RESOURCE AND PATIENT MANAGEMENT SYSTEM

iCare Population Management GUI

(BQI)

Basic Functionality Enhancements User Manual

Version 2.3
April 2012

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

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Preface

The purpose of this manual is to provide you with the information you need to use the latest basic functionality enhancements of the RPMS iCare (BQI) population management application.

For more information about iCare basic functionality, iCare usage, or training for iCare, you may consult these resources:

- iCare – IHS OIT
  Available at http://www.ihs.gov/cio/ca/icare/
- iCare Population Management GUI, User Manual Version 2.2 (July 2011).
  Available at http://www.ihs.gov/RPMS/PackageDocs/bqi/bqi_022u.pdf
- HHS WebEx recorded training sessions (search for iCare). Available at
  https://ihs-hhs.webex.com/mw0306lb/mywebex/default.do?siteurl=ihs-hhs&service=7
  or at
  http://www.ihs.gov/cio/ca/icare/index.cfm?module=dsp_icare_cmet_training
- Join the iCare listserv by sending an e-mail to icare@listserv.ihs.gov

1.0 Introduction

iCare is a Windows-based, client-server graphical user interface (GUI) to the IHS Resource and Patient Management System (RPMS). iCare retrieves key patient information from various components of the RPMS database and brings it together under a single, user-friendly interface. iCare is intended to help providers manage the care of their patients. The ability to create multiple panels of patients with common characteristics (e.g., age, diagnosis, community) allows users to personalize the way they view patient data.

The information included in this basic functionality-specific manual covers enhancements in iCare Version 2.3 (released April 2012). For more information about iCare basic functionality, iCare usage, or training for iCare, you may consult the resources listed above in the Preface.

1.1 Background

Along with the rest of the healthcare industry, IHS has already developed a set of chronic condition management (or register) applications, including for diabetes, asthma, and HIV. This type of application provides a way for healthcare providers to manage a specific group (register) of patients for a single disease state. Register management applications assist healthcare providers to identify high-risk patients, proactively track care reminders and health status of individuals or populations, provide more standardized and appropriate care by embedding evidence-based guidelines, and report outcomes.

Many patients, however, have more than one diagnosed disease. For instance, at the current time within the Indian Health system, a diabetic asthmatic woman could be a member of four RPMS registers (diabetes, asthma, women's health, and immunizations). This 'silo' approach to patient care could potentially result in fragmented care, and could increase the risk of inadequate patient care management due to misidentification of the true level of risk.

1.2 iCare Graphical User Interface

The iCare GUI is intended to allow providers to see a more complete view of patients with multiple conditions, while maintaining the integrity of the user-defined, disease-specific registers.

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iCare can help IHS providers by:
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- Proactively identifying and managing different groups (populations) of patients who share user-defined characteristics.

- Providing an integrated view of a patient's conditions that would minimize "stove piped" care management.
- Providing an intuitive and integrated interface to the diverse patient data elements of the RPMS database.
- Facilitating providers a review of clinical quality of care measures for their own patients to enable improvement in the quality of healthcare delivery.
- Enabling views of traditional healthcare information from the perspectives of community, population and public health.
- The default tag selection will be Proposed and Accepted, as shown in the above example. You can change the tag selection for any record by selecting or de-selecting any checkbox.
- You can click the "use AND?" check box when there are multiple tags selected. The "And" option searches for patients who have ALL of the user-defined tags.

1.3 Who Should Use iCare?

- Any provider who needs to identify a group of patients for long-term management or to create a temporary list should think about using iCare. Do you fit any of the following scenarios?
- I am a nurse at a facility that assigns a primary care provider to each patient. Every day, I want to create a list of scheduled patients for two different doctors in my clinic.
- I want to identify which of my patients are considered obese so I can recommend nutrition counseling.
- Because providers at our clinic have performance goals related to annual GPRA clinical measures, I want to identify which of my patients are missing key clinical data.
- Our Women's Health Clinic wants to focus on two clinical performance improvement initiatives this year. We want to identify the performance problem areas for female patients between the ages of 18 and 50.
- I am one of two part-time case managers for a group of children, and I want to create a patient list that we both can use.
- I am a site manager working to ensure our site meets Meaningful Use objectives.

1.4 User Desktop (Client) Requirements

iCare software resides on both your facility's RPMS server and on the desktop computer that you use. In order to use iCare successfully, your computer should have the following minimum configuration:

Table 1-1: Computer configuration for installing iCare

Client PC	Minimum Version
Microsoft Windows (Any Windows OS that supports .NET 2.0 Framework)	Windows XP SP2, Windows 2003 Server, Windows 2000 SP3+, Windows ME, Windows 98/98SE
Microsoft .NET Framework	V2.0
Suggested Client PC Hardware	Processor: Minimum: Pentium III 800MHz; Suggested: Pentium 4 2GHz+ Memory (RAM): Minimum: 256MB; Suggested: 512MB+
Approximate Disk Space Requirements	iCare Application Footprint ~10MB .NET 2.0 Framework ~ 100MB (if not already installed via Windows Updates)

2.0 New Log-in Procedure

The new BMX functionality of RPMS requires changes in the log-in procedures for iCare.

2.1 The iCare icon

From the desktop click the **iCare** icon. If the icon is not on the desktop, click the **Start** menu. Navigate to **All Programs**, then to **iCare** and click the **iCare** icon.

Figure 2-1: iCare icon

2.2 Version 2.3 iCare Login Screen

The **iCare 2.3 Login** dialog displays.

Figure 2-2: Sample iCare 2.3 login dialog

2.2.1 RPMS Server

Click the drop-down list for the **RPMS Server** field to display a list of possible connections.

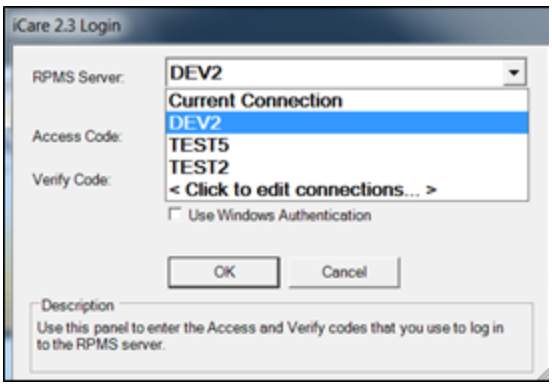

Figure 2-3: RPMS Server drop-down list

2.2.2 Connections

Select the connection from the list of options. To edit or add a connection, scroll to the bottom of the list and select the last option, Click on **edit connections**, and then click **OK**.

