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## 2011 VA HIMSS Fall Conference



# ICD-10: Are You Ready?

Chip Perkins, Managing Director - CAP STS Professional Services

November 3, 2011

# About Me

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- Started my healthcare career in 1993
- Consulting and EMR Vendor background
- Joined CAP STS Professional Services in 2010
- Attended William and Mary
- Reside in Centreville, VA



# Who Is CAP STS?

ision 3

College of American Pathologists



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## CAP STS Professional Services

CAP STS aligns the standards of medicine with the efficiency of information technology to drive insight, outcomes, and quality.

[capsts.org](http://capsts.org)

CAP STS provides professional services to deliver solutions in clinical informatics.

- Health Information Management Strategy
- Meaningful Use and HITECH Act Requirements
- Clinical Terminologies and Standards (SNOMED CT®, LOINC®, RxNorm, etc.)
- ICD-10 Transformation Planning and Implementation
- Laboratory Information Management

CAP STS Professional Services

# Learning Objectives

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- 1. Understand The Differences Between ICD-9 and ICD-10**
- 2. Discuss Steps You Should Be Taking Now To Prepare**
- 3. Have A Little Fun With A Tough Topic**

## Are You Ready For Real Transformation?

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**As healthcare providers push towards Meaningful Use, Interoperability and Health Information Exchange, the coding language used to document medical diagnosis and inpatient procedures is undergoing a major transition.**

# ICD-10 Implementation Date

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**October 1, 2013**

**Compliance date for implementation  
of ICD-10-CM (diagnoses) and ICD-10-  
PCS (procedures)**

**ICD-10-CM will be used by all providers in every  
health care setting**

**ICD-10-PCS will be used only for hospital claims for  
inpatient hospital procedures**

# Why?

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- According to [HHS](#), ICD-10 will:
  - "Support value-based purchasing and Medicare's anti-fraud and abuse activities by accurately defining services and providing specific diagnosis and treatment information;
  - Support comprehensive reporting of quality data;
  - Ensure more accurate payments for new procedures, fewer rejected claims, improved disease management, and harmonization of disease monitoring and reporting worldwide; and
  - Allow the United States to compare its data with international data to track the incidence and spread of disease and treatment outcomes..."

# Latest News Flash From CMS

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- The deadline is firm?
  - ✓ Yes
- We are rushing over the precipice?
  - ✓ No
- American healthcare is in serious trouble?
  - ✓ Not because of ICD-10
- Should we be on board?
  - ✓ Yes

Source: CMS: ICD-10 Implementation Strategies for Physicians National Provider Call  
August 3, 2011

Please Stand Up...

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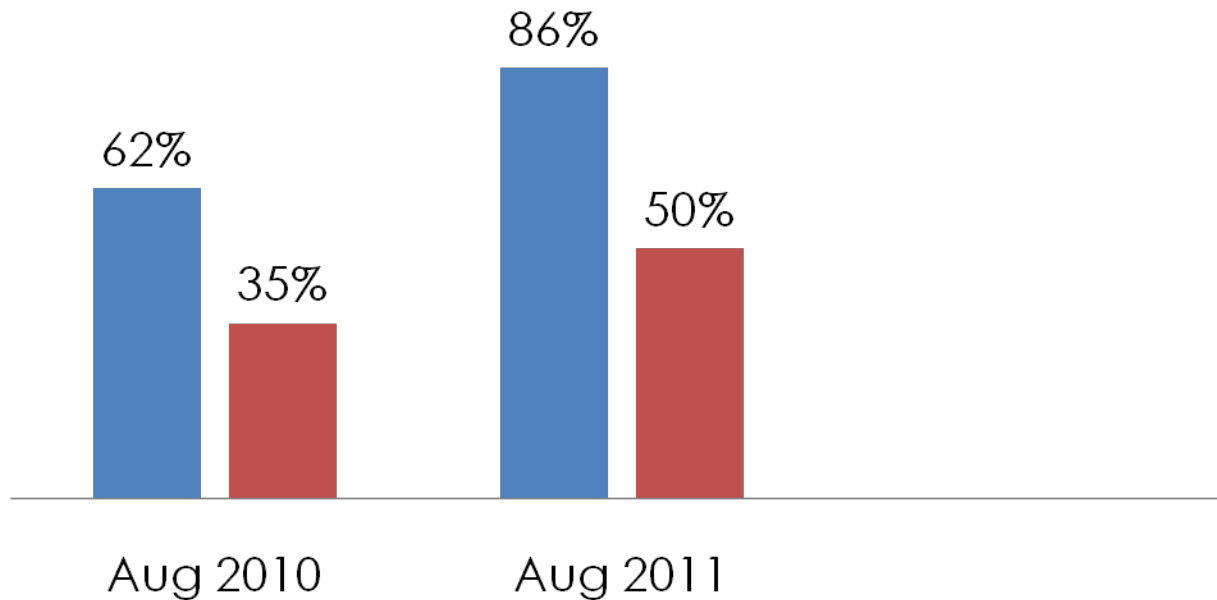
**Have you or anyone from your facility started the implementation planning for ICD-10 yet?**

