Systems for Action
National Coordinating Center
Systems and Services Research to Build a Culture of Health

Implementing the New York City Macroscope Electronic Health Record Surveillance System

Research In Progress Webinar

Wednesday, May 3, 2017 12:00-1:00pm ET/ 9:00-10:00am PT

Funded by the Robert Wood Johnson Foundation

College of Public Health
Center for Public Health Systems and Services Research

Agenda

Welcome: **C.B. Mamaril, PhD,** Systems for Action National Program Office, and Research Assistant Professor, University of Kentucky College of Public Health

Implementing the New York City Macroscope Electronic Health Record Surveillance System

Presenters: **Katharine H. (Tina) McVeigh, PhD, MPH,** Division of Family and Child Health *tmcveigh@health.nyc.gov* and **Sharon Perlman, MPH,** Division of Epidemiology, *Sperlma1@health.nyc.gov*, New York City Department of Health and Mental Hygiene

Commentary: **Sungwoo Lim, DrPH, MA, MS,** Bureau of Epidemiology Services *slim1@health.nyc.gov* and
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Questions and Discussion

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IMPLEMENTING THE NEW YORK CITY MACROSCOPE ELECTRONIC HEALTH RECORD SURVEILLANCE SYSTEM

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Sharon E. Perlman, MPH

New York City Department of Health and Mental Hygiene

S4A Research in Progress Webinar Series, May 3, 2017, 12:00-1:00 PM (ET)

Acknowledgments

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CUNY Research Foundation

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- Robert Wood Johnson Foundation
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- Centers for Disease Control and Prevention

Background

INTRODUCING THE NYC MACROSCOPE

Importance of high-quality data for public health

“If we have data, let’s look at data. If all we have are opinions, let’s go with mine.”

- ***Jim Barksdale, former Netscape CEO***

Good data allow for:

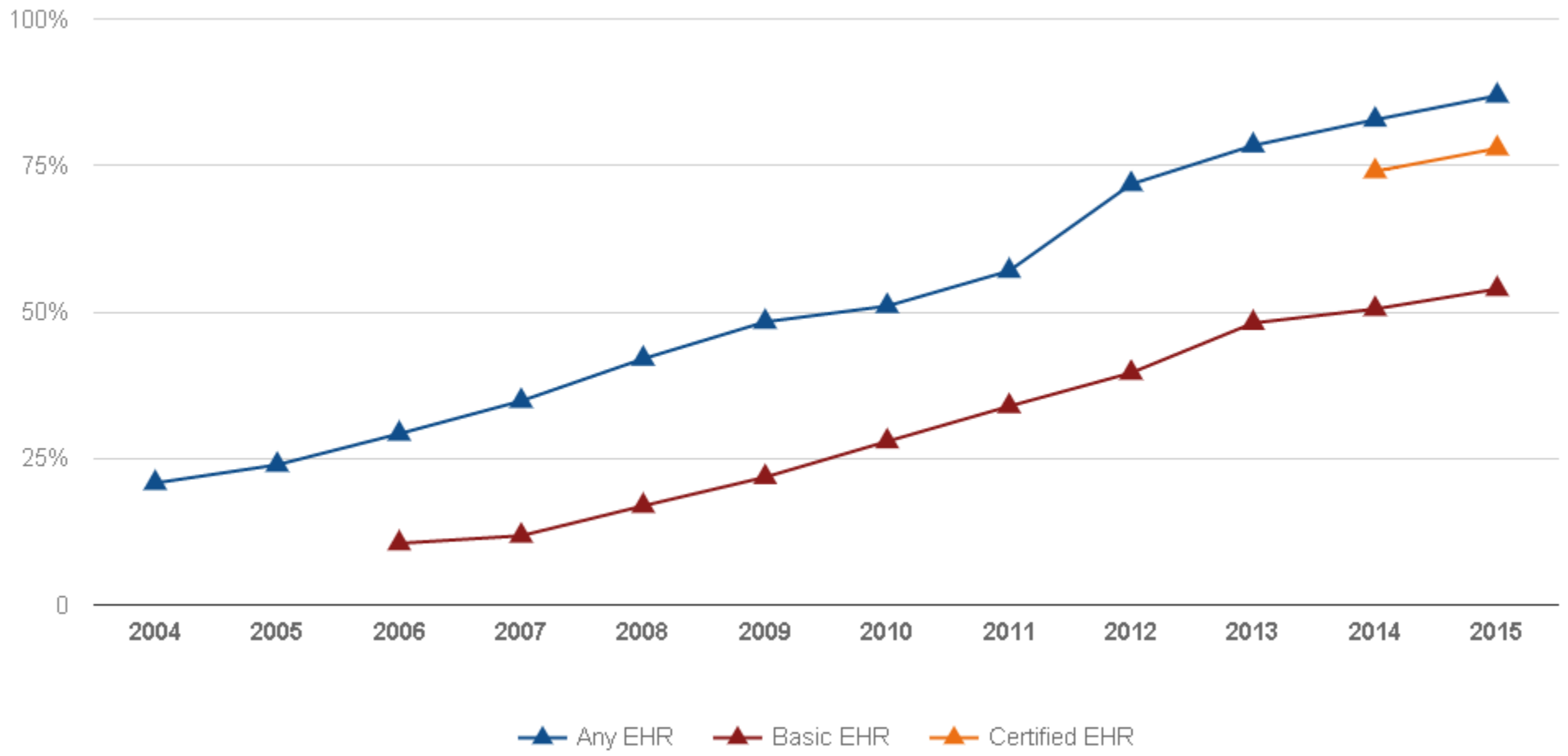
- Better policy and programmatic decisions
- Advocacy
- Evaluation/accountability
- Use resources more efficiently

Background

Traditional surveillance methods include

- Birth and death certificates
- Notifiable disease reporting
- Hospitalization records
- Surveys

Electronic Health Record Use Has Increased in the Past Decade



SOURCE: ONC https://dashboard.healthit.gov/quickstats/pages/physician-ehr-adoption-trends.php

Potential to Use EHRs for Population Health Surveillance

Traditional surveys are very valuable, but becoming more difficult to conduct.

- Telephone survey response rates decreasing
- Examination surveys are extremely expensive, labor intensive, often have lengthy lag times between data collection and dissemination.

EHR-based surveillance can complement existing surveillance systems.

May be only source of information in jurisdictions with limited local data.

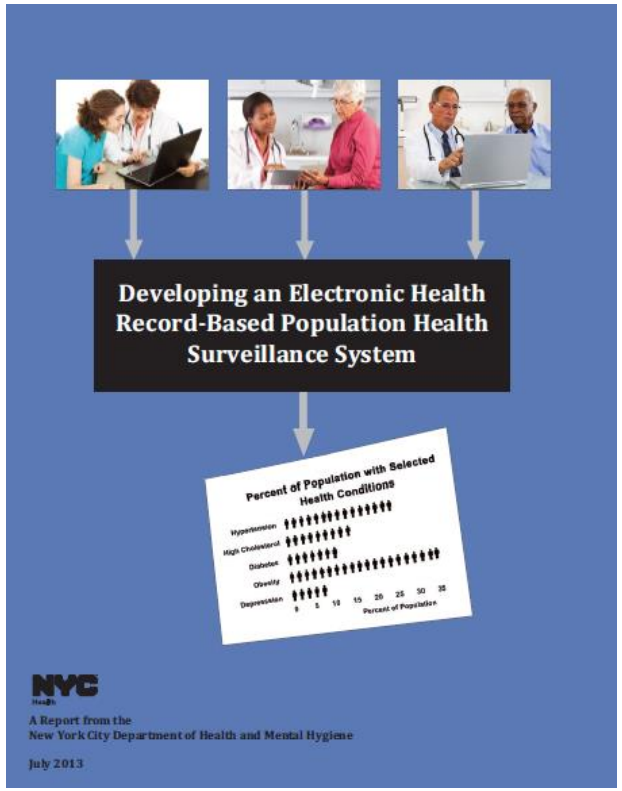
Possible Limitations to EHR-Based Surveillance

- Only those in care
- Patients and providers in an EHR network may not be representative
- If data are aggregated, there may be duplicate records
- Data may not be collected and recorded in uniform way
- Data may be in free text or other field that is difficult to access