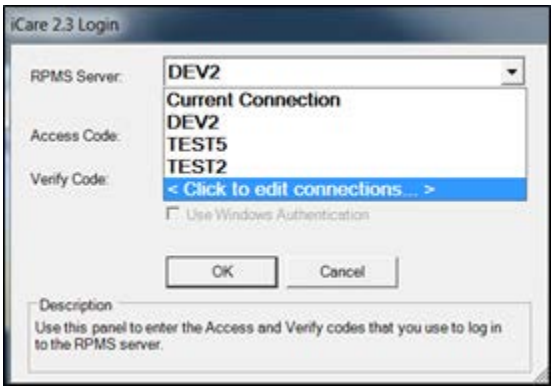

Figure 2-4: Click on edit connections option

2.2.3 Edit Connections

At the **RPMS Server Connection Management** window, click **Edit** to change **Connection**, **Server Port**, **Namespace**, and/or **Authentication**. To add a new connection, click **New**.

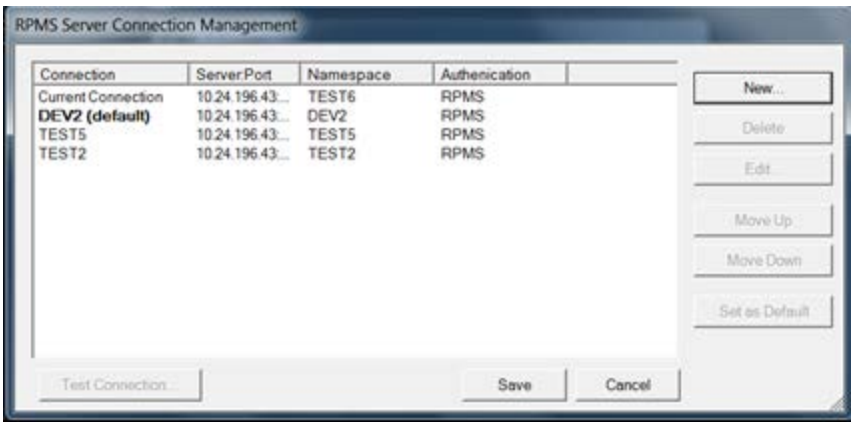

Figure 2-5: Sample RPMS Server Connection Management window

2.2.4 New Connection

To add a new connection, click **New** and complete the appropriate information. If you want the connection to display at the top of the list, check the box for **Default RPMS Server Connection**. Click **OK**.

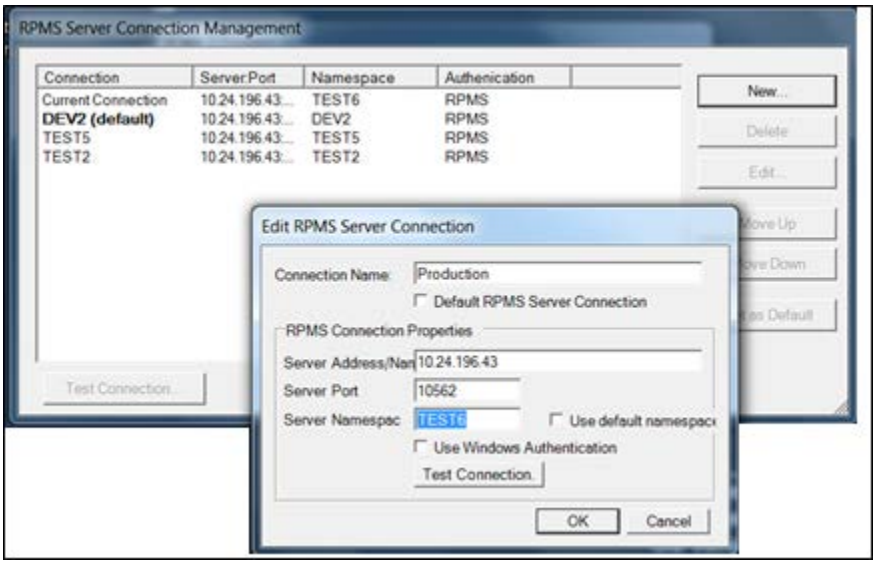

Figure 2-6: Edit RPMS Server Connection window

2.2.5 Test and Save the Changes

Test the connection if BMXMON is running in that namespace, then save the changes.

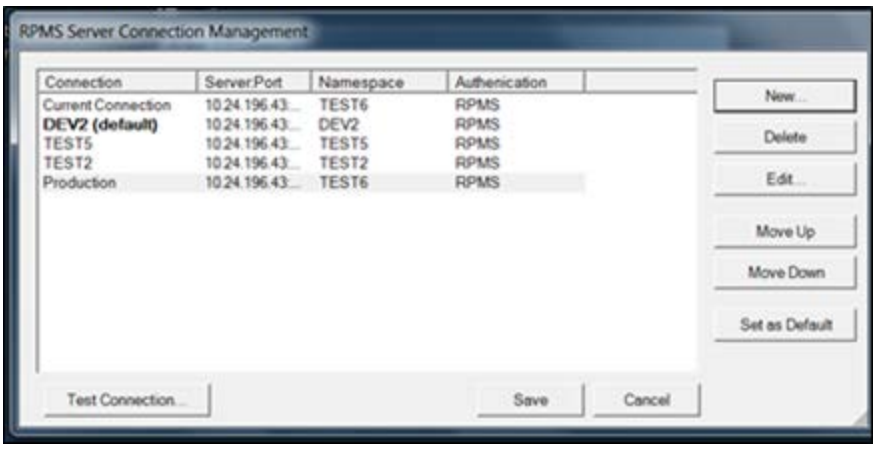

Figure 2-7: Test Connection and Save buttons

2.2.6 Verify the Connection

Verify that the connection has been added by clicking the down arrow on the **RPMS Server** field to display the new connection.