# AHIMA Survey

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**Have you or anyone from your facility started the implementation planning for ICD-10 yet?**

■ Inpatient ■ All Other Settings



Source: AHIMA, Oct 2011

# ICD-10: More Than A HIM Coding Issue

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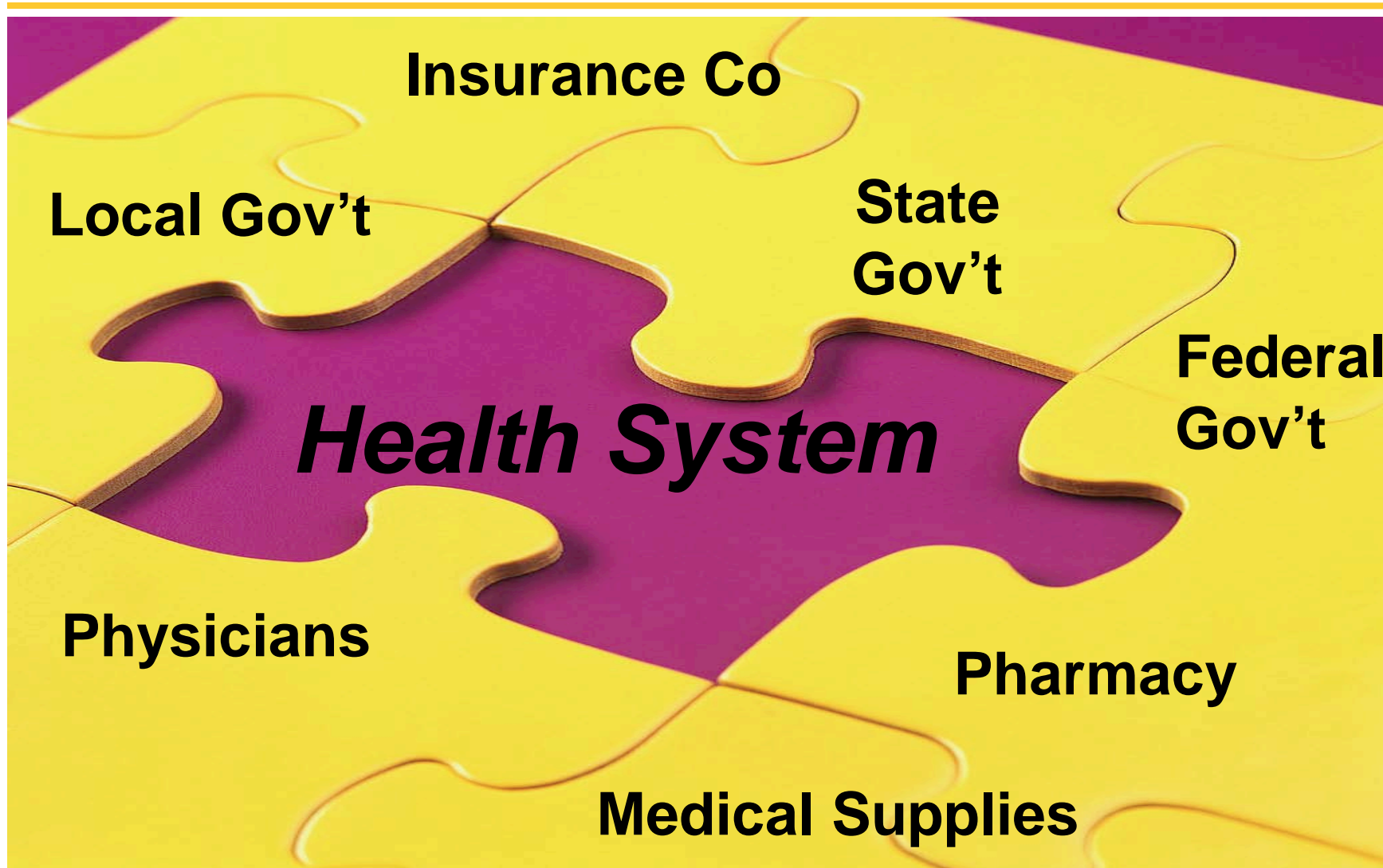


