

CHS Data Quality Work Group: Progress and Recommendations

Getting Started

Section Six contains recommendations for short- and long-term goals and strategies for the improvement of Contract Health System (CHS) data quality.

CHS Data from Multiple Sources versus Sending Data from One Source

In 1998 the Data Center started a project to create a new database called the “mega” or “statistical” database. Previously, National Patient Information Reporting System (NPIRS) received only direct ambulatory and direct inpatient encounter records. With the new database, NPIRS would receive and store statistical records for all visit types, including CHS.

CHS data is sent to Patient Care Component (PCC) (via the CHS to PCC link) so that it is available in the central clinical repository at the site (i.e. the “PCC”), which, in turn, makes it more readily available to clinicians and administrators for all of their various outputs, such as the following:

- Individual health summaries
- All PCC management reports
- Three search engines (Q-Man, P-Gen, and V-Gen)
- PCC+, a customizable health record encounter form

Additionally, data in the repository is also available for export and, unless it is specifically excluded from the export, it would be exported just like any other “encounter” data. In retrospect, it is likely that when the concept of NPIRS was extended to receive and store a much larger set of encounter data, no one chose to specifically exclude CHS data from the PCC export rather than someone specifically and actively choosing to start sending it. Essentially, storing CHS data was a passive rather than active decision.

Because reliable Explanation of Benefits Report (EOBR) data was not available in the CHS/Management Information System (MIS) application for a time, (and is still sporadic), it is assumed that Indian Health Service (IHS) decided to begin sending CHS data from the CHS Fiscal Intermediary (FI) to NPIRS because the data being linked to PCC was not necessarily representative of all the CHS data. In addition, up until two years ago, some service units and areas were not fully functional electronically, which may be another reason why the CHS FI was asked to begin sending data to NPIRS.

The possibility of sending CHS data from one exclusive source was discussed at the CHS Data Quality Workgroup’s meeting in Albuquerque, New Mexico on May 20-21, 2003. At that time, a new export to be sent from the CHS/MIS application was proposed; it would be the only export of CHS data to NPIRS. There would be an export for the federal and tribal sites using the CHS FI and an export for the tribal sites not using the CHS FI. For the sites using the FI, instead of NPIRS receiving an export from the FI once the claim is paid, after the EOBR information was uploaded into CHS/MIS,

CHS/MIS would generate a record for the next export of data to NPIRS. For the sites not using the FI, it would work the same as it currently works. For PCC, CHS data would be excluded from the export.

The CHS/MIS export would need to be revised to send adjustments, which are currently not sent in the CHS638 files. After further discussion, the workgroup agreed that the CHS FI exports are the most inclusive and highest quality export and did not support an exclusive export from the CHS/MIS application. However, the CHS FI export would not suffice for a single export since it sends data only for sites that are using the CHS FI; the 638 tribal sites' data would still have to be sent in a separate export. Also, if we were to exclude all CHS data from the PCC export, we would be excluding any CHS records that were entered directly in PCC and were not transmitted via the CHS to PCC link.

CHS FI Exports Changes: Are the Changes Necessary?

The requested CHS FI changes listed below were approved and work began on this project in approximately March 2003. The CHS FI developers have implemented the changes listed below and the CHS FI is working with NPIRS to test the changes. Once testing is complete, the new exports will be sent to NPIRS.

- The CHS FI has previously confirmed that it is sending a dental encounter (i.e., DENTSTAT) record that encompasses two or more records in a single export file. For instance, the first record from the FI contains fifteen American Dental Association (ADA) codes; a second record for the same visit contains only three ADA codes; there is nothing on the record to indicate it is an extension of another record in the export. It was requested that the CHS FI develop a method by which a national data repository may identify visits that span two or more records and by which it could interpret a second record as an extension of the first.¹
- Include a version number in the filename for all exports. The version number will imply that there are a certain number of fields in the export with a certain format and will expedite the processing of the file in the data warehouse. As changes are made, then the version number would change.
- Changes to the STATRECS, CHS Outpatient Records (Record Code = 20):
 - Continue sending the two Ambulatory Patient Care (APC) recodes and, at a minimum, the primary and secondary International Classification of Disease, version 9 (ICD9) diagnosis codes. If the CHS FI receives more diagnosis codes, IHS would like to receive up to a maximum of nine diagnosis codes (one primary and eight secondary), as is currently done with PCC. IHS would also like to receive the decimal with the ICD9 codes, if possible.
 - Send the surgical procedure ICD9 code and include the decimal point.
 - Let IHS know if there has been a format change to the expected value in the HCPCS field. Below are several examples of values that have been received for this field and the names of the files in which they were sent.

¹ Per Mario Gonzalez

Type of Value	Filename
1 numeric	2001091
1 numeric	2001119 (4/29/01)
5 numerics	2001156 (6/5/01)
5 numerics	2001186 (7/5/01)
5 numerics	2001219 (8/7/01)

Has there been a format change to this field? Are these Current Procedural Terminology (CPT) codes or HCFA Common Procedure Coding System (HCPCS) codes? IHS's documentation shows that HCPCS codes typically refer to medications, supplies, equipment, etc., and the format for these codes are a one-character alpha, A-V, value followed by four-digit numeric value, such as A5112.

