Assessing the fitness for use of the Primary Payer at Diagnosis variable

Part B: Why New York has not submitted this data item

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Purpose of the study

Primary Payer is a required-when-available data item that New York has not provided.

Study undertaken to either justify our recalcitrance or convince us to fall in line.

Rationalization for NY's non-compliance:

- Ambiguity of data item
- No consolidation rules
- Fear of misuse of the data
- Workload

Caveat:

The data and inferences from this presentation are from New York only and might not be generalizable to the country.

Our Approach:

Analyze distribution of primary payer from sources and over time

Assess concordance of values from different sources for same tumor

Do the Primary Payer values from hospital sources match the NYS discharge payer information?

Is there a pattern for discordance?

What do CTRs have to say about the data item?

Background

PP traditionally required by Commission on Cancer. Changes going from ROADS to FORDS in 2003.

- SEER effective with 2007 diagnoses
- NPCR Collection required when available effective 2008 diagnoses

NPCR convened a task force to examine the data item. Issues were identified.

- Ambiguous definition
- Lack of consolidation rules

Castine Clerkin's study in collaboration with Westat and four states, presented at the NPCR Program Directors' Meeting: "Update on Primary Payer at Diagnosis Data Quality Evaluation"

- A reabstraction study to gain better understanding of the data item
- 23% of Payer at Diagnosis codes were recoded from known to unknown
- Item contains payer at treatment : best agreement with discharge records was for Medicare

Methods:

All analysis was done using SAS 9.2 and SAS 9.3.

Pull data from 1,030,455 non-DCO sources received at the New York State Cancer Registry for tumors diagnosed 2004-2011.

- Compute distributions of Primary Payer
- Assess concordance of Primary Payer from multiple sources for same tumors

Pull payer information from the New York State Department of Health's discharge files.

Perform a deterministic linkage using SAS to match NYSCR records to Discharge Records

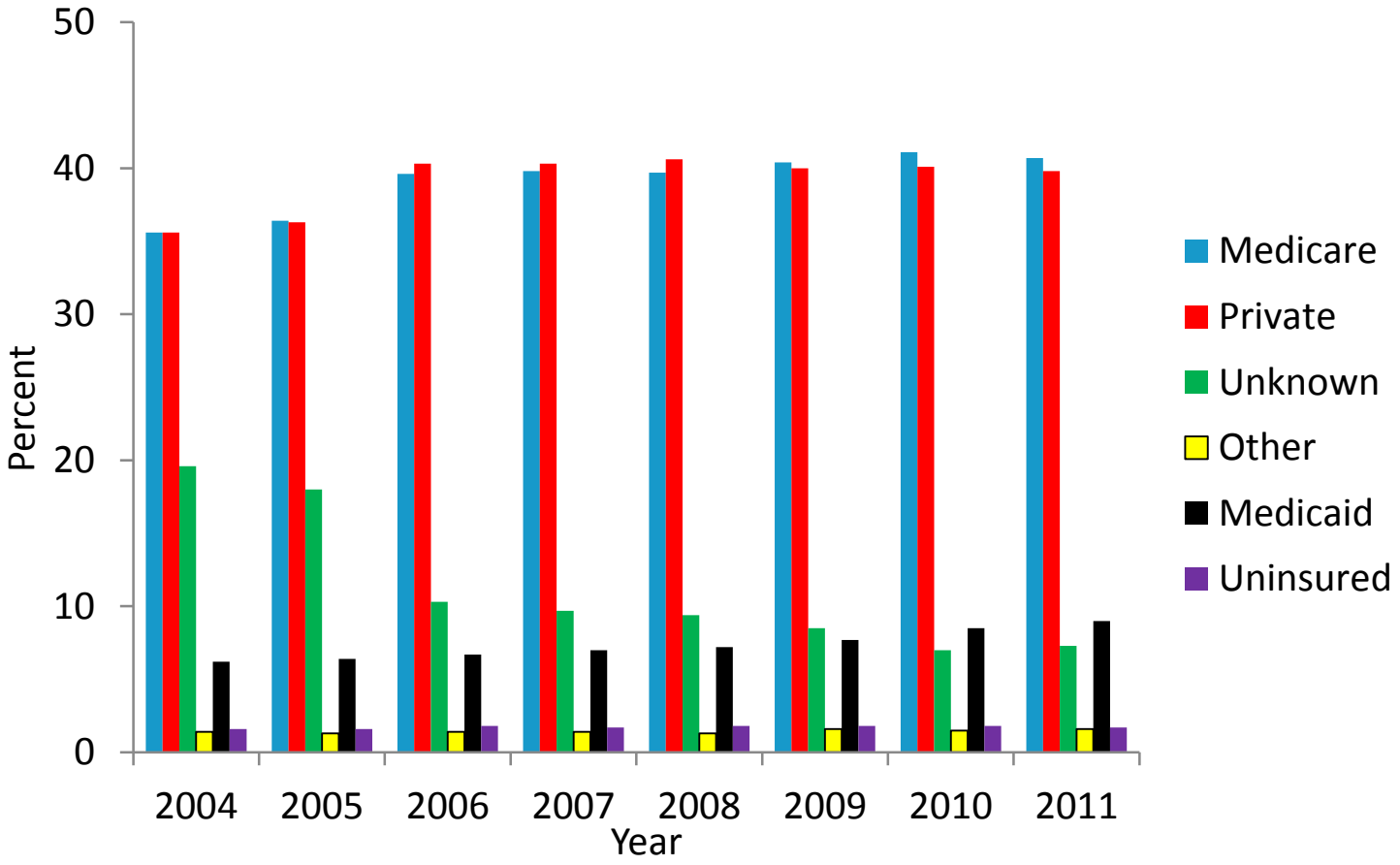
Compare Primary Payer from Cancer Abstract to payment codes on Discharge Records