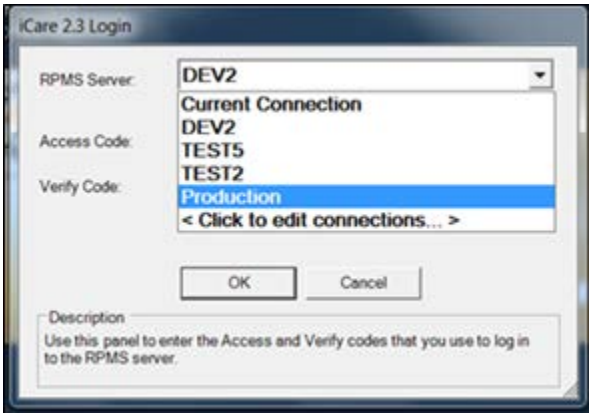

Figure 2-8: Verify connection

3.0 iCare Site Parameters

Four new site parameter features have been added to iCare in Version 2.3 as discussed below (Figure 3-1).

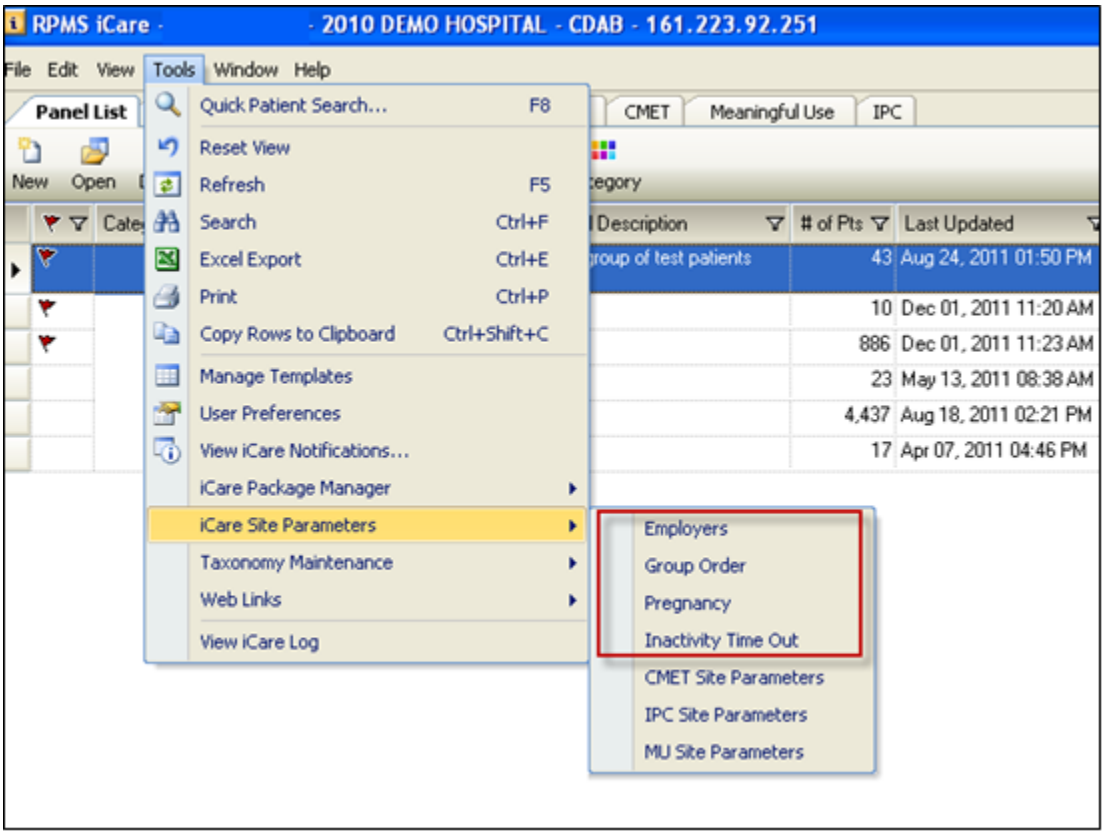

Figure 3-1: New site parameters (highlighted in red)

3.1 Employers

This is the list of employers that should be used for Employee Health. This is a table of all employers in your RPMS system, many of which can have several different name spellings (Figure 3-2).

Figure 3-2: New site-specific editable employer list

3.2 Group Order

A Group Order capability has been added for mammogram screenings. This functionality can be enabled if your facility has the ability to order mammogram screenings (Figure 3-3).

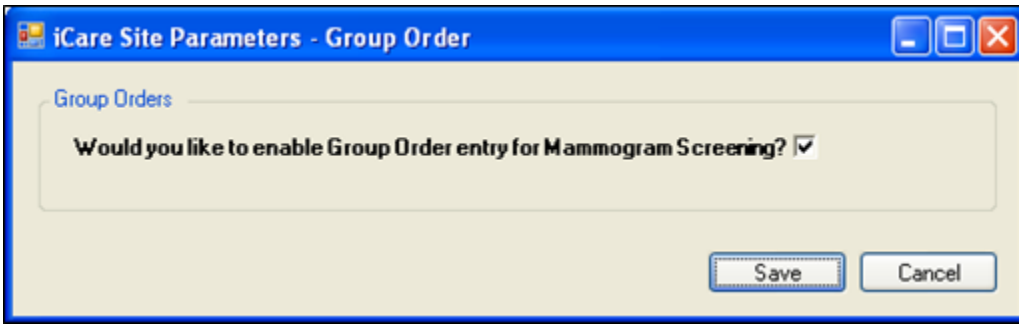

Figure 3-3: New mammogram group order functionality control

3.3 Pregnancy

This site parameter setting allows the site to select the calculation method to use when defining the new Pregnancy Diagnostic Tag. Refer to the Pregnancy Diagnostic Tag discussion (Section 8.0) for more information).

3.4 Inactivity Timeout

iCare has implemented inactivity timeout functionality. This site parameter setting determines when the application will timeout and then shut down due to user inactivity (Figure 3-4).

