



Making Data Count

Measuring Diabetes and Obesity in the Indian Health System

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IHS Division of Diabetes Treatment and Prevention

Clinical Reporting System (CRS) and GPRA: Advanced Applications

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Session: A5

CRS and GPRA: Advanced Applications “Making Data Count”

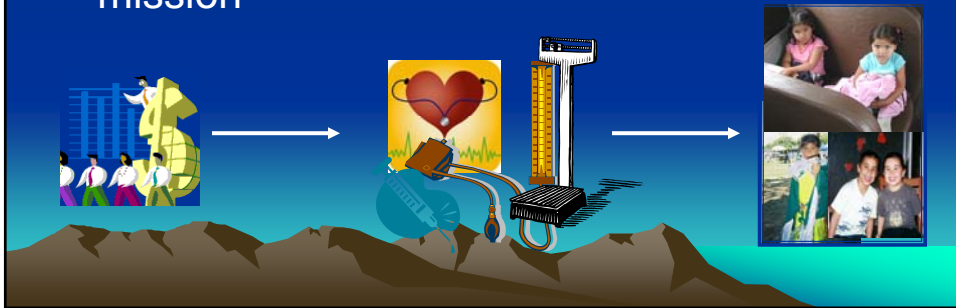
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Overview

What is GPRA?

- Requires a data-supported audit trail from appropriated dollars to activities and ultimately to customer benefits or outcomes consistent with an agency's mission



GPRA Reporting Requirements

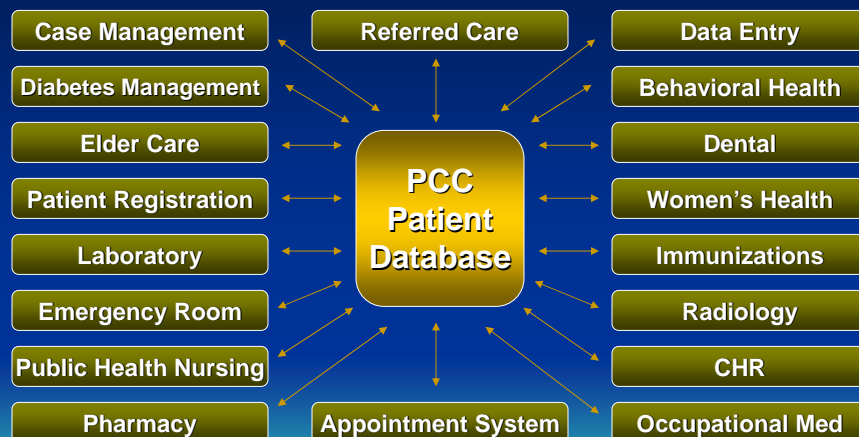
- The law requires Federal agencies to:
 - Have a 5-year strategic plan
 - Describes IHS long term goals
 - Submit an Annual Performance Plan with Budget request
 - Describes what IHS intends to accomplish toward those goals
 - Contains specific performance measures for a 1-year period.
 - Submit an Annual Performance Report with Budget Request
 - Describes how IHS measures up against the performance targets set in the Performance Plan

GPRA

Requirements and Uses:

- Tribal and Urban facilities are not required but are highly encouraged to report GPRA
- GPRA Reports are used for
 - Annual budget requests
 - Program Assessment Rating Tool (PART)
 - Performance Accountability Report (PAR)
 - Showing effective utilization of previously appropriated funds

RPMS Integrates Multiple Clinical Systems into One Database



Clinical Reporting System (CRS)

- An RPMS software package that searches for clinical measure data in the RPMS database
- Provides automated local, regional (Area) and national tracking of clinical performance on demand
- Uses identical logic, thus ensuring *comparable* performance data is reported across all facilities
- Updated annually to reflect changes in the logic descriptions and to add new measures

RPMS Applications CRS Mines

- **CRS mines data from these RPMS applications:**
 - Majority of the Data
 - PCC (Patient Care Component)
 - Other Data
 - Behavioral Health (looks for BHS problem codes)
 - Women's Health (looks for Pap Smears & Mammograms)
 - Immunization (gets children 19-35 months who are active in the Immunization Package)
- **All RPMS applications have a link from the application to PCC**
 - If that link is turned on, the data is passed from the application to PCC, where CRS will find it. (Default setting for these links is "on.")

What About the RPMS EHR?