Perform ad hoc brief survey of NYSCR hospital tumor registrars, report anecdotally

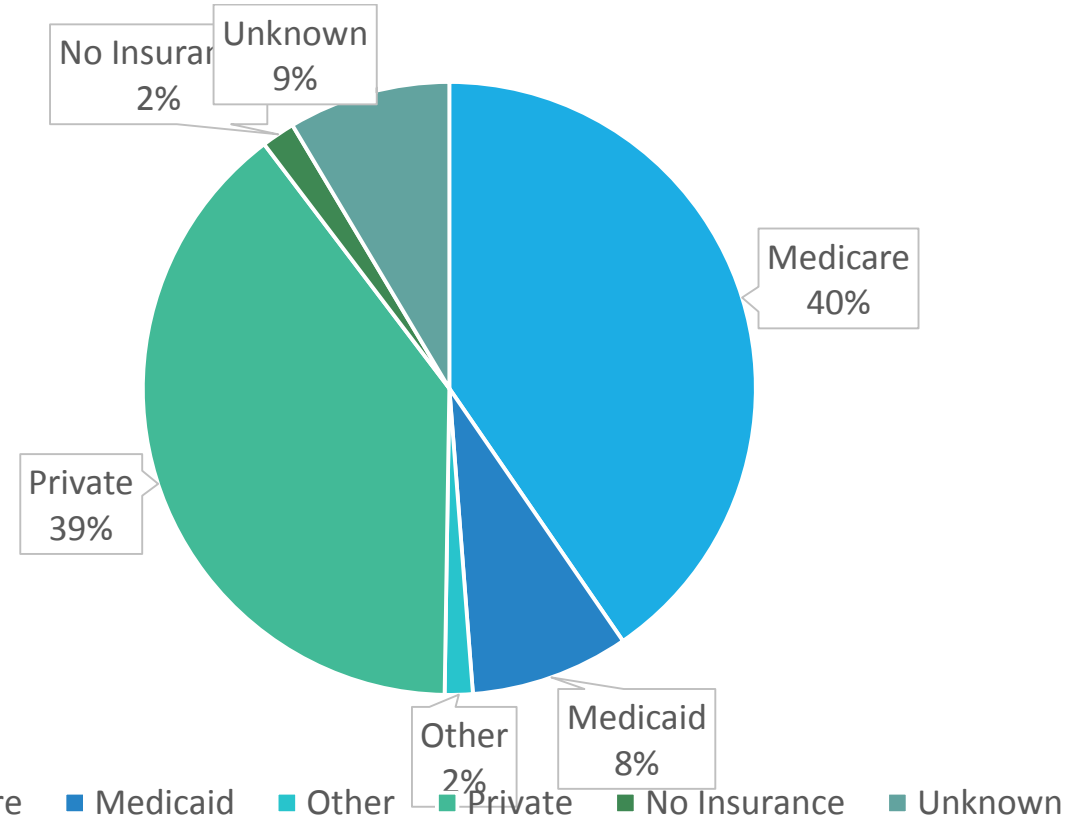
Payer Recodes for Analysis

NAACCR VALUES	RECODE VALUES
All codes mentioning Medicare	Medicare
Insurance, NOS Private Insurance Fee-for-service Private Insurance Managed care	Private Insurance
TRICARE Military Veterans Affairs Indian/Public Health Service	Other
Medicaid Medicaid - through a Managed Care Plan	Medicaid
Not insured Not Insured, self pay	Uninsured
Insurance status unknown	Unknown