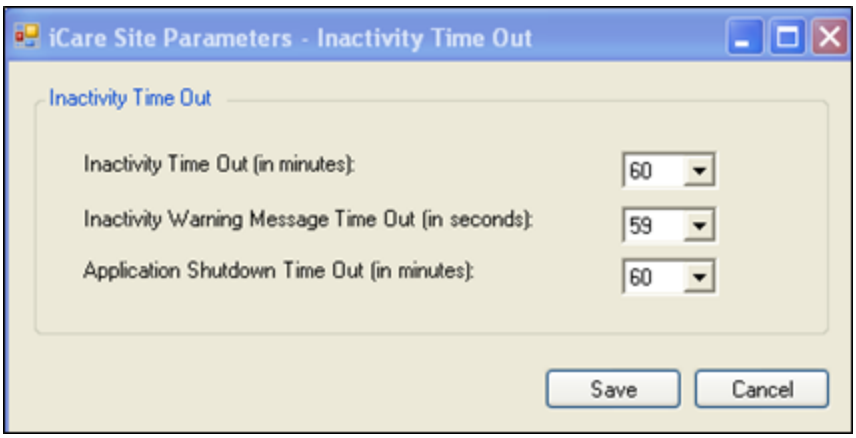

Figure 3-4: New inactivity timeout settings screen

4.0 iCare User Preferences

Two new **User Preference** screens have been added in Version 2.3 of iCare as described below.

4.1 Meaningful Use (MU)

Preferences for the MU Providers CQ can be set up here. This includes which **Measure Set** to view by default and whether the user wants to see just the **Current** period measures or the **Previous** period measures as well.

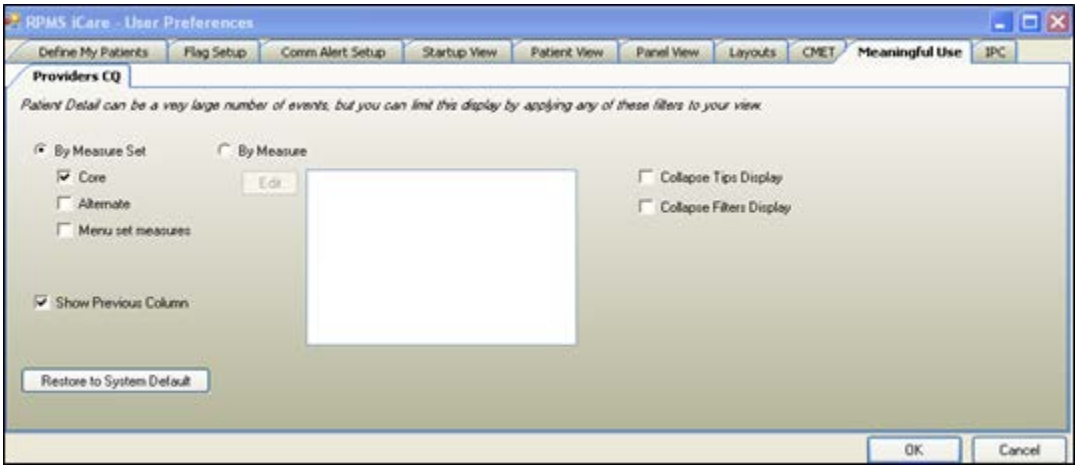

Figure 4-1: Meaningful Use tab on User Preferences

4.2 Improving Patient Care (IPC)

Preferences for the **IPC** Tabs can be set here. This includes which **Measure Sets** are displayed and which designated **IPC** panel the user can view by default in the **IPC** tabs **Patient Detail** and **Panel Detail**.

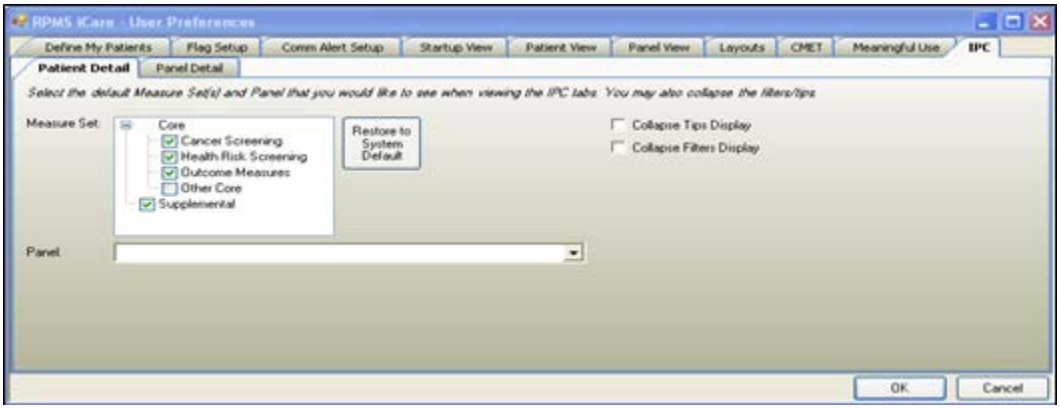

Figure 4-2: New IPC tab on User Preferences

5.0 iCare Panel Definitions

5.1 Patient Assigned to Parameters

This feature creates a link between the patient and provider.

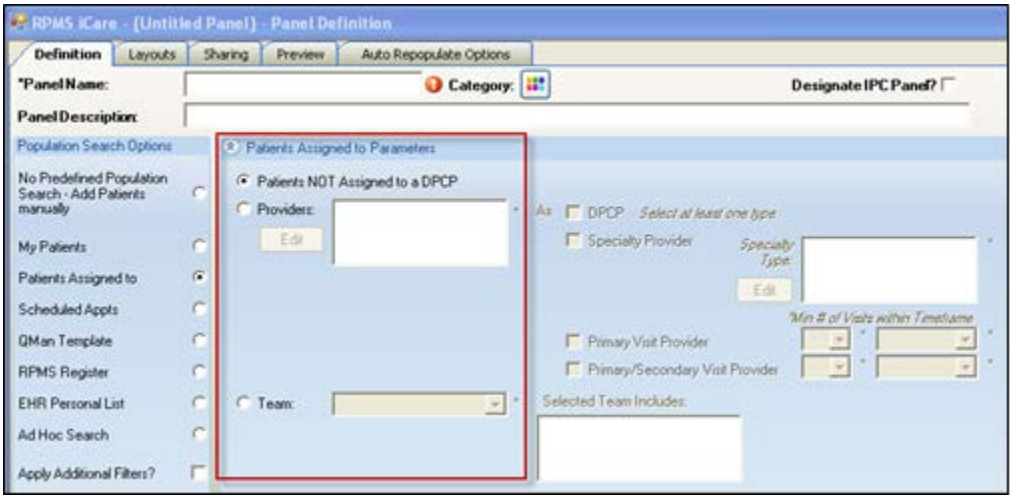

Figure 5-1: New patient assigned to settings (highlighted in red)

5.1.1 Patients Not Assigned to a DPCP

This is a tool to help identify patients who have not yet been assigned a Primary Care Provider (Figure 5-1).