HIM / Billing / Revenue Cycle / IT

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Scheduling / Registration  
Physician Problem List  
Clinical Documentation  
Physician Documentation  
Quality Assurance  
Utilization Management

## Everyone Is Impacted: Public, Private , Gov't



# What Can We Expect?

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- No incentive money on October 13, 2011
- Initial delays and lost productivity
  - Coders, Physicians, Hospitals, Payers will all be adjusting to the new regulations at the same time
  - Coders will likely lose some productivity
  - Some claims will be delayed in submission and payment
- More stringent documentation will be required

# Applications That May Use Coded Data

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Encoding software	Case mix systems
Medical record abstracting systems	Managed care reporting system
Billing systems	Case management systems
DRG groupers	Disease management systems
Electronic health record systems	Financial systems
Clinical systems	Provider profiling systems
Decision support systems	Test ordering systems
Computer-assisted coding applications	Clinical reminder systems
Registration and scheduling	Performance measure systems
Utilization management	Medical necessity software
Quality management	Aggregate data rept systems
Computerized physician OE systems	Registries
Clinical protocols	Compliance software
Fraud management systems	Patient assessment data sets (e.g., MDS, PAI, OASIS)

Source: AHIMA

# Users Requiring ICD-10 Education

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Coders  
Other HIM staff  
Clinicians  
Senior management  
IT staff  
Quality management  
Utilization management  
Accounting  
Business office  
Auditors and consultants  
Patient access and registration  
Other data users

Clinical department managers  
Ancillary departments  
Data analysts  
Researchers  
Epidemiologists  
Performance improvement  
Corporate compliance  
Data quality management  
Data security  
Clinical documentation staff  
Payer contract managers  
Registry personnel

Source: AHIMA

October 1, 2013

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## ICD9 CM

- Since 1979
- Lacks specificity and detail
- No longer reflects current knowledge of disease
- Insufficient structure for reporting
- Running out of codes

## ICD10 CM

- Provides more detailed and clearer clinical picture of patient
- Expands injury coding
- Increased number of codes and categories
- Greater accuracy

I21-I22.2

Diseases of the Circulatory System

ICD-10-CM Draft (2011)

✓4<sup>th</sup> **I21 ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction**

**[INCLUDES]** cardiac infarction  
 coronary (artery) embolism  
 coronary (artery) occlusion  
 coronary (artery) rupture  
 coronary (artery) thrombosis  
 infarction of heart, myocardium, or ventricle  
 myocardial infarction specified as acute or with a stated duration of 4 weeks (28 days) or less from onset

Use additional code, if applicable, to identify:

exposure to environmental tobacco smoke (Z77.22)  
 history of tobacco use (Z87.891)  
 occupational exposure to environmental tobacco smoke (Z57.31)  
 status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility (Z92.82)  
 tobacco dependence (F17-)  
 tobacco use (Z72.0)

Use additional code, if known, to identify:

body mass index (BMI) (Z68-)

**[EXCLUDES 2]** *old myocardial infarction (I25.2)*

*postmyocardial infarction syndrome (I24.1)*

*subsequent myocardial infarction (I22-)*

✓5<sup>th</sup> **I21.0 ST elevation (STEMI) myocardial infarction of anterior wall**

**I21.01 ST elevation (STEMI) myocardial infarction involving left main coronary artery**

**I21.02 ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery**  
 ST elevation (STEMI) myocardial infarction involving diagonal coronary artery

**I21.09 ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall**  
 Acute transmural myocardial infarction of anterior wall  
 Anteroapical transmural (Q wave) infarction (acute)  
 Anterolateral transmural (Q wave) infarction (acute)  
 Anteroseptal transmural (Q wave) infarction (acute)  
 Transmural (Q wave) infarction (acute) (of) anterior (wall) NOS

✓5<sup>th</sup> **I21.1 ST elevation (STEMI) myocardial infarction of inferior wall**

**I21.11 ST elevation (STEMI) myocardial infarction involving right coronary artery**

Inferoposterior transmural (Q wave) infarction (acute)

**I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall**  
 Acute transmural myocardial infarction of inferior

**I21.4 Non-ST elevation (NSTEMI) myocardial infarction**

Acute subendocardial myocardial infarction  
 Non-Q wave myocardial infarction NOS  
 Nontransmural myocardial infarction NOS

✓4<sup>th</sup> **I22 Subsequent ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction**

**[NOTE]**

A code from category I22 must be used in conjunction with a code from category I21. The I22 code should be sequenced first, if it the reason for encounter, or, it should be sequenced after the I21 code if the subsequent MI occurs during the encounter for the initial MI.

