Opportunities and Challenges of the ICD-10 Transition

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The Ohio State University Wexner Medical Center
Learning Objectives

1. Review the requirements to comply with the ICD-10 mandate
2. Provide a sample ICD-10 project plan including building, testing, and training
3. Describe suggested actions to address challenges and opportunities of the project
Improve People’s Lives Through Innovation In Research, Education And Patient Care.

Ohio State's Wexner Medical Center

University Hospital

OSUCCC - James Cancer Hospital

University Hospital East

OSU Harding Hospital

Ross Heart Hospital

OSU Rehabilitation Services at Dodd Hall

Faculty Group Practice

College of Medicine

Primary Care Network
A Single, Integrated Health Record

RESEARCH

EDUCATION

PATIENT CARE

Quick Stats Per Year:

1.2M  Outpatient Visits
56,000  Admissions
1,400  Attending Physicians
750  Residents
24,000  End Users
55,000+  MyChart Users
ICD-10 Compliance Date

October 1, 2014

• Single compliance date for all users
  – Date of service for ambulatory and physician reporting
  – Date of discharge for inpatient settings
What is ICD-10?

There are 2 parts:

1. **ICD-10-CM**
   International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM)

2. **ICD-10-PCS**
   International Classification of Diseases, 10th Revision, Procedure Classification System (ICD-10-PCS)

Replaces ICD-9-CM Volumes 1, 2 (Diagnoses) and 3 (Procedures)
Why do we need to convert to ICD-10?

1. It is required
2. ICD-9-CM is over 30 years old
   • Does not provide the necessary detail
   • Has outdated and obsolete terminology
   • Has run out of space
3. The United States has not yet implemented ICD-10 for morbidity reporting.
   • Need for international data comparability
Dramatic Increase in the Number of Codes from ICD-9 to ICD-10

Diagnosis
- ICD-9-CM ~14,000
- ICD-10-CM ~68,000

Procedure
- ICD-9-CM ~4,000
  - Procedure codes are related to diagnosis codes
- ICD-10-PCS ~72,000
  - Procedure codes are specific and are not related to the ICD-10-CM diagnosis codes

Studies have shown it takes more time to code in ICD-10.
# Part One: ICD-10-CM Specificity

## ICD-9-CM

821.01 Fracture of femur, shaft, closed

One code

<table>
<thead>
<tr>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
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<tbody>
<tr>
<td>821.01</td>
<td>S72301</td>
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<td></td>
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<table>
<thead>
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<tr>
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<td>Unspecified fracture of shaft of right femur, subsequent encounter for closed fracture with delayed healing</td>
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<td>S72302A</td>
<td>Unspecified fracture of shaft of left femur, initial encounter for closed fracture</td>
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<td>S72302G</td>
<td>Unspecified fracture of shaft of left femur, subsequent encounter for closed fracture with delayed healing</td>
</tr>
<tr>
<td>S72309A</td>
<td>Unspecified fracture of shaft of unspecified femur, initial encounter for closed fracture</td>
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</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Displaced transverse fracture of shaft of left femur, initial encounter for closed fracture</td>
</tr>
<tr>
<td>S72322G</td>
<td>Displaced transverse fracture of shaft of left femur, subsequent encounter for closed fracture with delayed healing</td>
</tr>
<tr>
<td>S72323A</td>
<td>Displaced transverse fracture of shaft of unspecified femur, initial encounter for closed fracture</td>
</tr>
<tr>
<td>S72323G</td>
<td>Displaced transverse fracture of shaft of unspecified femur, subsequent encounter for closed fracture with delayed healing</td>
</tr>
<tr>
<td>S72324A</td>
<td>Nondisplaced transverse fracture of shaft of right femur, initial encounter for closed fracture</td>
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</table>

<table>
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<tbody>
<tr>
<td>S72326A</td>
<td>Nondisplaced transverse fracture of shaft of unspecified femur, initial encounter for closed fracture</td>
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<tr>
<td>S72326G</td>
<td>Nondisplaced transverse fracture of shaft of unspecified femur, subsequent encounter for closed fracture with delayed healing</td>
</tr>
<tr>
<td>S72331A</td>
<td>Displaced oblique fracture of shaft of right femur, initial encounter for closed fracture</td>
</tr>
<tr>
<td>S72331G</td>
<td>Displaced oblique fracture of shaft of right femur, subsequent encounter for closed fracture with delayed healing</td>
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</tbody>
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<tbody>
<tr>
<td>S72332A</td>
<td>Displaced oblique fracture of shaft of right femur, initial encounter for closed fracture</td>
</tr>
</tbody>
</table>