Note:	Creating a panel based on this selection could yield a very large number of patients. It will include all patients unless additional filters are applied, such as only 'Living' patients or only patients in a specific community.

5.1.2 Multiple Providers

The ability to pick multiple providers has been added. This is a feature to help in creating panels where several providers may share a group of patients (Figure 5-1).

5.1.3 Teams

The user can also create teams of providers and use that "team" to create a panel of patients. Only patients whose DPCP is a team member will be added to the panel.

Teams can also be created in the **Scheduling** Menu. Select **Primary Care Provider** menu, then select **Set Up Primary Care Teams** menu in **RPMS**.

5.2 Optional Filters and Panel Designations

5.2.1 Employer

If the user has been assigned the proper Employer Group security key, they will see this selection in the **Optional Filters** portion of **Panel Definition** (Figure 5-2). By checking the **Employer** box (i.e., Filter Patients by Employer), a panel can be created or filtered by the list of Employers defined in iCare Site Parameters.

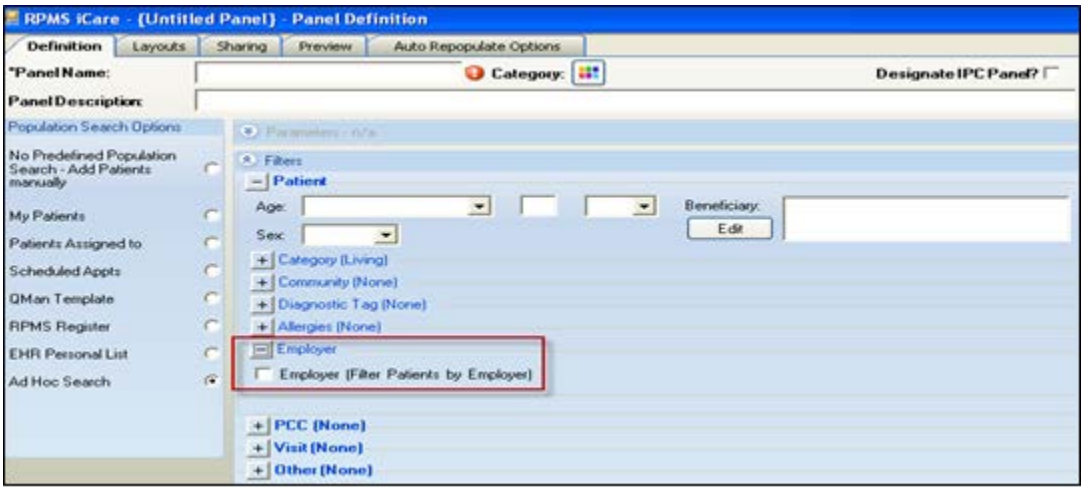

Figure 5-2: New employer panel definition functionality (highlighted in red)

5.2.2 PCC – Labs and Medications Filters

Panels can now be created or filtered by patients having a selected lab test or medication during a timeframe or NOT having a selected lab test or medication during a timeframe (Figure 5-3).

These lab and medication data are drawn from the RPMS PCC. Users can select a specific lab test or medication or use an existing lab or medication taxonomy. Two examples of the use of these new selections:

- Patients with an asthma tag who do not have a controller medication.
- Patients with the new pregnancy tag who have not had an HIV screening.

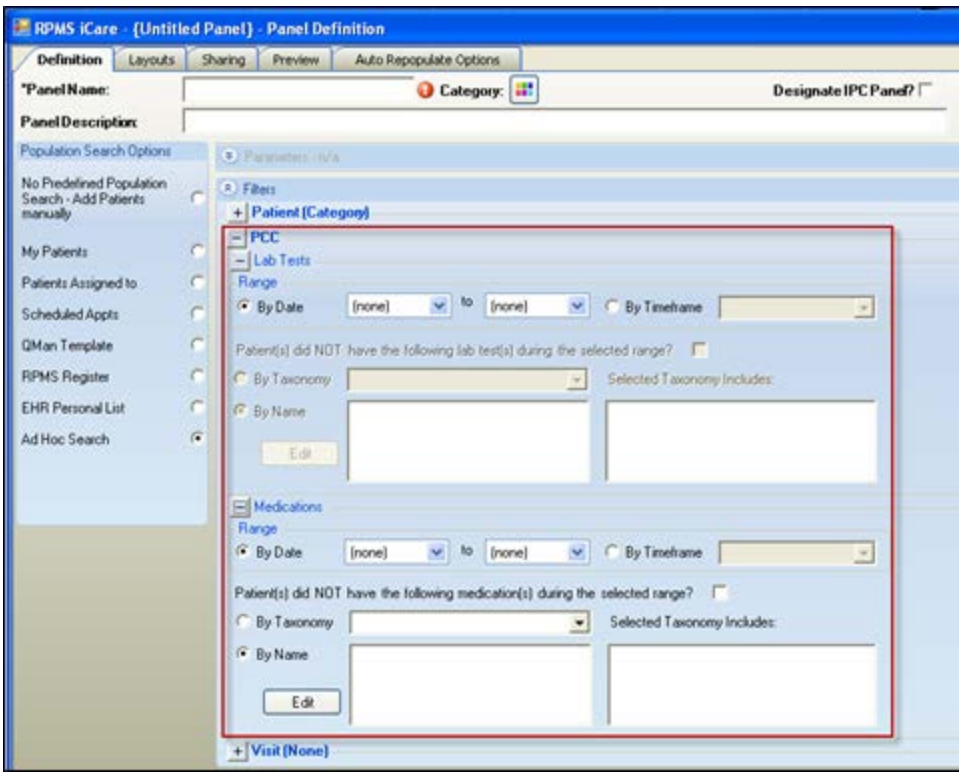

Figure 5-3: New lab tests and medications filtering functionality (highlighted in red)

5.2.3 Designation as IPC Panel

Checking the **Designate IPC Panel** box will define a panel that will be displayed and can be selected on the **IPC** tab **Panel** view (Figure 5-4).