- Changes to the STATRECS, CHS Inpatient Records (Record Code = 19):
 - Send the decimal point with the ICD Code 1 through ICD Code 5 values. If ICD Code 6 - 9 fields are also available, we would like for them sent too, with the decimal point in the ICD9 values.
 - Send the decimal point with the ICD Operation Code 1 through ICD Operation Code 3 values.
 - Send the decimal point with the ICD Newborn Diagnosis value.
 - Send the "E" and decimal point with the ICD External Cause of Injury value.
 - Send the new 1-character place of injury codes (A - L) rather than the old two-character codes (01 - 12, where A = 01, B = 02, etc.).
 - Send the Attending Physician code and provide a format and list of acceptable values, if there is one, for this field.

Necessary Changes to the CHS638 Files or the PCC Export

Changes proposed to PCC, CHS FI, and CHS638 are noted in the chart below.

Number	Description	Proposed Change to		
		PCC	CHS FI	CHS638
1	After reviewing the current filters that exclude records from being sent to NPIRS, identify any that are no longer used and should be removed.		X	
2	Send claims that were not paid but for which services were provided, such as those paid in full by a third party provider and claims that were denied or deferred.		X	X

Number	Description	Proposed Change to		
		PCC	CHS FI	CHS638
3	Send claims that are paid for by the Area Office, which currently are not sent to NPIRS. NOTE: For federal sites, how would this information be sent?			X
4	Determine the best way to change the CHS/MIS application to remove the ICD9 diagnosis codes that are in a format of “.9999” and send only ICD9 diagnosis codes that are in a format of “999.99.” These differently formatted codes have been seen before in NPIRS and in the Pilot Data Warehouse and were observed in the “Enter diagnosis referral” section of CHS/MIS during the CHS/MIS training in Albuquerque on May 20, 2003.			X
5	Add service class codes and object class codes to the exports.	X	X	X
6	Add authorization number to the export.	X		
7	CHS FI to send claims based on the month they were paid versus the month containing the date of service. For example, if the CHS FI is exporting data for fiscal year 2003, if it pays a claim in 2003 for a date of service that occurred in fiscal year 2002, it does not currently export the record to NPIRS when it pays the claim. This has a very small chance to impact the User Population report in the event this one encounter was the only encounter a patient had during the three-year User Population reporting period. This would include adjustments that were paid for claims with a date of service occurring in prior fiscal years.		X	
8	The CHS FI will no longer send cumulative files to NPIRS and will send <u>only</u> claims that were paid during that month.		X	
9	NPIRS will receive adjustments made to a claim in PCC and/or the CHS/MIS application. Currently adjustments are not sent automatically in the CHS638 and PCC exports. In those exports, a clerk must manually flag a record for re-export if an adjustment is made. It is believed this rarely, if ever, happens.	X		X
10	Add a Unique Visit ID to the CHS FI and CHS638 exports. The next version of the PCC export, Patch 6, will include this data element.		X	X
11	There was discussion about IHS having the CHS FI pay pharmacy claims. If this happens, then the workgroup recommends ensuring these claims are sent in the CHS FI exports.		X	

Number	Description	Proposed Change to		
		PCC	CHS FI	CHS638
12	<p>A query of the CHS638 inpatient and outpatient records in the Pilot Data Warehouse database revealed inconsistencies in the sending of the provider Employer Identification Number (EIN) for these records in the CHS638 export. This could pose a problem if NPIRS and/or any other future data mart uses the EIN for unduplicating CHS encounters. It was recently discovered that the CHS FI sends a provider prefix with the provider ID data element, where 1 means that the EIN is that for a company or organization and 2 means that the EIN is for an individual. NOTE: Is the 9-digit number that follows the prefix an SSN? Information received on the Internet regarding EINs shows the format for an EIN is: 99-9999999, which is 10 characters. It appears the CHS/MIS application uses the prefix sometimes but not all of the time, as shown below.</p> <ul style="list-style-type: none"> • Some CHS inpatient records have a prefix of 0, 1, 2, 4, 5, 6, or 9 with a 9-digit number. NOTE: Is the 9-digit number an SSN? Information received on the Internet shows the format for an EIN is: 99-9999999, which is 10 characters. • Some CHS inpatient records have no prefix, just a 9-digit number. Same question as above regarding EIN. • Some CHS outpatient records have a 1-digit prefix ranging from 0 through 9 with a 9-digit number. Same question as above regarding EIN. • Some CHS outpatient records have a format of what is believed to be the EIN: 99-9999999. • Some CHS outpatient records have a format of 9 99-99999. <p>In the Pilot Data Warehouse, this information was stored in one field called Prov_SSN_EIN. If NPIRS and/or any other data mart wanted to unduplicate on this data element, it probably would be best if the provider prefix was stored separately from the SSN and if the SSNs were stored separately from the EINs, if the formatting of the EINs and SSNs is confirmed to be different.</p>	X		X
13	Add the Referred Care Information System (RCIS) referral number to the export. Would having this enable the linking of multiple records to a single episode of care?	X		X
14	Add a new field for Authorizing Facility since it was recently discovered in rare instances that this may not always be the same as the Area, Service Unit, Facility (ASUFAC) value that is sent in the ASUFAC_HRN field. If both values are captured in the CHS/MIS application, then both should be sent in the CHS638 and CHS FI exports as well.	X	X	X