Many possible codes

Source: 3M 2010.
Part Two: ICD-10-PCS Specificity - Angioplasty

- ICD-9-CM
  - 1 code - 39.50

- ICD-10-PCS
  - 854 codes
  - Specifying body part, approach, and device, including
  - Example:
    - 047K04Z – Dilation of right femoral artery with drug-eluting intraluminal device, open approach

<table>
<thead>
<tr>
<th>Character 1 Section</th>
<th>Character 2 Body System</th>
<th>Character 3 Root Operation</th>
<th>Character 4 Body Part</th>
<th>Character 5 Approach</th>
<th>Character 6 Device</th>
<th>Character 7 Qualifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical and Surgical</td>
<td>Lower Arteries</td>
<td>Dilation</td>
<td>Femoral artery, right</td>
<td>Open</td>
<td>Drug-eluting intraluminal device</td>
<td>No Qualifier</td>
</tr>
<tr>
<td>0</td>
<td>4</td>
<td>7</td>
<td>K</td>
<td>0</td>
<td>4</td>
<td>Z</td>
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</table>
ICD-10 Operational Impact
ICD-10 Impact to the Physician
Changes to all workflows that include diagnoses and procedures

- Diagnoses associated with orders
- Problem lists
- Inpatient progress notes
- Procedure notes
- History and physical exams
- Ambulatory progress notes

ICD-10 impacts facility and professional billing, pre-certification and medical necessity justification
Selecting a Diagnosis: ICD-9-CM

Fracture shaft of humerus: 4 codes

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>812.21A</td>
<td>Fracture of shaft of humerus</td>
<td>812.21</td>
</tr>
<tr>
<td>V54.11H</td>
<td>Fracture of shaft of humerus with delayed healing</td>
<td>V54.11</td>
</tr>
<tr>
<td>733.81CWA</td>
<td>Fracture of shaft of humerus with malunion</td>
<td>733.81</td>
</tr>
<tr>
<td>733.82CUY</td>
<td>Fracture of shaft of humerus with nonunion</td>
<td>733.82</td>
</tr>
<tr>
<td>V54.11NQ</td>
<td>Fracture of shaft of humerus with routine healing</td>
<td>V54.11</td>
</tr>
<tr>
<td>812.21Q</td>
<td>Fracture of shaft of humerus, closed</td>
<td>812.21</td>
</tr>
<tr>
<td>812.21BL</td>
<td>Fracture of shaft of left humerus</td>
<td>812.21</td>
</tr>
<tr>
<td>V54.11MD</td>
<td>Fracture of shaft of left humerus with delayed healing</td>
<td>V54.11</td>
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<tr>
<td>733.81AAL</td>
<td>Fracture of shaft of left humerus with malunion</td>
<td>733.81</td>
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<td>733.82DMV</td>
<td>Fracture of shaft of left humerus with nonunion</td>
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<tr>
<td>V54.11QX</td>
<td>Fracture of shaft of left humerus with routine healing</td>
<td>V54.11</td>
</tr>
<tr>
<td>812.21BE</td>
<td>Fracture of shaft of right humerus</td>
<td>812.21</td>
</tr>
<tr>
<td>V54.11W</td>
<td>Fracture of shaft of right humerus with delayed healing</td>
<td>V54.11</td>
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<tr>
<td>733.81MV</td>
<td>Fracture of shaft of right humerus with malunion</td>
<td>733.81</td>
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<tr>
<td>733.82BAD</td>
<td>Fracture of shaft of right humerus with nonunion</td>
<td>733.82</td>
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<td>V54.11FK</td>
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<td>V54.11</td>
</tr>
<tr>
<td>812.21</td>
<td>Closed fracture of shaft of humerus</td>
<td>812.21</td>
</tr>
<tr>
<td>812.21AA</td>
<td>Greenstick fracture of shaft of humerus</td>
<td>812.21</td>
</tr>
<tr>
<td>V54.11JM</td>
<td>Greenstick fracture of shaft of humerus with delayed healing</td>
<td>V54.11</td>
</tr>
<tr>
<td>733.81ENK</td>
<td>Greenstick fracture of shaft of humerus with malunion</td>
<td>733.81</td>
</tr>
</tbody>
</table>
Selecting a Diagnosis: ICD-10-CM