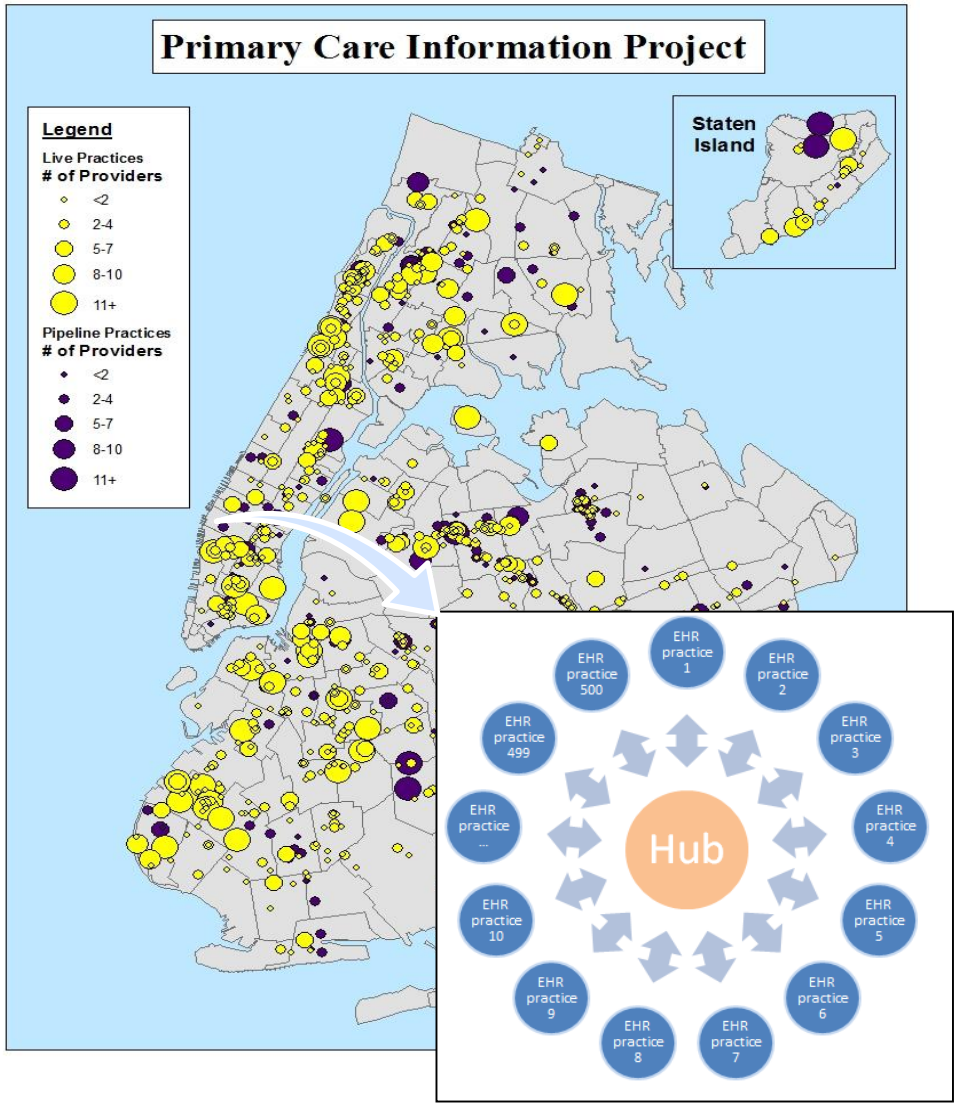
NYC Macroscope: New York City's EHR Surveillance System

The ***NYC Macroscope*** uses primary care practice data from an EHR network to track conditions important to public health, focusing on chronic conditions.

Led by NYC Health Department, in partnership with CUNY SPH (colleagues now at NYU)



NYC's EHR Network: Primary Care Information Project (PCIP)



Bridges public health and healthcare

"The Hub" allows secure exchange of aggregate data with PCIP practices through a distributed model

The Hub currently covers:

- Nearly 700 practices
- 1.9 M patients in 2013

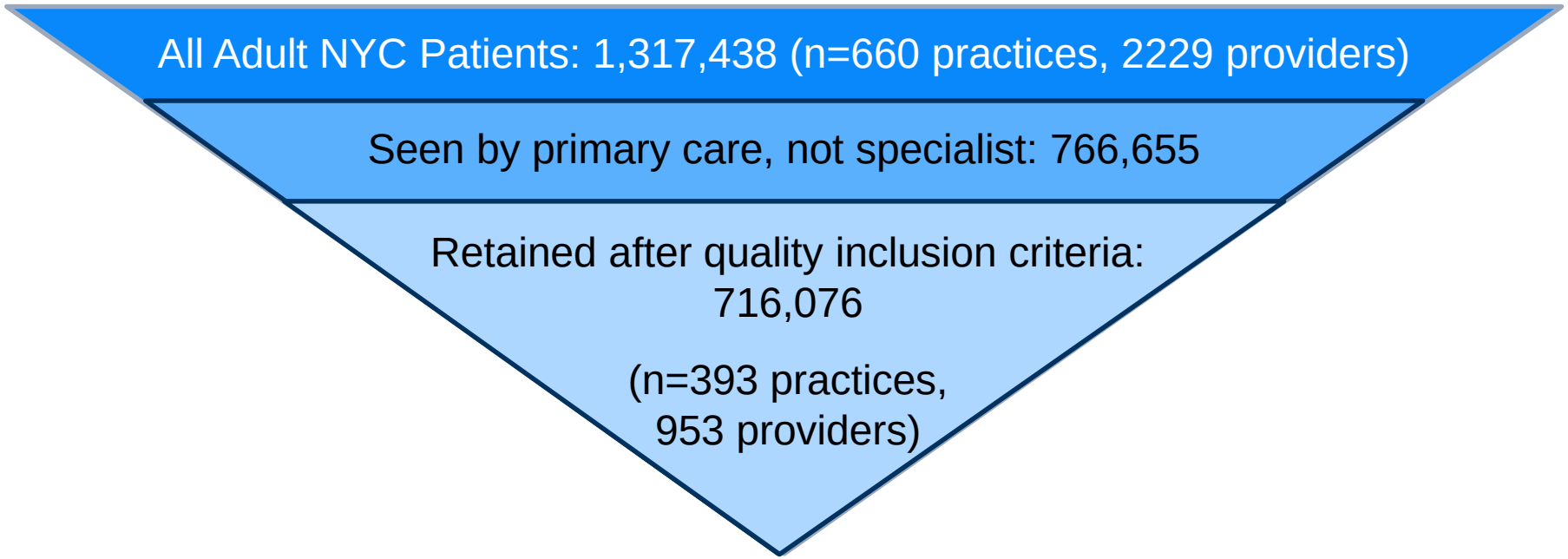
Key Features of NYC Macroscope

- Hub Population Health System
  - eClinicalWorks EHR platform

Inclusion/exclusion criteria

- Practice – Documentation quality thresholds guided by Meaningful Use standards
- Provider – Primary care only
- Patient – Visit in 2013, ages 20-100, sex recorded as male or female, NYC Zip Code

Macroscope Sample Size and Coverage

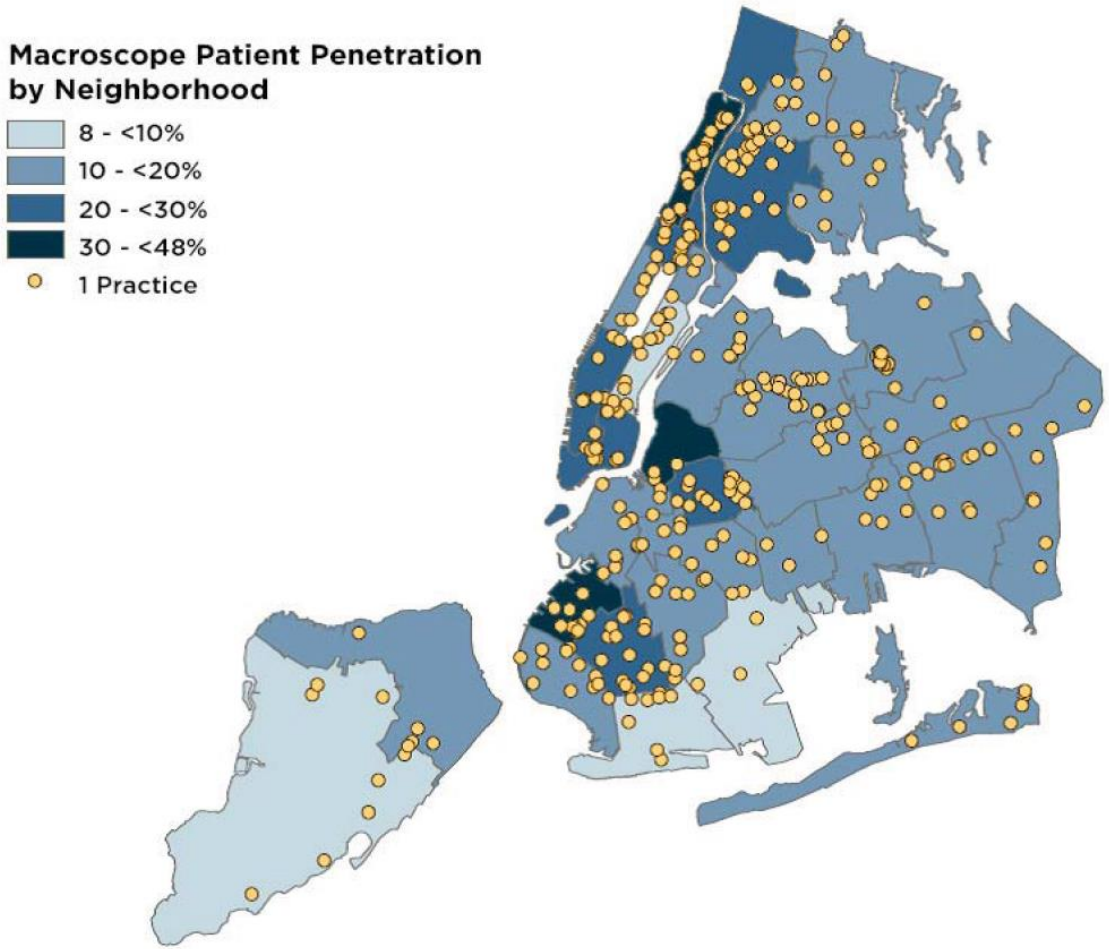


2013 Macroscope primary care coverage: ~17%*

*Denominator is CHS 2013 estimates of 4,137,212 NYC adults (20+) that saw provider in 2013

