

Preparing an SDMS Statewide Provider Data Upload: 2 Comprehensive Approaches



Integrating Provider Data Sources to Prepare an SDMS Upload File



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John Snow, Inc.

Promoting and Improving Health



Not Just “SDMS Validation”

- Process must address SDMS records, but...
- Result must address all known provider data for the discipline
 - “Invalidation” (Omit) of SDMS providers not practicing is just as important
 - Various ‘reason’ codes
 - Can be hard to ‘prove the negative’
 - Correction/Addition of address(es)
 - Updating of all capacity and status information
 - Addition of valid capacity not already in the state

A Complex Task

- Every discipline in every state will have a different scenario. May change year to year.
- Relationships between data sources are multidimensional and can be inconsistent
- Full capacity 'overwrite' vs upload for individual area or provider attribute work differently
- Data previously discarded now holds valuable information (specialists, inactive licenses, etc.)
- Having full vs partial information changes approach
- Detailed data in designated areas may still require additional follow up after 'bulk' upload

Data Inventory

- License Lists:
 - NPI numbers? (some, all)
 - Inactive/Non-Practicing/Suspended/Resident/etc. ?
 - Specialty(ies)?
- Statewide Survey (?):
 - NPI (individual?, organizational (practices)?
 - Multiple Sites?
 - Practice setting(s)?, Role by location?, Locums?
 - Non-respondents, partial respondents?
- Claims (Medicaid, APCD?):
 - Servicing/Rendering NPI vs Billing NPI (org)?
 - Linkage to multiple practice addresses?
 - See prior HWTAC [webinars](#) on claims analysis
- Other: NHSC/J-1, Dental Auxiliaries, etc.?

Process Overview

- Geocode all tables – *address standardization*
 - Re-geocode SDMS records
 - Match on standardized address or Lat-Lon
- Load tables into database software (Access, etc.)
- ‘Flag’ SDMS records for key characteristics
 - Add ‘flagging’ fields to SDMS download table
 - Develop queries to populate flag fields (independent)
- Build queries to append records to an Upload table
 - Use flags to identify records fitting scenarios
 - Alter key values in appended records to fit scenario
 - Check against upload file to ignore records already touched
 - Include flags and ‘comment’ to document scenario used
 - Follow requirements in “[Import Tool User Guide](#)”
 - Fixed values also listed in ‘Metadata’ tab of download sheet

Process Overview (cont.)

- Add Non-SDMS records to Upload table
 - Secondary practice addresses
 - Valid providers not in the state's SDMS list
- Edit Records in Upload table as needed
 - Specialty for added records
 - Recheck flagged situations for SDMS
 - Allocated claims from Organizational billing
 - Individual claims + Organizational claims allocation
 - Be sure not to exceed cap per individual
- Export to Upload File
 - Include required data plus all flags and comments
 - Add a 'row number' column for tracking of rejects

Record Flagging Examples

- PC Eligible (quick filter for initial records)
- NPI match to License List (if applicable)
- NPI match to Claims
- Address match to License
- Address match to Claims
- PC Specialty License
- Inactive, Suspended, etc. License
- Limited License (residents)
- Non-PC/public work setting
- Survey 0 PC hours
- NHSC, J-1
- FQHC Location (from claims or site geocode)

Building the Upload Table

- Create table matching download format with flagging fields added
 - Add 'Comments' column to track upload step
- Determine upload 'cohorts' and processing order
- Append records to upload table
 - Select records based on flag combinations
 - Link to data tables containing updated values
 - Set 'Action' based on record type
 - Modify **Key Fields** based on available data
 - Hours, Medicaid (claims or %), SFS, NHSC, J-1, Resident/Intern, prison, etc.
 - Copy forward data not changing (or leave blank)
 - Add 'Comment' to track processing step and any qualifying information
 - Check remaining records at each step against upload records already added to keep records unique

Upload Step Examples

- ‘Omit’ (*process these first*)
Modify: Reason Code only
 - No/Inactive License
 - Non-PC Specialty License
 - Non-PC work setting
 - Zero or non-PC hours, admin/research role
- Address Mismatch (two step)
 - ‘Omit’ existing address (Reason: Moved)
 - Be sure omitted address isn’t a secondary location
 - No evidence of capacity at location
 - ‘Add’ new address with capacity and key fields

Upload Step Examples (cont.)

