

Health Plans' Estimated Costs of Implementing ICD-10 Diagnosis Coding

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Over the next three years, health insurance plans are required to implement an updated version of the International Classification of Diseases (ICD) system – ICD-10 – for diagnosis and procedure coding and claims processing. ICD-10 coding will provide the U.S. health care system a wide range of benefits. However, the new system represents a significant change from the current ICD-9 code set, and the incremental costs of implementation will be substantial.

A survey of 20 health insurance plans revealed an average per-member implementation cost of about \$12, ranging from \$38 for small health plans (less than one million members) to \$11 for large plans (more than 5 million members). The overall incremental cost for ICD-10 implementation for all responding plans was estimated to be \$1.7 billion. Since the 20 responding health plans do not comprise the whole of the U.S. health insurance market, the total system-wide cost for insurers is likely in the \$2-3 billion range.

Estimated Cost of ICD-10 Implementation, by Size of Company

	Number of Companies	Total Medical Membership	Total Cost to Implement ICD-10	Per-Member Average Cost (Weighted by Enrollment)
Small (<1M Members)	7	2,635,000	\$99 Million	\$38
Medium (1-5M Members)	7	23,400,000	\$293 Million	\$13
Large (>5M Members)	6	113,162,000	\$1.3 Billion	\$11
Total, Responding Health Plans	20	139,197,000	\$1.7 Billion	\$12

Source: America's Health Insurance Plans, Center for Policy and Research.
Notes: Membership has been rounded to the nearest million.

BACKGROUND

The International Classification of Diseases (ICD) is an internationally standardized diagnostic classification code set maintained by the World Health Organization and is used for studying the health and illness of populations, as well as for health management and clinical purposes, such as reimbursement, resource allocation, quality and guidelines. The ICD code set has existed in many forms and is periodically revised in order to allow for progress in the medical field. The ninth version (ICD-9) is currently used in the U.S. In 2009, the Department of Health and Human Services (HHS) announced final regulations¹ requiring the U.S. payers and providers to fully transition to ICD-10 by 2013.

ICD-9 versus ICD-10. The ICD version 10 for diagnoses and procedures differs from ICD version 9 in many ways, most notably in that the new code set has alphanumeric categories rather than numeric categories and that ICD-10 has almost twice as many categories as ICD-9. Details have been expanded for many conditions, causing a jump from 17,000 to 155,000 codes, with additional capacity to add new procedures and diagnoses as medical sciences continue to progress. Additionally, conditions have been regrouped and other classification changes have been made.²

¹ U.S. Department of Health and Human Services. *Standards for Electronic Transactions-New Versions, New Standard and New Code Set - Final Rules*. January 16, 2009. Accessed September 24, 2010. Available at: http://www.cms.gov/TransactionCodeSetsStandards/02_TransactionsandCodeSetsRegulations.asp.

² The diagnosis classification system (ICD-10-CM) was developed by the Centers for Disease Control and Prevention (CDC) and is for use in all health care settings in the U.S. For more information on ICD-10-CM, see: <http://www.cdc.gov/nchs/icd/icd10cm.htm>. The classification system used for procedures (ICD-10-PCS) was developed by the Centers for Medicare & Medicaid Services (CMS) for inpatient hospital settings in the U.S. only. For more information on ICD-10-PCS, see: <https://www.cms.gov/ICD10/>.

BENEFITS OF ICD-10

The enhanced data that will come from the switch to ICD-10 will provide the U.S. health care system a wide variety of benefits, including improved public health surveillance and enhanced data for treatment and research, as well as the building blocks to refine payment systems, bolster pay-for-performance, and identify fraud and abuse by more accurately defining services rendered.

ICD-10 will allow health care providers to categorize disease states, document medical complications, and track health care outcomes more effectively than they could with ICD-9. As a result, they will have a better understanding of diseases and causes of death, and they will be able to more efficiently identify ways to improve health care quality. The expanded code set enables providers to indicate on health claims detailed clinical information (e.g., blood pressure levels and body mass index) geared towards improving health outcomes.

Additional examples of the increased specificity of the new code that will assist practitioners and enhance health care quality include:

- Angioplasty, a procedure for widening a narrowed blood vessel, currently has only one code under ICD-9. This will be increased to 1,170 under ICD-10, with separate codes describing the precise location of the blockage and instruments used to widen the vessel.
- Whereas medication errors and external causes of injury are recorded separately from condition codes under the ICD-9 system, they are embedded with the condition code under

ICD-10. This change is expected to help prevent medical errors.³

- Using ICD-10, it will be possible to indicate on which side of the patient's body a condition occurred, which could help identify surgical errors.

Furthermore, the additional detail provided with the expanded code set will make it easier to put electronic health records into practice and improve their utility for practitioners and patients.

Use of ICD-10 will further assist the U.S. health care system in improving quality of care by ensuring that U.S. health care data can be more precisely tracked and compared with those collected by other countries that already use ICD-10.

It is important to note that, despite the benefits of moving to a new code system, these changes pose a number of challenges for health care stakeholders – health plans and health care providers. Among them are the implementation costs involved with revising the system.

INCREMENTAL IMPLEMENTATION COSTS FOR ICD-10

AHIP's survey of ICD-10 implementation costs was designed to separate the incremental, extra costs of implementing the new coding system from routine information technology (IT) or business costs (e.g., costs for maintenance or upgrades to existing IT systems) that would occur even in the absence of ICD-10 implementation. Among the 20 health

³ U.S. Department of Health and Human Services. *HHS Issues Final ICD-10 Code Sets and Updated Electronic Transaction Standards Rules*. January 15, 2009. Accessed August 2, 2010. Available at: <http://www.hhs.gov/news/press/2009pres/01/20090115f.html>.

insurance plans that responded to the survey, the average implementation cost was \$12 per member when weighted by enrollment. For small health plans, covering fewer than 1 million individuals, the per-member implementation cost ranged from \$8 to \$68, with an enrollment-weighted average per-member cost of \$38. For a medium-sized health plan, covering between 1 million and 5 million individuals, the implementation cost per member ranged from \$4 to \$42, with an enrollment-weighted average cost per member of \$13. Finally, for a large health plan, covering more than 5 million individuals, the implementation cost per member ranged from \$3 to \$15, and an enrollment-weighted average cost per member of \$11.

SURVEY METHODOLOGY

AHIP asked member companies to provide total enrollment in their health insurance plans, as well as the total incremental cost of adopting ICD-10. Health plans were asked to report the total business and technology costs associated with implementing ICD-10. The cost figure, reported regardless of time frame, excludes maintenance costs and claims payment costs. For example, administrative costs, including those for adoption of Version 5010 of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) standards⁴ and other expenses related to the maintenance and use of codes and the claims systems after implementation, were considered administrative expenses and excluded from these calculations.

⁴ The HIPAA-mandated transaction standard for covered entities to use when conducting certain health care transactions electronically is currently X12 version 4010A1 for health care claims, remittance advices, eligibility, claims status, referrals, and NCPDP version 5.1 for pharmacy claims. CMS has mandated that the industry upgrade to X12 version 5010 and NCPDP version D.0. in order to increase transaction uniformity, support pay-for-performance, streamline reimbursement transactions, and support ICD-10-CM codification. For more information, see: <http://www.cms.gov/Versions5010andD0/>.

As with any survey of estimated costs, where each company might use different estimating parameters and assumptions, or different periods of time, an extra degree of variability in responses is possible. However, any such variation should be randomly distributed (with an equal likelihood of comparatively higher or lower estimates), and we believe the aggregated results shown in the table above are likely representative.

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