- Since the Electronic Health Record (EHR) updates the PCC database and other applications that pass data to PCC (e.g. Immunizations, Lab, Pharmacy), CRS will find that data in PCC



CRS Data

CRS does not update the PCC database; it reports on data it mines from PCC and the Behavioral Health, Women's Health, and Immunization packages.

Types of Data CRS Mines

- Patient Demographic Data
- Standard codes, which are written into the CRS programs and may not be edited
 - Industry-standard Codes
 - ICD:
 - Diagnoses (POV, Problem list)
 - Procedure codes
 - CPT codes to report diagnostic and therapeutic procedures for billing
 - CVX codes (immunizations)
 - LOINC codes (standard coding for lab tests)

Types of Data CRS Mines

- Standard codes, which are written into the CRS programs and may not be edited, continued
 - IHS-exclusive Codes
 - Exam codes (e.g. 03 Diabetic Retinal Exam)
 - Patient Education codes (e.g. DM-M: Diabetes Mellitus – Medications education)
 - Health Factors (e.g. Alcohol or Tobacco User)

Types of Data CRS Mines (cont'd)

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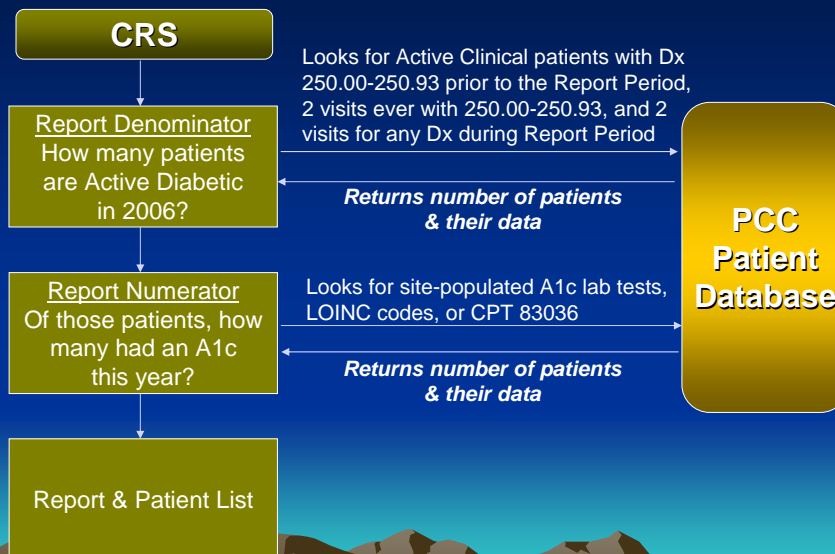
- Site-populated codes, which are stored in taxonomies that are maintained by each site
 - Lab Tests
 - Examples: Hemoglobin A1c, LDL Cholesterol, Pap Smear, FOBT
 - Medications
 - Examples: Beta-blockers, ACEIs/ARBs, Aspirin, Statins
 - Most medication taxonomies are pre-populated either by NDC or VA Drug Class codes
- Sites need to update their taxonomies in CRS periodically to add new lab tests and medications



Standard Codes

- Hard-coded in CRS program logic; users cannot change the codes
- Types of Standard Codes
 - **CPT**: to report diagnostic and therapeutic procedures for billing
 - **ICD**:
 - Diagnoses (POV, Problem List)
 - Procedure codes
 - **LOINC**: for laboratory tests, etc.
 - IHS National **Patient Education Codes**
 - IHS **Health Factors** (e.g. tobacco or alcohol user)
 - IHS **Exam Codes** (e.g. dental exam, diabetic foot exam)

Example of CRS Mining the Data



User Population Denominator

- For GPRA, defined as:
 - Must be Indian/Alaska Native, based on Beneficiary classification 01, and
 - Must reside in a community specified in the site's GPRA community taxonomy, and
 - Must be alive on last day of Report Period, and
 - Must have 1 visit to any clinic in the past 3 years
 - Used for determining Diabetic prevalence rate

Key Denominator: Active Clinical Population

- Developed specifically for clinical measures to identify more representative “active” population than User Pop
- For GPRA, defined as:
 - Must be Indian/Alaska Native, based on Beneficiary classification 01, and
 - Must reside in a community specified in the site's GPRA community taxonomy, and
 - Must be alive on last day of Report Period, and
 - Must have 2 visits to defined medical clinics in the past 3 years

Active Clinical Population

One of the patient's visits must have been to one of the core medical clinics below.