Number	Description	Proposed Change to		
		PCC	CHS FI	CHS638
15	The CHS FI's value for workload (sent as Number of Visits in the CHS Outpatient records) is calculated differently than what is sent in the CHS638 exports. The FI calculation is based on CPT codes, whereas the CHS/MIS calculation is based on the service class codes. Should they be changed to be calculated in the same manner? Should this data element be added to PCC?	X	X	X
16	Fix the CHS/MIS application to display the ADA codes first, followed by the CPT codes, when the user makes a selection for dental procedures. This should prevent NPIRS from receiving the majority of the CHS638 dental records with no values for the ADA procedure codes			X
17	If the Vendor file at the local facility has EINs different from those in the CHS FI's vendor file, an EIN sent by the FI may not match the EIN at the facility during update of the purchase orders from the EOBR data. This results in the final payment not being posted to the purchase order, which means NPIRS would receive a record from the CHS FI but would not receive one from PCC.			X
18	Review the comparison of data elements spreadsheet to determine if any other critical data elements should be added to each export in order to synchronize the exports.	X	X	X

What Statistical Reports are Critical for Funding Purposes?

In this context, statistical reports refer to reports produced by NPIRS for the Office of Public Health/Office of Program Statistics (OPH/OPS). Currently the NPIRS OR67, a CHS outpatient report, is being used for facilities planning purposes. The report presents a potential problem in facilities being under-funded, as it is based on values for the primary provider code and PCC is the only export that sends this data. The CHS FI and CHS638 exports only send provider type, which is different from the primary provider code. In addition, if a PCC record was received first in the NPIRS database and was subsequently overwritten by a CHS638 or CHS FI record, then it would not be counted on this report.

Occasionally, the Division of Program Statistics receives requests that require CHS authorizations for reporting. Information on the reports needed for facilities planning include the following:²

- In planning facility space, IHS uses Resource Requirements Methodology (RRM) staffing to provide office space for CHS. The space that is provided in IHS facilities is for the IHS employee that processes the CHS authorizations and utilization reviewers. Currently, for every 2,000 CHS purchase orders, IHS provides an office/work area. Therefore, a report that shows the number of CHS authorizations by facility and service unit would be helpful.

² Per Ed Cayous

- When a service such as inpatient services is eliminated from an IHS/tribal/urban facility or service unit, IHS needs to determine:
 - The additional CHS funds that will be needed to provide the services that will no longer be available—just the cost of the services that had been provided.
 - An estimated number of additional CHS authorizations that will be required because the services are no longer provided.

For this type of report, if IHS is estimating costs by multiplying the current direct care workload (provided by the facility) by an average daily CHS cost or per-admission CHS cost, the rate is likely to be higher than the cost of direct services being eliminated because it is assumed the more complicated cases are currently being contracted while the less complicated cases are being handled by direct care. There is a need to develop an area average for CHS by type and then try to match the services being eliminated so IHS can determine a more accurate cost estimate.

Therefore, although this report may be used for CHS planning purposes, it appears to use workload information from the direct ambulatory and/or direct inpatient reports.

The 3G CHS Outpatient report is the primary workload report for CHS and is based on values for provider type.³ The report poses a potential problem since the current PCC export does not send the data element; only the CHS FI and CHS638 exports send it. As of the date of this deliverable, it is unclear for what funding purpose, if any, this report is used: the issue needs to be researched further. It is equally unclear if there are any CHS inpatient reports on which funding is based.

Do Existing Reports Fulfill Funding Validation Needs?

Based on the current NPIRS CHS reports, the answer to this question is a resounding “no.” Current reports are virtually impossible to validate with local facility reports because the NPIRS reports are completely different than the local reports—literally comparing apples to oranges.

The primary intent of the NPIRS reports is to count nonduplicate, workload-reportable encounters, whereas the primary intent of the local reports is to report costs. Some of the local reports are based on information not exported to NPIRS, such as the service class codes, making it currently impossible for NPIRS to produce these reports. Also, based on the current NPIRS unduplication logic, it is not possible to validate the NPIRS reports with the local reports. NPIRS maintains only one record per patient for an outpatient, inpatient, or dental claim on a given date of service, whereas the local facility level may have multiple records in the event multiple providers were paid for the same date of service for a patient.

In addition, as noted earlier, the NPIRS OR67 report—used for funding purposes—is based on a data element sent by only one of the three exports (PCC) and the 3G CHS Outpatient report is based on a data element sent only by two of three exports (CHS FI and CHS638).