Coverage and Representativeness of NYC Macroscope Sample

Figure 2. NYC Macroscope Coverage of Adults in Care in NYC, 2013



- Restricted to good documenters*
- Represented 17% of the 4.1 million adult New Yorkers in care in 2013
- Approximately 10% of all primary care providers in NYC
- Population coverage ranged from 8%-47% across neighborhoods
- Lower penetrance in more affluent areas of the city

** Met Meaningful Use Stage 1 criteria for vitals and diagnoses, with each provider prescribing a medication for at least 20% of patients*

Newton-Dame et al, eGEMS 2016

Key Features of NYC Macroscope, continued

Weighted to the distribution of the NYC adult population that had seen a health provider in the past year

Validated against 2 population-based reference surveys

- 2013-14 NYC Health and Nutrition Examination Survey (NYC HANES)
  - N = 1,527; 1,135 in care
- 2013 NYC Community Health Survey (CHS)
  - N = 8,356; 6,166 in care

NYC Macroscope Indicators

Outcomes

Prevalence, Treatment and Control

- Diabetes
- Hypertension
- Cholesterol

Prevalence

- Obesity
- Smoking
- Depression

Use of Preventive Services

- Vaccination against influenza

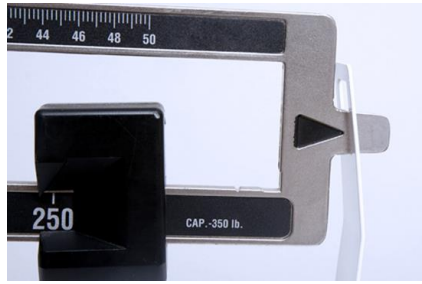
Population Subgroups

Sex

- Male
- Female

Age

- 20-39
- 40-59
- 60-100



NYC Macroscope Indicators Definitions

Indicator	Macroscope 2013 (n=716,076)	NYC HANES 2013-14 (n=1,135 in care)	CHS 2013 (n=6,166 in care)
Obesity (BMI)	Measured height, weight	Measured height, weight	Self-reported height. weight
Smoking (current smoker)	Structured smoking section**	Self-reported	Self-reported
Hypertension, diabetes and cholesterol diagnosis	Ever diagnosed	Self-reported diagnosis	Self-reported diagnosis
Diabetes Augmented	Ever diagnosed** or A1c≥6.5** or Medication prescribed	Self-reported diagnosis or A1c≥6.5	n/a
Hypertension Augmented	Ever diagnosed* or Systolic≥140, diastolic≥90* or Prescribed meds*	Self-reported diagnosis or Systolic≥140, diastolic≥90	n/a
Cholesterol Augmented	Ever diagnosed or Total cholesterol≥ 240** or Medication prescribed	Self-reported diagnosis or Total cholesterol≥ 240	n/a
Depression	PHQ-9≥10 or ever dx	PHQ-9≥10 or ever dx	n/a
Influenza Vaccination	CVX, CPT or ICD-9 code*	Self-report*	Self-report*

* In the past calendar year.
** In the past 2 calendar years.

Validation Study Results

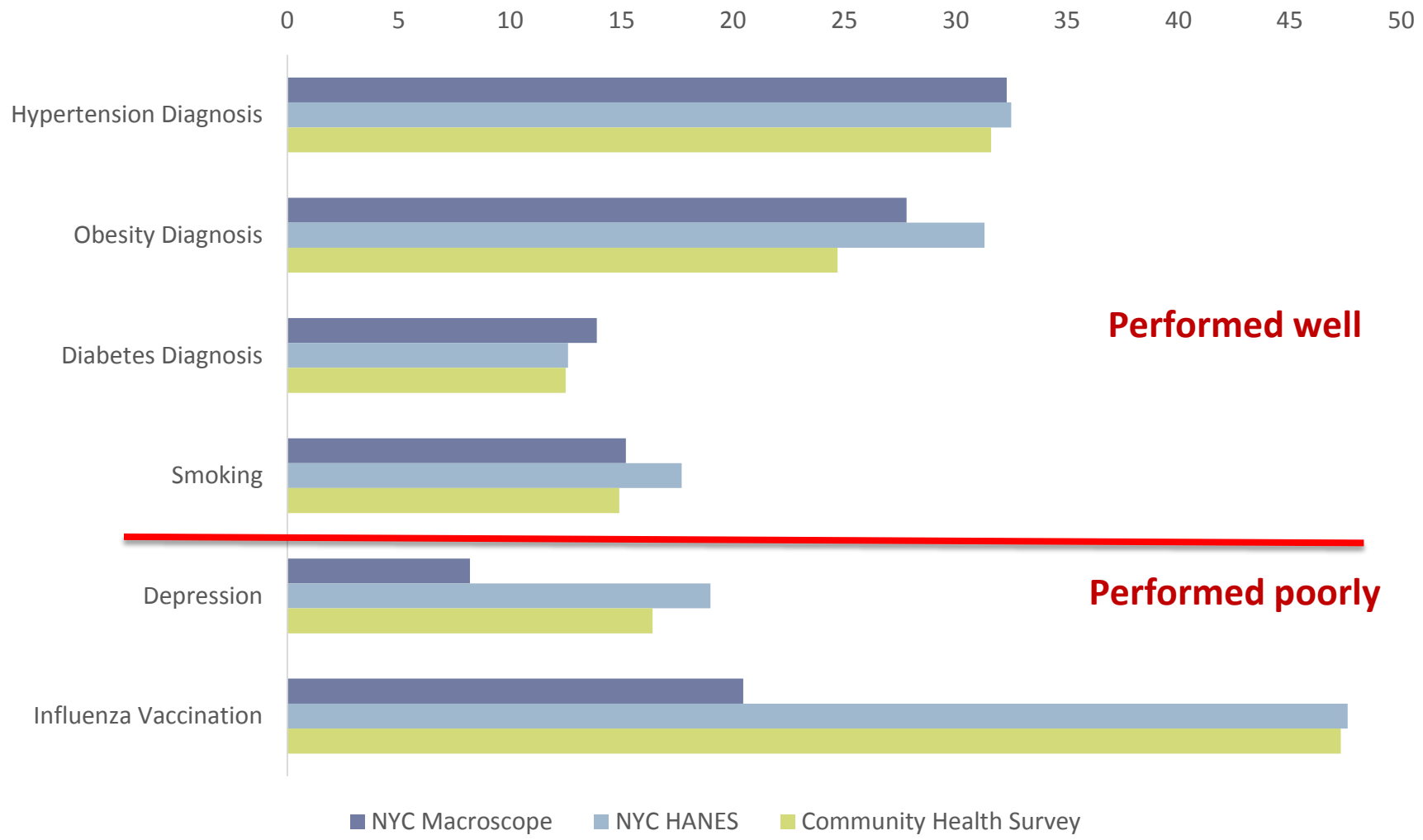
POPULATION-BASED PREVALENCE ESTIMATE COMPARISONS

Validating NYC Macroscope by Comparison with Existing Surveys

Used a priori criteria to determine if estimates were comparable enough to well-established surveys to consider using for population health surveillance.

Test for Comparison	Metric	Criterion
Statistical Equivalence	Two One-Sided Test (TOST)	P <0.05
Statistical Difference	Student's T-Test	P <0.05
Relative Difference	Prevalence Ratio	0.85-1.15
Prevalence Difference	Prevalence 1 – Prevalence 2	+- 5 points
Consistency across 6 strata (age x sex)	Spearman Correlation	>= 0.80

Prevalence of Selected Indicators

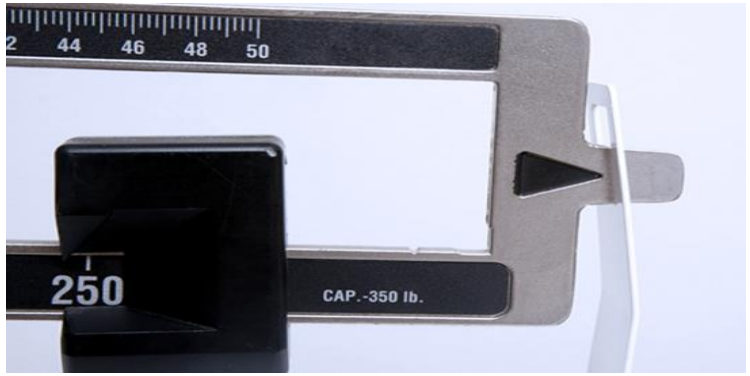


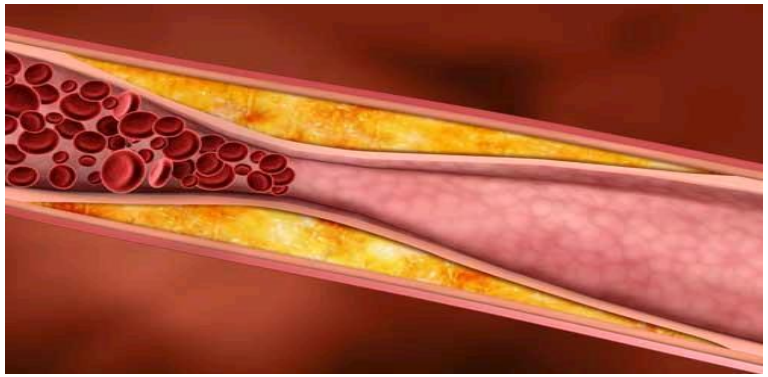
NYC Macroscope 2013, NYC HANES 2013-14 and the 2013 Community Health Survey, New York City Adults in Care in the Past Year

