Oracle® Healthcare Foundation Dashboards User's Guide



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Oracle Healthcare Foundation Dashboards User's Guide, Release 8.0

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Preface

This preface contains the following sections:

- Documentation accessibility
- Related resources
- Access to Oracle Support
- Additional copyright information

Documentation accessibility

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1 Overview

Oracle Healthcare Foundation (OHF) Dashboards is a comprehensive set of examples for Clinical, Financial, and Value Based Care domains that are created using Self-Service Analytics (SSA). The OHF Dashboards are distributed as free content and are not maintained or supported by Oracle as a licensed product.

The dashboards run on Oracle Business Intelligence (OBIEE) and can be used to visualize data from the Healthcare Common Data Mart (HCD). For details on the dashboards' deployment instructions, see *Oracle Healthcare Foundation Installation Guide*.

Oracle also provides sample data files to populate HCD with sample data for the OHF Dashboards or for other analytics uses. For instructions on how to deploy the sample data, see the Oracle Healthcare Foundation Sample Data Deployment Guide.

You can access the OHF Dashboards from the **Dashboard** menu in OBIEE, as shown below:

Dashboards 🔻

Most Recent(Value Based Care - Member Analysis)

My Dashboard

- Oracle Healthcare Foundation
- E Audit Trail & Usage Tracking

💷 Clinical

💷 Data Lineage

Derived Measures

Financial

Patient Browser

💷 Value Based Care

A Sample Lite

💷 QuickStart

Visualizations

Documentation Accessibility



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2 Oracle Healthcare Foundation Dashboards

The following are the Oracle Healthcare Foundation Dashboards and pages. You can customize or extend the dashboards and reports based on your downstream application use cases:

Dashboard	Pages					
Value Based Care Dashboard	Member Analysis					
	PMPM Analysis					
	Risk Score Analysis					
	Rx Claim Analysis					
	ACO Measures					
	Patient Caregiver Experience					
Derived Measures Dashboard Allows you to browse derived measures, such as: HCAHPS, HIQR/HQQR, PQRS, or CQM.						
Patient Browser Dashboard	Create, save, or retrieve queries for a cohort of patients by: demographics, diagnosis, procedure, drug, DRG, service line, etc.					
Value Based Care Dashboard • Member Analysis PMPM Analysis • Risk Score Analysis Risk Score Analysis • Rx Claim Analysis Patient Caregiver Experience • Patient Caregiver Experience Derived Measures Dashboard Allows you to browse derived measures, such as: HCAHPS, HIQR/HQQR, PQRS, or CQM. Patient Browser Dashboard Create, save, or retrieve queries for a cohort of patients to demographics, diagnosis, procedure, drug, DRG, service line, etc. Clinical Dashboard • Summary Stroke Encounters • LOS Analysis Financial Dashboard • Reimbursement Analysis Claims Analysis • Encounters Billing Analysis • Billing Analysis Audit Trail and Usage Tracking Dashboard • Usage Summary Dashboard • Report Lineage • Healthcare Common Datamart Lineage • Healthcare Common Datamart Lineage	• Summary					
		LOS Analysis				
DashboardPagesValue Based Care Dashboard• Member Analysis • PMPM Analysis • Risk Score Analysis • Risk Score Analysis • Rx Claim Analysis • ACO Measures • Patient Caregiver ExperienceDerived Measures DashboardAllows you to browse derived measures, such HCAHPS, HIQR/HQQR, PQRS, or CQM.Patient Browser DashboardCreate, save, or retrieve queries for a cohort demographics, diagnosis, procedure, drug, D line, etc.Clinical Dashboard• Summary • Stroke Encounters • LOS AnalysisFinancial Dashboard• Reimbursement Analysis • Encounters • Billing AnalysisAudit Trail and Usage Tracking Dashboard Data Lineage Dashboard• Report Lineage • Healthcare Common Datamart Lineage	Reimbursement Analysis					
	Claims Analysis					
	Encounter Charge Analysis					
	Dashboard • Summary Dashboard • Stroke Encounters LOS Analysis • Claims Analysis al Dashboard • Reimbursement Analysis • Encounter Charge Analysis • Billing Analysis • rail and Usage Tracking Dashboard • Usage Summary					
Audit Trail and Usage Tracking Dashboard	Iboard Pages Based Care Dashboard • Member Analysis • PMPM Analysis • Risk Score Analysis • Risk Score Analysis • Rx Claim Analysis • RX Claim Analysis • ACO Measures • Patient Caregiver Experience • ACO Measures ed Measures Dashboard Allows you to browse derived measures, such as: HCAHPS, HIQR/HQQR, PQRS, or CQM. nt Browser Dashboard Create, save, or retrieve queries for a cohort of patients by: demographics, diagnosis, procedure, drug, DRG, service line, etc. al Dashboard • Summary • LOS Analysis • LOS Analysis ncial Dashboard • Reimbursement Analysis • LOS Analysis • Encounters • LOS Analysis • Encounter Charge Analysis • Encounter Charge Analysis • Billing Analysis • Trail and Usage Tracking Dashboard • Usage Summary • Audit Trail • Dashboard Usage Lineage Dashboard • Report Lineage • Healthcare Common Datamart Lineage • Healthcare Common Datamart Lineage					
	Audit Trail					
	Dashboard Usage					
Derived Measures Dashboard Patient Browser Dashboard Clinical Dashboard Financial Dashboard Audit Trail and Usage Tracking Dashboard Data Lineage Dashboard	Report Lineage					
	Healthcare Common Datamart Lineage					

Table 2-1 Oracle Healthcare Foundation Dashboards

The reports in these dashboards work for the Hospital enterprise. You can filter some reports by organization.

- Value Based Care Dashboard
- Derived Measures Dashboard
- Patient Browser Dashboard
- Clinical Dashboard
- Financial Dashboard
- Audit Trail and Usage Tracking Dashboard
- Data Lineage Dashboard



Value Based Care Dashboard

The Value Based Care Dashboard contains the following pages:

- Member Analysis
- PMPM Analysis
- Risk Score Analysis
- Rx Claim Analysis
- ACO Measures
- Patient Caregiver Experience

Member Analysis

The Member Analysis page displays analytics based on the Member Month Eligibility and Medical Claim subject areas.

Value Based Care Member Analysis PMPM Analysis Risk Score ues 👻 Calendar Year (All Colu Apply Reset • 50 40 30 80 75 47 Total Members by Primary Care Physiciar Total Members by Attributed Provide Bree et tie ave ebble UC36 Hole:

Figure 2-1 Member Analysis Page

You can use the filters at the top of the page to focus on specific payers and calendar years. This page has the following reports:

- Total medicare, medicaid, and commercial members. This report shows the organization's exposure to different insurers based on the number of patients they cover. Click on the bars in the graph to display details about all the members covered by each insurer.
- Total Members by Primary Care Physician. This report shows each primary care physician's exposure to different insurers based on the number of patients they cover. Click on the bars in the graph to display details about all the members covered by each insurer for every primary care physician.



• Total Members by Attributed Provider. This report shows each attributed provider's exposure to different insurers based on the number of patients they cover. Click on the bars in the graph to display details about all the members covered by each insurer for every attributed provider.

PMPM Analysis

The PMPM Analysis page displays analytics based on the Member Month Eligibility, Medical Claim, and Rx Claim subject areas.