At least two sets of reports are needed:

- Reports for validation purposes, and

³ Per Yolinda Cadman, NPIRS

- Reports for planning and other purposes.

The CHS FI reports may also be useful to examine to make sure OPH/OPS has the appropriate reports for its “Program Statistics” publications and for planning purposes.

How to Validate the Numbers?

Section Five discussed a plan that was proposed for validating fiscal year 2003 workload. For the validation of future CHS workload, NPIRS needs to receive all of the data elements used in the local facility reports so new NPIRS reports may be created and validated/verified with the local reports. If it is decided that NPIRS will continue to receive CHS data from multiple sources, meaning NPIRS could receive the same record from one or more sources, then it would be reasonable to modify the exports so that all send the same data elements to avoid the current situation in the NPIRS OR67 and 3G reports. Additionally, the NPIRS unduplication logic would have to mirror that used by CHS/MIS in order to validate the NPIRS reports with the local reports.

Effort Needed to Produce the Reports

A significant level of effort will be needed to produce the reports as changes need to be made to the exports themselves: the NPIRS unduplication logic would need to be revised, and new reports developed in NPIRS and verified with the local facility and possibly with the CHS FI. To provide an estimate of the actual number of labor hours needed for this work would require input from all involved parties and would best be done once the CHS Data Quality Workgroup has identified all reports needed for validation purposes and for planning and other purposes.

Are Clinical CHS Reports Needed?

Yes, clinical CHS reports are needed. Dr. Kelly Acton, Director of the IHS National Diabetes Program, has requested reports concerning amputations and laser therapy for diabetic retinopathy (a surrogate measure for severe retinopathy). She is also interested in looking at cardiovascular disease (CVD) events, myocardial infarction (MI), congestive heart failure (CHF), and other disease data. Additionally, Dr. Acton states if the CHS Data Quality Workgroup is interested in working on the surveillance issues mentioned above, there is a CDC epidemiologist, Nilka Rios-Burrows, who is available to represent the Diabetes Program on the workgroup.

Are there CHS Reports Needed for GPRA?

GPRA Reports Generated by NPIRS

For fiscal year 2002, NPIRS generated the reports listed below for CHS dental data. These reports were used for the FY02 Government Performance and Results Act (GPRA) Indicators #12, Oral Health—Access to Dental Service and #13, Oral Health—Dental Sealants, which appear to have been renumbered for FY03 and FY04 GPRA to #13, Dental Access and #14, Dental Sealants, respectively. Appendix 6-A contains report logic and samples of these reports.⁴

Age Reports

- Dental Report—Visits for Children Ages 6 through 8, Indian Contract

⁴ Per Ryan DeLuca, Systems Analyst for NPIRS

- Dental Report—Visits for Children Ages 6 through 8, Non-Indian Contract
- Dental Report—Visits for Children Ages 6 through 8, Other Contract
- Dental Report—Visits for Children Ages 14 and 15, Indian Contract
- Dental Report—Visits for Children Ages 14 and 15, Non-Indian Contract
- Dental Report—Visits for Children Ages 14 and 15, Other Contract

First Visit Reports

- Dental Report—Contract Indian by First Visit – Special Request
- Dental Report—Contract Non-Indian by First Visit – Special Request
- Dental Report—Contract Other by First Visit – Special Request

Revisit Reports

- Dental Report—Contract Indian by Revisit – Special Request
- Dental Report—Contract Non-Indian by Revisit – Special Request
- Dental Report—Contract Other by Revisit – Special Request

Sealants Reports

- Dental Report—Sealant Contract Indian
- Dental Report—Sealant Contract Non-Indian

Service Minutes

- Service Minutes—Contract Indian
- Service Minutes—Contract Non-Indian
- Service Minutes—Contract Other

Service Report

- Service Report—Contract Indian
- Service Report—Contract Non-Indian
- Service Report—Contract Other

NPIRS did not generate any GPRA reports that exclusively reported for CHS outpatient or CHS inpatient data. However, the biggest CHS impact is that GPRA uses the User Population definition of an active user as its denominator.⁵ The User Population definition requires an American Indian or Alaska Native patient to have had a workload-reportable direct (service provided by an IHS, tribal or urban facility) or CHS ambulatory, inpatient, or dental visit during the current fiscal year or two prior fiscal years.

Other GPRA Reports

CHS FI

According to the *Indian Health Service FY2003 Performance Indicators—Final and FY2004 Performance Indicators*, there are two indicators that list the IHS Fiscal Intermediary (i.e. CHS FI) as the data source:

⁵ Per Mike Gomez, Program Manager for the Indian Health Performance and Evaluation System

- **FY 2003 Indicator 40 CHS:** During the FY 2003 reporting period, the IHS will have improved the level of Contract Health Services (CHS) procurement of inpatient and outpatient hospital services for routinely used providers by at least 1% over the FY 2002 level of the total dollars paid to contract providers or rate quote agreements at the IHS-wide reporting level. **HQ/Field Lead—** Clayton Old Elk, DCCRM/OPH and Brenda Jeanotte, OCPS/OPH.
- **FY 2004 Indicator 40 CHS:** During the FY 2004 reporting period, the IHS will have improved the level of Contract Health Services (CHS) procurement of inpatient and outpatient hospital services for routinely used providers by at least 1% over the FY 2003 level of the total dollars paid to contract providers or rate quote agreements at the IHS-wide reporting level. **HQ/Field Lead—** Clayton Old Elk, DCCRM/OPH and Brenda Jeanotte, OCPS/OPH.