	Indicator						
	Hypertension	**Smoking**	**Diabetes**	**Obesity**	**Hypercholesterolemia**	**Depression**	**Influenza Vaccination**
NYC Macroscope % (95% CI)	32.3 (32.2, 32.4)	15.2 (15.1, 15.3)	13.9 (13.8, 14.0)	27.8 (27.7, 27.9)	49.3 (49.1, 49.5)	8.2 (8.1, 8.2)	20.9 (20.8, 21.0)
NYC HANES % (95% CI)	32.5 (29.4, 35.7)	17.7 (15.1-20.8)	12.6 (10.6, 14.8)	31.3 (28.5-34.2)	46.9 (42.6, 51.3)	15.2 (13.0 – 17.7)	47.6 (44.0-51.3)
Community Health Survey % (95% CI)	31.6 (30.18, 33.0)	14.9 (13.6-16.3)	12.5 (11.5, 13.6)	24.7 (23.2-26.3)	47.9 (45.7, 50.1)	n/a	47.3 (45.5-49.0)
NYC Macroscope vs. NYC HANES							
Absolute Difference < 5	✓ (0.15)	✓ (2.55)	✓ (1.36)	✓ (3.46)	✓ (2.36)	× (10.8)	× (26.71)
Prevalence Ratio of 0.85 - 1.15	✓ (1.00)	✓ (0.86)	✓ (1.11)	✓ (0.89)	✓ (1.05)	× (.43)	× (0.44)
Test of Difference (t-test) p≥0.05	✓ (p=0.93)	✓ (p=0.08)	✓ (p=0.19)	× (p=0.02)	✓ (p=0.29)	× (p<0.01)	× (p<0.001)
Test of Equivalence (TOST) p<0.05	✓ (p<0.01)	✓ (p=0.04)	✓ (p<0.001)	× (p=0.14)	× (p=0.12)	× (p=0.99)	× (p=0.99)
Spearman Correlation r≥0.80	✓ (1.00)	✓ (0.83)	✓ (1.00)	✓ (1.00)	✓ (0.80)	× (0.71)	✓ (1.00)
Recommendation	**Ready for Use**	**Ready for Use**	**Ready for Use**	**Ready for Use**	**Use with caution**	**Not ready for use**	**Not ready for use**

✓=Criterion met ×=Criterion not met

From Perlman et al. American Journal of Public Health. e-View Ahead of Print. doi: 10.2105/AJPH.2017.303813





SENSITIVITY AND SPECIFICITY OF NYC MACROSCOPE INDICATORS

Background

NYC Macroscope prevalence estimates similar to gold standard survey estimates

- obesity
- smoking
- diabetes
- hypertension
- hypercholesterolemia.

But, was the similarity a reflection of

- good measurement properties?
- cross-canceling errors?

Were these results generalizable to other EHR systems?

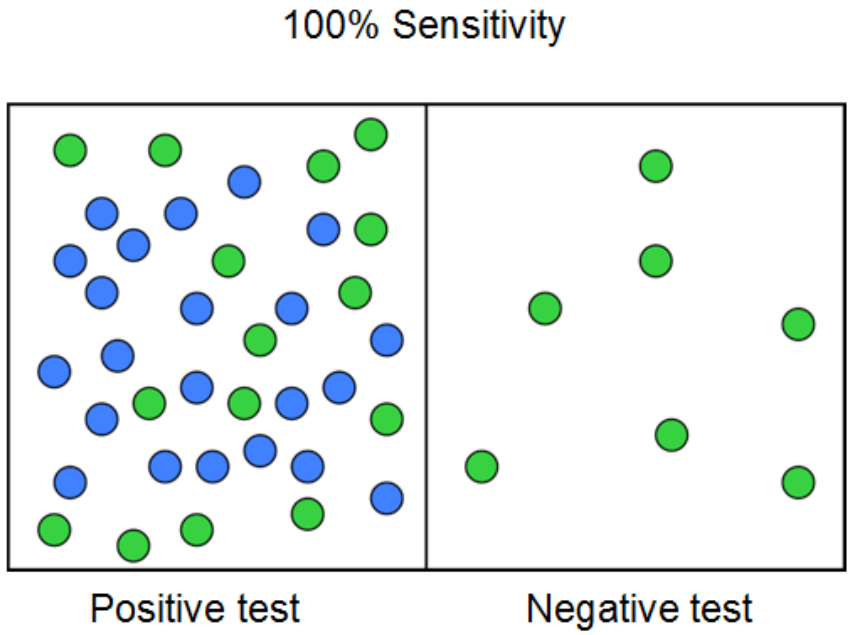
NYC Macroscope Chart Review Study Methods

To answer these questions, we

- Recruited NYC HANES participants who had visited a doctor in the past year (consent/HIPAA)
- Obtained **printed** copies of EHR records and abstracted data
- Classified patient health outcomes by applying NYC Macroscope algorithms
- **For each individual,** linked NYC Macroscope and NYC HANES outcome classifications and assessed whether those classifications were similar or different
- **Across individuals**, computed sensitivity and specificity to summarize the agreement between NYC Macroscope and NYC HANES classifications

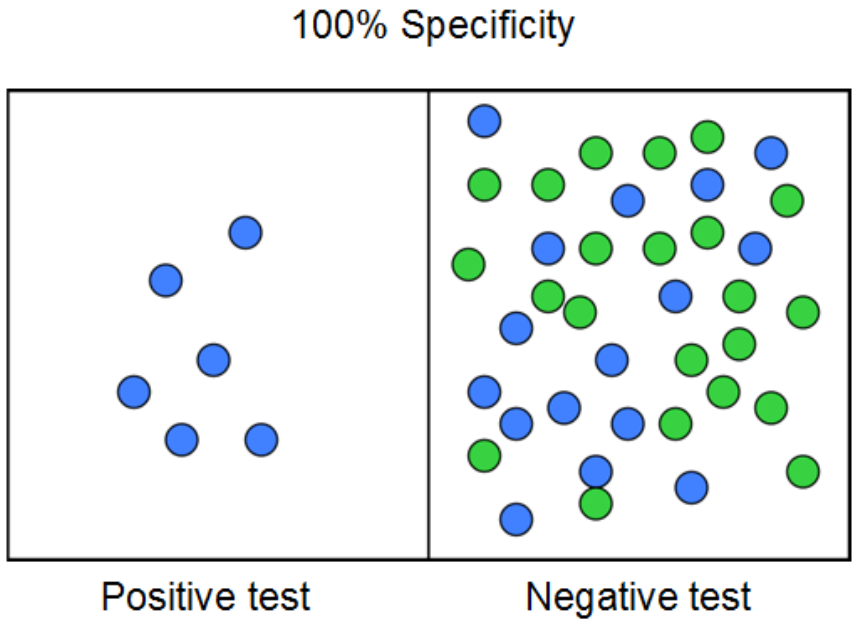
Sensitivity and Specificity

Sensitivity



Blue = has the condition
Green = does not have the condition

Specificity



Blue = has the condition
Green = does not have the condition

Measures

Outcomes limited to those that had performed well in population level analysis

- Smoking,
- Obesity,
- Hypertension (2),
- Diabetes (2)
- Hypercholesterolemia (2)

Statistical Analysis

Sensitivity and specificity of NYC Macroscope indicator definitions

- In data from providers who contribute to the NYC Macroscope
  - To assess NYC Macroscope performance
- In data from practices that do not contribute to the NYC Macroscope
  - To assess generalizability beyond NYC Macroscope