Figure 2-2 PMPM Analysis Page

You can use the filters at the top of the page to focus on specific payers, organizations, insurance program types, and calendar years. This page has the following reports:

- PMPM overall, medical and drug cost in dollars, overall dollars spent, and average cost per procedure. This report allows you to see the average monthly costs per member and their distribution between medical and drug PMPM costs. It also allows you to evaluate your total costs and the cost of a typical procedure.
- PMPM Cost and Members by Attributed Physician. This report helps you understand the PMPM costs that attributed physicians generate through the average monthly cost per member and the total number of members assigned.

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The distribution between emergency and inpatient members also helps you understand the associated costs.

Click any bar in the PMPM graph do display a detailed breakdown of all the amounts for each attributed physician.

- High Cost Members by Primary Care Physician. This report helps you understand the costs that primary care physicians generate through the average monthly cost per member and the total number of members assigned. The distribution between emergency and inpatient members also helps to understand the associated costs. Click any bar in the PMPM graph do display a detailed breakdown of all the amounts for each primary care physician.
- Claim Payments by PCP Graphical representation of the claimed payment amounts and billed amounts by primary care physician. This report allows you to compare the overall payments claimed by primary care physicians and to check how they are covered by the billed amounts.
- Claim Payments by Procedure A tabular report of the claim payments for each procedure compared to the total amount. The percentage helps you identify the procedures that generate the largest claims.
- Claim Payments by Care Setting Graphical representation of the claim payment amounts for each case setting. This report helps you visualize the care settings that generate the largest claims.
- Claim Payments by Member A tabular report that lists all members and their claim payments. This report allows you to drill down to the payments claimed for each member.

Risk Score Analysis

The Risk Score Analysis page displays analytics based on the Member Risk Score subject area.



Figure 2-3 Risk Score Analysis Page

You can use the filters at the top of the page to focus on specific primary care physicians and calendar years. This page has the following reports:



- Total number of patients with risk score, average scoring events per patient and average days since last scoring event. This report helps you understand the scoring activity volume based on the number of patients it is performed on, the number of scoring events per patient, and their frequency.
- Risk analysis by gender, ethnicity, and age. Correlate this report with the total numbers of patients in each category to understand which genders, ethnic groups, and age bands are more exposed to risks.

Rx Claim Analysis

The Rx Claim Analysis page displays analytics based on the Prescription Claim subject area.



Figure 2-4 Rx Claim Analysis Page

You can use the filters at the top of the page to focus on specific payers, organization providers, insurance program types, and calendar years. This page has the following reports:

• Total Prescriptions and Prescription Cost by Medicines - This report helps you understand how often different medicines are prescribed and the costs that these prescriptions generate.

Click on a bar or on a medicine name to display detailed prescription information for all the members who have been prescribed the medicine. There are 2 levels of drill down. Clicking further on the member number shows another detailed report for each member with Bill details.

• Avg out-of-pocket cost for a branded drug in Rx - Shows the average out of pocket cost that patients pay for a given set of medicines along with the breakdown of that cost by deductible, patient responsibility, and copay amounts.

ACO Measures

The ACO Measures page uses quality measurements based on the Accountable Care Organization (ACO) standards. You can customize this page to be used for any quality measure.



Figure 2-5 ACO Measures Page

You can use the filters at the top of the page to focus on specific organization providers and measure types. This page has the following report:

 ACO Quality Measures - Graphical representation of the percentile rating for the selected organization providers for specific measure types. This report allows you to understand how organization providers compare to each other on different measures. The detailed tabular report below the chart also includes the percentile variance from the previous year to the current year, providing insight into the progress of an organization over different ACO quality measures.

Note:

The derived measure model supports drill-down to a patient, member, individual and organization service provider, encounter, internal organization, medical claim, and Rx claim from the quality measure results.

Patient Caregiver Experience

The Patient Caregiver Experience page centralizes responses from patient surveys.

lue Based Ca	re	Home	Catalog	Favorites	s ▼ New ▼ Open ▼ Signed In As	weblogi
ember Analysis F	MPM Analysis Risk Score Analysis	Rx Claim Analysis AC	CO Measures	Patient Caregiver Experience	•	¢
Organization Pr	ovider (All Column Values 🔻 Depa	rtment (All Column Valu	es 🔻 Physi	cian (All Column Values 👻 Cal	endar Year (All Column Values 🗸 Apply Re	set 🔻
Patient Satisfac	ction Survey					
	Overall Satisfaction 50		100%	Cleanliness of Hospital	Environment	
Quietness of	Hospital Environment 50		100%			
Communica	ation about Medicines 84	84%		During this hospital stay, how	often were your room and bathroom kept clean?	66%
	Pain Management 84	84%		Communication about I	Medicines	
Responsive	eness of Hospital Staff 83	83%				
Commu	Hospital Staff Visitation	82%		Before giving you any new me possible side effects in a way	dicine, how often did hospital staff describe vou could understand?	100%
Commun	Discharge Information	79%		Before giving you any new me	dicine. how often did hospital staff tell you what	68%
Wi	llingness to Recommend	73%		the medicine was for?	,,,,,,,	00 /
Cleanliness of	Hospital Environment 33	66%		Communication with Do	octors	
Commu	inication with Nurses 133 20%			During this hospital stay, how could understand?	often did doctors explain things in a way you	68%
				During this hospital stay, how	often did doctors listen carefully to you?	100%
				During this hospital stay, how	often did doctors treat you with courtesy and	68%
				Communication with N	ırses	
				During this bosnital stay, did t	ne nurse leader visit vou?	80%
				During this hospital stay, how	often did nurses explain things in a way you	100%
				could understand?	often did nurses listen carefully to you?	66%
				During this hospital stay, how	often did nurses treat you with courtesy and	100%
				Discharge Information		
				During this hospital stay, did d you about whether you would hospital?	octors, nurses or other hospital staff talk with have the help you needed when you left the	72%
				During this hospital stay, did y symptoms or health problems	ou get information in writing about what to look out for after you left the hospital?	78%
				Hospital Staff Visitation	I	
				During this hospital stay, did th	ne hospital staff visit you every hour?	82%
				Overall Satisfaction		
				How would you rate this hospi	tal during this stay?	100%
				Pain Management		
				During this hospital stay, how could to help you with your pa	often did the hospital staff do everything they in?	100%
				During this hospital stay, how	often was your pain well controlled?	68%
				Quietness of Hospital E	invironment	
				During this hospital stay, how night?	often was the area around your room quiet at	100%
				Responsiveness of Hos	spital Staff	
				During this hospital stay, after get help as you wanted it?	you pressed the call button, how often did you	66%
				How often did you get help in soon as you wanted?	getting to the bathroom or in using a bedpan as	100%
				Willingness to Recomm	lend	
				Would you recommend this ho	spital to your friends and family?	74%
				-	· · · · · ·	

Figure 2-6 Patient Caregiver Experience Page



You can use the filters at the top of the page to focus on specific organization providers, departments, physicians, and calendar years. This page has the following report:

Patient Satisfaction Survey - Shows the survey response results rolled up to the categories, such as cleanliness of hospital environment, communication about medicines, and communication with doctors and nurses. Click on a graph bar to display the detailed answers for that survey category.
 On the right side, the survey displays the performance score for each area. For example, "During the hospital stay, how often doctors explained in a way that the patient could understand?" has a score of 80%, which means 80% of patients agreed that the doctors explained clearly. Click on a percentage number to display the detailed answers for that survey guestion.