**[INCLUDES]**

acute myocardial infarction occurring within four weeks (28 days) of a previous acute myocardial infarction, regardless of site

cardiac infarction  
 coronary (artery) embolism  
 coronary (artery) occlusion  
 coronary (artery) rupture  
 coronary (artery) thrombosis  
 infarction of heart, myocardium, or ventricle  
 recurrent myocardial infarction  
 reinfarction of myocardium  
 rupture of heart, myocardium, or ventricle

Use additional code, if applicable, to identify:

exposure to environmental tobacco smoke (Z77.22)  
 history of tobacco use (Z87.891)  
 occupational exposure to environmental tobacco smoke (Z57.31)  
 status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility (Z92.82)  
 tobacco dependence (F17-)  
 tobacco use (Z72.0)

Use additional code, if known, to identify:

body mass index (BMI) (Z68-)

**I22.0 Subsequent ST elevation (STEMI) myocardial infarction of anterior wall**

Subsequent acute transmural myocardial infarction of anterior wall

Subsequent transmural (Q wave) infarction (acute)(of) anterior (wall) NOS

Subsequent anteroapical transmural (Q wave) infarction (acute)

Subsequent anterolateral transmural (Q wave) infarction (acute)

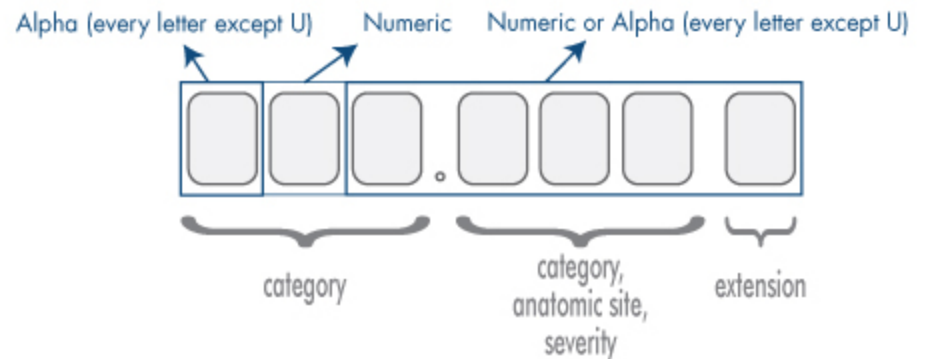
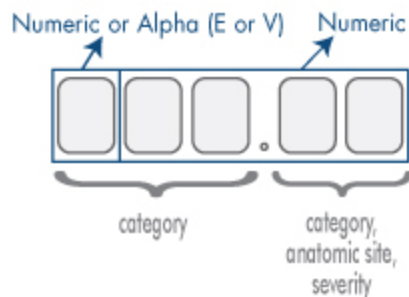
Subsequent anteroseptal transmural (Q wave) infarction (acute)

**I22.1 Subsequent ST elevation (STEMI) myocardial infarction of inferior wall**

Subsequent acute transmural myocardial infarction of inferior

# Comparison

ICD 9 CM Diagnosis Codes	ICD 10 CM Diagnosis Codes
3-5 characters in length	3-7 characters in length
~ 14 000 codes	~ 69 000 codes
First digit may be alpha or numeric Digits 2-5 numeric	First digit is always alpha Digits 2-7 are alpha or numeric
Lacks detail and laterality	Very specific and has laterality



## Impact To Providers

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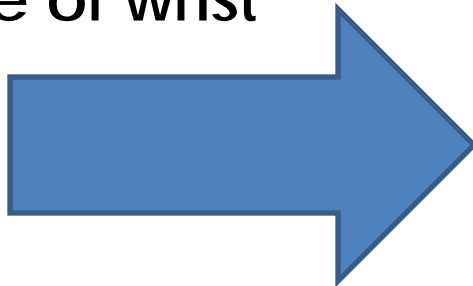
- More precise provider documentation
  - Which side? Which finger or toe?
  - Has this patient been seen for this problem before?
  - X complication due to what?
  - Where did injury occur (specifically, which room of the house and what kind of house, etc.....)
  - Who was perpetrator of abuse and was it the natural, step, foster male or female relative? Teacher or Daycare provider?
    - Suspected or confirmed?
  - Was the poisoning intentional, accidental or assault, adverse effect or underdosing?

