DIVISION OF ORAL HEALTH
Data Mart and Reporting System
Version 1

User Guide
June 2010

Indian Health Performance Evaluation System (IHPES)
Albuquerque, New Mexico
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Preface
This manual provides instructions for using the Division of Oral Health Data Mart and Reporting System from the Division of Oral Health in partnership with the IHPES. This web application and supporting documentation was designed and developed by the IHPES in accordance with IHS standards and guidelines.

Note
All the example reports used in this guide have been generated using dummy data only. No patient data was used to generate the sample reports shown in this document. Additionally, all user account information presented is fictitious. Any resemblance to actual user account information is purely coincidental.

1.0 Overview
The Division of Oral Health (DOH) and the Indian Health Performance Evaluation System formed a partnership to develop a "version 1" Dental data mart. The data mart provides more than simple access to all Dental related data. The data mart includes the ability for the DOH to access Dental related data, through "core" reports defined by the DOH staff, by national, area (regional), service unit or facility level. Access is provided via a web browser and can be viewed at anytime from the IHS website (https://www.ihs.gov/NonMedicalPrograms/ihpes/dental/). The data mart provides "core" reports such as Dental Visits by Month, Relative Value Reports by month and level, Services by month, and level, Services per Visit, and Services per Patient. In addition to these core reports, the data mart also provides Government Performance Results Act (GPRA) reports on sealants and fluoride treatments. The application provides the ability to generate reports "on the fly" by date range, fiscal year dates, and for GPRA reports, GPRA years.

The Dental data mart makes full use of the IHS' National Data Warehouse project jointly developed by the Office of Information Technology (OIT) and the IHPES program.

1.1 Project Scope
The Dental data mart project provides access to core Dental reports for all sites exporting data to the National Data Warehouse project. Data sources include the Resource Patient Management System (RPMS) Patient Care Component (PCC) exports, Contract Health Services (CHS) data received from the Fiscal Intermediary, data exported from the CHS/MIS application and non-RPMS data provided through the "simplified" export file.

The application provides the ability to generate aggregated national, area (regional), service unit and facility level reports. Access is controlled by both user id and passwords. The level of report(s) available to the user is dependent upon his/her access "level". Access privileges are controlled by DOH staff.

1.2 Data Source Overview
The Division of Oral Health (DOH) uses the IHS National Data Warehouse (NDW) as its data source. The NDW project stores all Resource Patient Management System (RPMS) Patient Care Component (PCC) data exported to National Programs via the NDW electronic export process. The NDW database also stores Contract Health Services (CHS) data received from the IHS Fiscal Intermediary (FI). CHS data relates to health related services purchased from providers or hospitals outside of the IHS health delivery network. The application uses all available data contained in the NDW database to generate system reports.
1.3 Home Page

Access to the reports and administration section are secured and require a web account with permission to use the site. The following section provides registration, log in, and log out instructions.

NOTE
You may want to bookmark the Dental Data Mart Home page.
https://www.ihs.gov/NonMedicalPrograms/ihpes/dental/
2.0 Logging In & Registering Your IHS Web User Account

This section provides answers to common questions regarding user registration, as well as instructions for logging on and off the Division of Oral Health Data Mart and Reporting System website.

**Question:** Why do I need to register?

**Answer:** This is an access controlled IHS web-based application and all users must register for an IHS web user account (if they do not already have one) and be assigned a user-security role by authorized IHS Division of Oral Health program managers/administrators.

**Question:** How do I gain access to the Division of Oral Health once I have an IHS web user account?

**Answer:** If you do not have access, send an email to the site administrator for the Division of Oral Health (George.Chiarchiaro@ihs.gov) to request access. The site administrator will then assign you an access role which gives access to your IHS web user account. Please be aware that you will not have access to the Division of Oral Health until you email the Division of Oral Health administrator and he has assigned you appropriate access.

**Question:** How do I login to the Division of Oral Health once I have a web user account and my user account has been granted access?

**Answer:** See section Logging In to the Division of Oral Health below.

**Question:** How do I register for a new IHS web user account if I do not already have one?

**Answer:** See Registering for a New IHS Web User Account below.
2.1 Logging In to the Division of Oral Health Data Mart & Reporting System

Click on the following link to open your web browser to the Division of Oral Health home page http://www.ihs.gov/nonmedicalprograms/ihpes/dental

Click the Login link on the top right of the window underneath the search box to go to the Login screen.
Enter Username and Password and click Login.

**NOTE**
If you do not remember your password, click the Forgot button to request that your password be reset. An email will be sent to you with a link to the Reset Password screen.

### 2.2 Registering for a New IHS Web User Account

If you do not already have a web account Click on the Web Account link (next to the login link on the Division of Oral Health Home Page) to create a new IHS web user account.