Derived Measures Dashboard

und Maasuras	Lema	Catalog	Emoritor -	Daebboarde -	New -	0000 -	Signed In Ar	webler
ved measures	Home	Catalog	Favorites V	Dashboards V	New V	Open V	Signed in As	, weblog
Organization Service Provider	Derived Me	asures						
NULL								
Garrison Street Community Clinic								Measure
Ushan Casta fa Adversed Medicine	Year	Organization	Type	Measure Name	Numerator	Denominator	Value	Value
Hickory Center for Advanced Medicine								lext
Olivier Street Health Center	2015	Garrison Stree	et At-Risk	ACO-26:Aspirin			70	Very
Porter Center for Advanced Medicine		Clinic	Diabetes	Use				Small
Surrey Street Health Center	2015	Garrison Stree Community	et Patient/ Caregiver	ACO-6:Shared Decision Making			10	Very Small
Calendar Year		Clinic	Experience					
□NULL □ 2016	2016	Garrison Stree Community Clinic	et At-Risk Population Diabetes	ACO-26:Aspirin Use			43	Very Small
⊴ 2015 ⊇ 2014	2016	Garrison Stree Community	et Patient/ Caregiver	ACO-6:Shared Decision Making			30	Very Small
Perived Measure Category		Clinic	Experience					
(All Column Values)	2015	Olivier Street Health Center	At-Risk Population	ACO-26:Aspirin Use			69	Very Small
Oerived Measure Type (All Column Values)	2015	Olivier Street	Patient/	ACO-6:Shared			80	Very
-		Health Center	Caregiver Experience	Decision Making				Small
Jerived Measure	2016	Olivier Street	At Diak				47	Manu
☐ (All Column Values) ^	2010	Health Center	Population Diabetes	Use			47	Small
ASC Admission: Heart Failure	2016	Olivier Street Health Center	Patient/ Caregiver Experience	ACO-6:Shared Decision Making			38	Very Small
Access to Specialists Adult Weight Screening and Follow-up All-cause unplanned admissions for nation	2015	Porter Center for Advanced	At-Risk Population	ACO-26:Aspirin Use			12	Very Small
All-cause unplanned admissions for patier	2015	Porter Center for Advanced	Patient/ Caregiver	ACO-6:Shared Decision Making			66	Very Small
Aspirin Use		Medicine	Experience					
Beta-Blocker Therapy for LVSD Blood Pressure (BP) < 140/90	2016	Porter Center for Advanced	At-Risk Population	ACO-26:Aspirin Use			41	Very Small
Colorectal Cancer Screening		Medicine	Diabetes					
C Lucoression Remission at 12 months	2016	Porter Center for Advanced Medicine	Patient/ Caregiver Experience	ACO-6:Shared Decision Making			34	Very Small

Figure 2-7 Derived Measures Dashboard

The Derived Measures dashboard allows you to browse derived measures, such as: HCAHPS, HIQR/HQQR, PQRS, or CQM. Use the panel on the left to select your filtering criteria and click **Apply** to display the results in the table on the right. Also see ACO Measures for measure comparisons between organizations and progress tracking.



Patient Browser Dashboard

ient Browser		Ho	me	Catalog Favor	ites 🔻 Dashboar	ds 🔻	New v	Open 🔻	Signed Ir	As weblogi
Encounter From Date	Patients 13	ED \ (/isit)	s IP	Visits 1	OP	Visits 18		Discha 13	rges
Encounter To Date 03/26/2018 03ganization Provider NULL	Name	MRN	Age	Final Diagnosis	Primary Procedure	ALOS	Admitting Physician	Attending Physician	Clinical Trial Status Code	Encounter Type
Garrison Street Community Clinic Hickory Center for Advanced Medicine Olivier Street Health Center	Abigail F Adams	126746	47	Diverticulitis of small intestine with perforation and abscess	Magnetic resonance imaging (MRI) w/o & w/contrast	5	Victoria Edwards	Victoria Edwards	NAV	Outpatient
Porter Center for Advanced Medicine Surrey Street Health Center	Ben L Campbell	123420	45	Mediastinal Carcinoma	Magnetic resonance imaging (MRI) w/o & w/contrast	5	Lucas Perez	Adam Young	NAV	Outpatient
Gender Female Male	Georgia J Thompson	132189	47	Mediastinal Carcinoma	Magnetic resonance imaging (MRI) w/o & w/contrast	5	Adam Young	Ryan Lee	NAV	Outpatient
Age Range 0-18 Years 19-44 Years	lan E Gonzalez	133122	47	Cerebral Infarction (Stroke)	Endovascular - Blood vessel repair by other means	2	Adam Young	Lucas Perez	NAV	Outpatient
✓ 45-64 Years ✓ 65-84 Years ✓ 85 Years and over	lan O Davis	130656	46	LII Pneumonia	Magnetic resonance imaging (MRI) w/o & w/contrast	5	Bryce Baker	Debbie Taylor	NAV	Outpatient
Final Diagnosis (All Column Values) Primary Procedure	James B Scott	133325	47	Diverticulitis of small intestine with perforation and abscess	Magnetic resonance imaging (MRI) w/o & w/contrast	5	Ryan Lee	Ryan Lee	NAV	Outpatient
(All Column Values)	Kevin P Walker	132405	47	Cerebral Infarction (Stroke)	Endovascular - Blood vessel repair by other means	5	Bryce Baker	Ryan Lee	NAV	Inpatient
(All Column Values)	Steven I Robinson	122324	45	LII Pneumonia	Magnetic resonance imaging (MRI) w/o & w/contrast	5	Victoria Edwards	Bryce Baker	NAV	Outpatient
(All Column Values)	Sydney A Turner	128738	47	Cerebral Infarction (Stroke)	Endovascular - Blood vessel repair by other means	5	Ryan Lee	Adam Young	NAV	Outpatient
(All Column Values)	Victoria F Baker	133179	48	LII Pneumonia	Magnetic resonance imaging	5	Ryan Lee	Lucas Perez	NAV	Outpatient

Figure 2-8 Patient Browser Dashboard

The Patient Browser allows you to create, save, or retrieve queries for a cohort of patients by: demographics, diagnosis, procedure, drug, DRG, service line, etc. Use the panel on the left to select your filtering criteria and click **Apply** to display the results in the table on the right. A summary count for your results is displayed at the top of the page for the number of patients, visits, and discharges.

Click on an MRN to display that patient's billing information.