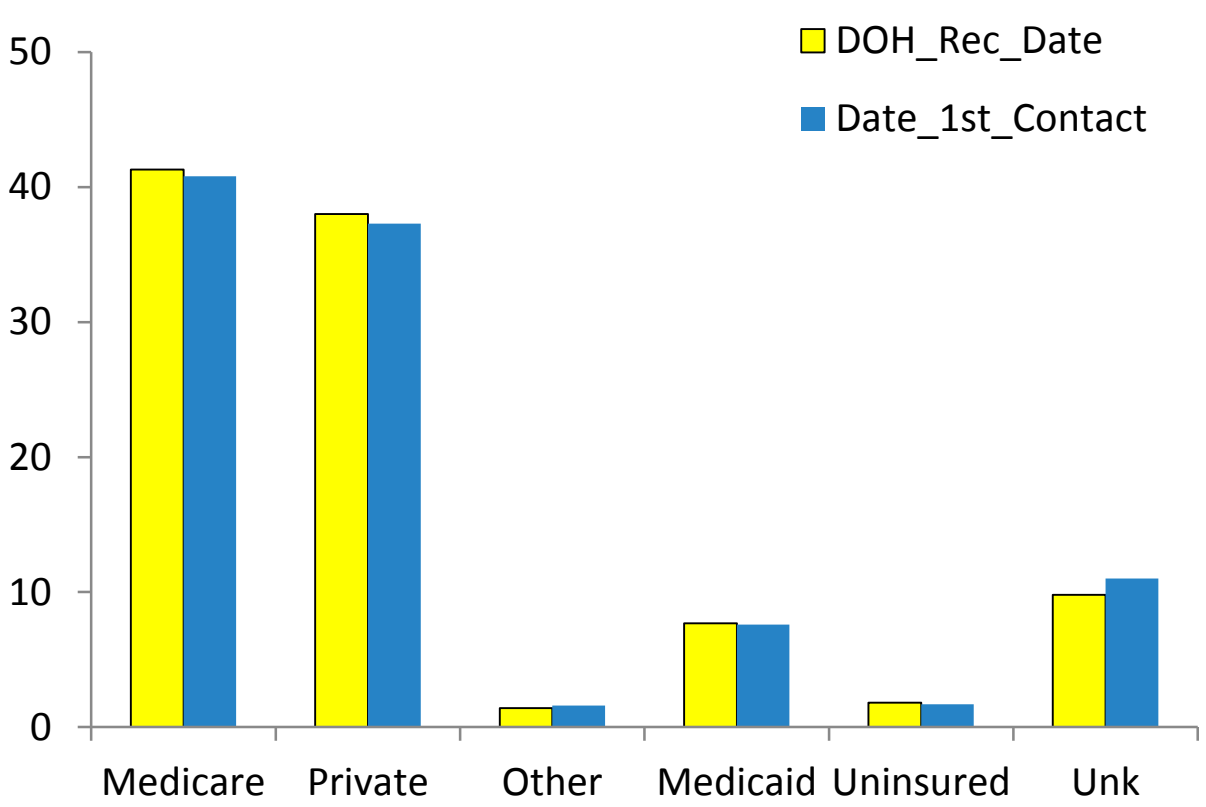
Primary Payer by DiagYr, all sources

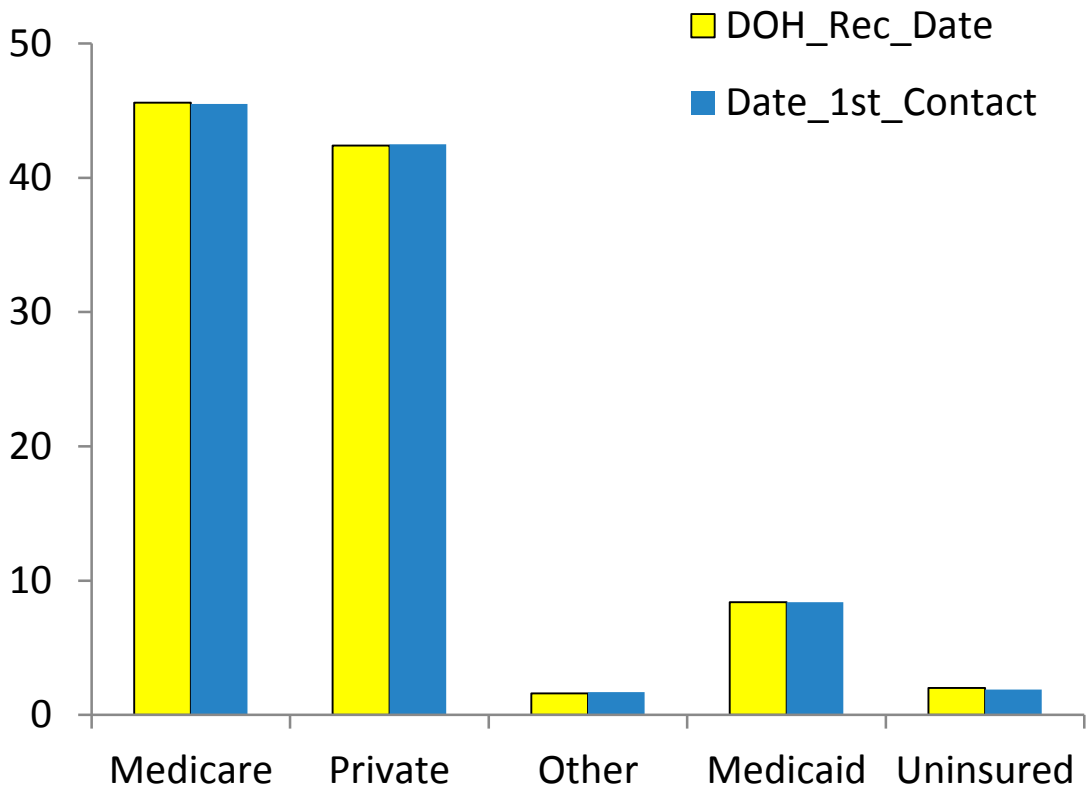


Distribution of Primary Payer, All NYSCR Sources, 2010 Dx



Earliest Received vs. Earliest Contact





Date First Received vs. Date First Contact Using Recoded Payer Data Item

Percent cases by diagnosis year where PP reported on FIRST RECORD RECEIVED is different from payer reported on EARLIEST ENCOUNTER

2004	2005	2006	2007	2008	2009	2010	2011
7.7	7.5	6.3	6.4	6.5	6.0	5.6	4.3

Same as above, but without UNKNOWNs

2004	2005	2006	2007	2008	2009	2010	2011
1.8	1.8	2.4	2.7	2.6	2.5	2.7	2.2

