



RESOURCE AND PATIENT MANAGEMENT SYSTEM

IHS PCC Suite (BJPC)

Patch 2 Addendum

Version 1.0 Patch 2
May 2009

Office of Information Technology (OIT)
Division of Information Resource Management
Albuquerque, New Mexico

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1.0 Introduction

This addendum to IHS PCC Suite Version 1.0 describes the changes made in Patch 2. This patch adds two options that allow a site to export visit data in support of a surveillance system for the H1N1 flu virus.

The Indian Health Service and the entire Nation are dealing with responding to the worldwide and nationwide outbreak of a newly identified Influenza A (H1N1) virus (commonly called Swine Flu). On Sunday, April 26, 2009, The US Department of Health and Human Services declared a Public Health Emergency for Swine Flu under section 319 of the Public Health Service Act. As per the HHS Medical Surge Capacity and Capability Handbook,

“Following a section 319 declaration, the Secretary can, among other things, take appropriate actions in response to the emergency, such as conducting and supporting investigations into the cause, treatment, or prevention of the disease or disorder.”

One of the most important parts of our response to an outbreak of influenza is disease surveillance. Disease surveillance in this case refers to the collection of information on influenza activity. This information allows epidemiologists to

- Assist Service Units with their clinical responses.
- Guide disease mitigation measures, such as school closures and other mitigation techniques
- Plan deployment of assets, such as personal protective equipment and antiviral medicines, from the Strategic National Stockpile.
- Ensure that diagnostic resources, such as influenza test kits, can be sent to where there is influenza activity.

Disease surveillance allows us to respond rapidly to local outbreaks and to minimize harm to our patients.

A cornerstone of surveillance for influenza is monitoring of “influenza-like illness” (ILI), which has been shown to spike in areas of influenza activity. The RPMS system offers the opportunity, in near real-time, to monitor those specific ICD-9 diagnosis codes related to influenza-like illness that have been validated by the Centers for Disease Control and Prevention (CDC), as useful in identification of communities with possible influenza infection.

BJPC v1.0 patch 2 delivers an automated report that will run nightly. This report includes specific data from RPMS that will facilitate the tracking and early identification of potential influenza outbreak situations in AI/AN communities.

Encounter data from visits with diagnoses including at least one of the 36 “ILI” ICD-9 codes will be exported securely to the Indian Health Service Division of Epidemiology and Disease Prevention in Albuquerque for analysis. Indian Health Service anticipates that these data may give us early sentinel awareness of flu outbreaks in AI/AN people.

Data to be exported include the following:

- Unique Registration ID
- Gender
- Date of Birth
- Community of Residence
- Location of Encounter
- Date of Visit
- ILI Diagnoses
- Temperature value
- Unique Visit ID
- Denominator count of visits
- Date Visit last Modified

The report includes information on the total number of medical visits (denominator count of visits), so that the proportion of encounters attributable to ILI can be monitored. The patch is designed to run nightly, exporting data for the duration of the declared Public Health Emergency.

2.0 New Functionality

2.1 Queued Surveillance Influenza-Like Illness Export

This option is called Queued Surveillance ILI Visit Export (APCL QUEUED SURVEILLANCE ILI), which should be queued via TaskMan to run nightly. The IT staff has instructions on how to queue this export to run.

When this option runs nightly, it will create an export file that will reside in the site's export directory. The export directory is defined in the RPMS SITE file, field FILE EXPORT PATH.

This file will contain 1 record for each visit with a visit date between March 21, 2009 and the day before the export is run, for which the clinic of the visit is one of the clinics contained in the SURVEILLANCE ILI CLINICS taxonomy (Table 2-1), and the visit has a purpose of visit contained in the SURVEILLANCE ILI taxonomy (Table 2-2). In addition, only visits with a Service category or Ambulatory, Observation, Day Surgery, and Nursing Home are exported. Visits by patients whose name begins with DEMO,PATIENT are excluded from the export.