Clinical Dashboard

The Clinical dashboard contains the following pages:

- Summary
- Stroke Encounters
- LOS Analysis



Summary



Figure 2-9 Summary Page

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You can use the filters at the top of the page to focus on preferred organization providers, physicians, or calendar years. The page has the following reports:

- Overview An overview of counts in a hospital enterprise including the number of patients, discharges, emergency department patients, inpatients, and outpatients. This helps you to compare the inflow and outflow of patients, and to allocate resources based on the distribution of patient care efforts between emergency, ambulatory and inpatient services.
 Click on a number to display a detailed list of all the patients in that category. From there, you can click the patients' MRNs to further drill down their billing details.
- Patients by Admission Type. This report allows you to see the inflow of patients that go through different admission types (referral, transfer, emergency, etc.) and to adjust your admission operations accordingly. Click on a bar to display a detailed list of all the patients in that category. From there, you can click the patients' MRNs to further drill down their billing details.
- Discharges by Diagnosis Modify this report to show the number of discharges for a specific diagnosis of interest. You can correlate this report with the Top 10 Diagnoses report and see if they are proportional. If the number of discharges for a specific diagnosis is trailing, it may indicate a long-term tendency for cases with that specific diagnosis to accumulate in the organization. You may want to investigate such situations and address them. Click on a bar to display a detailed list of all the patients with that diagnosis. From there, you can click the patients' MRNs to further drill down their billing details.
- Encounters by Organization. This report allows you to see the workload distribution between your organizations and plan your staffing, budgeting, and resource allocations accordingly.
- % of Encounters by Diagnosis Modify this report to show the % of encounters for a specific diagnosis of interest. You can use this report to estimate the mix of specialists that you need, based on the workloads that the various types of treatments require.
- Encounters by Type The balance between the inpatient and outpatient services you provide may help your organization adjust its focus either on clinics or hospitals.
- Top 10 Diagnosis Modify this report to show the number of encounters for a specific diagnosis of interest. You can use this report to see which treatments that you provide are the most labor intensive.
 Click on a bar to display a detailed list of all the patients with that diagnosis. From there, you can click the patients' MRNs to further drill down their billing details.
- Discharges by Year-Month You can correlate this report with the number of encounters by year-end and see if there are any seasonal slow-downs in treatment delivery.
- Encounters by Year-Month You can use this report to see the long-term trends and seasonal spikes in workload.
- Discharges by Ethnicity Shows a comparative analysis of number of discharges over two years by ethnicity. Modify this report to show the number of discharges for specific years of interest. You can correlate this report with the number of encounters by ethnicity to see if there is a systematic tendency to discharge members of certain ethnic groups after fewer investigations than the baseline.
- Encounters by Ethnicity Shows a comparative analysis of the number of encounters over two years by ethnicity. Modify this report to show the number



of encounters for specific years of interest. You can correlate this report with the number of discharges by ethnicity to see if there is a systematic tendency to discharge members of certain ethnic groups after fewer investigations than the baseline.

 Encounters by Gender - Shows the workload distribution between male and female patients. You can use this report to plan gender-specific healthcare measures.

Stroke Encounters

The Stroke Encounters page shows a holistic view of the number of encounters in a Healthcare organization for different dimensions such as diagnosis, procedure, and time. It uses the Stroke diagnosis and Endovascular procedure subject areas. You can modify the page to use any diagnosis and procedures based on your use case.





Figure 2-10 Stroke Encounters Page

Steven N Young Organizations - Encounters and Diagnosis

27 Male Black

Thomas B Lonez

124884

124919

		Encounter Count										
	Year - Month	2014 / 09	2014 / 10	2014 / 11	2014 / 12	2015 / 01	2015 / 02	2015 / 03	2015 / 04	2015 / 05	2015 / 06	2015 / 07
Organization Name	Diagnosis Name											
Garrison Street Community Clinic	Cerebral Infarction (Stroke)		5	2	4	4	2	6		5	5	2
	LII Pneumonia	3	8	12	9	13	8	7	15	8	7	5
	Mediastinal Carcinoma	1	5	2	5	1	6	1	3	5	3	1
Hickory Center for Advanced Medicine	Cerebral Infarction (Stroke)		1		1	1	1					
	Diverticulitis of small intestine with perforation and abscess			1				1		1		
	Mediastinal Carcinoma			2		2	1	1	4	1	3	1
	Squamous Cell Carcinoma				2							
Olivier Street Health Center	Cerebral Infarction (Stroke)			1	1			2		1		1
	Squamous Cell Carcinoma		2			2	3	2		1	2	1
Porter Center for Advanced Medicine	Cerebral Infarction (Stroke)			1	1			1		1	1	
	Diverticulitis of small intestine with perforation and abscess	1	4	2	3	1	3	3	2	2	3	1
Surrey Street Health Center	Cerebral Infarction (Stroke)		3		1	3		2			2	2
	Diverticulitis of small intestine with perforation and abscess		1			1			1	1		
	Mediastinal Carcinoma	1	1	2			1	1	2	2	1	1
	RII Pneumonia	1		3	3	3	4	4	1	2	3	
	Squamous Cell Carcinoma			2	1				2	1		

Debbie Taylor

Bryce Baker

Lucas Perez

Surrey Street Health Center

Surrey Street Health Center

39 Male White (Non-Hispanic) Garrison Street Community Clinic

Bryce Anderson

Debbie Taylor

Zoe Scott

10/20/2014

12/1/2014

6/24/2015

You can use the filters at the top of the page to focus on specific time periods. This page has the following reports:

- Encounters with Stroke Diagnosis Shows the total number of encounters with stroke diagnosis in an organization against the total number of encounters. This lets you compare and contrast the volume of encounters in your organizations for a specific diagnosis.
- Encounters with Stroke Diagnosis who received Endovascular procedure Shows the number of encounters with stroke diagnosis and the patients who received endovascular procedure treatment. This lets you evaluate the frequency of endovascular procedures performed on patients who suffered a stroke. The chart on the right displays the evolution of the number of encounters for a selected organization during the analyzed time period. This report lets you see long-term trends and seasonal spikes for endovascular procedures performed on patients who suffered a stroke.
- Patients Admitted with Stroke who received Endovascular Procedure Tabular report showing the list of patients with Stroke diagnosis who have received endovascular procedure for the chosen time period. This report allows you to drill down to the specifics of each encounter attended by individual patients.
- Organizations Encounters and Diagnosis Tabular report showing monthly encounters for each diagnosis per organization.

LOS Analysis



Figure 2-11 LOS Analysis Page

The Length of Stay (LOS) Analysis page has the following reports:

 Average Length of Stay (Est vs Act) By Time - Comparative analysis report that shows the average estimated LOS and average actual LOS over a period of time filtered by organization service provider. You can use this report to analyze and address issues with your LOS forecasting methodology for an organization service provider.



- Average Length of Stay (Est vs Act) By Organization Service Provider -Comparative analysis report that shows the estimated LOS and actual LOS by organization service provider. This report provides insight into the LOS forecasting gaps from each organization service provider.
- Average Length of Stay (Est vs Act) By Diagnosis Comparative analysis report that shows the average estimated LOS and average actual LOS by diagnosis. You can use this report to analyze and address any issues with your LOS forecasting methodology for individual diagnoses.

Financial Dashboard

The Financial dashboard contains the following pages:

- Reimbursement Analysis
- Claims Analysis
- Encounter Charge Analysis
- Billing Analysis

Reimbursement Analysis

The Reimbursement Analysis page covers the reimbursement amounts for the patient accounts.





Figure 2-12 Reimbursement Analysis Page

You can use the filter at the top of the page to focus on specific calendar years. This page has the following reports:

- Patient Account by Business Unit. This report helps you understand the distribution of patient accounts across business units and it helps in resource planning to manage patient accounts effectively.
- Total Expected Reimbursement Amount by Cost Center, filtered by insurer This report indicates the degree to which each insurer impacts the income of different cost centers. Click on a bar in the graph to display details about all the patients insured by the selected insurer for that cost center.
 A tabular report below the graph lists the expected total reimbursement amounts for all the cost centers and insurers. Click on an amount to display details about all the patients insured by the selected insurer for that cost center.
- Total Reimbursement Amount owed to Business Units, filtered by insurer This
 report indicates the degree to which each insurer impacts the income of different
 business units. Click on a bar in the graph to display details about all the patients
 insured by the selected insurer for that business unit.