Overall Concordance of Primary Payer Reports

CASES WHERE ALL REPORTS AGREE

2004	2005	2006	2007	2008	2009	2010	2011
59.4	58.8	67.0	67.8	65.8	67.7	68.9	70.9

PERCENT OF CASES WHERE ALL REPORTS AGREE, EXCLUDING UNKNOWNS

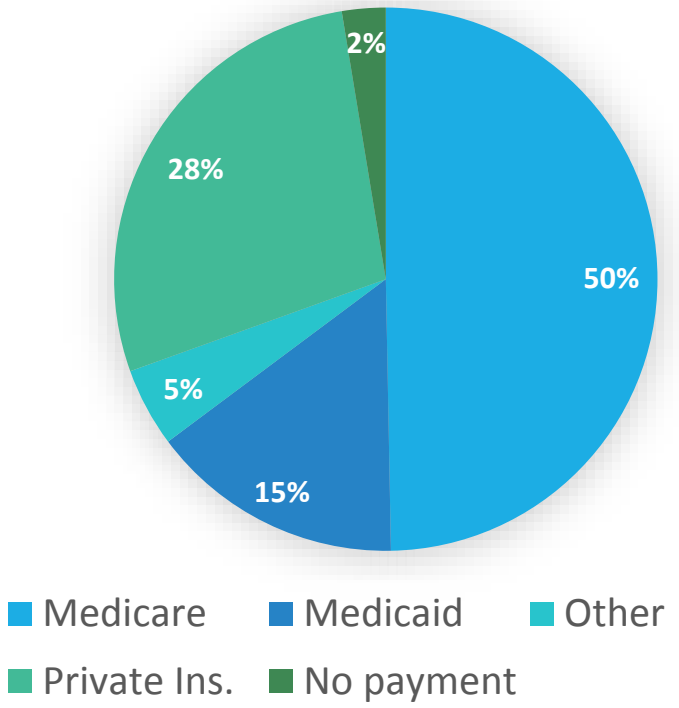
2004	2005	2006	2007	2008	2009	2010	2011
81.0	80.1	79.9	80.1	79.2	80.0	79.4	80.3

Top Ten Combinations of Primary Payer

Medicare	Private	Other	Medicaid	Uninsured	Unknown	Total Cases
	X				X	44,243
X	X					39,396
X					X	34,648
	X		X			10,915
X			X			6,195
X	X				X	5,943
			X		X	5,360
	X			X		4,014
			X	X		3,191
X		X				2,225