| | | | |
|----|-------------------|----|-----------------|
| 01 | General | 24 | Well Child |
| 06 | Diabetic | 28 | Family Practice |
| 10 | GYN | 57 | EPSDT |
| 12 | Immunization | 70 | Women's Health |
| 13 | Internal Medicine | 80 | Urgent Care |
| 20 | Pediatrics | 89 | Evening |

Active Clinical Population

The second visit must be to one of the core clinics (previous slide) or to one of the clinics listed below.

| | | | |
|----|--------------------|----|-------------------------------|
| 02 | Cardiac | 37 | Neurology |
| 03 | Chest and TB | 38 | Rheumatology |
| 05 | Dermatology | 49 | Nephrology |
| 07 | ENT | 50 | Chronic Disease |
| 08 | Family Planning | 69 | Endocrinology |
| 16 | Obstetrics | 75 | Urology |
| 19 | Orthopedic | 81 | Men's Health Screening |
| 23 | Surgical | 85 | Teen Clinic |
| 25 | Other | 88 | Sports Medicine |
| 26 | High Risk | B8 | Gastroenterology – Hepatology |
| 27 | General Preventive | B9 | Oncology – Hematology |
| 31 | Hypertension | C3 | Colposcopy |
| 32 | Postpartum | | |

CRS and Diabetes Audit DATA Comparisons

Diabetes Audit

Purpose:

- Monitor compliance with the **standards of care** for patients with **Type 2 Diabetes**
 - Improves patient care
 - Provides awareness to facilities and their providers to improve patient outcome
 - Documents performance based trends for accreditation agencies (JCAHO/AAHC)
 - Shows overall effectiveness of a program



CRS & Diabetes Audit Comparisons

Similarities:

- Both measure clinical performance and quality of care
- Both use local service RPMS database
- Both datasets measure comparable organizational performance
- Both have data quality limitations with reference to timeliness of data entry

CRS & Diabetes Audit Comparisons

Differences: Denominators

- CRS
 - Patients with a Diabetes diagnosis at least one year prior to report period
 - AND, at least 2 visits in the past year
 - AND, 2 DM related visits ever
- Diabetes Audit
 - Patients that obtain primary care
 - AND, have been seen within the past year
 - AND, have a confirmed diagnosis of diabetes

CRS & Diabetes Audit Comparisons

Differences: Inclusion/Exclusion Criteria

CRS – Inclusion

- Two visits to medical clinics in the past 3 years, at least one to a core medical clinic
- Be alive on the last day of the report period
- AI/AN
- Reside in a community specified in the site's GPRA community taxonomy

Diabetes Audit – Exclusion

- Have not had at least one visit in 12 months
- Receive primary care elsewhere
- Have arranged other MD care
- Live in jail or nursing home
- Attend a dialysis unit (if on-site care not available)
- Have gestational or pre-diabetes
- Have moved
- Have died
- Are unable to be contacted

CRS & Diabetes Audit Comparisons

Differences: Sampling Methods

CRS

- Represents a census (100%) of all of those who meet criteria

Diabetes Audit

- Uses a statistical sampling method

CRS & Diabetes Audit Comparisons



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Differences:

Data Collection Methodology & Timeline

CRS

- Uses only data gathered electronically from RPMS
- GPRA Year (GY) = July 1 thru June 30

Diabetes Audit

- Includes data from both electronic and/or paper chart data abstraction-RPMS
- Audit Year = Jan thru Dec (most Areas)

CRS & Diabetes Audit

The bottom line: In a nutshell



- Both systems are important to monitor patient health outcomes
- Both have different goals, sampling methods, and timelines of reporting
- Comparing results of both can improve patient care



Accessing CRS – Security levels

- To run reports:
 - Anyone involved in providing, reporting, or evaluating patient care – clinicians, schedulers, QA staff, administrators
- To run patient lists
 - Clinicians, QA staff, nurses
- To edit site-populated lab or drug taxonomies
 - GPRA coordinator in collaboration with pharmacy and lab staff
- To define, edit site parameters
 - Site manager, perhaps in collaboration with GPRA Coordinator

Access to the above functions should be limited to the needs of the user; security keys required for all functions but running reports

Taxonomies



Taxonomies

- Groupings of functionally related data elements
 - Lab Tests
 - Drugs
 - CPT codes
 - ICD-9 codes
 - Others
- Used by RPMS applications, including CRS, to find data items in PCC