Once you are on the Registration screen, as shown in Figure 2-3, fill out all the required information (denoted by the red asterisks next to each required field). Once you have finished filling out the form, click on the Submit Registration button.
Once you have successfully created your IHS web user account, click on the Return button to return to the Division of Oral Health home page.

You must now request access to the Division of Oral Health site by sending an email to George.Chiarchiaro@ihs.gov requesting specific access to the system.
3.0 Reports Overview

Version 1 of the Division of Oral Health currently contains ten core reports. This section will review each report and detail the function of each report.

3.1 Report Options

Each report uses a common set of report option filters that will allow you to choose a specific subset of data for each report. These options are: Report Type, Visit Type, Patient Type, Service Type, ITU Type, Location, Detail, and Date. Figure 3-1 below shows the default state of the Report Options.

![Figure 3-1 Division of Oral Health Report Options]

Report Type
The Report Type select menu allows you to choose the particular core report you wish to generate. Currently the system contains the following core reports:

Dental Reports:
1: Visits by Month
2: RVU by Month
3: RVU by Level (1, 2, 3, 4, 5, 9, total)
4: Service by Month
5: Services by Level (1, 2, 3, 4, 5, 9, total)
6: Services per Visit
7: Services per Patient
8: GPRA Sealants
9: GPRA Sealants by Month
10: GPRA Fluorides

Visit Type
This option allows you to define your report by First Visit, or Re-Visit or All visits, by selecting the appropriate radio buttons.

Patient Type
You can refine your report by selecting whether the patients are Indian, Non-Indian or by All
Patients.

Service Type
Select between Direct Services provided by the IHS or Contract Services provided by non-IHS staff, or choose to show All Services.

ITU Type
The ITU type allows you to choose between the facility types IHS, Non-IHS, Tribal or Urban.

Location
The Location selection list allows you to choose all IHS Areas or one specific Area, Service Unit or Facility for your report.

Once you have selected an Area another dropdown box will appear allowing you to target your report by IHS Unit and then by means of a third dropdown box to IHS Facilities.

**NOTE**
You will only see and be able to generate reports for Locations to which you have been granted access.

Detail
This option allows you to choose the level of detail. You can choose from the Area, Service Unit and Facility levels of detail. Therefore you can elect to see only the aggregate data for an area or a service unit or to see the data broken out to the facility level for an area or service unit.

Date
There are two means of filtering the data by Fiscal Year or by Date Range. The Fiscal Year (October 1st through September 30th) option allows you to generate report data based on one or more Fiscal Years. The Date Range option allows you to specify any range of dates by typing in the start and end date or by clicking on the calendar icon and selecting the start and end dates. In the GPRA reports for Sealants and Fluorides, the Fiscal Year selections are replaced by GPRA Years (July 1st to June 30th).

**NOTE**
You can select one or more Fiscal or GPRA Years at a time. To select multiple years hold the CTRL key down while clicking on each year you wish to include in the report results.

Generate Report
Once you have selected all the appropriate options for your report, click on the Generate Report button to immediately view your specific report.

3.2 Anatomy of a Report

Each report has a common layout with four standard sections. Once you run a report by clicking on the Generate Report button you will see (1) the Header of the report followed by (2) the Report Graph (if the report contains a graph) followed by (3) the report Summary Data Grid that displays the actual data counts for each subset grouping as seen in Figure 4-2 below. The last common element is (4) the Report Options, so that you can run another report from the same screen.

Header
The report header will always contain a number of key informational elements specific to each report generated. The first line of the Header will contain the title of the actual report run and will include
the date range you selected.

The header also includes the Report Options selected including, where applicable, the Patient Type, Service Type, Visit Type, ITU type, the level of Detail, either Service Unit or Facility Level, and the Location.

The last line of the header will show the “Using data as of” date which is the date of the most recent record contained within the data mart. Please note that the "Using data as of" date does not indicate the date that the Dental Data Mart's data was last updated. This data mart is updated with the latest data available on a weekly basis barring technical issues that might delay the update process.

When attempting to locate data that has been recently submitted, keep in mind that it may take up to one business week or more for that data to be reflected online in the Dental Data Mart. If you have a concern that data is missing or incorrect in the Dental Data Mart please contact George.Chiarchiaro@ihs.gov.

**Report Graph**
If the report contains a graph, it will show up right under the report Header. The graph is a dynamically generated and will show the details of each graph as you move your mouse button over the graph elements.

**Note**
You may have to click once on the graph to activate the interactive nature of the graph.

**Summary Data Grid**
Below the Report Graph, you will find the Summary Data Grid that contains the actual counts used to generate the graph.