# Impact To Providers

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842.00

Sprain of unspecified site of wrist



- S63.501A Unspecified sprain of right wrist, initial encounter
- S63.501D Unspecified sprain of right wrist, subsequent encounter
- S63.501S Unspecified sprain of right wrist, sequela
- S63.502A Unspecified sprain of left wrist, initial encounter
- S63.502D Unspecified sprain of left wrist, subsequent encounter
- S63.502S Unspecified sprain of left wrist, sequela
- S63.509A Unspecified sprain of unspecified wrist, initial encounter
- S63.509D Unspecified sprain of unspecified wrist, subsequent encounter
- S63.509S Unspecified sprain of unspecified wrist, sequela
- S66.911A Strain of unspecified muscle, fascia and tendon at wrist and hand level, right hand, initial encounter
- .....
- S66.919A Strain of unspecified muscle, fascia and tendon at wrist and hand level, unspecified hand, initial encounter
- S66.919D Strain of unspecified muscle, fascia and tendon at wrist and hand level, unspecified hand , subsequent encounter

# Public Health Example

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W22.02XA, "walked into lamppost, initial encounter"

Source: Wall Street Journal

# What Are GEMs Maps?

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- General Equivalence Map
- Maps made available by CMS and CDC - National Center Health Statistics
- A starting point translation table:
  - ICD-9-CM to ICD-10-CM/PCS
  - ICD-10-CM/PCS to ICD-9-CM
- Results include
  - 1 x 1
  - 1 x Many
  - Many x 1

# Results of an ICD-10-CM Coding Pilot Study related to Clinical Documentation

Susan H. Fenton, PhD, RHIA<sup>1</sup>, Jacqueline Moczygamba, MBA, RHIA, CCS<sup>1</sup>, Kathy Mechler, MS, CPHQ, RN<sup>2</sup>, Robert Morrow, MD<sup>2</sup>

<sup>1</sup>Texas State University, San Marcos, TX, <sup>2</sup>Texas A&M Health Science Center Rural and Community Health Institute

## Abstract

An ICD-10-CM pilot study examining the specificity of clinical documentation in 500 acute care hospital records was conducted. The pilot study focused on records with an ICD-9-CM principal diagnosis of heart disease, pneumonia or diabetes. Findings indicate that heart disease and pneumonia record clinical documentation lacks the detailed required by the ICD-10-CM classification system. Conversely, the diabetes record clinical documentation appeared more than adequate for coding using ICD-10-CM. This study provides guidance for organizations, as well as highlights the need for organizations to review their clinical documentation, especially for high impact conditions, prior to the October 1, 2013 implementation date.

## Introduction

The United States Secretary of Health and Human Services issued a Final Rule that the modified version (Clinical Modification) of the International Classification of Diseases, 10th revision, be used in place of ICD-9-CM beginning on October 1, 2013(1). ICD-9-CM is currently used throughout the nation's healthcare system for recording diagnosis or the reason for treatment or care. It is also used for a variety of purposes including the measurement of the quality, safety and effectiveness of care. The utilization of ICD-10-CM for all diagnostic coding is expected to have an impact across the healthcare industry as ICD-10-CM (the clinical modification) consists of more than 68,000 diagnosis codes compared to approximately 13,000 ICD-9-CM diagnosis codes. There are many publications with information related to the U.S. ICD-10 implementation reinforcing the need to improve clinical documentation(2,3). However, to date, none have included information regarding which diseases and conditions will require improved documentation so that more detailed ICD-10-CM codes can be assigned. While there may be some differences between organizations, this research study can provide guidance for organizations which may lack the resources or personnel to perform analyses of their own data.

## Methods

Following IRB review and approval from Texas State University and Texas A&M University, the researchers were able to access two sets of de-identified records. Two coders were recruited using a combination of ICD-9-CM coding proficiency assessments, as well as phone and in-person interviews. The two coders and researchers were trained to use ICD-10-CM by an AHIMA-certified ICD-10-CM trainer.

The coders and quality assurance reviewer used the 2010 version of ICD-10-CM code books and ICD-10-CM coding guidelines to re-code 481 records. Of this total, 445 or 92.53% were selected from the Texas A&M Health Science Center Rural and Community Health Center database. The remaining 46 or 9.37% were selected from the AHIMA Virtual Lab database. The data collection tool, an Excel spreadsheet, allowed for a principal diagnosis and 29 secondary diagnoses to be assigned for each record. In addition to the codes, age and gender were recorded for each record.