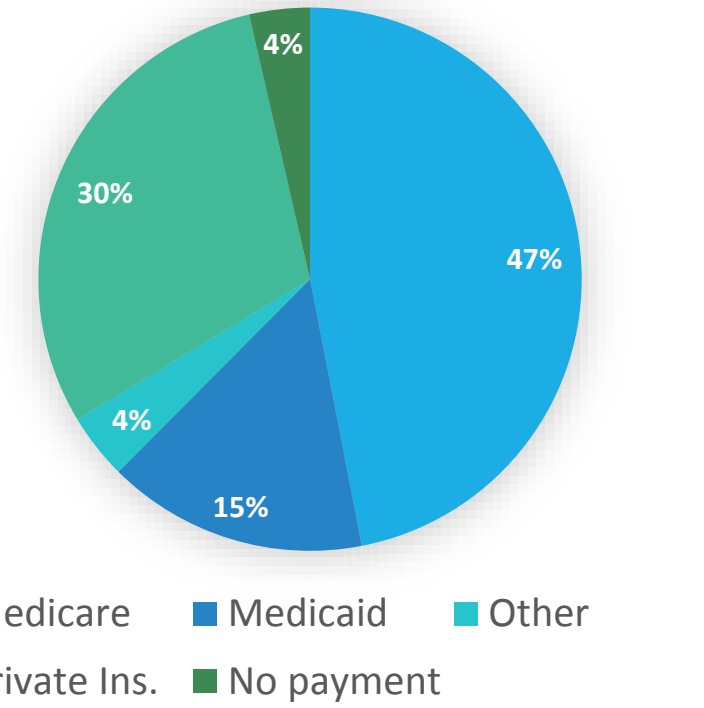
Distribution of Major Payment Typology Codes Discharges matched to NY cancer cases