Taxonomies

- 2 Types of Taxonomies in CRS
 - Hard-coded
 - Users cannot update
 - LOINC are included in these
 - Site-populated
 - Users update with System Setup menu option
 - All non-LOINC lab tests are included in these

Site-Populated Taxonomy Examples

| TEST | VARIATIONS |
|--|--|
| DM AUDIT HGB A1C TAX All Hemoglobin A1C lab tests used in Diabetes: Glycemic Control | HgbA1C A1C HbA1c Hemoglobin A1C Glycosylated hemoglobin Glycohemoglobin A1c |
| BGP GPRA FOB TESTS All fecal occult blood tests used in Colorectal Cancer Screening | Occult Blood Fecal Occult Blood FOBT GUAIC Ultra FOB iFOB |

Taxonomy Tips

- You must work with your Lab & Pharmacy staff to identify all test and drug names
 - Run the Lab & Medication Taxonomy Reports and give to your Lab & Pharmacy Supervisors
- Include ALL test names used by your facility since 1995, even if codes are currently inactive
 - GPRA reports use a baseline year of 2000 and some measures look back 5 years
 - Must include tests that were active at that time if you want good baseline data

Taxonomy Tips

- Do not include names of lab panels in taxonomies for specific tests that look at results (e.g., “Lipid Panel” should NOT be included in LDL taxonomy)
 - Panels do not report the test result, only that the test was done

Reports and Patient Lists



Types of CRS Reports

- **National GPRA**
 - 22 GPRA measures, 2 measures for context
 - 53 non-GPRA measures
- **GPRA Performance Report**
 - Same as National GPRA except users can choose the report parameters
- **Selected Measures Report**
 - 55 topics available
 - Users may choose any or all topics
- **Other Reports**
 - (HEDIS, Elder, Patient Education, CMS)

Diabetes Measures in Reports

- **National GPRA Report and GPRA Performance Report**
 - Diabetes Prevalence and A1c measured
 - 6 measures
 - Poor control
 - BP control
 - Nephropathy assessed
 - Ideal control
 - LDL measured
 - Retinopathy assessed

Diabetes Measures in Selected Measures Reports

- Prevalence
- Comprehensive Care
- Blood Pressure Control
- Lipids Assessment
- Nephropathy Assessment
- Retinopathy
- Access to Dental Care
- Influenza
- Pneumococcal
- Depression Screening
- Nutrition and Exercise
- Comprehensive CVD

Report Parameters

- **Report Period**
 - 1-year time period (e.g. July 1, 2006 – June 30, 2007, Jan 1, 2005 – Dec 31, 2005)
- **Baseline Year**
 - 1-year time period (e.g. July 1, 1999 – June 30, 2000)
- **Patient Population**
 - AI/AN patients only
 - Non-AI/AN patients only
 - Both AI/AN and non-AI/AN
- **Community Taxonomy**
 - All of the communities included in the report
 - Patients must reside in one of these communities; otherwise, they are not reported

Report Parameters (cont'd)

- **National GPRA Report**
 - Except for Community Taxonomy, all report parameters are provided for you and may not be changed
 - Report Period: July 1, 2006 – June 30, 2007
 - Baseline Year: July 1, 1999 – June 30, 2000
 - Population: AI/AN only
- **All Other Reports**
 - User provides all report parameters

CRS Patient Lists

- **Show the detail behind the report**
- **List options**
 - Random sample (10%)
 - By designated provider
 - All patients
- **Display information about the patient**
 - Patient's name, chart number, gender, etc
 - Denominator(s) and numerator(s) the patient is included in
- **Available for all reports**
 - National GPRA: User chooses to include patients who met or did not meet a measure
 - All Other Reports: Patient lists are predefined

Patient Lists Can Be Used For...

- Verifying RPMS data against patient's chart info
- Identifying patients who need certain screenings/procedures
 - e.g., tobacco screening, flu shot
- Identifying “at risk” patients
 - e.g., high LDL, high BP, obese
- Delimited files are most useful output for patient lists!