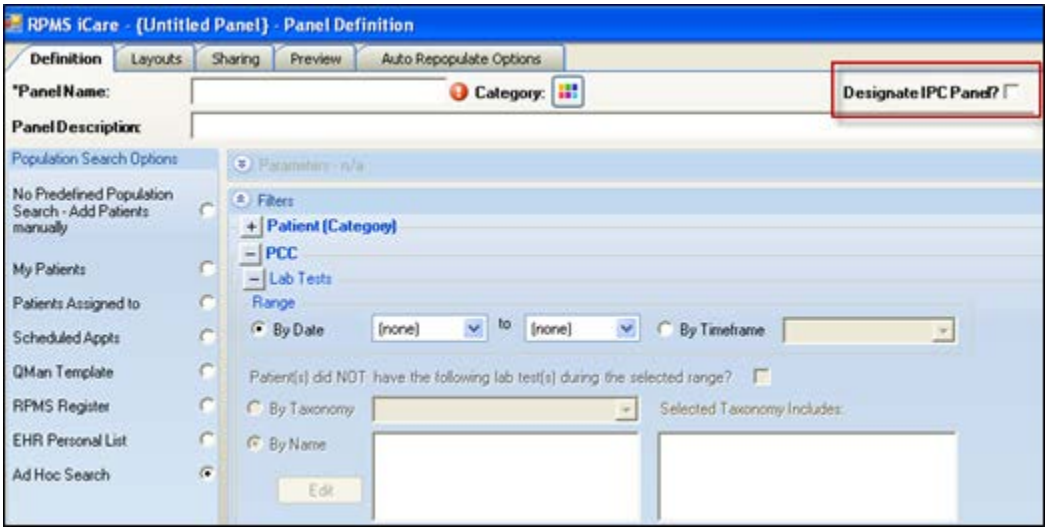

Figure 5-4: New IPC panel designation functionality (highlighted in red)

5.2.4 Category Designation for Panels

Panels can now be grouped into defined name and selectable color-coded categories (Figure 5-5).

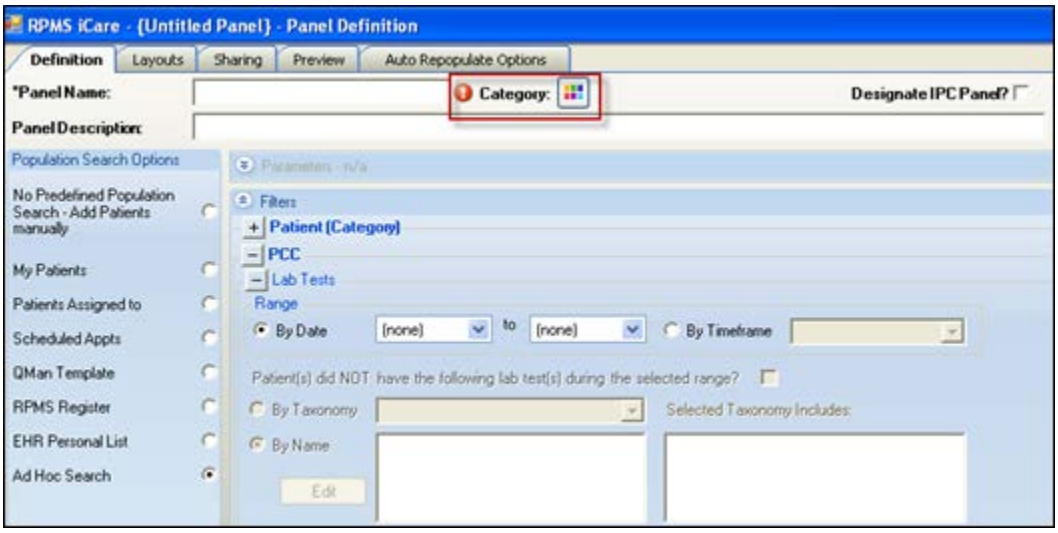

Figure 5-5: New category name and color-coding functionality (highlighted in red)

The **Category** names and selected color categories will be visible on the **Panel List** tab (Figure 5-6).

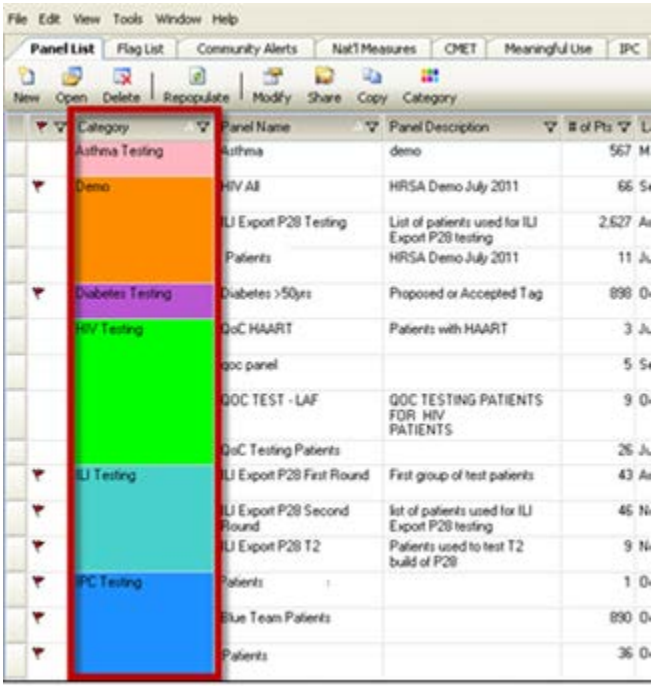

Figure 5-6: New category and color-coding displayed in panel view (highlighted in red)

6.0 Allergies

The allergies message in the iCare Patient view will read as **No Known Allergies** (Figure 6-1) if **No Known Allergies** is listed in EHR for the patient.