Fracture shaft of humerus > 100 codes

| S42.312A | Greenstick fracture of shaft of humerus, left arm, initial encounter for closed fracture | S42.312A |
| S42.312S | Greenstick fracture of shaft of humerus, left arm, sequela | S42.312S |
| S42.312G | Greenstick fracture of shaft of humerus, left arm, subsequent encounter for fracture with delayed healing | S42.312G |
| S42.312P | Greenstick fracture of shaft of humerus, left arm, subsequent encounter for fracture with malunion | S42.312P |
| S42.312K | Greenstick fracture of shaft of humerus, left arm, subsequent encounter for fracture with nonunion | S42.312K |
| S42.312D | Greenstick fracture of shaft of humerus, left arm, subsequent encounter for fracture with routine healing | S42.312D |
| S42.311A | Greenstick fracture of shaft of humerus, right arm, initial encounter for closed fracture | S42.311A |
| S42.311S | Greenstick fracture of shaft of humerus, right arm, sequela | S42.311S |
| S42.311G | Greenstick fracture of shaft of humerus, right arm, subsequent encounter for fracture with delayed healing | S42.311G |
| S42.311P | Greenstick fracture of shaft of humerus, right arm, subsequent encounter for fracture with malunion | S42.311P |
| S42.311K | Greenstick fracture of shaft of humerus, right arm, subsequent encounter for fracture with nonunion | S42.311K |
| S42.311D | Greenstick fracture of shaft of humerus, right arm, subsequent encounter for fracture with routine healing | S42.311D |
| S42.319A | Greenstick fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture | S42.319A |
| S42.319S | Greenstick fracture of shaft of humerus, unspecified arm, sequela | S42.319S |
| S42.319G | Greenstick fracture of shaft of humerus, unspecified arm, subsequent encounter for fracture with delayed healing | S42.319G |
| S42.319P | Greenstick fracture of shaft of humerus, unspecified arm, subsequent encounter for fracture with malunion | S42.319P |
| S42.319K | Greenstick fracture of shaft of humerus, unspecified arm, subsequent encounter for fracture with nonunion | S42.319K |
| S42.319D | Greenstick fracture of shaft of humerus, unspecified arm, subsequent encounter for fracture with routine healing | S42.319D |
| S42.302A | Unspecified fracture of shaft of humerus, left arm, initial encounter for closed fracture | S42.302A |
| S42.302B | Unspecified fracture of shaft of humerus, left arm, initial encounter for open fracture | S42.302B |
| S42.302S | Unspecified fracture of shaft of humerus, left arm, sequela | S42.302S |
| S42.302G | Unspecified fracture of shaft of humerus, left arm, subsequent encounter for fracture with delayed healing | S42.302G |
| S42.302P | Unspecified fracture of shaft of humerus, left arm, subsequent encounter for fracture with malunion | S42.302P |
| S42.302K | Unspecified fracture of shaft of humerus, left arm, subsequent encounter for fracture with nonunion | S42.302K |

50 matches found. More to load. Double click to select. Get more
ICD-10 Impact to the Health Information Management Department
Coders and Clinical Documentation Specialists

• ICD-10 training
• Results of financial and documentation gap analysis
  – Target queries for additional documentation specificity required
• Dual coding to master skills
• New software for computer assisted coding?
• New software for clinical documentation improvement?
ICD-10 Oversight Structure

ICD-10 Steering Committee

ICD-10 Implementation Team

- EMR Build Team
- Non EMR Application Team
- ICD-10 Reporting
- Project Management

- Communication/ Awareness/Training
- Managed Care/ Finance/Rev Cycle
- Physician Practice Plan
ICD-10 High Level Timeline

FY 2013

Q1 | Q2 | Q3 | Q4
---|---|---|---
System Analysis

FY 2014

Q1 | Q2 | Q3 | Q4
---|---|---|---
System Build/Testing
Financial Analysis
Computer Assisted Coding
Awareness Campaign
Budget Planning
Identify Workflow Changes
Training Planning
Coder Training
Ancillary Training
Physician Training
Conduct Partner Testing