Of the available de-identified record population, the researchers elected to focus on three common and costly healthcare conditions due to the study funding limitations. The population of records was reduced to those with a principal diagnosis of heart disease, pneumonia or diabetes mellitus. The list of ICD-9-CM codes used to select the record population was: **Diabetes: 250.0x – 250.9x; Heart Disease: 425.0 – 429.9; and Pneumonia: 480.0 – 486.**

After the coding was completed a quality assurance process to assess the accuracy of the coding was conducted on a randomly selected sample of 10% of the cases. The quality assurance reviewer was one of the researchers who is CCS credentialed and had attended the ICD-10-CM training previously referenced. Examples of inaccurate code assignment include a valid ICD-10-CM code assigned incorrectly or use of an invalid ICD-10-CM code as exhibited in Table 1. The overall accuracy rate of the coding was found to be 95.3%. This rate was determined to be acceptable for the purpose for which the data was collected. Data analysis consisted of descriptive statistics (frequencies and percentages) both by total and by condition utilizing an Access<sup>®</sup> database.

## Results

- ✦ 491 records coded
- ✦ 4,283 total codes assigned
- ✦ 935 unique codes assigned
- ✦ 8.7 codes per record
- ✦ 27.6%, or 1,180 of assigned codes, were "unspecified"

### Potential Problem Areas for Clinical Documentation

#### ✦ Heart Disease

- Heart Failure – documentation lacked information regarding whether the condition was acute or chronic or systolic or diastolic

- Cardiac Arrest – ICD-9-CM has only one cardiac arrest code. ICD-10-CM has three: cardiac arrest due to underlying cardiac condition; cardiac arrest due to other underlying condition and cardiac arrest; unspecified

- Chest Pain – additional detail is needed to indicate whether the pain is muscular or otherwise

- ✦ Pneumonia – largely needs the organism to be specified if possible

- J18.0 Pneumonia, unspecified organism
- J18.0 Bronchopneumonia, unspecified organism
- J18.1 Lobar pneumonia, unspecified organism

Coders had no problem with unspecified pneumonia but tended to go in two directions for bronchopneumonia versus lobar pneumonia

- ✦ Urinary Tract Infection – was not targeted, but was found to be unspecified in a large number of cases

- ✦ Diabetes records did NOT use unspecified codes. ICD-10-CM changes the terminology to match clinical practice using Type 1 and Type 2 vs. controlled and uncontrolled.

## Conclusions

Clinical documentation improvement is going to be essential to enable organizations to take advantage of the additional detail available in ICD-10-CM. Clinicians will require targeted training.

### Coding Lessons Learned:

- ✦ ICD-10-CM manual coding is more complex than ICD-9-CM. Attempt manual ICD-10-CM coding with great care.
  - Dummy placeholder character must be used in some instances
  - 7<sup>th</sup> Character for encounter varies by code chapter
- ✦ Coders MUST be careful with definitions. They cannot rely on their knowledge of ICD-9-CM
  - Fibromyalgia – a specified code is not in ICD-9-CM, but ICD-10-CM does have a specific code
  - Pneumonia – more detailed in ICD-10-CM, requiring more detailed clinical knowledge from the coder.
- ✦ Collecting codes for factors influencing health status. This chapter was made much larger in ICD-10-CM, but care needs to be taken when deciding to collect these factors especially when planning resource use.

### ✦ Limitations of the study

- Pilot study – small scope
- Limited to records from rural health care hospitals
- Coders were not familiar with the records
- Assistive technologies were not available for the coders

## References

1. Department of Health and Human Services. HIPAA Administrative Simplification: Modifications to Medical Data Code Set Standards to Adopt ICD-10-CM and ICD-10-PCS. 45 CFR Part 162 (Interim). 2009 Jan 16 [cited 2009 Sep 21]; Available from: <http://edocket.access.gpo.gov/2009/pdf/E8-743.pdf>
2. Bazman S, Butler R. ICD-10 Update. In: 2008 AHIMA Convention Proceedings. Seattle, WA: AHIMA; 2008.
3. Ingenix. Preparing for ICD-10: Evaluating Approaches and Potential Pitfalls [Internet]. Eden Prairie, MN: 2008. Available from: <http://www.icd10compared.com>

## Impact To IT (Another Y2K?)

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- Prepare for dual coding systems
- Change to alphanumeric structure
- Longer code descriptions/field size expansion in tables, GUI and reporting
- Edit and logic changes for applications that integrate content of ICD codes
- Both ICD 9 and ICD 10 nomenclature character counts will need to be supported