A tabular report below the graph lists the expected total reimbursement amounts for all the business units and insurers. Click on an amount to display details about all the patients insured by the selected insurer for that business unit. • A tabular report with patient, patient account, and reimbursement amount details. This report allows you to track the details of all the reimbursements that apply to each patient.

Claims Analysis

The Claims Analysis page uses the Claim Submission subject area.



Figure 2-13 Claims Analysis Page

You can use the filter at the top of the page to focus on specific calendar years. This page has the following report:

Total Claim Charges by Organization Service Provider - This report allows you
to see the extent to which the charges claimed by each organization service
provider are covered by insurers and to evaluate the risk of overdue or delinquent
payments. The treemap chart on the right allows you to understand the exposure
to the various service providers based on their relative sizes.
Click on a bar in the graph to display a detailed list of all the claims for that
organization. From there, you can click on an MRN to display all the billing details
for a patient or you can click on a claim number to display additional details for that
claim.



Encounter Charge Analysis



Figure 2-14 Encounter Charge Analysis Page

You can use the filter at the top of the page to focus on specific calendar years. This page has the following reports:

- Total Charges by Year-Month This report helps you understand the trend in organization spending for patient services over a chosen period of time.
- Total Charges by Department This report helps you understand the charging distribution between departments.
 Click on a bar in the graph or on a department name in the table to display a detailed list of all the patient charges for that department.

Billing Analysis

The Billing Analysis page displays comparative billing information for your organizations and detailed bills for individual patients.





Figure 2-15 Billing Analysis Page

You can use the filter at the top of the page to focus on specific calendar years. This page has the following reports:

 Total Billed Amount and Total Payments by Organization Service Provider -Graphical report and a tabular report showing the total billed amount and the total payment by organization filtered by DRG. This report helps you identify costs and payments for patient services specific to each organization based on diagnosis-related groups.
 Click on a bar in the graph or on a total billed or payment amount to display a

detailed list of all the bills for that DRG for the selected organization. From there, you can further drill down the details of a specific bill by clicking on a bill number.

- Total Amount for Stroke Treatment by Organization Service Provider You can modify this report to use any diagnosis or procedure. This report helps you compare the costs that organization service providers spend on stroke treatments.
- Total Amount for Stroke Treatment and Endovascular Procedure by Organization Service Provider - This report helps you compare the costs that organization service providers spend on stroke treatments and endovascular procedures.



Audit Trail and Usage Tracking Dashboard

Note:

To use the Audit Trail and Usage Tracking Dashboard, you must enable usage tracking for Oracle Healthcare Foundation. For details, see Enable the Oracle Healthcare Foundation SSA Usage Tracking .

The Audit Trail and Usage Tracking dashboard contains the following pages:

- Usage Summary
- Audit Trail
- Dashboard Usage

Usage Summary



Figure 2-16 Usage Summary Page

You can use the filter at the top of the page to focus on the preferred time period. The page has the following reports:

 Overview - This report displays the total number of users, dashboards, pages, and the total display time for all the Oracle Healthcare Foundation Dashboards. Based on the overall usage of the dashboards, you can estimate their usefulness and the load on the system.



• Most Popular Dashboards and Least Used Dashboards - You can use these graphs to evaluate which areas of analysis are the most relevant for future development and which ones have a low impact and might be phased out. Click on a bar in the graph to display a detailed access log for that dashboard.

Audit Trail

t Trail & Usage T	racking		Home	Catalog Favorites Dasi	hboards ·	New ▼ Op	en v Signed In As w	eblog
e Summary Audit Tr	ail Dashboard Us	age						£
rom	То			Dashboard Page	Use	r Name		
02/24/2018	Č.	3/26/2018	Î	(All Column Values)	▼ (All	Column Values)	Apply Rese	et 🔻
age Tracking								
							100000	
Start Date Time	End Date Time	User Name	Dashboard			Dashboard Page	Total Time in Secs 📥 🔻	
02-MAR-18 11:05	02-MAR-18 11:05	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Value Ba	sed Care	Risk Score Analysis	4	
01-MAR-18 02:47	01-MAR-18 02:44	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Stroke Encounters	3	
07-MAR-18 07:17	07-MAR-18 07:12	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	3	
08-MAR-18 08:32	08-MAR-18 08:33	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Summary	2	
13-MAR-18 06:30	13-MAR-18 06:30	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	2	
20-MAR-18 10:27	20-MAR-18 10:2	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Summary	2	
13-MAR-18 06:31	13-MAR-18 06:3	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	1	
16-MAR-18 05:57	16-MAR-18 05:5	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	1	
16-MAR-18 05:58	16-MAR-18 05:58	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	1	
16-MAR-18 05:59	0 16-MAR-18 05:59	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	1	
16-MAR-18 07:00	16-MAR-18 07:00	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	1	
26-MAR-18 01:45	5 26-MAR-18 01:4	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	1	
01-MAR-18 02:46	01-MAR-18 02:40	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Summary	0	
01-MAR-18 02:47	01-MAR-18 02:4	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Stroke Encounters	0	
01-MAR-18 02:47	01-MAR-18 02:4	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Summary	0	
01-MAR-18 02:48	01-MAR-18 02:4	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Patient B	rowser	Patient Browser	0	
01-MAR-18 02:49	01-MAR-18 02:49	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		LOS Analysis	0	
01-MAR-18 02:49	01-MAR-18 02:4	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Summary	0	
01-MAR-18 02:51	01-MAR-18 02:5	weblogic	/shared/Oracle Heal	Ithcare Foundation/_portal/Clinical		Summary	0	
02-MAR-18 08:36	02-MAR-18-08:3	weblogic	/shared/Oracle Heal	Ithcare Foundation/ portal/Clinical		LOS Analysis	0	

Figure 2-17 Audit Trail Page

You can use the filters at the top of the page to focus on the preferred time period, dashboard page, and user.

This page displays a detailed access log based on the selected criteria for audit purposes.



Dashboard Usage

	iness Intelligence	Search All	T	Advanced	Administration H	lelp ▼ Sign	Out
udit Trail & Usage 1	Tracking	Home Catalog	Favorites	is ▼ New ▼	Open 👻 Sign	ed in As weble	ogic
sage Summary Audit Tr	ail Dashboard Usage						₽
From	То	Dashboard	Page Use	r Name			
02/24/2018	03/26/2018	(All Colum	Values) (Al	Column Values)	 Apply 	Reset 🔻	
Jsage of Dashboard	S						
	Dashboard		Dashboard Page	Access Count			
	/shared/Oracle Healthcare Fou	ndation/_portal/Clinical	Summary	179			
	/shared/Oracle Healthcare Fou	ndation/_portal/Value Based	Care PMPM Analysis	91			
	/shared/Oracle Healthcare Fou	ndation/_portal/Patient Brows	er Patient Browser	44			
	/shared/Oracle Healthcare Fou	ndation/_portal/Value Based	Care Member Analysis	36			
	/shared/Oracle Healthcare Fou	ndation/_portal/Value Based	Care Risk Score Analysis	8			
	/shared/Oracle Healthcare Fou	ndation/_portal/Clinical	LOS Analysis	6			
	/shared/Oracle Healthcare Fou	ndation/_portal/Clinical	Stroke Encounters	6			
	/shared/Oracle Healthcare Fou	ndation/_portal/Financial	Billing Analysis	6			
	/shared/Oracle Healthcare Fou	ndation/_portal/Financial	Reimbursement Analysis	6			
	/shared/Oracle Healthcare Fou	ndation/_portal/Financial	Encounter Charge Analy	sis 4			
			Design Des Obstant Association	4			
	/shared/Oracle Healthcare Fou	ndation/_portal/Value Based	care RX Claim Analysis				

Figure 2-18 Dashboard Usage Page

You can use the filters at the top of the page to focus on the preferred time period, dashboard page, and user.