Dual Coding Live: 10/15/13

ICD10 Compliant: 10/1/14

FY 2015

Q1 | Q2 | Q3
---|---|---
ICD10 Compliant: 10/1/14

Clinical Cutover: 4/1/14

Changes to IHIS Diagnosis Selection: 9/3/13

10/1/14

Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

FY 2013

FY 2014

FY 2015

System Analysis

System Build/Testing

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Identify Workflow Changes

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Physician Training

Conduct Partner Testing

Dual Coding Live: 10/15/13

ICD10 Compliant: 10/1/14

Clinical Cutover: 4/1/14

Changes to IHIS Diagnosis Selection: 9/3/13

10/1/14
System Analysis: Inventory all systems that need to convert to ICD-10

• Coding system
• Ancillary systems
  – RIS
  – Pathology
  – Lab
• Billing systems
  – ABN software
  – Claims scrubber

• Finance systems
  – Contract modeling
• Case Management

Et cetera…….
Identify Workflow Changes

Challenge: Specify Where Clinicians Can Use Generic or Specific Terms

• As an institution you will need to determine what level of codes will drive physician tools.
  – Will clinicians be required to enter specific diagnosis information on the problem list?
  – Will the system be configured to lead a physician to a specific code when ordering tests or entering a visit diagnosis?

• Based on your facilities rules, the system must be configured to accommodate the desired business rules.

• Examples:
  – **Hybrid Workflow:** Clinicians search for either a generic or specific diagnosis. If a clinician selects a generic diagnosis, the Diagnosis Calculator appears and the doctor can use it to identify a billable diagnosis.
  – **Default Workflow:** Clinicians search for only specific diagnoses
  – **Two-Step Workflow:** Clinicians always search for a generic diagnosis first and then use the Diagnosis Calculator when needed to identify a billable diagnosis
Confirm functionality of EMR vendor and add to plan

1. Determine if you can set up checks at multiple points during the revenue cycle to ensure that charges and accounts are coded using the correct code set.
2. Can your system assist the clinician in selecting the most appropriate code?
3. Can billers and coding specialists switch between I-9 and I-10 code sets?
4. Plan to use CMS mappings or equivalent product to translate I-10 codes to I-9 codes during claim generation for non-compliant payors.
EMR System Build and Testing

- Requires collaboration between builders and coding experts
  - Preference Lists
  - Smart Text
  - Diagnosis Calculator
  - Reports
  - Treatment Plans
  - Order sets
  - Future orders
1st Change for Clinicians: Importing Diagnosis Content into EMR

If you search for a diagnosis using an ICD-9 code, the system might not find the code you're used to seeing because the conversion modifies the external ID so that it no longer relates directly to the ICD-9 code. To find the correct diagnosis in these situations:

- If the code does not return a diagnosis description, look up the diagnosis using **clinical terms** (such as “diabetes mellitus”) OR
- To continue searching for diagnoses using ICD-9 codes, add the mnemonic shortcut `<code>` to the beginning of the code you enter:

![Database Matches](image)

Match: icd9.250.00

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Code</th>
<th>Code Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>250.00</td>
<td>Type II or unspecified type diabetes mellitus without mention of complic</td>
<td>250.00</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>178949</td>
<td>Diabetes mellitus</td>
<td>250.00</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>178957</td>
<td>Diabetes mellitus type II</td>
<td>250.00</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>256951</td>
<td>Diabetes mellitus with no complication</td>
<td>250.00</td>
<td>ICD-9-CM</td>
</tr>
</tbody>
</table>

51 Loaded. More to load. Press [Backspace] to go back to the match box.
1st Change for Clinicians: Importing Diagnosis Content into EMR

If a diagnosis you search for is associated with multiple ICD-9 codes, all of the codes will appear in the Code column. In addition, all associated codes are included in charges for the selected diagnosis. All of the codes that appear are linked to the diagnosis and can be billed. Select the term that is most clinically relevant for the patient.

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Code</th>
<th>Code Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>178949</td>
<td>Diabetes mellitus</td>
<td>250.00</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>315404</td>
<td>Diabetes mellitus and insipidus with optic atrophy and deafness</td>
<td>250.50, 253.5, 3</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>256947</td>
<td>Diabetes mellitus arising in pregnancy</td>
<td>648.80</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>178971</td>
<td>Diabetes mellitus associated with hormonal etiology</td>
<td>250.80</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>315377</td>
<td>Diabetes mellitus associated with pancreatic disease</td>
<td>250.80, 577.9</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>178974</td>
<td>Diabetes mellitus associated with receptor abnormality</td>
<td>250.80</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>719012</td>
<td>Diabetes mellitus complicating pregnancy</td>
<td>648.00</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>321932</td>
<td>Diabetes mellitus complicating pregnancy, antepartum</td>
<td>648.03</td>
<td>ICD-9-CM</td>
</tr>
<tr>
<td>635781</td>
<td>Diabetes mellitus complicating pregnancy, childbirth, or the puerperium</td>
<td>648.00</td>
<td>ICD-9-CM</td>
</tr>
</tbody>
</table>
Partner testing