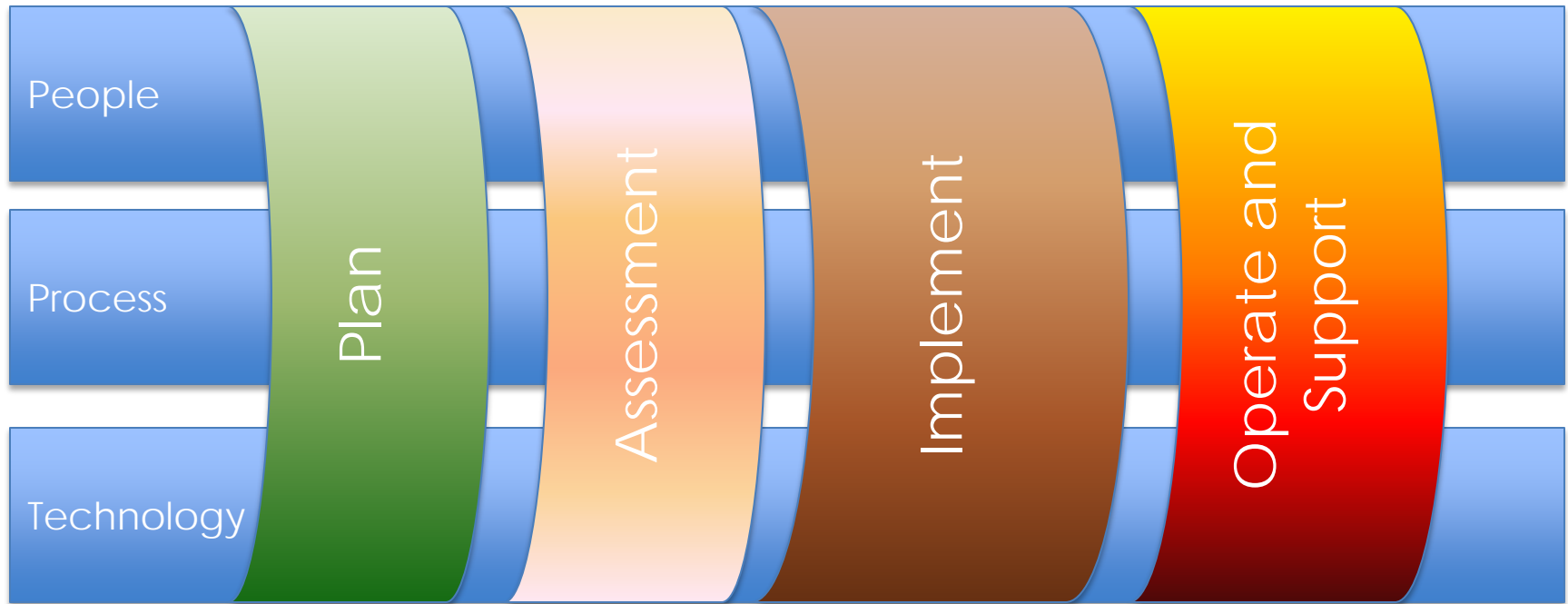
## Planning: What Are Your Goals For ICD-10?