Table 2-1: Surveillance ILI Clinics

| Code | Description |
|------|-------------------|
| 01 | GENERAL |
| 06 | DIABETIC |
| 10 | GYN |
| 12 | IMMUNIZATION |
| 13 | INTERNAL MEDICINE |
| 20 | PEDIATRICS |
| 24 | WELL CHILD |
| 28 | FAMILY PRACTICE |
| 30 | ER |
| 57 | EPSDT |
| 70 | WOMEN'S HEALTH |
| 80 | URGENT CARE |
| 89 | EVENING |

Table 2-2: Surveillance ILI ICD-9 Taxonomy

| ICD-9 Code | Description |
|-------------------|---|
| 079.89 | Viral infection, not elsewhere classified (NEC) |
| 079.99 | Viral infection, not otherwise specified (NOS) |
| 382.00 | Otitis media, acute suppurative NOS |
| 382.9 | Otitis media NOS |
| 460 | Nasopharyngitis, acute |
| 461.8 | Other acute sinusitis |
| 461.9 | Acute sinusitis, unspecified |
| 462 | Pharyngitis, acute |
| 463 | Acute tonsillitis |
| 464.00 | Laryngitis, acute, without obstruction |
| 464.10 | Tracheitis, acute, without obstruction |
| 464.20 | Laryngotracheitis, acute without obstruction |
| 465.0 | Laryngopharyngitis, acute |
| 465.8 | Infectious upper respiratory, multiple sites, acute NEC |
| 465.9 | Infectious upper respiratory, multiple sites, acute NOS |
| 466.0 | Bronchitis, acute |
| 466.11 | Bronchiolitis, due to respiratory syncytial virus |
| 466.19 | Bronchiolitis, acute, due to other infectious organism |
| 478.9 | Disease, upper respiratory NEC/NOS |
| 480.0 | Pneumonia due to adenovirus |
| 480.1 | Pneumonia due to respiratory syncytial virus |
| 480.2 | Pneumonia due to parainfluenza |
| 480.8 | Pneumonia due to virus NEC |
| 480.9 | Viral pneumonia unspecified |
| 484.8 | Pneumonia in other infectious disease NEC |
| 485 | Bronchopneumonia, organism NOS |
| 486 | Pneumonia, organism NOS |
| 487.0 | Influenza with pneumonia |
| 487.1 | Influenza with respiratory manifestation NEC |
| 487.8 | Influenza with manifestation NEC |
| 490 | Bronchitis NOS |

| ICD-9 Code | Description |
|------------|---|
| 780.6 | Fever |
| 780.60 | Fever, unspecified |
| 780.61 | Fever presenting with conditions classified elsewhere |
| 784.1 | Pain, throat |
| 786.2 | Cough |

If a visit is found, an export record is created for that visit. The export record is a comma delimited record containing the following data elements:

Table 2-3: Comma delimited record data elements

| Comma Piece | Description |
|-------------|---|
| 1 | Unique Registration ID (15 digits), defined as the database ID (5 digits) concatenated with the DFN of the patient (left zero filled to 10 digits) |
| 2 | Health Record Number (HRN - 6 digits). The HRN of the patient at the location of encounter of the visit is passed; if the patient does not have an HRN at the location of encounter then the HRN at the site the user is logged in to will be passed. |
| 3 | The gender of the patient: M or F |
| 4 | DOB of the patient in DDMMYYYY format (e.g., 17JAN1987) |
| 5 | Current Community of Residence of the Patient. State - County-Community code is passed. |
| 6 | The ASUFAC of the location of encounter. |
| 7 | The date of the visit in DDMMYYYY format. |
| 8 | Diagnosis 1 that is an ILI diagnosis. |
| 9 | Diagnosis 2 that is an ILI diagnosis. |
| 10 | Diagnosis 3 that is an ILI diagnosis. |
| 11 | Temperature. If more than 1 temperature is taken and recorded on a visit, the highest temperature is passed. |
| 12 | The unique ID of the visit defined as the five digit database ID concatenated with the IEN of the visit (left zero filled to 10 digits), for a total of 15 digits. |
| 13 | The total number of visits to the ILI set of clinics to this location of encounter for this visit date. |
| 14 | The date the visit was last modified in DDMMYYYY format. |

Once all visits are reviewed and all of the export records are generated, they are written to a host file. The host file name is **FLU_asufac_date.txt**.

For example, FLU_000101_20090501.txt.

This file will reside in the site's export directory.

Local Use of This File

If someone at your site is interested in looking at and monitoring this data, they can obtain this export file and load it into Microsoft EXCEL or some other program available to them that can upload a comma delimited file. You may require assistance from the IT staff to get this file.

2.2 Search Template Creation of ILI Visits

An option called Surveillance ILI Visit Search Template Creation has been added to the PCC MANAGEMENT reports menu. This option can be used to create a search template of visits that will contain all visits meeting the same criteria as those exported to the EPI program in Albuquerque. This option is located under the Quality Assurance sub menu of Reports.