Validity threshold: Sensitivity ≥ 0.70 AND Specificity ≥ 0.80

Sensitivity Analyses

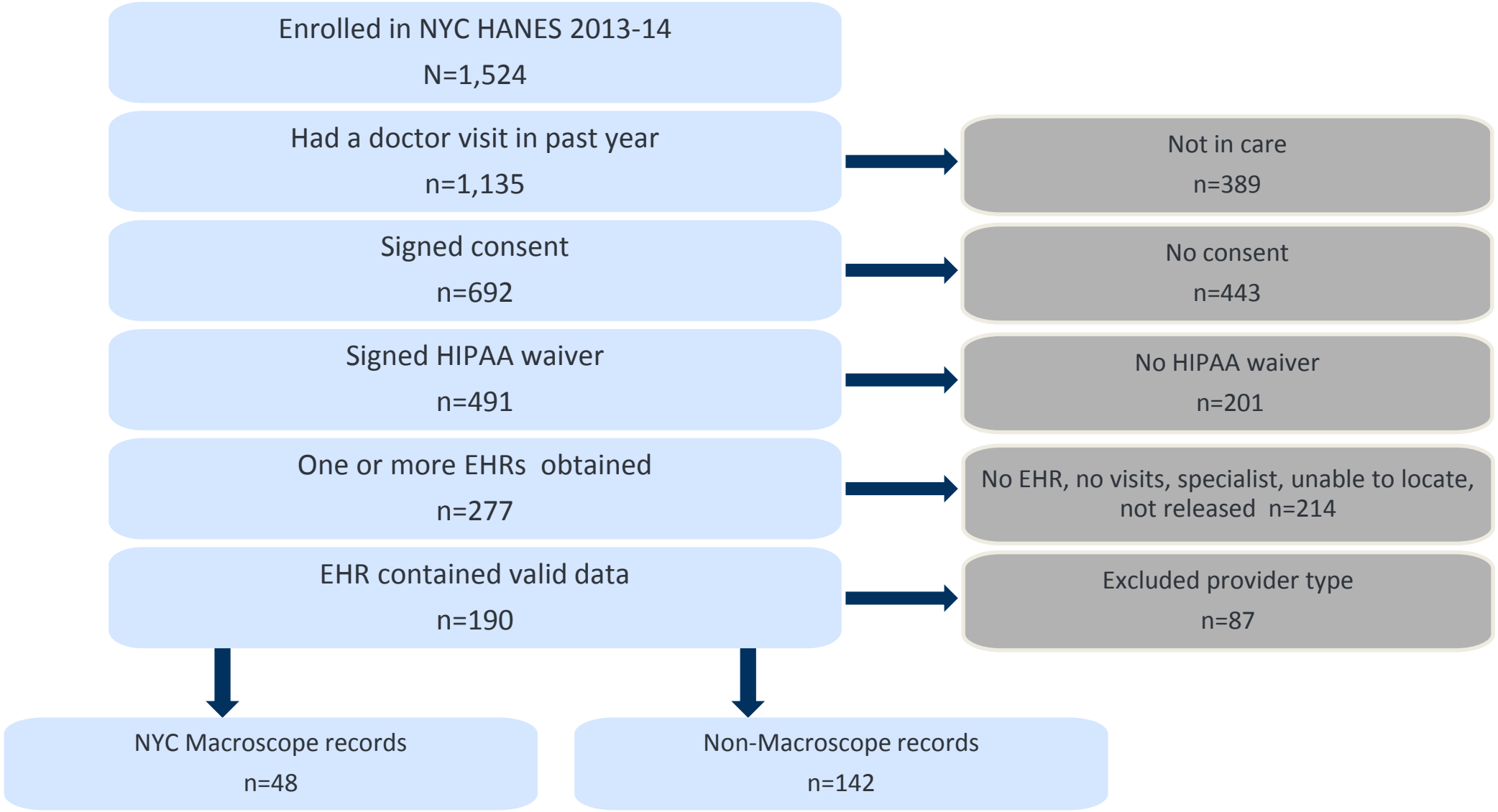
Meaningful Use

- To assess the utility of including documentation quality criteria in system development

Unstructured Data

- To assess the potential benefit of incorporating natural language processing in system design

Participant Inclusion/Exclusion Flow Chart

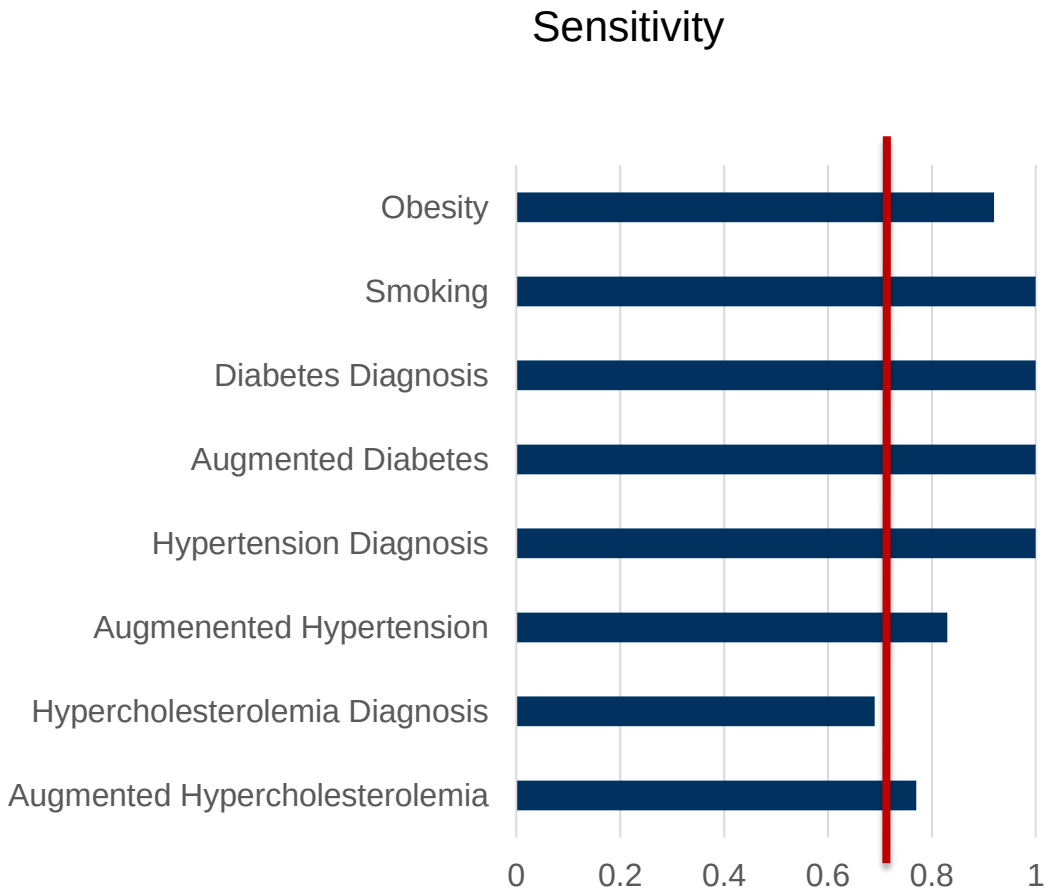


Samples

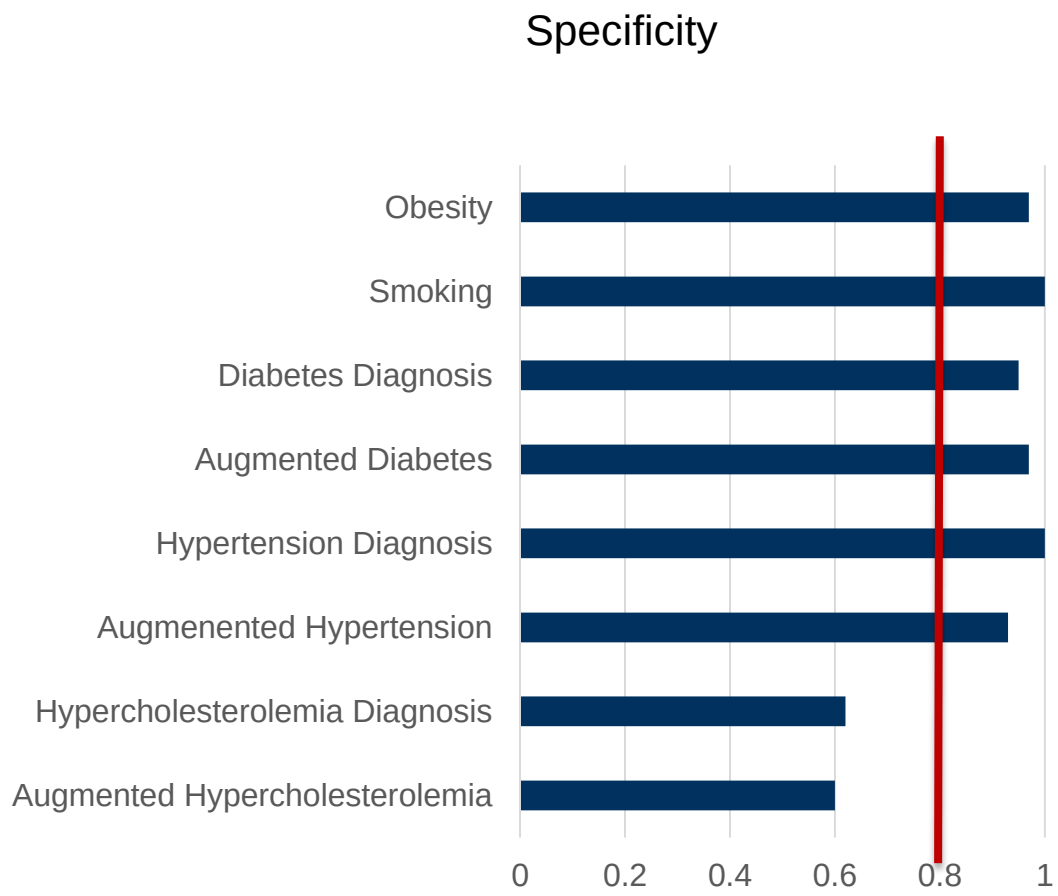
Number	NYC Macroscope	Non-Macroscope Records	
		All Records	MU1 Subsample
Records/Patients	48	142	86
Providers	39	133	79
Practices	34	89	49
EHR Vendor Platforms	1	>20	> 15