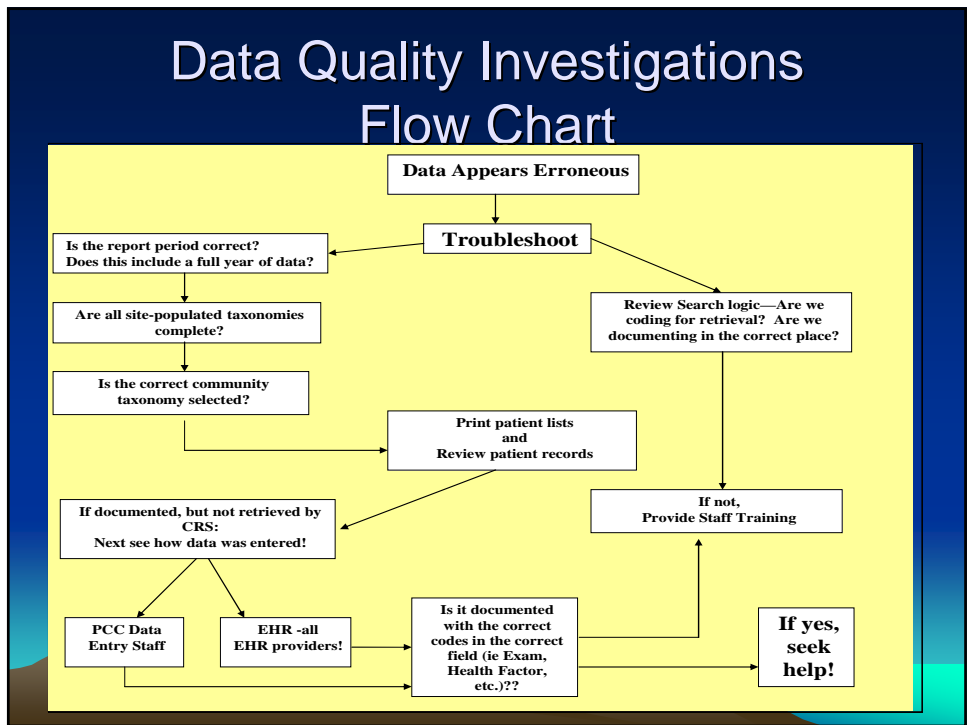
DEMONSTRATIONS



Taxonomy Setup
Reports & Patient Lists
GUI

REPORT RESULTS

Common Reasons for Low Rates
Tips for Improvement
Improving GPRA Performance
Requires a Team Effort!

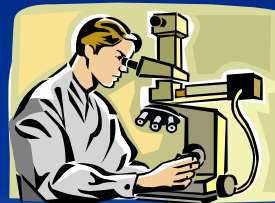


Report Results—Troubleshooting

- Low or “incorrect” results on your CRS reports does not necessarily mean that you are not performing the appropriate procedures, screenings, etc
- It does mean that the data cannot be located in RPMS
- First, check what’s in the chart against what’s in RPMS
 - Use Patient Lists

Reasons for Low Rates--examples

- **Tobacco Screening--example**
 - National Health Factors not used
 - Health factor not entered into RPMS
- **LDL and other lab tests**
 - Taxonomies not current
 - **talk to Lab staff**
 - Lab tests sent out but not recorded in PCC as historical lab
 - Reference Lab interface will fix this problem



Tips for Improvement

- Review your GPRA community taxonomy
 - Ensure all communities within your service area are included in the GPRA taxonomy
 - Your site or Area Planning Officer or Statistician should be able to assist in defining appropriate communities
 - Only Area Planning Officers should edit the GPRA community taxonomy
 - Find out if any name changes have been made to communities in your taxonomy
 - If yes, need to change taxonomy to delete old community and add new community

Tips for Improvement (cont'd)

- Document and enter refusals
 - Refusals count toward meeting many measures
 - Pap, mammogram, immunization, diabetic eye exam, CRC screen, etc.
 - Providers: document on PCC
 - Write in POV section “Refused ___” or
 - Write “Refused” in appropriate order box
 - Data Entry: use REF mnemonic
 - OR....Providers document in EHR

Tips for Improvement (cont'd)

- Document historical lab tests and procedures
 - Providers: Ask about and record historical information on PCC
 - Ask patients about common off-site procedures (e.g., IZ type, date received, location)
 - Document telephone visits
 - Data Entry: Use Historical Mnemonics
 - HIM (Immunization) HPAP (Pap Smear)
 - HRAD (Radiology) 76090-76092 for mammogram
 - HBE (Barium Enema) HCOL (Colonoscopy)
 - HFOB (FOBT, guaiac) HSIG (Sigmoidoscopy)