The user must indicate what date range of visits they are interested in and then provide a name for the visit search template to be created. The visits contained in this search template will meet the following criteria:

- The visit must not be deleted.
- The visit must have at least 1 dependent entry.
- The visit must have a service category of
 - A - Ambulatory
 - O - Observation
 - S - Day Surgery
 - R - Nursing Home
- The clinic on the visit must be one contained in the SURVEILLANCE ILI CLINICS taxonomy (see Table 2-1).
- The patient's name must not contain DEMO,PATIENT.
- At least one of the purposes of visits must be contained in the SURVEILLANCE ILI taxonomy (see Table 2-2).

After this search template is created, the user can use it in QMAN, VGEN or any other RPMS option that allows the user to start with a search template of visits. For example, if you wanted to get a list of all these visits that included the date of the visit, the HRN of the patient, the diagnoses on the visit, the patient's age, and community of residence, you could do so by using VGEN and starting with option Search Template of Visits. You would then use print option Detailed to print these data elements.

Using the Surveillance ILI Visit Search Template Creation (ILI) option to create a search template

Under **PCC Management Reports**, choose **QA - QUALITY ASSURANCE REPORTS** to access the following menu:

```

*****
**      PCC Management Reports      **
**      Quality Assurance Reports    **
*****
IHS PCC Suite Version 2.0

DEMO HOSPITAL

AUD      Random Sample of Visits by DX and Date
CICD     Listing of Visits by Clinic Type and by Diagnosis
INPT     Hospital Discharge Listing By DX or Procedure
VICD     Listing of Outpatient Visits with ICD Codes
A        Returns to ER w/in 72 Hrs After Clinic Visit
ADA      Listing of Clinic Visits with ADA Codes
CZIP     Clinic Visits Counts by Clinic Type By Zip Code
CVC      Clinic Visit Counts Within a Date Range
NVST     Patients with AT LEAST N Visits
INJ      Listing of Visits with Injury Diagnosis
INJS     Injury Surveillance Summary Report
PVC      Provider Visit Counts
PVCT     Provider or Clinic Visit Counts By Template of Pts
VGEN     Visit General Retrieval
BPC      In/Out Control Blood Pressures
DEL      Delete VGEN/PGEN Report Definition
ILI      Surveillance ILI Visit Search Template Creation
RADM     Readmissions Within 30 Days of a Discharge
REF      Listing of Patient Refusals
RT1      Returns to Clinic w/in 72 hours of a clinic visit
VST      Display Single Visit for a Patient ...

Choose option ILI <Enter> Surveillance ILI Visit Search Template.

Select Quality Assurance Reports Option: ILI <Enter> Surveillance ILI Visit Search
Temp

DEMO HOSPITAL
DEMO,USER

This report will create a search template of visits that meet the
Surveillance ILI criteria. You will be asked to provide the date
range of visits, a name for the visit search template to be created, and the device
to which the cover page/summary will be printed.
```

The visits must meet the following criteria:

- must be in the date range selected by the user
- must have a service category of A, O, R or S (outpatient)
- must have at least one diagnosis that is contained in the SURVEILLANCE ILI taxonomy
- must be to a clinic in the SURVEILLANCE ILI CLINICS taxonomy
- the patient's name must not contain 'DEMO,PATIENT' (demo patients skipped)

Enter Beginning Visit Date: **0321** <Enter> (MAR 21, 2009) *(choose your beginning date)*

Enter Ending Visit Date: T-1 <Enter> (MAY 03, 2009) *(choose your ending date)*

*** You may enter an existing Template Name ***

OR

*** Save results in a New Template ***

OR

'^' to Exit

Visit Search Template: **AJB ILI VISITS 3.21 TO 5.3** <Enter> *(pick a name for your search template)*

Are you adding 'AJB ILI VISITS 3.21 TO 5.3' as
a new SORT TEMPLATE? No// **Y** <Enter> (Yes)

A VISIT list resulting from this report
will be stored in the.....>

** AJB ILI VISITS 3.21 TO 5.3 ** Search Template.

DEVICE: HOME// *(press Enter or choose a printer device
to which the cover page will print when
the template completion has completed)*

GL

Page 1

DEMO HOSPITAL

SURVEILLANCE ILI VISIT SEARCH

DATE RANGE: Mar 21, 2009-May 03, 2009

Search Template Created: AJB ILI VISITS 3.21 TO 5.3

Total # of visits meeting criteria and placed in the template: 5

Total # of patients for these visits: 5

3.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

Phone: (505) 248-4371 or (888) 830-7280 (toll free)

Fax: (505) 248-4363

Web: <http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm>

Email: support@ihs.gov