- ‘Update’ (NPI + Address both match)
 - Hours Exist from survey (with or without claims)
 - Update Hours and Claims (if any) or Medicaid %, SFS, etc.
 - Claims exist but no hours at location
 - Must have hours at location. Can use calculation of 40 minus hours at other sites or enough to cover claims, but ultimately local follow up needed
- ‘Add’ capacity not already in SDMS list for state
 - Source data not in SDMS download records
 - Address from source (license, survey, claims)
 - Discipline, Specialty (need to convert to SDMS list)
 - Modify Key fields
 - Check ‘flagged’ characteristics for new records

Creating the Upload File

- Save copy of SDMS Excel download file
- Paste 'Upload Table' records into 'Provider Locations' tab
 - Keep original column headings – assure data matches
 - Delete all existing data
 - Make sure zip code is formatted as text
 - OK to add flagging and comment columns
 - Add Line Number field to help track errors
 - Note: Start numbering as line 2 (heading is line 1)
 - If re-uploading, change 'Creation Date' in Metadata tab to time of upload

Tips, Tricks, Checks

- Check total hours per NPI for add/update
 - Combined sites with default hours can exceed 1 FTE
 - May be easier to re-download SDMS
- Check total claims, hours, etc. against total 'in-state' capacity in source data
- Reject records can be a useful tool
 - If system sees 'Add's as same address → 'Update'
 - Unknown NPI... often Org NPI used instead of Individual → Look up/fix
 - Manual Geocodes – look up lat/lon on web and enter directly

Questions / Discussion?



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SUPPLEMENTAL FUNDING PROJECT ILLINOIS

Primary Care Office Management Information System (PCOMIS)