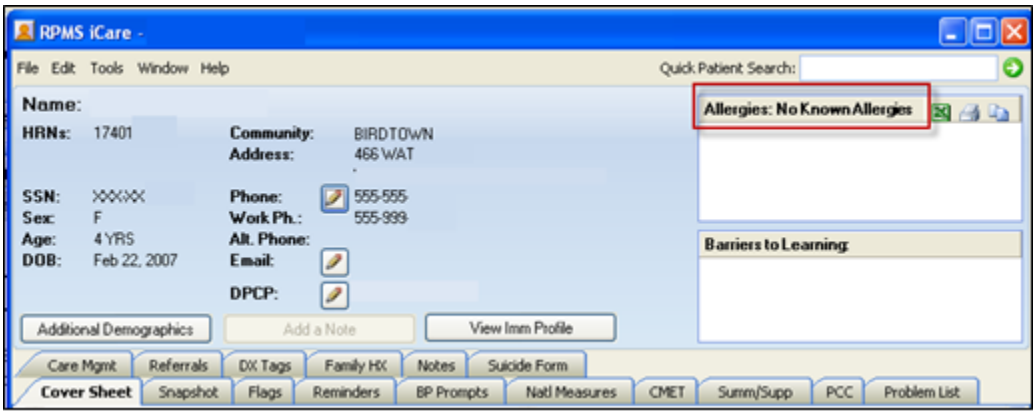

Figure 6-1: No Known Allergies (highlighted in red)

If there is no evidence of allergy testing for the patient, and **No Allergy Assessment** appears in EHR, the allergy information will be displayed as in Figure 6-2.

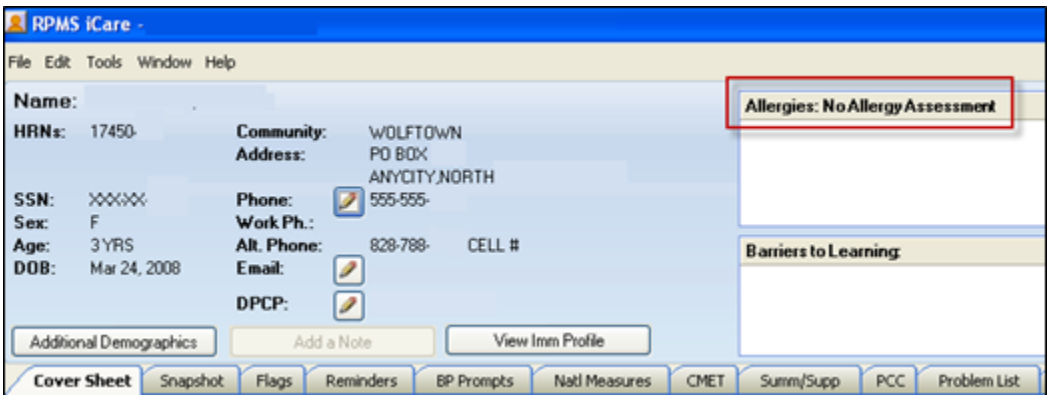

Figure 6-2: No evidence of allergy testing (highlighted in red)

7.0 Community Alerts

The **Community Alerts** screen now features a column indicating how many instances of each suspected condition are confirmed by a laboratory test according to data in RPMS.

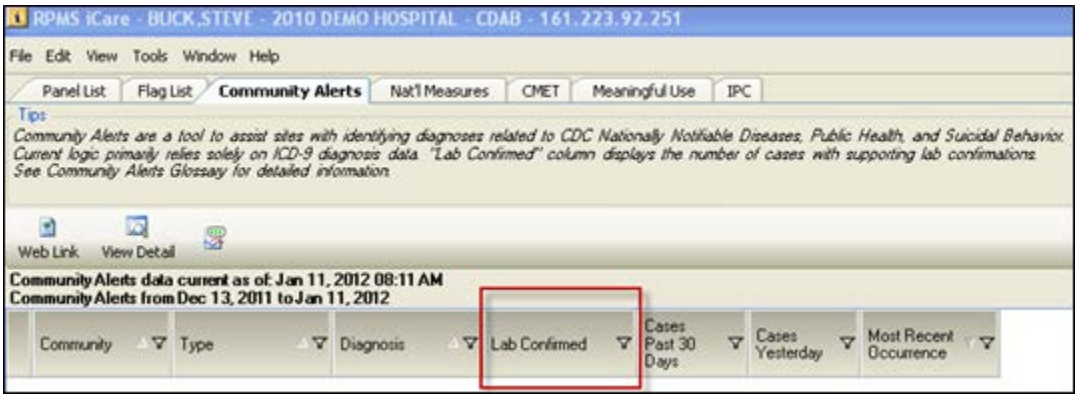

Figure 7-1: New Lab Confirmed information in Community Alerts (highlighted in red)

8.0 New iCare Pregnancy Diagnostic Tab

The definition of pregnancy has a choice of two methods for calculation that can be set by the iCare package manager in **iCare Site Parameters**.

The default method on installation of iCare Version 2.3 is based on CDC influenza disease-reporting (ILI) logic where pregnancy has to be medically indicated in the last 60 days (Figure 8-1).

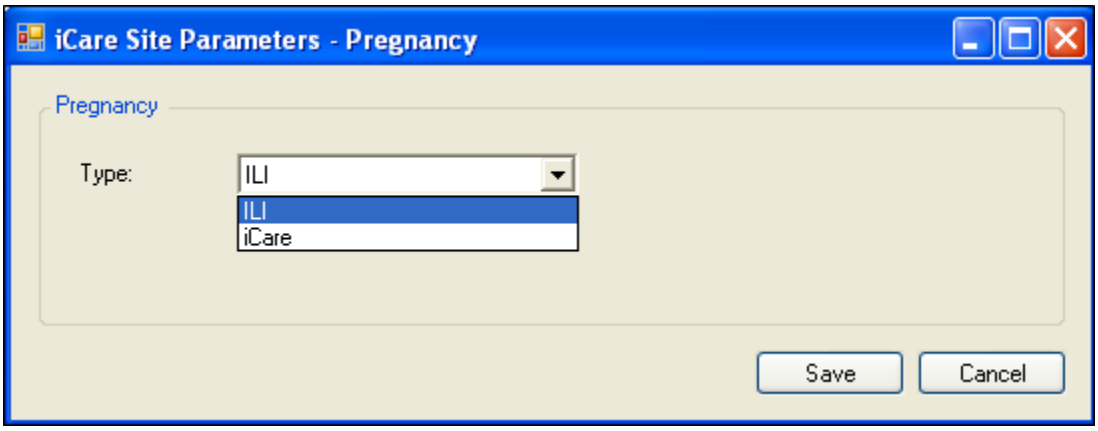

Figure 8-1: New pregnancy tag definition calculations choices – IU selected

The second method of calculation is iCare-specific and can be set to where pregnancy has been medically indicated in the last 1-month to 9-month time period (selectable choice) (Figure 8-2).