No significant differences in patient characteristics across samples

48 NYC Macroscope Records

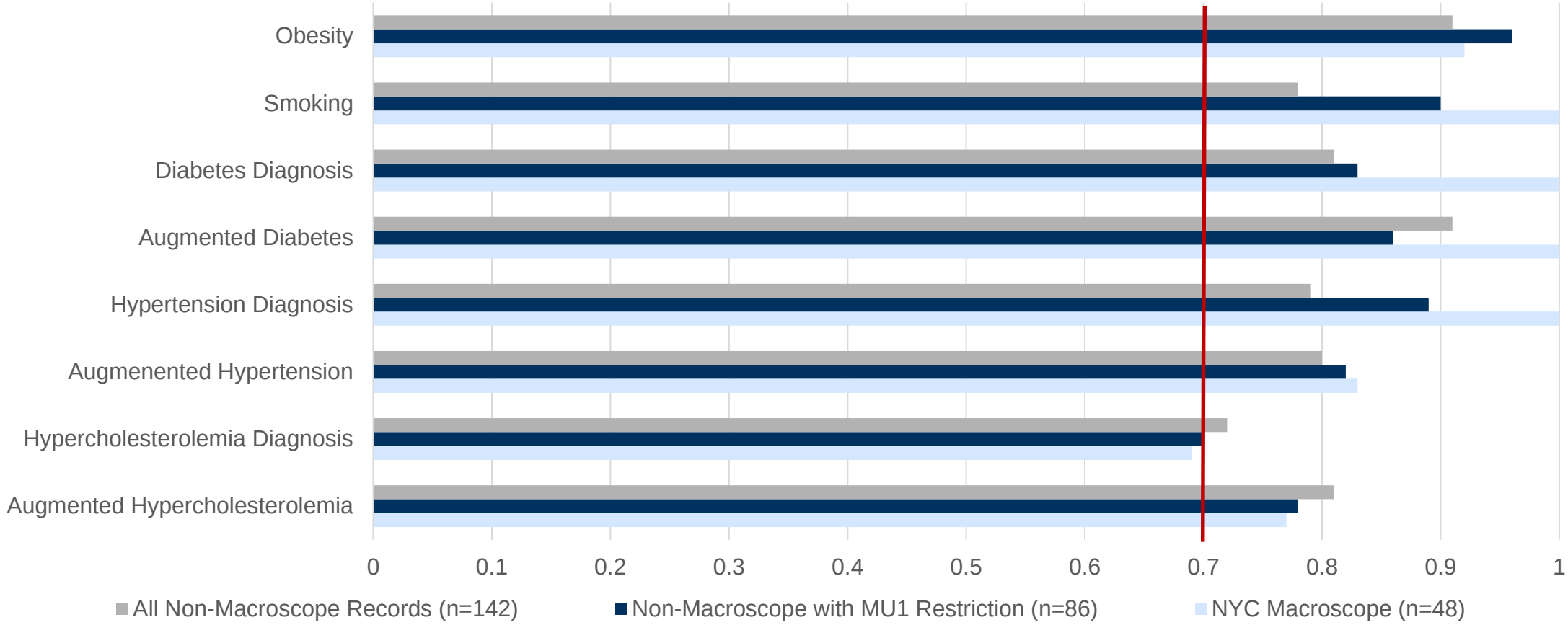


Validity threshold ≥ 0.70



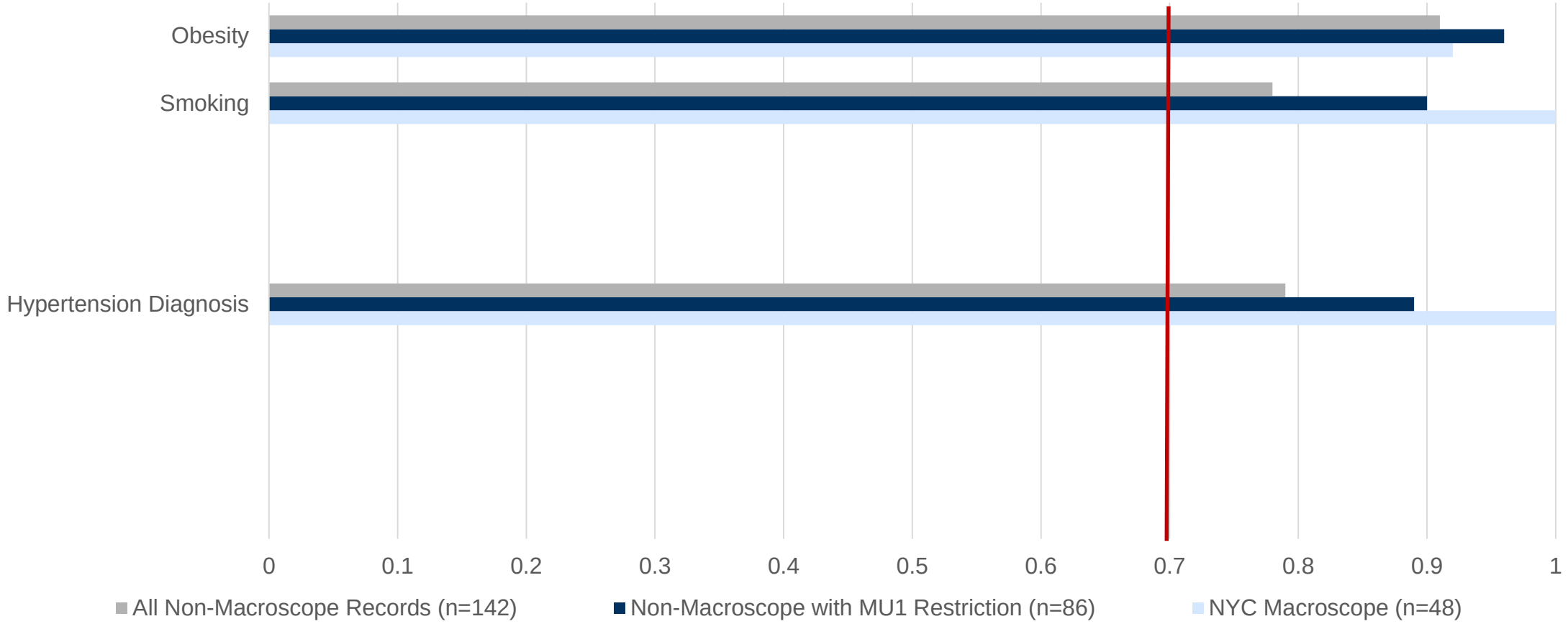
Validity threshold ≥ 0.80

Sensitivity



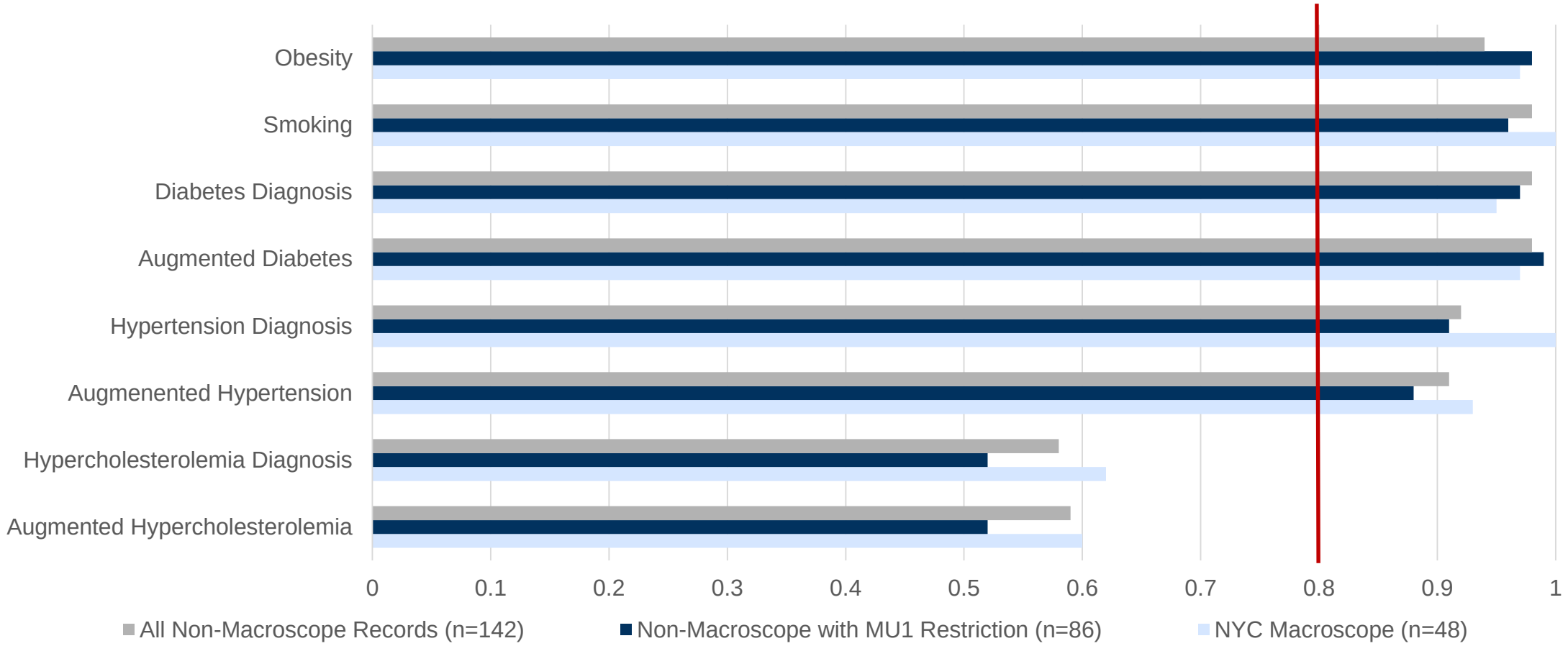
Validity threshold ≥ 0.70

Sensitivity



Validity threshold ≥ 0.70

Specificity



Validity threshold ≥ 0.80

Summary

- Both indicators of hypercholesterolemia performed poorly
- All other measures performed well
- Consistency across NYC Macroscope and Non-Macroscope records
- Restricting records to those from providers who have attested to Meaningful Use improved the sensitivity of obesity, smoking and hypertension diagnosis indicators

Strengths and Limitations

Strengths

- Heterogeneity of providers (N = 172) and EHR vendor platforms (N > 20)
- Innovative sample and gold standard criterion

Limitations

- Small sample size/large confidence intervals

Conclusions

- NYC Macroscope indicators of obesity, smoking, diabetes and hypertension prevalence
  - Are ready for use by NYC Macroscope
  - Are generalizable to EHR data from other sources

- Further work is required to develop valid indicators of hypercholesterolemia

- We recommend incorporating meaningful use criteria into EHR surveillance system design to maximize validity

Next Steps

- Assessment of methods to adjust for bias and missing data
- Development and testing of approaches for small area estimation
- Exploration of application of NYC Macroscope methods to other data sources (RHIO, CDRN)
- Planning and fundraising for a child module

Primary NYC Macroscope Publications

Perlman SE, McVeigh KH, Thorpe LE, Jacobson L, Greene CM, and Gwynn RC. **Innovations in Population Health Surveillance: Using Electronic Health Records for Chronic Disease Surveillance**. American Journal of Public Health. e-View Ahead of Print. doi: 10.2105/AJPH.2017.303813, 2017.

Newton-Dame R, McVeigh KH, Schreibstein L, Perlman S, Lurie-Moroni E, Jacobson L, Greene CM, Snell E, Thorpe LE. **Design of the New York City Macroscope: Innovations in Population Health Surveillance Using Electronic Health Records**. eGEMS (Generating Evidence & Methods to improve patient outcomes): Vol. 4: Iss.1, Article 26, 2016.

McVeigh KH, Newton-Dame R, Chan PY, Thorpe LE, Schreibstein L, Chernov C, Perlman SE. **Can Electronic Health Records Be Used for Population Health Surveillance? Validating Population Health Metrics Against Established Survey Da**ta. eGEMS (Generating Evidence & Methods to improve patient outcomes): Vol. 4: Iss.1, Article 27, 2016.

Thorpe LE, McVeigh KH, Perlman S, Chan PY, Bartley K, Schreibstein L, Rodriguez-Lopez J, Newton-Dame R. **Monitoring Prevalence, Treatment and Control of Metabolic Conditions in NYC Adults Using 2013 Primary Care Electronic Health Records: A Surveillance Validation Study**. eGEMS (Generating Evidence & Methods to improve patient outcomes): Vol 4: Iss. 1, Article 28, 2016.

Other NYC Macroscope Publications

Romo ML, Chan PY, Lurie E, Perlman SE, Newton-Dame R, Thorpe LE, McVeigh KH. **Characterizing Adults Receiving Primary Medical Care in New York City: Implications for Using Electronic Health Records for Chronic Disease Surveillance**. Prev Chronic Dis. 2016;13:E56.

Anticipated Release – May 2017

Tatem KS, Romo ML, McVeigh KH, Chan PY, Lurie-Moroni E, Thorpe LE, Perlman SE. **Comparing Prevalence Estimates in Population-Based Surveys to Inform Chronic Disease Surveillance Using Electronic Health Records, 2013**. Prev Chronic Dis 2017;14:160516.

Under Review

McVeigh KH, Lurie-Moroni E, Chan P, Schreibstein L, Tatem K, Romo ML, Thorpe LE, Perlman SE. **Generalizability of Indicators from the New York City Macroscope Electronic Health Record Surveillance System.**

NYC Macroscope Factsheets

NYC MACROSCOPE
ELECTRONIC HEALTH RECORD SURVEILLANCE INDICATOR FACT SHEET

Obesity