**Barry Lacy
Manager of Community Development**

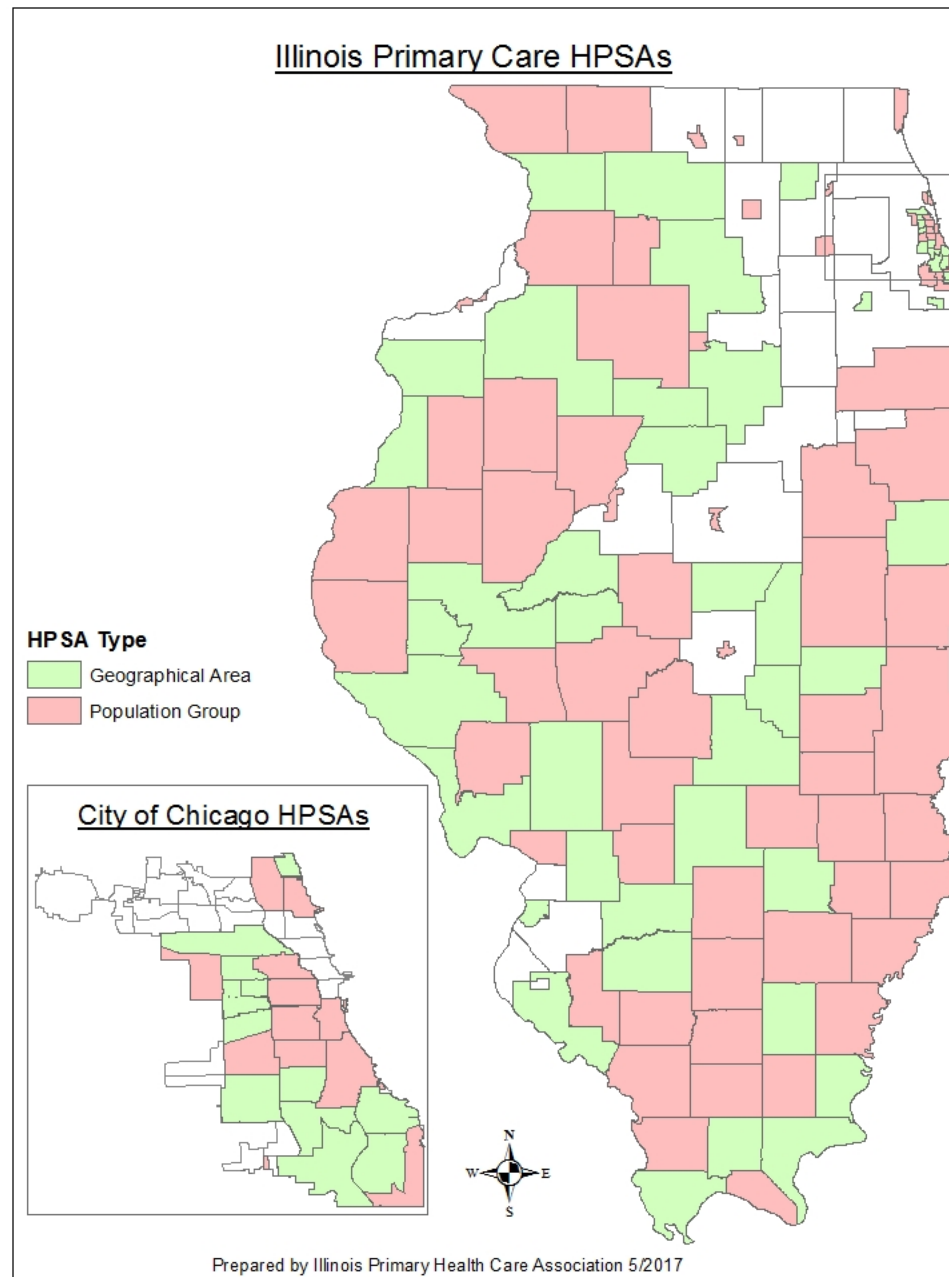


Illinois HPSAs

120 Primary Care

81 Dental

27 Mental Health



HEALTH CARE PROVIDERS IN ILLINOIS

- Initially, 140,000 National Provider Identifier (NPI) provider records were imported into SDMS for Illinois.
- Of those NPI records, 40,000 were categorized as eligible providers in SDMS requiring ‘validation’ in the system by the end of October 2016.



SUPPLEMENTAL FUNDING ELIGIBLE ACTIVITY

- To improve existing statewide databases to enhance their compatibility with SDMS and support shortage designation business process and the requirements of the SDMS.