**Report Options**
At the base of each report you will find the common set of Report Options that will allow you to modify any of the report options and regenerate your report based on any newly selected filters.

**Printer Friendly**
You may wish to print your report out for various uses. The left hand menu contains a Printer Friendly link which when clicked on will regenerate your report in a format that will print clearly and cleanly. Clicking on the Printer Friendly link will also “hide” the left hand navigation menu to maximize the printable report space.
Figure 3-2  Example of a Common Report Layout
Download to Word
The left side navigation panel also provides a link to download your report to your computer as a Word file. To save your report, click on the **Download to Word** link from the report screen.

A dialog box titled **File Download** pops up and with the buttons **Open**, **Save**, and **Cancel**.

![Figure 3-3 File Download Dialog Box](image)

Click the **Save** button. A second dialog box opens named **Save As**.

![Figure 3-4 Save As Report Dialog Box](image)

The default report name is report.doc and the default location is My Documents. If you wish, navigate to where you want to save the report on the computer and rename the file.

Finally, a third dialog box opens confirming that you successfully downloaded the report and allowing you to **Open the report** or to **Open the Folder** where you saved the report or to **Close the dialog box**.

![Figure 3-5 Download Complete](image)
**Download to Excel**
The last link in the navigation panel allows you to download your report as an excel file. In order to do save the file to your computer you follow the same steps as downloading and saving the file as a Word document. The default file name is report.xls.

### 4.0 Reports

This section will review all current reports in the system and document the main purpose of each report.

To access all of the reports from the Division of Oral Health home page, click on the Reports link in the left hand navigation panel.

#### 4.1 Visits by Month

The sample report in **Figure 3-2** is the Visits by Month Report.

**Overview**
This report allows users to view the number of documented dental visits by Patient type, Visit type, Service type, ITU, and location within a specified time frame. In this example you can see the Header describing the report data, the Summary Data Grid and the report options selected to run the report. If two or more years had been chosen in the Fiscal Year dropdown box, the graph would allow you to easily see the changes from year to year. Using the report options, you can generate a new report from this screen.
4.2 RVU by Month Report

Overview
This report counts the number of Relative Value Units performed for the selected Patient type, Visit type, Service type, ITUs, Locations and time periods. In this example you can see the Header describing the report data, the Summary Data Grid and the report options selected to run the report. If two or more years had been chosen in the fiscal year dropdown box, the graph would allow you to easily see the changes from year to year. The same information could be gathered for a more specific time period by selecting the Date Range option.

Figure 4-2 RVU by Month Report
4.3 RVU by Level (1,2,3,4,5,9, total)

**Overview**
This report counts the number of RVUs by level for the selected Patient type, Visit type, Service type, ITUs, Locations and time periods. Greater detail can be obtained by choosing a particular facility rather than all Service Units. Each of the Service Levels are displayed by number as well as a percentage of the whole.

![Image of RVU by Level Report](image_url)
4.4 Service by Month Report

Overview
This report counts the services performed by month for the selected Patient type, Visit type, Service type, ITUs, Locations and time periods.
4.5 Service by Level Report

Figure 4-5. Service by Level Report

Overview
This report displays the services performed by level (number and the percentage of the whole) for the selected Patient type, Visit type, Service type, ITUs, Locations and time periods.
4.6 Services per Visit Report

**Overview**
This report displays the services performed at each visit by month for the selected Patient type, Visit type, Service type, ITUs, Locations and time periods.
4.7 Services per Patient Report

Figure 4-7. Services per Patient Report

Overview
This report displays the services performed by patient by month for the selected Patient type, Visit type, Service type, ITUs, Locations and time periods.
4.8 GPRA Sealants

Overview
This report allows users to view the number of sealants applied by Patient type, Location, and Level of Detail, by age group for the selected GPRA year(s).
4.9 GPRA Sealants by Month Report

Figure 4-9. GPRA Sealants by Month Report

Overview
This report allows users to view the number of sealants applied by Patient type, Location, and Level of Detail by month for the selected GPRA year(s).
4.10 GPRA Flouride Report

Overview

This report allows users to view the number of fluoride treatments provided by Patient type, Location, and Level of Detail. With two GPRA years selected you can see the percentage annual change.
5.0 Security and Administration

This section provides instruction for Regional Administrators to assign user access, view assigned users, modify and delete user access.

5.1 Security

Security is controlled by level of user access and geographic area. There are only three levels of users, Super Administrators, Regional Administrators and Data Readers. Both Regional Administrators and Data Readers are assigned access only to specific facilities or areas. Regional Administrators have the ability to view data, as well as, the ability to assign/edit/delete other users privileges. However, they can only do so for the locations to which they themselves have been assigned access.