Other Reports

According to the *Indian Health Service FY2003 Performance Indicators—Final and FY2004 Performance Indicators*, there are several indicators that list the NPIRS database as the data source and may mean the CHS data were included; however, this could not be confirmed by strictly looking at the FY03 and FY04 indicator definitions and would need to be confirmed by looking at additional information for the indicator:

- **FY 2003 Indicator 7—Pap Smear Rates:** During FY 2003, maintain the proportion of eligible women patients who have had a Pap screen within the previous three years at the FY 2002 levels. **HQ/Field Lead—**Nat Cobb, OPS/OPH
- **FY 2004 Indicator 7—Pap Smear Rates:** During FY 2004, maintain the proportion of eligible women patients who have had a Pap screen within the previous three years at the FY 2003 levels. **HQ/Field Lead—**Nat Cobb, OPS/OPH
- **FY 2003 Indicator 8—Mammography Rates:** During FY 2003, maintain mammography screening of eligible women patients at the FY 2002 rate. **HQ/Field Lead—**Nat Cobb, OPS/OPH
- **FY 2004 Indicator 8—Mammography Rates:** During FY 2004, maintain the proportion of eligible women patients who have had mammography screening within the last 2 years at the FY 2003 rate. **HQ/Field Lead:** Nat Cobb, OPS/OPH
- **FY 2003 Indicator 15 Diabetes: Dental Access:** During FY 2003, increase the proportion of the AI/AN population diagnosed with diabetes who obtain access to dental services by 2% over the FY 2002 level. **HQ/Field Lead—**Patrick Blahut, OCPS/OPH
- **FY 2004 Indicator 15 Diabetes: Dental Access:** During FY 2004, increase the proportion of patients with diagnosed diabetes who obtain access to dental services by 2% over the FY 2003 level. **HQ/Field Lead—**Patrick Blahut, OCPS/OPH

- **FY 2003 Indicator 23 PHN Visits:** During FY 2003, maintain the total number of public health nursing services (primary and secondary treatment and preventive services) provided to individuals in all settings and the total number of home visits at the FY 2002 workload levels. **HQ/Field Lead—**Barbara Fine
- **FY 2004 Indicator 23 PHN Visits:** During FY 2004, maintain the total number of public health nursing services (primary and secondary treatment and preventive services) provided to individuals in all settings and the total number of home visits at the FY 2003 workload levels. **HQ/Field Lead—**Barbara Fine
- **FY 2003 Indicator 25 Influenza Vaccine Rates:** In FY 2003, maintain FY 2002 influenza vaccination rates among noninstitutionalized adult patients age 65 years and older. **HQ/Field Lead—**Amy Groom, Epi/NPABQ and Jim Cheek, Epi/NPABQ
- **FY 2004 Indicator 25 Influenza Vaccine Rates:** In FY 2004, maintain FY 2003 influenza vaccination rates among noninstitutionalized adult patients age 65 years and older. **HQ/Field Lead—**Amy Groom, Epi/NPABQ and Jim Cheek, Epi/NPABQ
- **FY 2003 Indicator 26 Pneumovax Rates:** In FY 2003, maintain the FY 2002 rate for pneumococcal vaccination levels among noninstitutionalized adult patients age 65 years and older. **HQ/Field Lead—**Amy Groom, Epi/NPABQ and Jim Cheek, Epi/NPABQ
- **FY 2004 Indicator 26 Pneumovax Rates:** In FY 2004, maintain the FY 2003 rate for pneumococcal vaccination levels among noninstitutionalized adult patients age 65 years and older. **HQ/Field Lead—**Amy Groom, Epi/NPABQ and Jim Cheek, Epi/NPABQ
- **FY 2003 Indicator 31 Obesity:** During FY 2003, begin implementation or continue implementation of all components of the Indian health system obesity prevention and treatment plan developed in FY 2002 that include:
 1. A multidisciplinary stakeholder obesity prevention and treatment planning group.
 2. A staff development and IT development plan to assure security height and weight data for all system users to monitor AI/AN population obesity.
 3. An infrastructure to collect, interpret and diffuse the approaches from obesity related demonstration projects and studies to IHS Areas and I/T/Us.

HQ/Field Lead—Jean Charles-Azure, OCPS/OPH

- **FY 2004 Indicator 31 Obesity:** During FY 2004, begin implementation or continue implementation of all components of the Indian health system obesity prevention and treatment plan including:
 1. Each area is responsible for implementation of an area-wide, long-range comprehensive obesity prevention and control plan.