PCOMIS



Illinois Department of Public Health
Center for Rural Health

Primary Care Office Management Information System

PCO PROVIDERS

PCO SOURCE DATA

ADMIN

APPLICATION HELP

SDMS DATA DASHBOARD

ACTIONS ▼

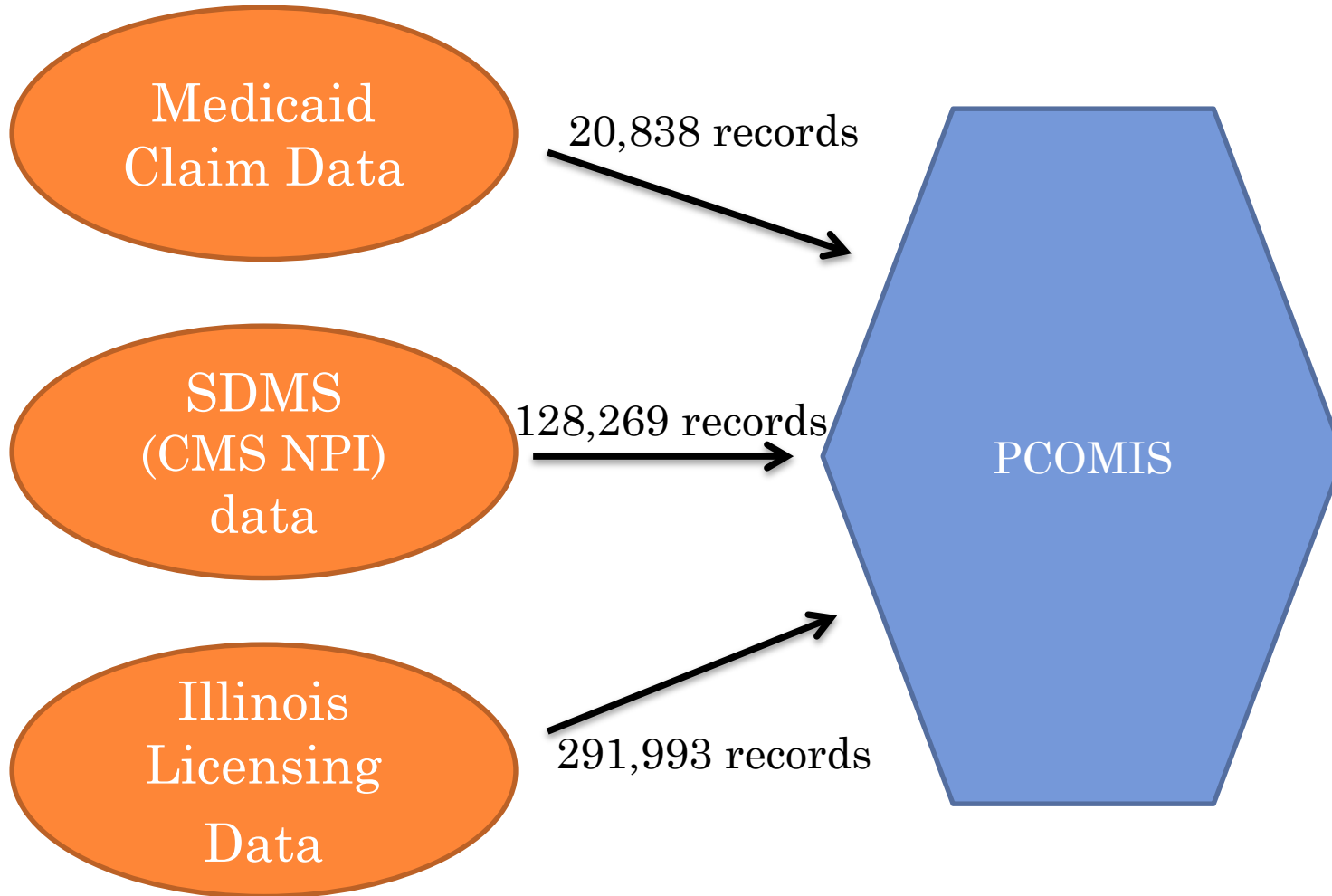
FILTERS ☒

Search for...