All Patient-Matched Records



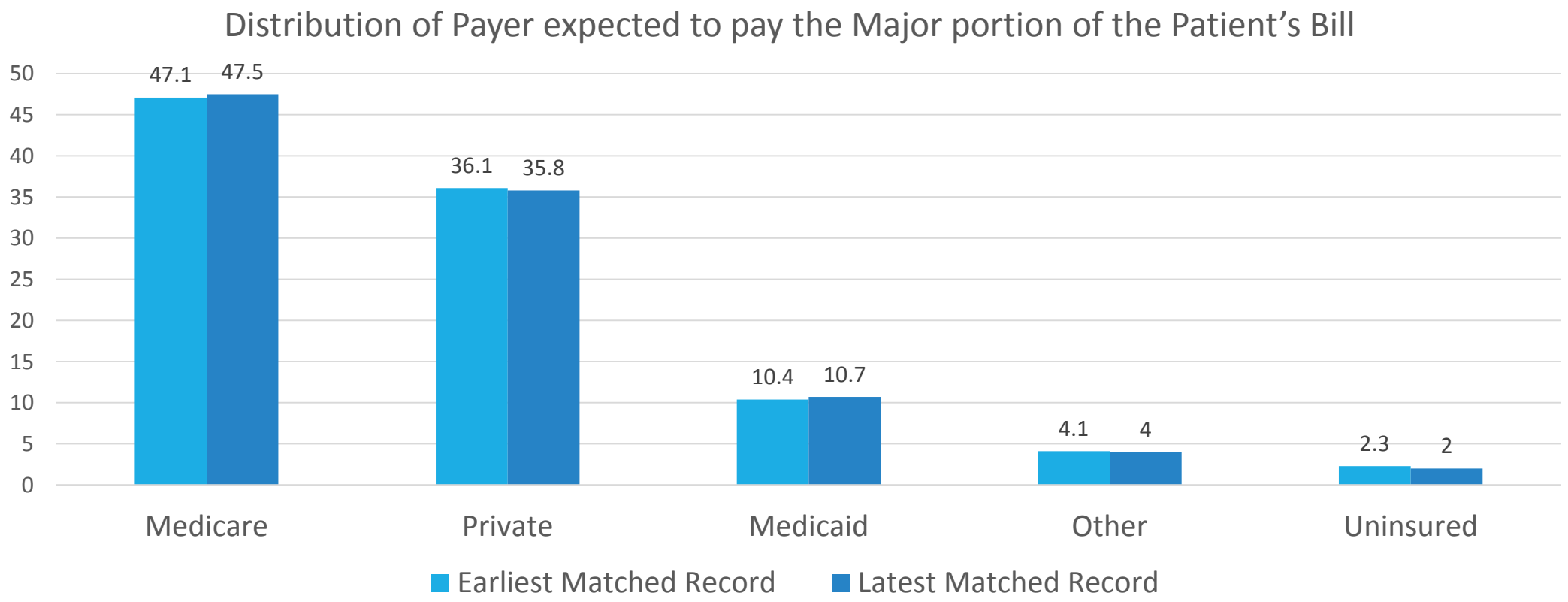
N=9,202,853 person-matched records

Tumor-Facility-Matched Records



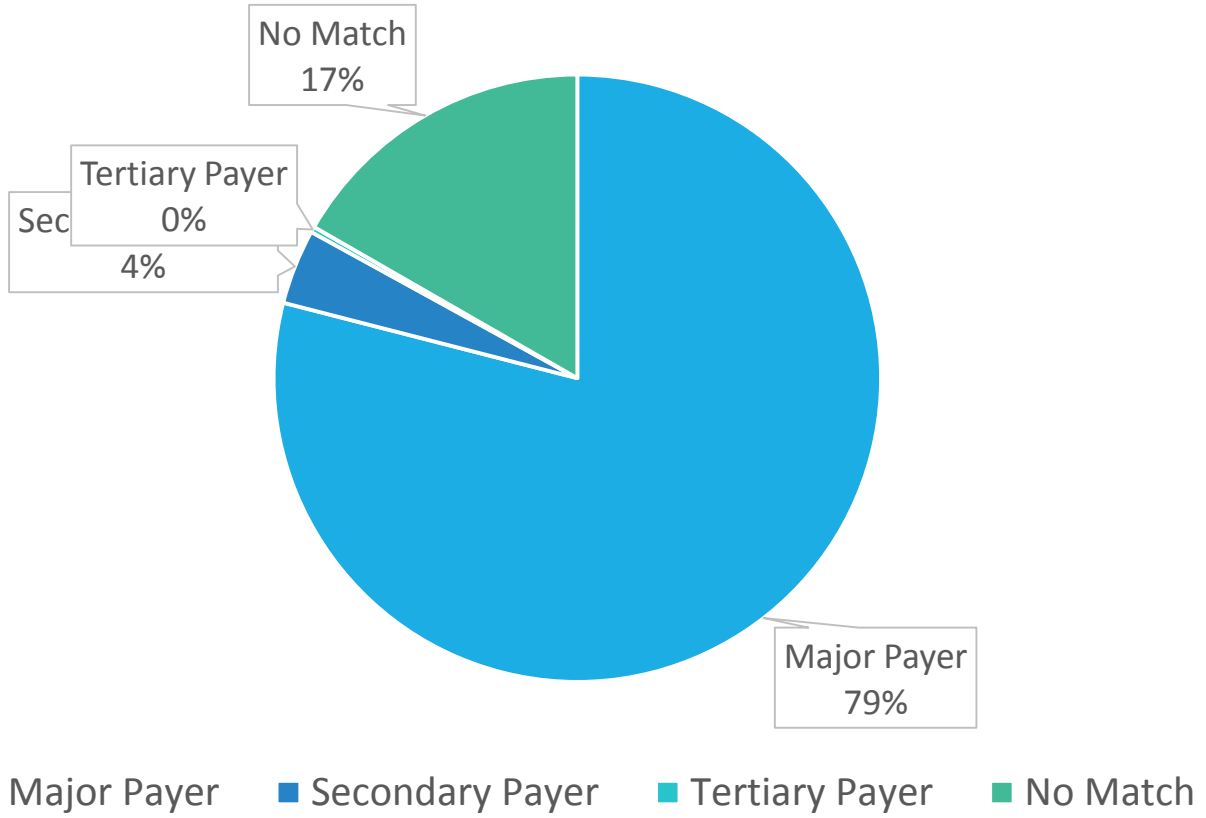
N=568,931 person, date range, and facility-matched records

Comparison of Major Payment Typology Recodes for earliest vs latest matched records