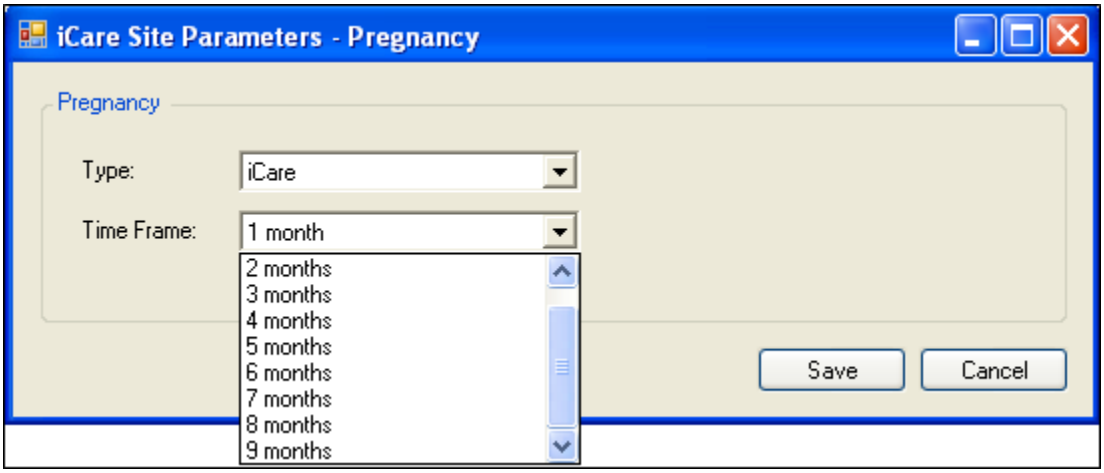

Figure 8-2: New pregnancy tag definition calculations choices – iCare selected

Notes: If the Pregnancy Tag Status is Pending, changing the pregnancy Site Parameter value may change the tag to NLV (No Longer Valid).

If the Pregnancy Tag Status is Accepted, the tag will not change until the patient has a birth or other pregnancy-ending visit at which time the tag status will automatically change to No Longer Valid.

Changes in the pregnancy Site Parameters will not change any Accepted pregnancy tags.

9.0 New Layout Template Functionality

New functionality has been added so that a user can define multiple template layouts (Figure 9-1). Templates can also be created and added so that anyone can download and use them. To select templates, click **Tools**, then select **Manage Templates**.

Your Templates contains a list of all a specific user's defined templates and the layout contained in each template.

Public Templates contains a list of all templates at the site that are available to be downloaded to the list of Your Templates.

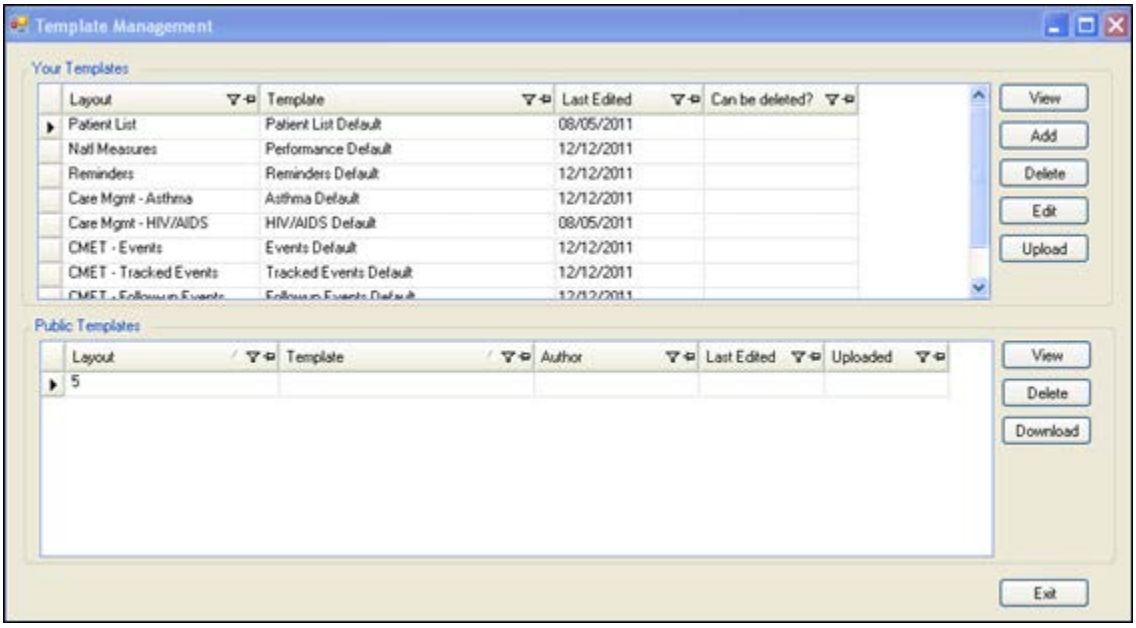

Figure 9-1: New layout template management screen

Acronym List

BMX	Namespace for BMX ADO.Net Data Broker
BQI	Namespace for iCare
CDC	Centers for Disease Control and Prevention
CQ	Clinical Quality
DPCP	Designated Primary Care Provider
EHR	Electronic Health Record
GPRA	Government Performance and Results Act
GUI	Graphical User Interface
HHS	Health and Human Services
HIV	Human Immunodeficiency Virus
IHS	Indian Health Service
ILI	Influenza-Like Illness
IPC	Improving Patient Care
MB	Megabytes
MU	Meaningful Use
NLV	No Longer Valid
OIT	Office of Information Technology
OS	Operating System
PC	Personal Computer
PCC	Patient Care Component

RPMS	Resource and Patient Management System

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