Tips for Improvement (cont'd)

- Download the Clinical Cheat Sheet from the CRS web site (Performance Improvement Toolbox page)
 - Contains detailed instructions for providers and data entry on documenting and entering information for:
 - Historical Data
 - Refusals
 - Exams
 - Will be updated in 2007 to include instructions for EHR users

Tips for Improvement (cont'd)

- **Include all relevant lab tests for taxonomies**
 - Update taxonomies at least annually
 - Include changed, inactive, deleted and current tests in your taxonomy -- CRS looks at tests as far back as 1995
 - Coordinate with lab to assure ALL codes identified. They may know names of tests you wouldn't know.
- **Document reference lab results**
 - If labs are sent out, ensure that test completion and result are entered in PCC when returned

Review of CRS Clinical Cheat Sheet



Improving GPRA Performance Requires a Team Effort!



Team Effort: All Care Team Providers (MDs, NPs, RNs, Aides, etc.)

- Document the information on the encounter form in the appropriate place or enter it into the EHR.
 - Document patient refusals, historical procedures done off-site, patient education, and health factors.
- Learn to run patient lists in CRS
 - Know which indicators apply to you
 - Understand the search logic to enhance your documentation

Team Effort – Data Entry

- Timeliness of data entry
- How is data entered?
- Communicate with providers when they document in the wrong place.
- Know your refusal and historical mnemonic
- Consult GPRA Cheat Sheet

Team Effort – IT Staff

- Current version of CRS and patches
- Assist personnel with locating their CRS report files.
- Reports—general knowledge of how to run
- Ensure the CHS to PCC link is on at the facility.
 - could negatively impact GPRA rates for procedures paid with CHS funds (i.e. mammograms or referred dental care.)

Team Effort – GPRA Coordinators/QI

- Ensure you understand the CRS logic!
- Review the site parameters with Site Manager to ensure they are setup correctly.
- Review site-populated taxonomies for lab tests and medications.
 - Deactivated tests may be prefixed with a “z” or “Z” or some other convention.
- Review your GPRA community taxonomy to see if all communities that should be included are included.

Team Effort - Management

- Understand the GPRA measures and CRS
 - Understand how GPRA reporting impacts your performance contract.
- Recognize employees who take the initiative to improve GPRA performance
- Solicit information from facilities who are GPRA achievers
 - What are they doing and can it be implemented at your facility?
 - Be the CHAMPIONS of GPRA!

And finally....the entire TEAM

- Quarterly review of the National GPRA report.
 - Provider review and input
 - Do the rates look reasonable? If not, run a patient list for the measure and audit:
 - Is the data in the chart but not in PCC? Was data entered correctly? Was it documented in the correct place on the encounter form or in EHR?
 - Was the data in PCC but documented with a code CRS is not looking for? Should CRS be looking for it?

CRS Disclaimer (cont'd)

- Software is *not* a solution
- Software is a *tool* to assist users in identifying and aggregating *comparable* clinical information
- Software can *help* identify problems
 - with data
 - with clinical documentation process
 - with clinical care

Bottom Line: CRS cannot fix a facility's problems; an active QI program is needed. Users must run and review the CRS reports to see if the rates are reasonable. If they are not, need to research the patient's data and get the patient the needed test/screenings/care.

For more info, visit:

www.ihs.gov/cio/crs



Don't Forget to Join the CRS Listserv

1. Go the CRS Listserv page (URL shown below).
http://www.ihs.gov/cio/crs/crs_listserv.asp
2. Click **Subscribe**.
3. This takes you to the IHS List Serv page. Since the site has moved, it takes a minute to navigate to the new page. On the left-hand side of the page, click **Available Lists**.
4. Click **Clinical Reporting System** from the list.
5. In List Functions, click **Subscribe**.
6. It brings up an e-mail window. Type your name in the <your name here> section and remove the text "your name here". Then click the Send button to send the message.

CRS Contacts

| | | |
|-----------------------------------|---|--|
| HQ Lead | Francis Frazier FNP, MPH (301) 443-4700 | Francis.Frazier@ihs.gov |
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Coming soon...

CRS 8.0 (6/07) will link the Comprehensive National GPRA Patient List to the Scheduling Package, which will

- Allow user to enter a date range
- Identify patients with scheduled visits during date range
- Apply the logic of the National GPRA Report
- Produce a list of all the GPRA screenings/tests the patient is due for at his/her upcoming visit