Super Administrators control access to the system as whole. They have full access to the application's resources. They can see data for all IHS locations and assign users and set access privileges for all locations. Super Administrators can create and manage Regional Administrators. It is important to note that only Super Administrators can modify, add or delete other Super Administrators.

Regional Administrators are given access to defined geographic areas within the IHS. Within these areas they can add, modify and delete users, as well as access the reporting functions.

Finally, Data Readers have read-only privileges for areas assigned to them by Regional or Super Administrators. They can run reports but cannot modify, add, or delete other users.

Super and Regional Administrators have access to the Administrative Controls from a link on the home page only visible to administrators. This resource includes functions to add, delete, and modify users’ privileges. Additionally, the Administrative Controls allow administrators the ability to track users’ activity by providing report histories searchable by IHS area and date range.

Note
Only Super Administrators can modify, add, or delete other Super Administrators and they are the only ones that will see the Super Administrator option in the Assign User Access box.

Note
The Administration functions are only available to system Administrators. Data Readers will not see the “Administration” link on the left side navigation pane and therefore will not be able to access the administrative functions.
All of Administration functions are accessed by clicking on the Administration link in the left side navigation pane. This link opens the Administrative Controls.

The Administrative Controls provides three links. The first two Assign User Access and View Assigned Users, allow Administrators to assign, modify and delete users for their Administrative
areas. The third link View User Report History allows Administrators to monitor use of the web site.

5.2 Assign User Access

To assign a new user, choose the Assign User Access link in on the Administrative Controls table. Next, type in the new user’s last name (or the first few letters of the last name) into the text box and click the Search button.

![Figure 5-3 Type in the User's Last Name in the User Lookup box](image)

All IHS Internet users with the same last name, or one that starts with the same first few letters, will appear. Scroll down to select the correct user and click on the Assign User button.

![Figure 5-4 Select the User from the list by clicking on the Assign User Link](image)

The next screen, User Access Assignment: User Access allows you to set the user’s access privileges.

First you must set the new user’s Security Role by clicking the appropriate radio button.
Now set the Access Location(s) by scrolling through the list and clicking on the location name. Select multiple locations by holding the control key while clicking.

Finally, click the **Save User Access** Settings. You will receive a confirmation screen stating that you have successfully added a new user and showing the settings you selected.

By clicking on the **Add a New User** link at the bottom of the screen, you can go directly to the User Lookup screen and continue to add users. The **Modify Existing Users** link takes you to the list of assigned users within your access areas.
5.3 View Assigned Users

Regional Administrators can view all the users assigned to their areas by clicking View Assigned Users in the Administrative Controls. Super Administrators can see all users for all locations.

![View Assigned Users](image)

5.4 Modify Users

By clicking on a User’s name, the administrator can see and modify the user’s access, as well as delete the individual user.
First you must set the new user’s **Security Role** by clicking the appropriate radio button.

Now set the **Access Location(s)** by scrolling through the list and clicking on the new location names. Select multiple locations by holding the “control” key on your keyboard while clicking.

Finally, click the **Save User Access Settings**. You will receive a confirmation screen stating that you have successful added a new user and showing the new settings you selected.

By clicking on the **Add a New User link** at the bottom of the screen, you can go directly to the **User Lookup** screen and continue to add users. The **View Existing Users link** takes you to a list of assigned users within your access areas.
The **Reset** button allows you to undo the changes you have made while on the current screen and resets the user to their previous Security Role and Access Locations. You cannot reset a user once you have clicked on the “Save User Access Settings,” but you can update their access privileges again if necessary.

### 5.5 Delete Users

To delete a user, follow the steps to modify a user as shown above. But rather than changing the users security role or access locations, click the **Delete User** button. After you have clicked the link, you will be redirected to the Administrative Controls screens.

To confirm that the user has been deleted, click on **View Assigned Users Link**. The deleted user should no longer be included in the list.

### 5.6 View User Report History

The last link on the Administration home page is **User History**. This area provides Administrators with the ability to track of user activity. Clicking on the link brings you to a screen with a set of report options.

![Image of User Report History Screen](image)

**Figure 5-10 Search User History Screen**

The first report option is the **Area** dropdown box which gives you a choice of all the IHS Areas. You can select all areas or a particular one.

Like the Date options in the Reports section of the web site, you must select the **Date Range** you are interested. You can type in the start and end dates (dd/mm/yyyy) or click the calendar icon and select the start and end dates.

The **Date** column lists the dates that the User viewed the report. The **User’s Name** column lists the users using the system for the selected Location and Date Range. The **IP Address** column contains the IP address of the computer that the user was working on. The **Report Title** column lists the name of the core report that was viewed by the user.

By clicking on the **Report Title Link**, the Administrator can view the actual report that the user created at the specified time and date.
Figure 5-11 Sample User History Report