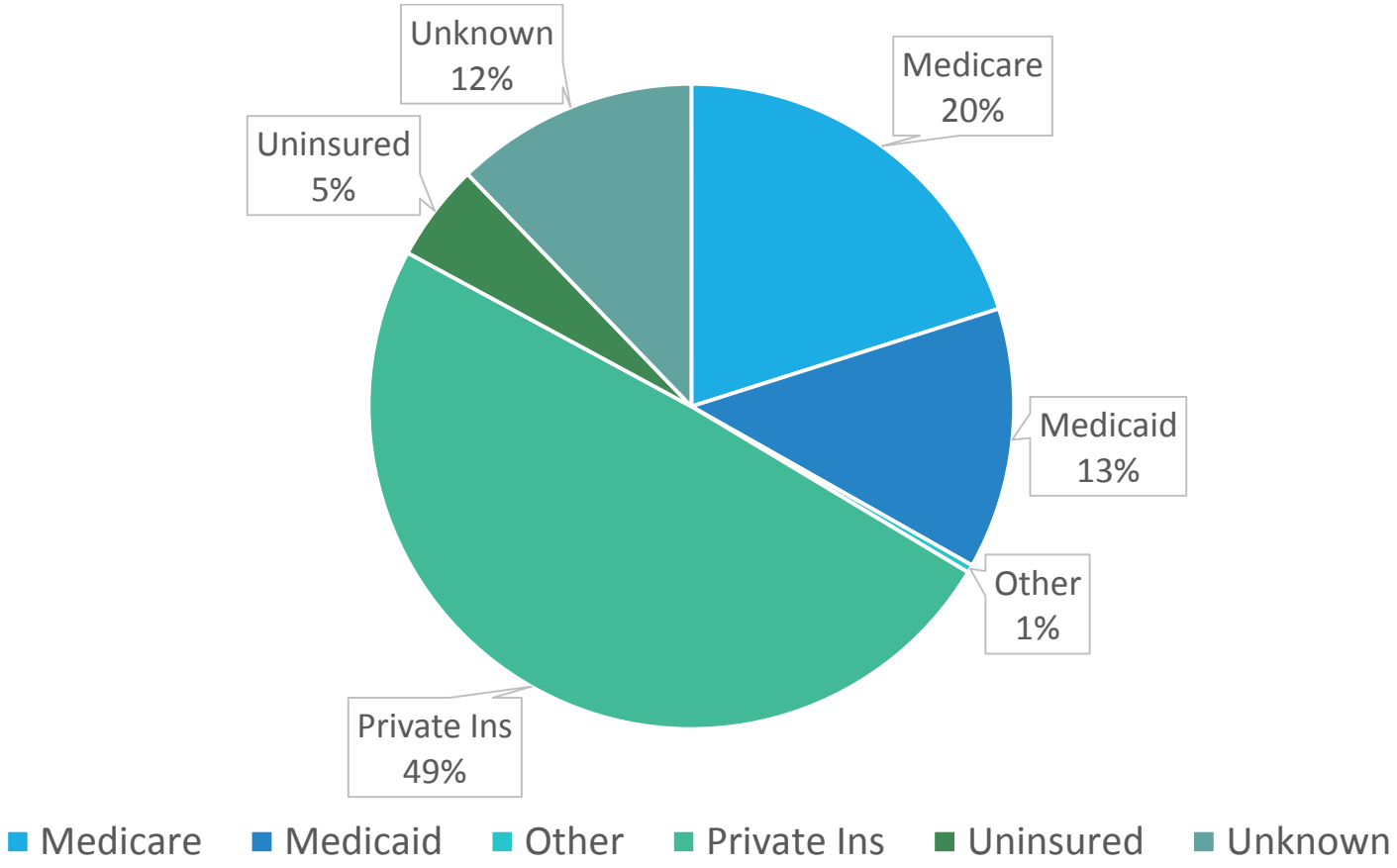
N=233,115 NYSCR matched sources

Which of the 3 Payer Typology Codes matched the Abstract code?



N=76,255 records where date of admission=date of diagnosis

Of ‘No Matches’, what was the Payer reported on the Abstract?



N=12,750 records

Additional Discharge Payer Codes that also matched NAACCR PP codes

Analytic registry reports were matched to hospital claims data for 2004-2011 based on:

- Unique Patient Identifier
- Diagnosis Date = Admit Date
- Hospital
- Inpatient Type

N=104,167

Result: 91.3% Payer concordance

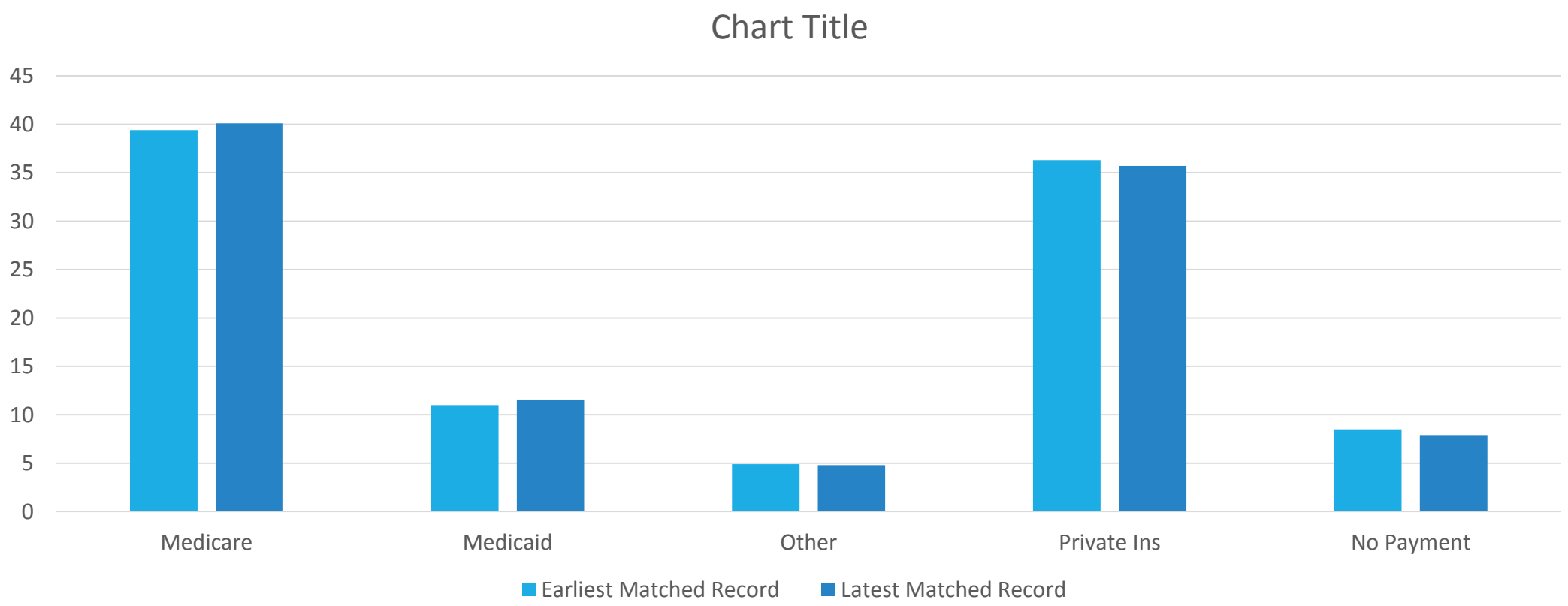
Among Cases Matched : Percent of Records Reporting each Other Payer Type On Hospital Discharge File