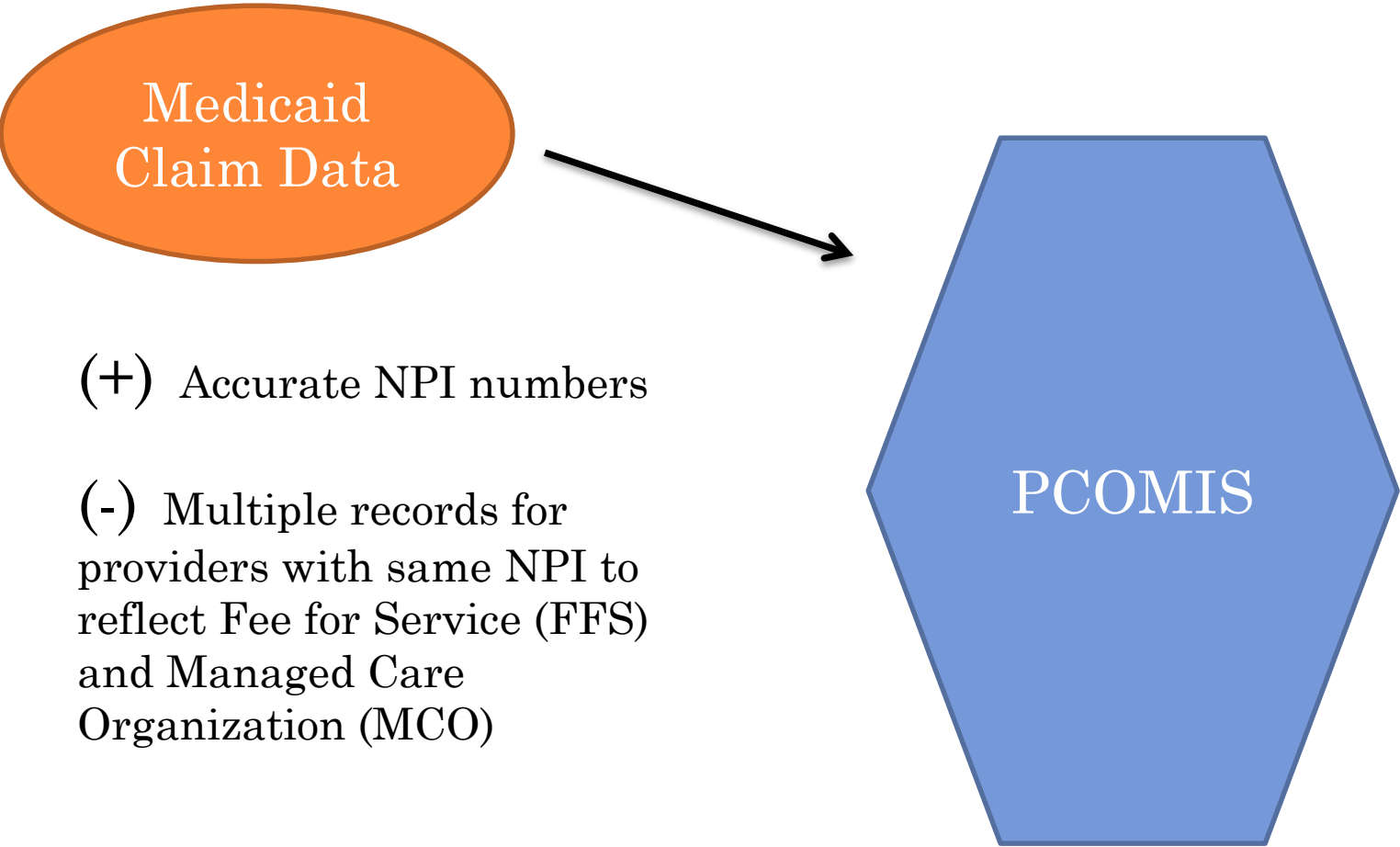


Action	NPI	Discipline	SDMS Specialty	Last Name	First Name	SDMS Status	Reason Code	IDFPR Status	Direct Tour Hours	SDMS Annual Medicaid Claims	HFS Total Medicaid Claims	SDMS No of Licenses	SDMS No of License States	SDMS IL License No	City	County Name	State	SDMS Last Modified Date
 	1003004771	PC	Internal Medicine	RIGGLE	ERIN	Eligible			40			1	1		CHICAGO	Cook	IL	9/8/2016 3:46 PM
 	1003008459	DH	Dentist	FIDEL	PHILIP	Eligible			40			1	1	001922169	CHICAGO	Cook	IL	9/9/2016 4:01 PM
 	1003025438	PC	Family Practice	HUSSAIN	AYESHA	Eligible		ACTIVE	40	2	2	1	1	036117664	CHICAGO	Cook	IL	9/8/2016 4:41 PM
 	1003025891	PC	Internal Medicine	GERARDI	WILLIAM	Eligible			40			2	2		CHICAGO	Cook	IL	9/8/2016 5:20 PM
 	1003028143	PC	Family Practice	ESTOR	ERNESTO	Eligible		ACTIVE	40	18	18	2	2	036120810	CHICAGO	Cook	IL	9/8/2016 5:13 PM
 	1003028150	PC	Family Practice	WIRTH	JILL	Eligible			40	450	450	1	1	0361196991	PEORIA	Peoria	IL	9/7/2016 4:51 PM
 	1003030651	PC	Family Practice	BILAL	SALVA	Eligible			40			1	1		PINCKNEYVILLE	Perry	IL	11/22/2016 6:23 AM