2. Each area will establish the omission rate of recording the height and weight of its patients. Each area will generate a standard age-specific report of BMIs on children and adults.
3. Area offices will host National and Area trainings among appropriate I/T/U stakeholders that emphasize area-wide Obesity Prevention and Control Plans.

HQ/Field Lead: Jean Charles-Azure, OCPS/OPH

Recommendations

Where directly applicable, the section addressing a particular recommendation has been noted.

1. Review the filters used by the CHS FI for excluding records from the NPIRS exports and determine if changes need to be made to these filters.
2. Revise the CHS/MIS application to remove the ICD9 diagnosis codes with a format of “.9999” located in the Diagnosis Referral section (Section 6).
3. Revise CHS638, CHS FI, and PCC exports to begin sending the service class codes and possibly the object class codes (Sections 5 and 6).
4. Revise the CHS FI exports to send one month’s of data based on when the claim was paid and not based on the date of service. Currently if a claim is paid during the current month’s exports for a fiscal year other than the current fiscal year, the claim record is not sent to NPIRS (Section 3, Filter 5 and Section 6).
5. Revise the CHS FI export from cumulative files to files that contain only new or modified claims paid in that month’s export. This change will reduce the amount of time needed to process duplicate records (Section 3, Filter 5 and Section 6).
6. Revise the CHS FI outpatient and inpatient exports to send up to 15 diagnosis codes and 9 procedure codes. Or, consider revising the export to send an unlimited number of diagnosis codes and procedure codes; e.g., send diagnosis sequence number, followed by the diagnosis code.
7. Require the CHS FI to provide reports to the local facilities regarding the data that was transmitted to NPIRS. This will enable a facility to quantify the records that were filtered out by the CHS FI and not subsequently transmitted to NPIRS for statistical reporting.
8. Advocate for the criticality of ensuring all staff involved in the CHS process receive quality training in a timely manner; understand the importance of keeping the CHS software up-to-date with the latest patches, standard code sets, etc.; understand why each data element is important to capture; and understand the budgetary impact of not exporting quality CHS data (Section 2).
9. Advocate for the importance of ensuring the service units/tribal programs understand the parameter setting for Payment Destination in the CHS/MIS application. This parameter determines if records are to be sent to the CHS FI or to NPIRS. If a tribal site not using the CHS FI does not have this parameter set correctly, it could result in data not being transmitted to NPIRS. Research needs to be done to confirm this is happening and to fix it or rule it out as a potential problem (Section 2 and Appendix 2-A-2).
10. Fix the CHS/MIS application when a user makes a selection for dental procedures to first display ADA codes, followed by the CPT codes. This should prevent a known problem where NPIRS received a majority of CHS638 dental records with no values for the ADA procedure codes. Currently, the CHS User Help tells users to add an ADA code, they need to enter “ADA” followed by a period, followed by an ADA code. However, when a code such as “2150” is entered, the program should look for this code directly in the ADA file, but it is not doing that. What is currently happening is all possible matches in the CPT file are listed first, until it finally displays the ADA code match. If, instead of entering the ADA code, they enter a textual description

such as “AMALGAM,” the program is looking up values in the CPT file first instead of the ADA file, most likely resulting in a match to a CPT code instead of an ADA code. The CHS/MIS application can store a legitimate CPT code or an ADA code but when the CHS638 export to NPIRS is created, the data conversion looks for an ADA code. If it isn't present, no ADA code is sent and it still sends a record with the other visit information, resulting in records being sent with no ADA information (Section 3, Example C; Section 4; Section 6).

11. Implement a potential solution for validating the CHS workload for FY2003, provided staffing and funding is available. In the solution, at a specified date, the CHS FI would send an export of data to NPIRS in the current format that contains three years' of CHS data (i.e. 2003, 2002, 2001), with the possibility of removing some of the filters it normally applies to the NPIRS data. NPIRS would then load this data after all other data has been loaded, which, in the case of duplicate records, would ensure the CHS FI record is that last record received. In addition, the CHS FI would create a separate export that is in a different format and which would include additional data elements like the service class codes. The same filters that would be removed from the NPIRS export would also be removed from this export; thus, the two exports would have the same number of records. Having this additional information would enable the local facilities to validate their data with the CHS FI's data and with the NPIRS data. It was suggested to have the ORYX group, which is led by Mr. Mike Gomez, to process and report on the second FI export.

For the tribal sites who do not use the CHS FI, a re-export of the CHS638 files containing three years of CHS data would be sent to NPIRS, which NPIRS would process after all other normal export files have been processed. The ORYX group would need to receive the same export but with the service class codes added to the export. This should enable the tribal sites to validate their CHS data with ORYX and NPIRS (Section 5).

