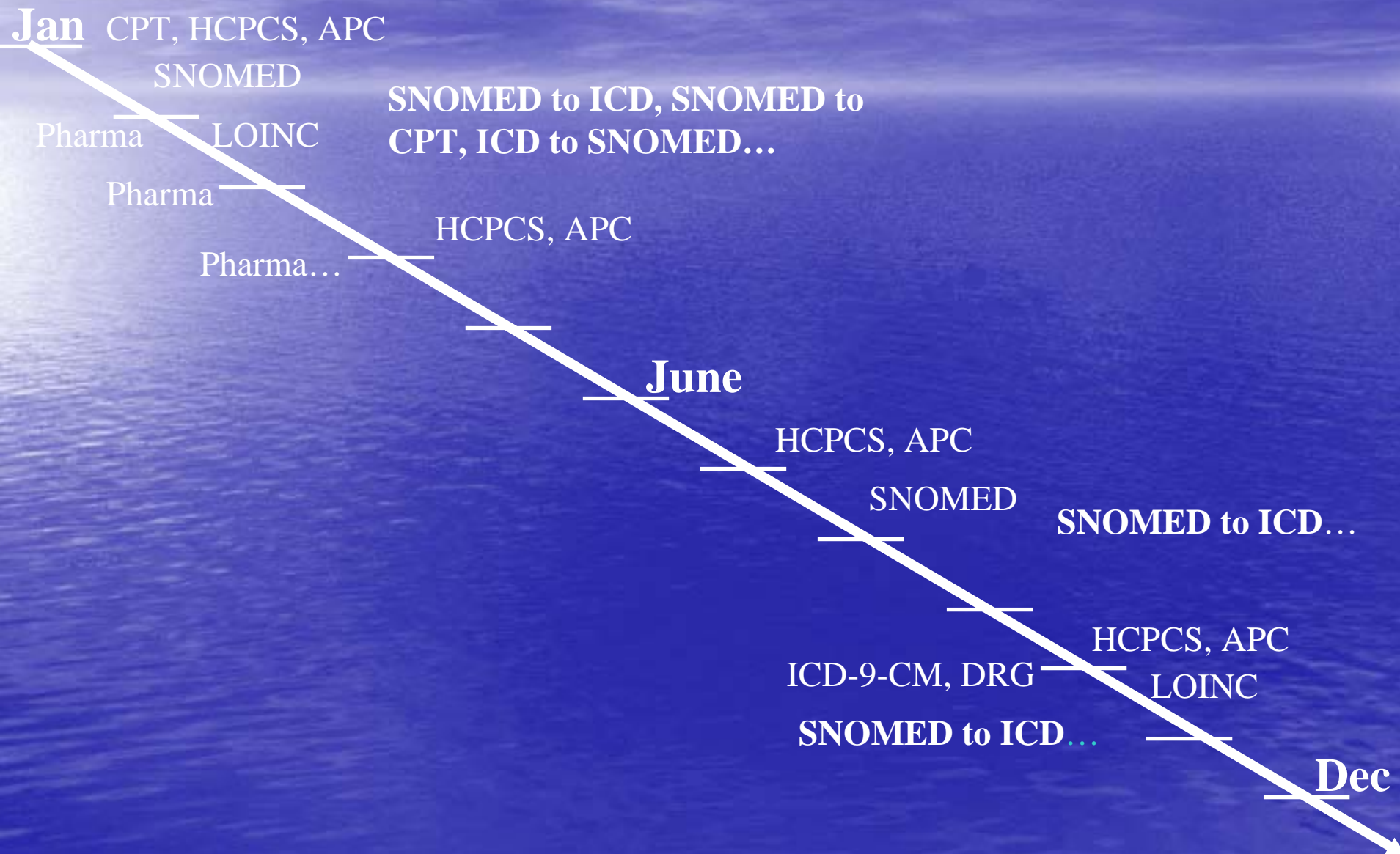
Distribution and Updating Details



Distribution to End-Users



Update Timeline



Updating Maps

January and July

October



January 31 and July 31

January 1 and July 1



- Maps need to be updated when both the source and target change

Conclusion

- Maps are use case driven and thus multiple maps may exist between terminologies
- Maps are incorporated in software applications from the national down to the end-user level
- Software vendors may expose certain maps directly to users
- Distribution and updating of maps will require robust tools and processes



Clinical Vocabulary Mapping Methods Institute
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