DATA SETS AVAILABLE TO THE ILLINOIS PCO



DATA SET STRENGTHS (+) AND WEAKNESSES (-)



Medicaid
Claim Data

The diagram features an orange oval on the left containing the text 'Medicaid Claim Data'. A black arrow points from this oval to a blue hexagon on the right containing the text 'PCOMIS'. The entire slide is framed by an orange border, with a solid orange circle in the bottom right corner.

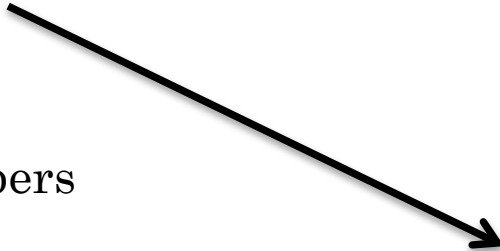
(+) Accurate NPI numbers

(-) Multiple records for
providers with same NPI to
reflect Fee for Service (FFS)
and Managed Care
Organization (MCO)

PCOMIS

DATA SET STRENGTHS (+) AND WEAKNESSES (-)

SDMS
(CMS NPI)
data



```
graph LR; A([SDMS (CMS NPI) data]) --> B{{PCOMIS}};
```

The diagram illustrates the flow of data from the SDMS (CMS NPI) data source to the PCOMIS system. An orange oval on the left contains the text 'SDMS (CMS NPI) data'. A black arrow points from this oval to a blue hexagon on the right labeled 'PCOMIS'. Below the oval, a list of strengths and weaknesses is provided. In the bottom right corner, there is a solid orange circle.

(+) Accurate NPI numbers

(-) Inconsistent format for provider license numbers

(-) Address locations may not be current

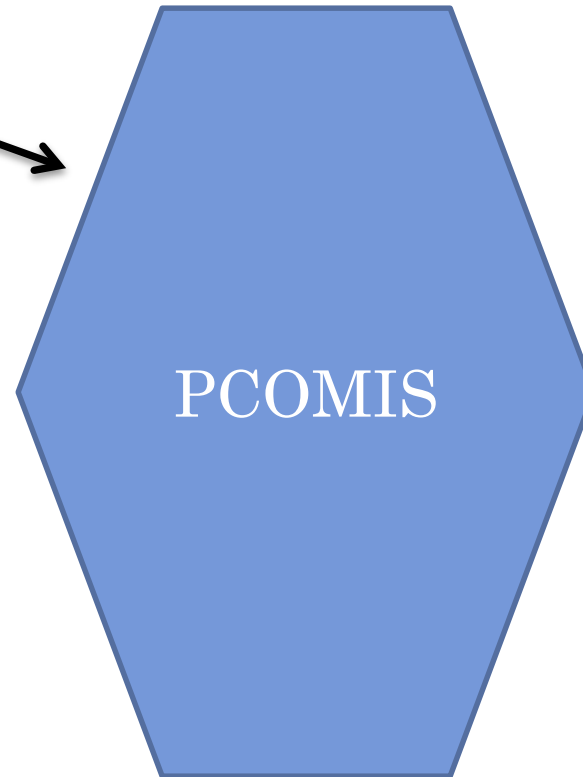
(-) Provider specialty may not be accurate