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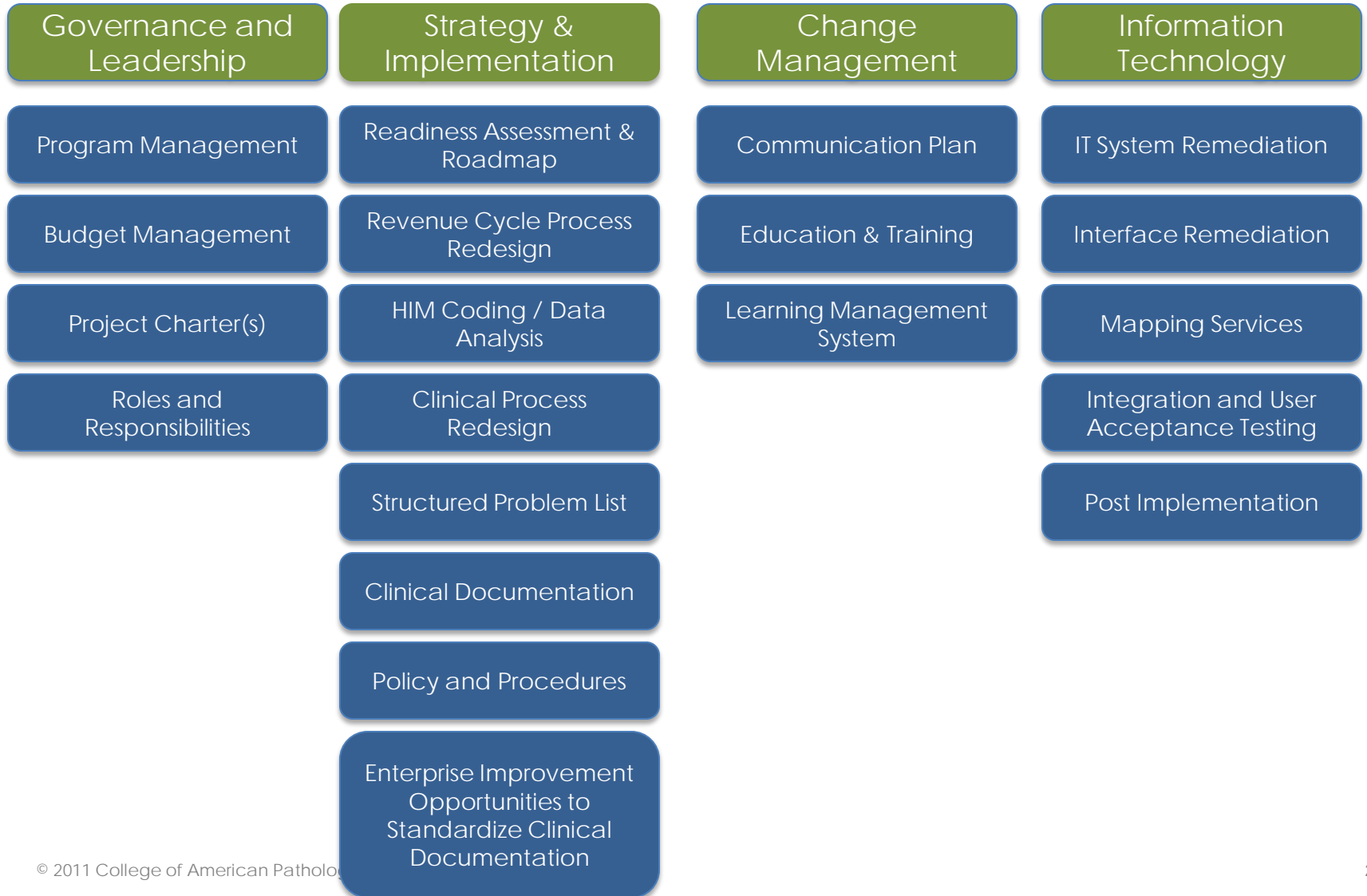
- Make ICD-10 revenue neutral.
- Basic compliance so I can move forward with Meaningful Use.
- ICD-10 as a Strategic Enabler
  - Move towards Accountable Care and Pay for Performance
  - Improved Clinical Outcomes
  - Better use of cost data / health analytics

# ICD-10 Project Lifecycle

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# ICD-10 Roadmap



# Pathway To Success

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Support and Adopt

Test and Implement

Training

Vendor and Payer Plan

Future State Analysis

Strategy & Plan

Governance & Budget

Awareness & Education



## Where To Start?

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- Compare the diagnosis codes that you use 80 percent of the time and translate them to ICD-10
- Identify changes to physician documentation, problem list, clinical documentation, encounter forms, and quality and public health reporting
- Conduct mock ICD-10 coding on a sample of HIM records
- Incorporate GEMS into your plan. They are a starting point to help get started, but are not the final answer

## In Conclusion.....Lessons Learned

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- Make ICD-10 Awareness a priority **NOW**
- Communicate - Get your Leadership Team on board
- Develop your impact assessment and plan
- Secure your budget for software, operations and training
- Assess quality of clinical and medical record documentation
- Identify IT systems that need updates
- Awareness - Educate and Communicate
- Train - but not too much, too early
- Physicians - Create Job Aids for Dr's
- Establish plans with your vendors, payers and providers

# ICD-10 Reference Sites

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- AHIMA ICD-10 Home  
<http://www.ahima.org/icd10/default.aspx>
- National Center for Health Statistics  
<http://www.cdc.gov/nchs/icd.htm>
- CMS  
<http://cms.gov/ICD10>
- World Health Organization  
[www.who.int/classifications/icd](http://www.who.int/classifications/icd)
- College of American Pathologists  
[www.cap.org](http://www.cap.org)

# Another Fun Example

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V91.07XA, which involves a  
"burn due to water-skis on fire"

Source: Wall Street Journal



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