The page displays a tabular report of the total access counts, based on the selected criteria. You can use this information to investigate the pages that are accessed the most by specific users or the users who access the most a specific dashboard page.

Data Lineage Dashboard

Note:

For information on how to enable data lineage for your customized reports and dashboards or for customized RPD files, see Data Lineage Extensibility .

The Data Lineage dashboard contains the following pages:

- Report Lineage
- Healthcare Common Datamart Lineage



Report Lineage

a Lineage port Lineage Healthc: Subject Area Member	are Commo Month Elig	on Datamart Line ▼ Analysis N:	age Member A	nalysis0 -	oply Rese	Home Cat	alog Favorites ♥ Dasl	nboards ▼ Ne	w▼ Op	pen ♥ Signed	In As weblo
Analysis Name	Subject Area	Presentation Table	Presentation Column	Logical Table	Logical Column	HCD Table	HCD Column	HDM Table	HDM Column	Interface Table	Interface Column
Member Analysis001	Member Month Eligibility	Eligibility Start Date	Calendar Year (Eligibility Start Date)	Dim-Eligibility Start Date	Calendar Year (Eligibility Start Date)	W_HCD_DAY_D	CAL_YEAR				
		Insurance Program Type	Insurance Program Type Code	Dim-Insurance Program Type	Insurance Program Type Code	W_HCD_INS_PROGRAM_TYP_DV	INS_PROGRAM_TYP_CODE				
		Member	Insurer Name (Insurer)	Dim-Member	Insurer Name (Insurer)	W_HCD_INSURER_D	INSURER_NAME	HDM_PRTY	PRTY_NM	HDI_ORG_PRTY	PRTY_NM
			Member Number	Dim-Member	Member Number	W_HCD_MEMBER_D	MEMBER_NUM	HDM_MBR	MBR_NBR	HDI_MBR	MBR_NBR
Member Analysis001_Reference	Member Month	Member	Gender Name	Dim-Member	Gender Name	W_HCD_MEMBER_D	GENDER_NAME				
	Eligibility		Member Age	Dim-Member	Member Age	W_HCD_MEMBER_D	BIRTH_DT	HDM_IND_PRTY	BIR_DT	HDI_IND_PRTY	BIR_DT
			Member Name	Dim-Member	Member Name	W_HCD_MEMBER_D	FULL_NAME	HDM_PRTY	PRTY_NM	HDI_IND_PRTY	PRTY_NM
			Member	Dim-Member	Member	W_HCD_MEMBER_D	MEMBER_NUM	HDM_MBR	MBR_NBR	HDI_MBR	MBR_NBR

Figure 2-19 Report Lineage Page

You can use the filters at the top of the page to focus on the preferred subject areas or reports.

The Report Lineage page tracks the data sources for the content displayed in the reports at the following levels: presentation, logical, datamart, data warehouse, and interface tables. This allows you to troubleshoot your reports and identify potential sources of errors in the Oracle Healthcare Foundation database or in Oracle Business Intelligence Enterprise Edition.

Healthcare Common Datamart Lineage

a Emeage		Home Catalo	g Favorites •	Dashboards Nev	v ▼ Open ▼ Signe	d in As weblogi
port Lineage Healthcar	re Common Datamart	Lineage				¢
HCD Table Name W_H		Column Name ACT	LENGTH_S V	ply Reset v		
HCD Table Name	HCD Column Name	HDM Table Name	HDM Column Name	Interface Table Name	Interface Column Name	
HCD Table Name W_HCD_INSURER_D	HCD Column Name	HDM Table Name	HDM Column Name VALDTY_STRT_DT	Interface Table Name HDI_PRTY_ADDR	Interface Column Name VALDTY_STRT_DT	
HCD Table Name W_HCD_INSURER_D W_HCD_INSURER_D	HCD Column Name ADDR_EFF_DT ADDR_LINE_1	HDM Table Name HDM_PRTY_ADDR HDM_LOC	HDM Column Name VALDTY_STRT_DT STRT_ADDR	Interface Table Name HDI_PRTY_ADDR HDI_LOC	Interface Column Name VALDTY_STRT_DT STRT_ADDR	
HCD Table Name W_HCD_INSURER_D W_HCD_INSURER_D W_HCD_MED_CLAIM_F	HCD Column Name ADDR_EFF_DT ADDR_LINE_1 ACT_LENGTH_STAY	HDM Table Name HDM_PRTY_ADDR HDM_LOC HDM_MED_CLM	HDM Column Name VALDTY_STRT_DT STRT_ADDR LEN_OF_STY	Interface Table Name HDI_PRTY_ADDR HDI_LOC HDI_MED_CLM	Interface Column Name VALDTY_STRT_DT STRT_ADDR LEN_OF_STY	
HCD Table Name W_HCD_INSURER_D W_HCD_INSURER_D W_HCD_MED_CLAIM_F W_HCD_MED_CLAIM_F	HCD Column Name ADDR_EFF_DT ADDR_LINE_1 ACT_LENGTH_STAY ADMIT_DT	HDM Table Name HDM_PRTY_ADDR HDM_LOC HDM_MED_CLM HDM_MED_CLM	HDM Column Name VALDTY_STRT_DT STRT_ADDR LEN_OF_STY ADMSN_DT	Interface Table Name HDI_PRTY_ADDR HDI_LOC HDI_MED_CLM HDI_MED_CLM	Interface Column Name VALDTY_STRT_DT STRT_ADDR LEN_OF_STY ADMSN_DT	
HCD Table Name W_HCD_INSURER_D W_HCD_INSURER_D W_HCD_MED_CLAIM_F W_HCD_MED_CLAIM_F W_HCD_MED_CLAIM_F	HCD Column Name ADDR_EFF_DT ADDR_LINE_1 ACT_LENGTH_STAY ADMIT_DT CLAIM_NUM	HDM Table Name HDM_PRTY_ADDR HDM_LOC HDM_MED_CLM HDM_MED_CLM HDM_ADJCD_CLM	HDM Column Name VALDTY_STRT_DT STRT_ADDR LEN_OF_STY ADMSN_DT CLM_NBR	Interface Table Name HDI_PRTY_ADDR HDI_LOC HDI_MED_CLM HDI_MED_CLM HDI_MED_CLM	Interface Column Name VALDTY_STRT_DT STRT_ADDR LEN_OF_STY ADMSN_DT CLM_NBR	

Figure 2-20 Healthcare Common Datamart Lineage Page



You can use the filters at the top of the page to focus on the preferred HCD tables and columns.

The Healthcare Common Datamart Lineage page displays the data mapping between the datamart, data warehouse, and interface tables. This allows you to better understand the Oracle Healthcare Foundation data model and better use the Oracle Healthcare Foundation data when building reports and dashboards.

3

Enable the Oracle Healthcare Foundation SSA Usage Tracking

This chapter explains how to enable the Usage Tracking feature for Oracle Healthcare Foundation in Oracle Business Intelligence Enterprise Edition. This allows you to run the reports in the Audit Trail and Usage Tracking Dashboard.