INDICATOR DEFINITION
2013 NYC Macroscope

Numerator: Patients with a body mass Index (BMI) ≥30, based on most recent documented height and weight in the designated electronic health record (EHR) structured field during 2013

Denominator: Patients with height and weight documented in 2013

2013-14 NYC Health and Nutrition Examination Survey (HANES)

BMI ≥30 (based on measured height and weight) *and* reported seeing a doctor or other healthcare professional in the last 12 months for primary care

2013 Community Health Survey (CHS)

BMI ≥30 (based on self-reported height and weight) *and* reported seeing a doctor or other healthcare professional in the last 12 months for primary care

SUMMARY

The NYC Macroscope estimate of obesity prevalence was statistically equivalent to the estimate from CHS, but not to the estimate from NYC HANES. There was high sensitivity and high specificity of this indicator when comparing NYC HANES participants' EHRs with their survey responses.

RECOMMENDATION FOR USE

Recommended

Prevalence and comparisons by data source

Prevalence estimates of obesity were 27.9% in the NYC Macroscope, 31.3% in NYC HANES, and 24.7% in CHS. The prevalence estimate from the NYC Macroscope was statistically equivalent to the estimate from CHS (p=0.01), but not to the estimate from NYC HANES (p=0.14). The obesity indicator met three out of five a priori criteria for acceptable fit when comparing the NYC Macroscope with NYC HANES and met four out of five crtieria when comparing the NYC Macroscope with CHS.

Prevalence of obesity in NYC Macroscope, NYC HANES, and CHS

	2013 NYC Macroscope	2013-14 NYC HANES	2013 CHS
Total sample size	N=648,816	N=1,106	N=6,069
Prevalence, % (95% CI)	27.9% (27.7%, 27.9%)	31.3% (28.5%, 34.5%)	24.7% (23.2%, 26.3%)
NYC Macroscope providers reporting data, n (%)	384 (98%)		
Patients with data reported as missing, n (%)	55,162 (8%)		

Table adapted from McVeigh KH, Newton-Dame R, Chan PY, et al. Can electronic health records be used for population health surveillance? Validating population health metrics against established survey data. EGEMS. 2016;4(1):27. DOI: http://dx.doi.org/10.13063/2327-9214.1267

CI, confidence interval.

Prevalence comparison statistics for obesity in NYC Macroscope vs. NYC HANES and CHS

Prevalence comparison statistics (a priori criterion for acceptable fit)	2013 NYC Macroscope* vs. 2013-14 NYC HANES: Value (meets criterion?)	2013 NYC Macroscope† vs. 2013 CHS: Value (meets criterion?)
Absolute difference (<5%)	3.5% (Yes)	3.2% (Yes)
Prevalence ratio (0.85–1.15)	0.89 (Yes)	1.13 (Yes)
Two-tailed t-test (p-value ≥0.05)	p=0.02 (No)	p<0.01 (No)
Two one-sided t-tests (p-value <0.05)	p=0.14 (No)	p=0.01 (Yes)
Spearman's rank correlation of age- and sex-stratified estimates (r ≥0.80)	r=1.00 (Yes)	r=0.83 (Yes)

Table adapted from McVeigh KH, Newton-Dame R, Chan PY, et al. Can electronic health records be used for population health surveillance? Validating population health metrics against established survey data. EGEMS. 2016;4(1):27. DOI: http://dx.doi.org/10.13063/2327-9214.1267

*NYC Macroscope estimates were weighted to NYC HANES in-care population.
†NYC Macroscope estimates were weighted to CHS in-care population.

Prevalence by data source, sex, and age group

Among men 60 years of age and older, the NYC Macroscope estimate of obesity prevalence was significantly lower compared with the NYC HANES estimate (24.8% vs. 35.3%; p=0.04).

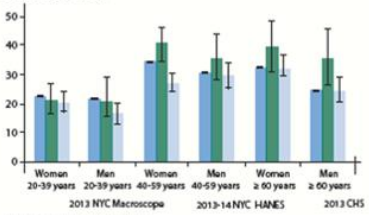
(Continued on next page)

NYC MACROSCOPE
ELECTRONIC HEALTH RECORD SURVEILLANCE INDICATOR FACT SHEET

Obesity

When comparing NYC Macroscope and CHS estimates, the prevalence of obesity was significantly higher in the NYC Macroscope among men 20 to 39 years of age (22.1% vs. 16.6%; p<0.01) and among women 40 to 59 years of age (34.6% vs. 27.4%; p<0.01). No other comparisons of stratified estimates were significantly different.