12. For the longer-term goal of validating data for future fiscal years, the CHS Data Quality Workgroup would like to see the exports to NPIRS changed so they include the information needed to produce reports available at the local facilities, particularly the service class code report. This would also require NPIRS to development and implement a different algorithm for unduplicating the CHS records. Additional research will need to be done in order to achieve this goal and it is recommended this research be done as part of Phase II of the CHS Data Quality Workgroup (Section 5).
13. The workgroup did not support an exclusive CHS export from the CHS/MIS application. Rather, it is the opinion of the workgroup that the CHS FI exports are the most inclusive and highest quality export. However, the CHS FI export would not suffice for a single export since it sends data only for sites that are using the CHS FI; the 638 tribal sites' data would still have to be sent in a separate export. Thus, at a minimum these two CHS exports would need to continue to be sent to NPIRS (Section 6).
14. Develop two sets of statistical reports: reports for validation purposes and reports for planning and other purposes. It may be useful to examine the CHS FI reports to ensure OPH/OPS has the appropriate reports for its “Program Statistics” publications and for planning purposes. As part of this process, determine if the current NPIRS unduplication methodology needs to be revised in order to produce these reports and

determine if any other data elements not already mentioned herein need to be added to the CHS exports (Section 6).

15. Perform additional research on how CHS data is used for GPRA and clinical reporting.
16. Create and maintain a CHS Data Issues spreadsheet to identify and track the status of issues that potentially have an impact on the quality of CHS data.
17. Perform the tasks named above and identify new tasks to be performed during a "Phase II" of the CHS Data Quality Workgroup, which would require additional funding.

Issues for Consideration

1. Revise the PCC export to send the authorizing facility, since it was recently discovered in rare instances that this may not always be the same as the ASUFAC value that is sent in the ASUFAC_HRN field. If both values are captured in the CHS/MIS application, then both should be sent in the CHS638 and CHS FI exports as well (Sections 4 and 6).
2. Currently NPIRS does not receive claim records where a service was provided to the patient but was not paid for by CHS due to a denial or deferral. Should these records be sent to NPIRS and/or the future Data Warehouse with a special flag indicating denial/deferral? (Section 6)
3. Currently NPIRS does not receive claim records that were paid for by the Area Office. Should these records be sent to NPIRS and/or the future Data Warehouse with a special flag indicating they were paid for by the area? (Section 6)
4. Should the workgroup advocate for the CHS to PCC link to be turned on at all facilities? Having the link ensures the CHS records will be sent via PCC.
5. Should the workgroup advocate for making CHS clerks aware of the importance of manually posting EOBR information into CHS when an EOBR is not matched to an existing PO during the automated uploading of EOBR data? After that, the clerk should run the option in the CHS/MIS application that moves CHS data to PCC. This will push the data for the purchase order over to PCC. There is concern by the workgroup members that this is not being done routinely, resulting in records not being sent in the CHS638 and/or PCC exports (Section 2).
6. For tribal programs using the CHS FI, ensure their understanding of the EOBR update process. If the tribal program purchased the option for the automatic update, then their purchase orders will be automatically updated with the EOBR data. However, if this option was not purchased, their CHS staff must manually enter the EOBR data into the existing purchase orders. If this is not occurring, then their purchase orders will remain open and the information will not be passed to PCC (if the CHS to PCC link is on at the facility). Tribal programs not using the CHS FI must also manually enter the EOBR data into the existing purchase orders. If this is not occurring, then their purchase orders will remain open, no records will be sent in the

CHS638 exports, and the information will not be passed to PCC if the CHS to PCC link is on at the facility (Section 2).

7. Require all facilities to transmit their CHS data in Y2K-compliant date formats (i.e., dates must have century and year values, such as "2003" vs. "03" (Section 2).
8. Revise the CHS FI export with respect to transmitting procedure data. Currently the CHS FI creates one record for each procedure that was paid and does not send the CPT code(s) for the procedure(s). This is different than the way they currently handle an encounter with multiple diagnoses, in which the diagnoses are sent with a single record. We may want to request that the CHS FI (1) begins sending the CPT codes and (2) sends them in a manner in which multiple procedures are sent with a single encounter record.
9. NPIRS was previously directed by Linda Querec, Office of Program Statistics, to restrict the reporting of CHS inpatient and outpatient records to those with specific provider/vendor type values (acceptable CHS Inpatient values: 01, 03, 04; CHS Outpatient: 01, 05, 06, 07, 12, 16, 17, 18, 19). Ms. Querec did not instruct NPIRS to implement this logic for records sent by the CHS FI; only records from the CHS638 files were to be subjected to the logic. The reasoning for this was because it was believed the CHS FI was already sending only acceptable values. However, after reviewing CHS FI records exported to the Pilot Data Warehouse and the filtering logic used by the CHS FI, it was discovered records were sent with nonacceptable provider/vendor type values. Thus, should the CHS FI add a filter for the CHS FI records based on their values for provider/vendor type, such as being done with the CHS638 records? (Section 3, Filter 6)
10. Should NPIRS remove the program logic for provider/vendor type for CHS FI records? This logic should have been implemented only for the CHS638 records, as described in item #9 above but was erroneously included for the CHS FI records (Section 5).
11. Apparently the CHS/MIS application used to include program logic that excluded records from being sent in the CHS638 export files. Research why this logic was removed and if it should be reimplemented (Section 3).
12. Add Authorization Number to the PCC export (Sections 3 and 6).
13. Revise the CHS638 and PCC exports to begin exporting adjustments made to a previously exported claim. Currently adjustments are not sent automatically in the CHS638 and PCC exports. In those exports, a clerk must manually flag a record for re-export if an adjustment is made and it is believed this rarely, if ever, happens (Section 6).
14. Add a Unique Visit ID to the CHS FI and CHS638 exports. The next version of the PCC export, Patch 6, will include this data element (Section 6).
15. There was discussion about IHS having the CHS FI pay pharmacy claims. If this happens, then the workgroup recommends ensuring these claims are sent in the CHS FI exports (Section 6).