(-) Provider status may not be current

(-) NPI data does not contain tour hours

PCOMIS

DATA SET STRENGTHS (+) AND WEAKNESSES (-)



(+) Accurate Provider License number

(+) Accurate license status

(+) Better specialty data

(-) Address locations may not be accurate

(-) IL licensing data does **NOT** include NPI number



DATA FUNCTIONS PERFORMED BY PCOMIS

Medicaid Claim Data

- PCOMIS combined totals for FFS and MCO claims by provider to create new a field called HFS TOTAL MEDICAID CLAIMS

- The new field is uploaded into SDMS, overwriting the value in the Annual Medical Claims

SDMS DATA DASHBOARD

ACTIONS ▼

FILTERS ☒

Search for...



Action	NPI	Discipline	SDMS Specialty	Last Name	First Name	SDMS Status	Reason Code	IDFPR Status	Direct Tour Hours	SDMS Annual Medicaid Claims	HFS Total Medicaid Claims	SDMS No of Licenses	SDMS No of License States	SDMS IL License No	City	County Name	State	SDMS Last Modified Date
	1003025438	PC	Family Practice	HUSSAIN	AYESHA	Eligible		ACTIVE	40	2	2	1	1	036117664	CHICAGO	Cook	IL	9/8/2016 4:41 PM
	1003028143	PC	Family Practice	ESTOR	ERNESTO	Eligible		ACTIVE	40	18	18	2	2	036120810	CHICAGO	Cook	IL	9/8/2016 5:13 PM
	1003035122	PC	Family Practice	CHOI	HAEMI	Eligible		ACTIVE	40	24	24	1	1	036116832	HICKORY HILLS	Cook	IL	9/8/2016 5:27 PM

PCOMIS – PCO SOURCE DATA MENU



Illinois Department of Public Health
Center for Rural Health

Primary Care Office
Management Information System

PCO PROVIDERS

PCO SOURCE DATA

ADMIN

APPLICATION HELP

SDMS DATA

SDMS Source Data

HFS Medicaid Claims Source Data

HFS Specialty Code List

IDFPR Roster Source Data

IDFPR Hospital Affiliations

IDFPR Insurance

IDFPR Primary Office

IDFPR Specialty

FILTERS ☒

Search for... 

Action	NPI	Last Name	First Name	SDMS Status	Reason Code	IDFPR Status	Direct Tour Hours
 	1003025891	RIGGLE	ERIN	Eligible			40
 	1003025891	HUSSAIN	AYESHA	Eligible		ACTIVE	40
 	1003025891	GERARDI	WILLIAM	Eligible			40

PC Internal



PCOMIS – PCO PROVIDERS MENU



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APPLICATION HELP

SDMS Data Dashboard

HFS Medicaid Claims Dashboard

IDFPR Roster Dashboard

SDMS Upload

BOARD

ACTIONS

FILTERS ☒

Search for...

Discipline	SDMS Specialty	Last Name	First Name	SDMS Status	Reason Code	IDFPR Status	Direct Tour Hours	SDMS Annual Medicaid Claims
	Internal Medicine	RIGGLE	ERIN	Eligible			40	