Obesity prevalence in NYC Macroscope, NYC HANES, and CHS by sex and age group



Error bars represent 95% confidence intervals.

Indicator validity

In the sample of NYC Macroscope practice EHRs (N=44), there was near perfect agreement, high sensitivity, and high specificity. In the sample of non-NYC Macroscope practice EHRs (N=115), there was near perfect agreement, high sensitivity, and high specificity. When restricting this group to a subsample of practices that attested to Stage 1 Meaningful Use (N=72), there was near perfect agreement, high sensitivity, and high specificity.

Validity of obesity indicator in a sample of EHRs from NYC HANES participants

	NYC Macroscope practice EHRs	Non-NYC Macroscope practice EHRs	
		All	Stage 1 Meaningful Use†
	N=44	N=115	N=72
Kappa coefficient	0.89	0.85	0.94
Sensitivity (95% CI)	0.92 (0.64, 1.00)	0.91 (0.78, 0.97)	0.96 (0.80, 1.00)
Specificity (95% CI)	0.97 (0.83, 1.00)	0.94 (0.86, 0.98)	0.98 (0.88, 1.00)
Positive predictive value	0.92	0.91	0.96
Negative predictive value	0.97	0.94	0.98
Percent of records missing documentation in structured field	8%	20%	16%

Table adapted from McVeigh KH, Lurie-Moroni E, Chan PY, et al. Generalizability of indicators from the New York City Macroscope Electronic Health Record Surveillance System. [Unpublished manuscript].

CI, confidence interval; EHRs, electronic health records.
†Restricted to EHRs from providers or practices attesting to Stage 1 Meaningful Use as of December 31, 2013.

ACKNOWLEDGEMENTS

The NYC Macroscope is part of a larger project, Innovations in Monitoring Population Health, conducted by the NYC Department of Health and Mental Hygiene and the CUNY School of Public Health in partnership with the Fund for Public Health in New York and the Research Foundation of the City University of New York. Support for the larger project was primarily provided by the de Beaumont Foundation with additional support from the Robert Wood Johnson Foundation, including its National Coordinating Center for Public Health Services and Systems Research, the Robin Hood Foundation, the New York State Health Foundation, the Doris Duke Charitable Foundation, and the National Center for Environmental Health, US Centers for Disease Control and Prevention (U28EH000939).

SUGGESTED CITATION

NYC Macroscope team. NYC Macroscope electronic health record surveillance fact sheet: Obesity. New York City Department of Health and Mental Hygiene; 2016.

NYC MACROSCOPE TEAM

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For more information about this project, please visit

http://www1.nyc.gov/site/doh/data/health-tools/nycmacroscope.page

or email us at nycmacroscope@health.nyc.gov.

Thankyou!

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For more information, please visit our website

https://www1.nyc.gov/site/doh/data/health-tools/nycmacroscope.page

Project Updates

go to: http://www.publichealthsystems.org/implementation-and-diffusion-new-york-city-macroscope-electronic-health-record-surveillance-system

Implementation and Diffusion of the New York City Macroscope Electronic Health Record Surveillance System

Overview

Year: 2015
Funding: PHSSR PHS4 Award
Status: Completed

This study sought to accelerate the diffusion of standardized Electronic Health Record (EHR) - based surveillance capabilities so that useful, timely and geographically pertinent EHR data can be used to: 1) monitor trends in health outcomes over time; 2) facilitate heightened engagement and performance by health and public health system stakeholders; and 3) inform decisions regarding different population-based policies and interventions to improve health outcomes. Led by the NYC Department of Health and Mental Hygiene in partnership with the City University of New York School of Public Health and the New York University School of Medicine, this study was nested in larger studies of EHR population health measures included in the NYC Macroscope. Indicators were evaluated for: prevalence, treatment and control of hypertension, high cholesterol and diabetes; prevalence of obesity, smoking and depression; and receipt of influenza vaccination. Reliability was assessed by comparing EHR data with abstracts of 190 chart reviews; EHR health status classifications were compared to classifications based on data collected for the NYC HANES 2013 and were used to assess validity. Dissemination products include 10 indicator fact sheets designed for practitioners working to build health status monitoring systems based on EHR derived data.

Publications

- Design of the New York City Macroscope: Innovations in Population Health Surveillance Using Electronic Health Records, (*eGEMs* December 2016)
- Can Electronic Health Records Be Used for Population Health Surveillance? Validating Population Health Metrics Against Established Survey Data (*eGEMs*, December 2016)
- Monitoring Prevalence, Treatment, and Control Of Metabolic Conditions In New York City Adults Using 2013 Primary Care Electronic Health Records: A Surveillance Validation Study (*eGEMs*, December 2016)
- Characterizing Adults Receiving Primary Medical Care in New York City: Implications for Using Electronic Health Records for Chronic Disease Surveillance (*Preventing Chronic Disease*, April 2016)
- Innovations in Population Health Surveillance: Using Electronic Health Records for Chronic Disease Surveillance (Commentary, *American Journal of Public Health*, published ahead of print, April 20, 2017)

Commentary

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Questions and Discussion

Webinar Archives

http://systemsforaction.org/research-progress-webinars

Upcoming Webinars

Thursday, May 11, 1-2pm ET/ 10-11am PT

Cross-Jurisdictional Resource Sharing and the Scope and Quality of Public Health Services

Justeen Hyde, PhD, Investigator, VA Center for Healthcare Organization & Implementation Research
Debbie Humphries, PhD, MPH, Clinical Instructor in Epidemiology, Yale School of Public Health
-- a Public Health PBRN DIRECTIVE Project

Wednesday, June 14, 1-2pm ET/ 10-11am PT

Cross-Jurisdictional Sharing Arrangements Between Tribes and Counties for Emergency Readiness

Maureen Wimsatt, PhD, MSW, California Tribal Epidemiology Center, California Rural Indian Health Board

Wednesday, June 21, 12-1pm ET/ 9-10am PT

Accountable Community of Health Structures and Cross-Sector Coordination

Eli Kern, MPH, Public Health - Seattle and King County

Acknowledgements

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Based at the University of Kentucky in Lexington, it is a collaboration of the:

- Center for Public Health Systems and Services Research in the College of Public Health, and
- Center for Poverty Research in the Gatton College of Business and Economics

College of Public Health
Center for Public Health Systems and Services Research

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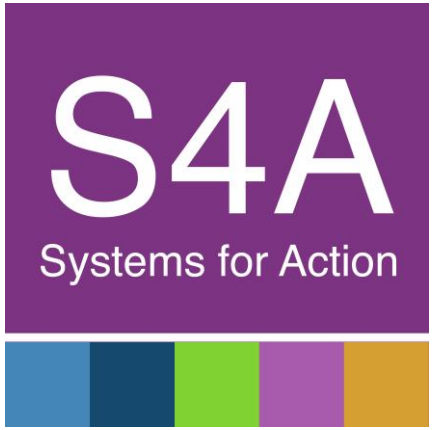
UNIVERSITY OF KENTUCKY
CENTER FOR **POVERTY RESEARCH**

Thank you for participating in today's webinar!



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For more information about the webinars, contact:

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Speaker Bios

Tina McVeigh is the Director of Research for the Division of Family and Child Health at the New York City Department of Health and Mental Hygiene and the principal investigator of the NYC Macroscope chart review study. Dr. McVeigh has a Master's degree in Public Health and a Doctorate in measurement, evaluation and statistics, both from Columbia University, and has worked on research and surveillance projects in the domains of maternal, infant and reproductive health, HIV/AIDS, substance abuse, mental health, early childhood development and educational outcomes, and the use of electronic health records for population health surveillance.

Sharon Perlman is Director of Special Projects for the Division of Epidemiology at the New York City Department of Health and Mental Hygiene. She is co-principal investigator of the NYC Health and Nutrition Examination Survey (NYC HANES) and a founder of the NYC Macroscope. Ms. Perlman has a master's degree in public health from Columbia University. Her research has focused on chronic disease, mental health, health impact and disease modeling, and the interaction between public health and primary care.

Sungwoo Lim is the Director of Research, Evaluation and Methodology for the Bureau of Epidemiology Services at the New York City Department of Health and Mental Hygiene. He and his team provide analytic support to DOHMH evaluation projects, and lead an effort to develop and implement innovative methods to improve validity of survey and administrative data via modeling and data matching. Dr. Lim has been using NYC Macroscope chart review study data for a variety of new projects involving EHR estimate calibration, imputation of missing EHR data, and the creation and validation of small area estimates from EHR data.

Jenny Smolen is a Research and Evaluation Data Analyst for the Primary Care Information Project at the New York City Department of Health and Mental Hygiene. Jenny oversees the use of clinical EHR data queried through the Hub Population Health System to support and evaluate internal programs. Jenny serves as the liaison for collaborations that use Hub data, such as the NYC Macroscope, and applies lessons learned from the Macroscope to Hub data analysis processes.