16. A query of the CHS638 inpatient and outpatient records in the Pilot Data Warehouse database revealed inconsistencies in the exporting of the Provider EIN for these records in the CHS638 export. This could pose a problem if NPIRS and/or any other future data mart use the EIN for unduplicating CHS encounters. It was recently discovered that the CHS FI sends a provider prefix with the provider ID data element, where 1 means that the EIN is for a company or organization and 2 means that the EIN is for an individual. **NOTE:** Is the 9-digit number that follows the prefix an SSN? Information received on the Internet regarding EINs shows the format for an EIN is: 99-9999999, which is 10 characters. It appears the CHS/MIS application uses the prefix sometimes but not all of the time, as shown below.

- Some CHS inpatient records have a prefix of 0, 1, 2, 4, 5, 6, or 9 with a 9-digit number. NOTE: Is the 9-digit number an SSN? Information received on the Internet shows the format for an EIN is: 99-9999999, which is 10 characters.
- Some CHS inpatient records have no prefix, just a 9-digit number. Same question as above regarding EIN.
- Some CHS outpatient records have a 1-digit prefix ranging from 0 through 9 with a 9-digit number. Same question as above regarding EIN.
- Some CHS outpatient records have a format of what is believed to be the EIN: 99-9999999.
- Some CHS outpatient records have a format of: 9 99-99999.

In the Pilot Data Warehouse, this information was stored in one field called Prov_SSN_EIN. If NPIRS and/or any other data mart wanted to unduplicate on this data element, it probably would be best if the provider prefix was stored separately from the SSN and if the SSNs were stored separately from the EINs, if the formatting of the EINs and SSNs is confirmed to be different (Section 6).

17. Add the RCIS referral number to the export. Would having this information enable the linking of multiple records to a single episode of care? (Section 6)

18. The CHS FI's value for workload (sent as Number of Visits in the CHS Outpatient records) is calculated differently from what is sent in the CHS638 exports. The FI calculates it based on CPT codes, whereas CHS/MIS calculates it based on the service class codes. Should they be changed to be calculated in the same manner? Should this data element be added to PCC? (Section 6)

19. Ensure the Vendor file at the local facilities has the same EINs as those in the CHS FI's vendor files. If they are different, an EIN sent by the FI may not match the EIN at the facility during update of the purchase orders from the EOBR data. This results in the final payment not being posted to the purchase order, which means NPIRS would receive a record from the CHS FI but would not receive one from PCC (Section 6).

20. Conduct a more thorough review of the data elements comparison spreadsheet to determine if any other critical data elements should be added to an export (Section 6).

21. Occasionally, during the downloading of the EOBRs, there may be a scenario where the EOBR to be downloaded cannot match with the existing purchase order in

CHS/MIS. The final payment may not be posted to the existing purchase order, which prevents the information from being transmitted to PCC, thus preventing the PCC encounter from being created. The CHS clerk should manually post the information from the hardcopy of the EOBR into CHS. After entering the data, s/he should run the option in the CHS/MIS application that moves CHS data to PCC, thereby pushing the data for purchase order over to PCC. One concern is that some CHS clerks are not manually pushing the data over. Nevertheless, the information should still be sent either from the CHS FI (FI sites), or in the CHS638 files (non-CHS FI). (Section 2)

22. Federally operated sites may select an option in the CHS/MIS application to send a Type 7 record to NPIRS. The record is then sent to NPIRS in the CHS638 exports, and is commonly perceived as being sent by the tribal (638) site, enabling NPIRS to receive the same visits in PCC, CHSFI, and CHS638 exports. Duplication between PCC and CHS638/CHS FI occurs when the CHS to PCC link is turned on at the facility. Therefore, not all data in CHS638 exports are for 638 site—a concern that this setting may be causing data quality issues resulting in data not being sent to NPIRS. The workgroup should further explore this issue (Section 1).
23. CHS/MIS updates records, whereas PCC deletes and adds records to update information. Presumably, deleting an existing record and creating a new one will result in a new “unique identifier” being assigned to the visit. If so, the national repository cannot rely upon the unique visit id to update previously exported records. The data warehouse is considering the idea of having the CHS/MIS system assign a unique identifier to each record, (similar to the unique registration and visit ids) and include this information when transmitting data. This info should also be added to the PCC and CHS638 exports, and added to the CHSFI if possible. The workgroup should further explore this issue (Section 1).