	Medicare	Private	Other	Medicaid	Uninsured/ Self Pay
Medicare	------	63.1	0.9	16.8	29.8
Private	10.8	----	0.3	3.4	37.6
Other	87.8	9.8	----	1.2	35.4
Medicaid	92.2	36.0	0.3	----	42.4
Uninsured/ Self Pay	93.4	15.3	1.0	24.5	----

Percent Concordance in Payer Type Between Cancer Registry Analytic Reports and Hospitalization Payer Information

	DxDate=Admit Date		Admit Date +/- 30 days within DxDate		Admit Date >30 days and < 365 days of DxDate	
	Inpatient	Outpatient	Inpatient	Outpatient	Inpatient	Outpatient
Matching Hospital	91.3	54.9	90.5	57.7	90.4	67.1
Non-matching Hospital	87.2	55.6	86.6	57.7	85.3	65.0
N	116,9990	136,874	412,532	341,517	574,219	725,196

Filling in the gaps: Major payer from discharge data for Unknown PP on Cancer Abstracts



N=6,769 matched sources missing Primary Payer information

Reactions of Registrars to Questions

Q. Do you have access to the "Payment Typology" codes (used for discharge reporting to the NYSDOH)?

A: Some do and some don't. Some remote abstractors are provided with specific forms to use.

Q. When you complete the cancer abstract, do you have access, specifically, to the insurance type that the patient had at the time of diagnosis?

A. Yes, as long as the patient was initially diagnosed at our facility.

Q. When you complete the cancer abstract, do you have access, specifically, to the insurance type that the patient had at the time of treatment initiation?

A. Yes, as long as the patient was initially treated at our facility.

Q. When you complete the cancer abstract, can you identify patients whose insurance changed between diagnosis and treatment?

A. Only if the patient was initially diagnosed and treated at our facility.

Many CTRs responded that they have questions as to which codes to use, especially when the patient has Medicare and any other insurance.

Conclusions

There is **no 'Gold Standard'** for Primary Payer at Diagnosis

Looking at **overall** distributions of payer type, **the percentages are fairly stable**

- **Overall, approximately 40% Medicare, 40% Private, and 9% Medicaid**

However, using **tumor-level data, there is uncertainty** that can affect results

- Associating treatment or outcome with a particular patient's reported insurance could include up to 20% misclassification (based on tumors with multiple sources)

CTRs abstracting PP have access to payer responsible for the encounter **at their facility only**

We have not provided this data item to researchers, because **we think there is too much ambiguity surrounding it, and we don't have enough confidence in the codes.**

Future Directions/Suggestions

Suggest including caveats for inclusion in NAACCR Volume II Unresolved Issues

Suggest changing the current NAACCR item name so that researchers will not assume that the data item is always Primary Payer at Diagnosis

Explore feasibility of changing the coding to replace collecting consolidated values in a single field (e.g., Medicare plus Private) with providing multiple fields, each for a single value

Explore feasibility of collecting payer(s) at diagnosis and payer(s) at treatment, to avoid ambiguity

Explore feasibility of using electronic encounter data to populate abstracts and/or databases

Analyze future data to see if Obamacare will make a difference for this data item.

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