This chapter contains the following topics:

- Set Up the Data Model
- Enable the Usage Tracking Feature in the NQSConfig.INI File
- Configure the Oracle Healthcare Foundation SSA RPD File
- Deploy the OHF SSA RPD File

Set Up the Data Model

Make sure the Repository Creation Utility (RCU) has been successfully run while installing Oracle Business Intelligence Enterprise Edition. You should have the *prefix_BIPLATFORM* schema installed with the following tables in it:

- S_NQ_ACCT
- S_NQ_DB_ACCT
- S_NQ_INITBLOCK
- 1. Go to OBIEE_HOME/bi/bifoundation/samples/usagetracking.
- 2. Extract the UsageTracking-datafiles.zip archive.
- Connect to the *prefix_BIPLATFORM* schema and execute the following SQL scripts in order:
 - a. Oracle_create_nQ_Calendar.sql
 - b. Oracle_create_nQ_Clock.sql
 - c. Oracle_nQ_Calendar.sql
 - d. Oracle_nQ_Clock.sql
- 4. Create a view in the *prefix_BIPLATFORM* schema:

CREATE OR REPLACE VIEW nq_login_group AS SELECT DISTINCT user_name AS login FROM s_nq_acct;



Enable the Usage Tracking Feature in the NQSConfig.INI File

- Go to OBIEE_HOME/user_projects/domains/bi_domain/config/ fmwconfig/biconfig/OBIS/.
- 2. Open the NQSConfig.INI file in a text editor.
- 3. In the [Usage Tracking] section set the ENABLE parameter to YES.
- 4. Set the DIRECT_INSERT parameter to YES.
- 5. Set the PHYSICAL_TABLE_NAME parameter to point to the S_NQ_ACCT table in the *prefix_*BIPLATFORM schema in the following format: "*Database*"."*Catalog*"."*Schema*"."*Table*";

Use the database, catalog, schema, and table names predefined in the Oracle Healthcare Foundation SSA RPD file:

- **Database**: "OHF Usage Tracking"
- Catalog: "Catalog"
- Schema: "dbo"
- Table Name: "S_NQ_ACCT"
- 6. Set the CONNECTION_POOL parameter in the following format "Database"."Connection Pool";

Use the database and connection pool values predefined in the Oracle Healthcare Foundation SSA RPD file:

- Database: "OHF Usage Tracking"
- Connection Pool: "OHF Usage Tracking Connection Pool"
- Uncomment the INIT_BLOCK_TABLE_NAME parameter and set it to point to the S_NQ_INITBLOCK table in the *prefix_BIPLATFORM* schema in the following format: "Database"."Catalog"."Schema"."Table";

Use the following values:

- Database: "OHF Usage Tracking"
- Catalog: "Catalog"
- Schema: "dbo"
- Table Name: "S_NQ_INITBLOCK"
- Uncomment the INIT_BLOCK_CONNECTION_POOL parameter and set it to refer to the connection pool for writing statuses to the S_NQ_INITBLOCK table in the *prefix_BIPLATFORM* schema in the following format: "*Database*"."*Connection Pool*";

Use the database and connection pool values predefined in the Oracle Healthcare Foundation SSA RPD file:

- Database: "OHF Usage Tracking"
- Connection Pool: "OHF Usage Tracking Connection Pool"



The above parameters should be set as below:

```
_____
============
 # Parameters used for inserting data into the table (i.e.
DIRECT INSERT = YES).
# Init-Block Tracking Options are commented out and as a result
disabled.
 # To enable Init-Block Tracking Feature, define the two parameters
for
 # Init-Block, INIT_BLOCK_TABLE_NAME and INIT_BLOCK_CONNECTION_POOL.
PHYSICAL TABLE NAME = "OHF Usage
Tracking"."Catalog"."dbo"."S_NQ_ACCT"; # Or
"Database"."Schema"."Table" ;
CONNECTION_POOL = "OHF Usage Tracking"."OHF Usage Tracking
Connection Pool";
INIT BLOCK TABLE NAME = "OHF Usage
Tracking"."Catalog"."dbo"."S NQ INITBLOCK" ; # Or
"<Database>"."<Schema>"."<Table>" ;
INIT_BLOCK_CONNECTION_POOL = "OHF Usage Tracking"."OHF Usage
Tracking Connection Pool";
```

 Stop and restart the Oracle Business Intelligence Enterprise Edition Services using the stop and start scripts available in OBIEE_HOME/user_projects/ domains/bi_domain/bitools/bin.

Configure the Oracle Healthcare Foundation SSA RPD File

Update the Oracle Healthcare Foundation Usage Tracking Connection Pool in the Oracle Healthcare Foundation SSA RPD file to point to the *prefix_BIPLATFORM* schema:

- 1. In the **Oracle Business Intelligence Administration Tool**, navigate to the selfserviceanalytics\hcd_rpd folder.
- 2. Open the ohf_ssa_hcd.rpd file.
- In the RPD Physical layer, expand OHF Usage Tracking and double-click OHF Usage Tracking Connection Pool.

Figure 3-1 Selecting the Oracle Healthcare Foundation Usage Tracking Connection Pool



- 4. Update the data source name with the database host name, port number, and service name of the *prefix_BIPLATFORM* schema.
- 5. Update the username as the *prefix_BIPLATFORM* schema name.
- 6. Enter the schema password and confirm.



Figure 3-2 Oracle Healthcare Foundation Usage Tracking Connection Pool Setup

onnection Pool - OHF l	Jsage Tracking Connection Pool	_ 0
General Connection Sc	ripts XML Write Back Miscellaneous	
Name: OHF Usage	Tracking Connection Pool	Permissions
<u>Call interface:</u>	Default (OCI 10g/11g)	•
Maximum connections:	5 - :	
Require fully qualifie	d table names	
D <u>a</u> ta source name:	SS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED) (SERVIC	E_NAME =pdborcl)))
Shared logon		
User name:	DEV_BIPLATFORM Passwor	d: ••••••
Enable connection	pooling	
<u>T</u> imeout:	5	(minutes) 💌
✓ Use multithreaded c	onnections	
Parameters supporte	ed	
Isolation level:	Dity read	•
Description:		
		A

7. Save the ohf_ssa_hcd.rpd file and choose No when prompted for Consistency Check.

Deploy the OHF SSA RPD File

Use the datamodel.sh utility to upload the RPD file to the Oracle Business Intelligence Enterprise Edition server:

- 1. Goto[OBIEE_HOME]/user_projects/domains/bi/bitools/bin/.
- 2. Run the datamodel.sh utility using the following syntax:

datamodel.sh uploadrpd -I location of rpd file to be uploaded -W RPDpwd -SI Service Instance Name -U weblogic user -P weblogic password

To find the Service Instance Name, look in the OBIEE Home/user_projects/ domains/bi/bidata/service_instances directory. For example:

Figure 3-3 Running the datamodel.sh Utility



After usage tracking is enabled, Oracle Business Intelligence Enterprise Edition starts to log usage information and statistics and display this information in the Audit Trail and Usage Tracking Dashboard.