• Requires coordination between:
  – IT
  – Patient financial services
  – Billing software vendors
  – Payors
  – Health information management

• Requires sample accounts for testing
Dual coding

• Coders have been trained in a classroom setting
• IT is updating our coding system to permit the coders to code the same accounts in both ICD-9 and ICD-10
• Critical to developing skills learned in the classroom
• Provides sample accounts to be used for testing
ICD-10 Time Studies

• “Productivity losses expected to range from 10% to 50%”
  Source: Quadramed. *Maintaining and Improving Coding Productivity in the ICD-10 Era*

• “It is reasonable to expect a serious dip in coder productivity with the ICD-10 implementation, from 25 percent to 30 percent for diagnosis coding, and much higher for the new inpatient procedure coding—up to 50 percent.”

• “Overall, on average it took, 17.72 minutes or 69% longer to code a record in ICD-10-CM/PCS”
Tool to assist in conversion to ICD-10: Computer Assisted Coding (CAC)

• Addresses in part need for additional coding staff
• Software that is used to abstract data using natural language processing (NLP)
• Produces suggested codes based on information in the electronic medical record
Workflow in CAC

1. Chart Documentation
2. CAC interprets data using NLP
3. CAC provides a list of possible codes for review
New Role for Coding Specialists

Transition to more of an auditor role

Use analytical skills to interpret instead of searching for details
Advantages of Computer Assisted Coding

1. Increases productivity and efficiency in coding
2. Improves workflow
3. Captures how the codes were selected
4. Reports codes that may be missed
5. Produces more accurate and consistent results
Training and Education Plan:

1. Materials on intranet site – *IT managed*
2. Computer-based training modules – requires assistance from *IT to assign modules to staff by title/role*
3. Meetings and presentations – *IT co-presenter*
4. Tip sheets – *IT designed*
5. Video on changes in EMR – *IT education team*
6. One-on-one review of impact on clinicians’ documentation – *IT produced top diagnosis and DRG reports*
7. Concurrent review of documentation and feedback through CDI and coding staff – *IT supported coding and CDI query processes*
Financial Challenges and Mitigation Plan

CHALLENGES
1. Cash and Accounts Receivable
2. Payors not ready
3. Systems not ready by compliance date
4. Coding specialists take longer to code and accounts awaiting coding
5. Coding and billing edits not updated, causing claims to fail

MITIGATION PLAN
1. Test with payors, train staff, be prepared to add staff to address decrease in productivity
2. Install computer assisted coding
3. Test and be ready to use reimburse maps to translate from I10 to I9 if necessary
4. Work with vendors to assure systems are ready
5. Update and test edits
Training Challenges and Mitigation Plan

CHALLENGES
1. Staff not adequately trained
2. Documentation not at the level of specificity required

MITIGATION PLAN
1. On-line resources
2. Provide introductory training on-line
3. Provide classroom training for coders; give them time to develop their skills before the compliance date
4. Provide specialty specific education one-on-one with clinicians
5. Complete documentation gap analysis and target documentation improvement
6. Begin querying clinicians for specificity required for ICD-10 before the compliance date

Staff will need differing levels of education on ICD-10 based on their role

Clinicians will need training on the detailed documentation required
Quality Challenges and Mitigation Plan

CHALLENGES
• Rankings and ratings tied to coding decrease
• Inaccurate DRG or APC

MITIGATION PLAN
• Monitor assignment of codes, SOI and ROM, DRG and APC
• Target coding and documentation improvement based on results
Resource Allocation Challenges and Mitigation Plan

CHALLENGES
1. Inadequate project staffing
2. Competing projects
3. Inadequate budget
4. Inadequate supply of coders nationally

MITIGATION PLAN
1. Confirm resources assigned
2. Schedule activities to ensure all resources will be available when needed
3. Confirm budget is approved
4. Plan for additional staff in the event of unplanned vacancies, inadequate staffing, or new project work

Does your plan include the potential costs of new hardware, software, software updates and testing, overtime, consulting assistance, agency coders and training?
Closing Remarks
Collaboration & Inquiry