1003004771

PC



PCOMIS FUNCTIONALITIES



Illinois Department of Public Health
Center for Rural Health

Primary Care Office
Management Information System

PCO PROVIDERS

PCO SOURCE DATA

ADMIN

APPLICATION HELP

EDIT SDMS DATA

SAVE

CANCEL

NPI 1003004771

Suffix

First Name ERIN

Phone Number 3129088163

Middle Name ELIZABETH

Age

Last Name RIGGLE

County Name Cook

SDMS Editable Fields

IDFPR Status

Action **Update**

Reason Code ** Please Select **

Discipline PC

Specialty Internal Medicine

Address Line 1 240 E HURON ST

City CHICAGO

Address Line 2 MCGAW MEZZANINE M-300

State IL

Dental Auxiliaries ** Please Select **

Postal Code 606112909

Direct Tour Hours 40

Annual Medicaid Claims 0

Serves at Correctional Facility? ☐

Medicaid Patient % 0.0

Serves at State/County Mental Hospital? ☐

Homeless % 0.0

Resident/Intern ☐

Migrant Farmworker % 0.0

J1 Visa Waiver Holder ☐

Native American % 0.0

Federal Provider? ☐

Sliding Fee % 0.0

NHSC Provider? ☐

Migrant Seasonal Farmworker % 0.0

Latitude 41.895045

State FIPS 17

Longitude -87.62105

County FIPS 031

PCOMIS FUNCTIONALITIES

PCOMIS creates an export file in the format required for SDMS upload

Example #1

AH15

	A	B	C	D	E	G	H	K	L	O	Z	AA
1	Action	NPI	Discipline	Specialty	Address	City	State	Direct Tour	Reason Code	Annual	SDMS	IDFPR Status
2	Update	1285639179	PC	Internal	3331 W	MARION	IL	40	Non Fed Not Licensed in State	0	Ineligible	NOT RENEWED
3	Update	1457582082	PC	Family	3411	MARION	IL	40	Non Fed Not Licensed in State	0	Ineligible	NOT RENEWED
4	Update	1659470524	PC	Internal	2650	EVANST	IL	40	Non Fed Not Licensed in State	0	Ineligible	NOT RENEWED
5	Update	1669459129	PC	Family	6294	SESSER	IL	40	Non Fed Not Licensed in State	0	Ineligible	NOT RENEWED
6	Update	1912088048	PC	Internal	3333 W	MARION	IL	40	Non Fed Not Licensed in State	0	Ineligible	NOT RENEWED
7												

Example #2

	A	B	C	D	E	G	H	J	I
1	Action	NPI	Discipline	Specialty	Address Line 1	City	State	Direct Tour Hours	Annual Medicaid Claims
2	Update	1003832189	PC	Internal Medicine	556 E GRANT HWY	MARENGO	IL	40	0
3	Update	1003874827	PC	Pediatrics	4309 W MEDICAL CENTER DR	MCHENRY	IL	40	354
4	Update	1003972753	PC	Family Practice	2000 LAKE AVE	WOODSTOCK	IL	40	0
5	Update	1013064138	PC	Internal Medicine	1200 W SOUTH ST	PLANO	IL	40	347
6	Update	1023165644	PC	Obstetrics and Gynecology	750 E TERRA COTTA AVE	CRYSTAL LAKE	IL	40	238
7	Update	1033381439	PC	Family Practice	1700 S GALENA AVE	DIXON	IL	40	0
8	Update	1053307967	PC	Internal Medicine	912 NORTHWEST HWY	FOX RIVER GROVE	IL	40	0
9	Update	1053363903	PC	Family Practice	219 SUMMIT ST	GALENA	IL	40	260
10	Update	1053371393	PC	Family Practice	903 GREENBRIER ROAD	EARLVILLE	IL	40	58
11	Update	1063587087	PC	Family Practice	1181 N 8TH ST	ROCHELLE	IL	40	242
12	Update	1073581971	PC	Pediatrics	102 S HENNEPIN AVE	DIXON	IL	40	1164

ILLINOIS OUTCOMES

- Illinois was able to upload Medicaid claim data for all providers. This resulted in an accurate Low Income/Medicaid provider FTE being derived without INDIVIDUAL SURVEYS
- Any eligible providers in SDMS that had a status other than ACTIVE in the Illinois License data were changed to ineligible with the appropriate reason code in SDMS.
- When the provider import tool was available, we chose manageable groups of records to update and confirmed processing.



ILLINOIS OUTCOMES

Goals were met with the supplemental funds.

Most Low-Income and Medicaid Eligible HPSAs were able to have current Population to Provider (P2P) data in place for the nationwide designation update.

Massive time savings. Increased accuracy.