4 Data Lineage Extensibility

This chapter explains how to set up the Data Lineage Dashboard to work with customized reports or Oracle Business Intelligence metadata RPD files:

- Refresh the RPD Lineage Metadata
- Refresh the Catalog Lineage Metadata
- Refresh the Oracle Business Intelligence Enterprise Edition Dashboards

Refresh the RPD Lineage Metadata

If the Oracle Healthcare Foundation SSA RPD files has been extended, follow the instructions below to refresh the RPD lineage metadata:

- 1. Open the extended RPD file in the Oracle Business Intelligence Administration Tool.
- 2. Go to Tools and select Utilities.
- 3. Select Repository Documentation and click Execute.

tilities	
Replace Column or Table in Logical Table So	Execute
Externalize Strings Rename Wizard	Cancel
Update Physical Layer Repository Documentation	Help
Generate Metadata Dictionary Remove Unused Physical Objects	
Aggregate Persistence	

Figure 4-1 Utilities Window

- 4. Navigate to a directory where you want to save the repository metadata.
- 5. In the Save as type: selection box, choose Tab Separated Values (*.txt).
- 6. Enter a name for the file and click Save.



Save As						×
Save in:	🔜 Data (D:)		•	G 🤌	⊳ 🔝	
Quick access Desktop Libraries This PC	oracle					
	File <u>n</u> ame:	ohf_rpd_lineage_extended			•	<u>S</u> ave
Encoding:	F-8	I ab Separated Values (".txt)			-	
						//

Figure 4-2 Saving the RPD Data Lineage

- 7. After the export completes, change the file's extension from .txt to .tsv.
- 8. Open SQL Developer.
- 9. Connect to the **OHF Exterprise Schema** where the OHF_RPD_LINEAGE table is installed.
- **10.** Expand the **Tables Section**.
- 11. Right click on the OHF_RPD_LINEAGE table and select Import Data.
- **12.** In the file browser, navigate to the location where you exported the RPD metadata file.
- **13.** Choose the ***.tsv** file type and select the exported RPD metadata file.
- 14. Click Open.
- 15. When prompted to Import Data Record Terminator, click OK.
- 16. When prompted to Import Data Field Format, click OK.
- 17. In the Data Preview screen of the Data Import Wizard, set the Left Enclosure to **none**.



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Figure 4-3 Data Preview

- **18.** In the Import Data Field Format screen, click **OK**.
- 19. Click Next.
- 20. In the Import Method screen, click Next.
- 21. In the Selected Columns panel, make sure all columns are listed and click Next.
- 22. In the Column Definition screen, map all the source data columns to the target table columns. The source and target columns have similar names and can be matched either by name or by order.



X

Data Preview Import Method Choose Columns	To Map Source Data to existing database table to import this d Match By Name) Table, for each ata into.	column on left, select the column in t	the
Column Definition	Source Data Columns	Target Table C	olumns	
- Finish	ī»čSubject Area	Name	PRESENTATION_COLUMN	-
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	Derived logical table Derived logical column	Nullable?	Default	
	Description - Derived Lo Expression Logical Table Logical Column Description - Logical Colu			

Figure 4-4 Column Definition

Data Import Wizard - Step 4 of 5

- 23. After you map all the columns, click Next.
- 24. Clisk Finish.
- **25.** A data import progress screen is displayed.
- 26. After the import is complete, a success message is displayed. Click OK.
- 27. Query the **OHF_RPD_LINEAGE** table to retrieve the record count and compare it with the row count in the RPD Metadata file:

```
Select count(*) from OHF_RPD_LINEAGE;
```

Refresh the Catalog Lineage Metadata

If the Oracle Healthcare Foundation SSA Dashboards have been extended, follow the instructions below to refresh the RPD lineage metadata:

- 1. Open the Command Prompt.
- 2. Navigate to the to bi\bitools\bin subdirectory in the Oracle Business Intelligence Client Tool installation directory. For example:

```
cd C:\Install\middleware\BI_Home\bi\bitools\bin
```

3. Create a .txt file with the Oracle WebLogic Server credentials in the following format:

login=*username* pwd=*password*

4. Execute the following command:



runcat.cmd -cmd report -online BI Analytics URL where the dashboard catalog contents reside -credentials Path to the credentials file containing the weblogic user name and password -outputFile Path to the output file with extension .csv where the catalog metadata contents have to be stored -folder Location of the OBI Catalog Folder -delimiter "|~" -type "Analysis" -fields "Owner:Folder:Name:Path:Subject Area:Table:Column:Formula"

For example:

runcat.cmd -cmd report -online http://obixxx.mycompany.com:9504/
analytics/saw.dll? -credentials D:/login.txt -outputFile
D:/ohf_hcd_catalog.csv -folder "/shared/Oracle Healthcare
Foundation" -delimiter "|~" -type "Analysis" -fields
"Owner:Folder:Name:Path:Subject Area:Table:Column:Formula"

5. After completion, a success message is displayed:

Making SOAP connection to http://obixxx.mycompany.com:9504/ analytics/saw.dll? Running Report..4..3..2..1..0..Done!

- 6. Open SQL Developer.
- 7. Connect to the Oracle Healthcare Foundation Enterprise Schema where the OHF_CATALOG_LINEAGE table is installed.
- 8. Expand the Tables section.
- 9. Right click on the OHF_CATALOG_LINEAGE table and select Import Data.
- **10.** In the File browser, navigate to the location where the **Catalog Metadata** File is saved.
- **11**. Choose the **.csv** file type and select the **Catalog Metadata** file.
- 12. Click Open.
- 13. When prompted to Import Data Record Terminator, click OK.
- 14. When prompted to Import Data Field Format, click OK.
- 15. In the Data Import Wizard, select the **delimited** format.
- **16.** Set the Delimiter to |~.
- 17. Set the Left Enclosure to none.



ata Preview						
Data Preview	✓ Header	After Skip 🔻	Skip Ro	ws:	0	-
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Choose Columns	Encoding:	Co 1252				
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	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Measures
	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Measures
	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Measures
	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Users
	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Topic
	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Topic
	weblogic	/shared/Ora	Audit_Trail	/shared/Ora	Usage Track	. Measures
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Figure 4-5 Data Preview

- 18. When prompted to Import Data Field Format, click OK.
- 19. Click Next.
- 20. In the Import Method screen, click Next.
- 21. In the Selected Columns pane, make sure all columns are listed and click Next.
- 22. In the Column Definition screen, map all the source data columns to the target table columns. The source and target columns have similar names and can be matched either by name or by order.



🚯 Data Import Wizard - S	tep 4 of 5				×
Column Definition					
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		~			
Help		< <u>B</u> ad	< <u>N</u> ext >	Einish Can	cel

Figure 4-6 Column Definition

- 23. After you map all the columns, click Next.
- 24. Click Finish.
- 25. A data import progress screen is displayed.
- 26. After the import is complete, a success message is displayed. Click OK.
- 27. Query the **OHF_CATALOG_LINEAGE** table to retrieve the record count and compare it with the row count in the Catalog Metadata file:

Select count(*) from OHF_CATALOG_LINEAGE;

Refresh the Oracle Business Intelligence Enterprise Edition Dashboards

To view the updated data lineage information in the Data Lineage Dashboard, purge the Oracle Business Intelligence Enterprise Edition cache by following the instructions below:

- Log in to the Oracle Business Intelligence Analytics page. For example: http:// obixxx.mycompany.com:9704/analytics
- 2. Go to Administration.
- 3. In the Session Management section, select Manage Sessions.
- 4. Click Close All Cursors.
- 5. Go to Administration.
- 6. In the Maintenance and Troubleshooting section, select Issue SQL.



- In the Issue SQL screen, type the following command in the text box: Call sapurgeallcache()
- 8. Click Issue SQL.
- 9. After purging the cache, the following success message is displayed. [59118] Operation SAPurgeAllCache succeeded!

Now, the custom reports will be visible in the Data Lineage Dashboard.