Harry Reyes Nieva, MAS

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Research Overview

My primary research area involves leveraging machine learning (ML) and natural language processing (NLP) to improve the quality, safety, and equity of health care and support knowledge discovery in medicine. Generally, my research interests concern developing and applying novel ML and NLP methods to examine and support clinical cognition and decision making; assess disease risk, presence, progression, and treatment; identify disease subtypes and biomarkers associated with important outcomes; and study the fairness, accountability, and transparency of intelligent systems in the health care setting. I am especially passionate about using and expanding the vast toolbox that statistical and computational learning offers to better understand and improve the health of underserved communities.

Education

Columbia University in the City of New York, New York, NY
Doctor of Philosophy in Biomedical Informatics, Expected May 2024
Advisor: Noémie Elhadad, PhD

Beijing Language and Culture University, Beijing, China
Summer Student, Intensive Mandarin, 2019

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Master of Applied Science in Spatial Analysis, 2019
Thesis: Spatiotemporal modeling of opioid prescribing and persistent opioid use, 2000-2018
Advisor: Frank C. Curriero, PhD

Harvard T.H. Chan School of Public Health, Boston, MA
Special Student, International and Population Health, 2009-2011

Yale University, New Haven, CT
Bachelor of Arts in Sociology and History, 2005

Publications

Peer reviewed publications in print or other media

1. **Reyes Nieva H**, Ruan E, Schiff G. Professional-Patient Boundaries: a National Survey of Primary Care Physicians' Attitudes and Practices. *J Gen Intern Med.* 2020;35(2):457–464. PMID:31755012.

2. Yeh GY, Litrownik D, Wayne PM, Beach D, Klings ES, **Reyes Nieva H**, Pinheiro A, Davis RB, Moy ML. The BEAM Study (Breathing, Education, Awareness, Movement): a Randomized Controlled Feasibility Trial of Tai Chi Exercise in Patients with COPD. *BMJ Open Respiratory Research.* 2020; 7(e000697):1-12. PMID:33219007.

3. Linder JA, Weissman JS, **Reyes Nieva H**, Lipsitz S, Haring RS, DeAngelis J, Kristy RM, Loughlin KR. Overactive bladder in an integrated delivery system: a longitudinal cohort study. *BMC Health Serv Res.* 2020 May 20;20(1):447. `PMID:32434511`.

4. Ali NB, **Reyes Nieva H**, Percac-Lima S, Shields HM, Linder JA, Yusuf Osman N. Health Care Utilization by Muslim Patients During Ramadan. *J Health Care Poor Underserved.* 2019;30(4):1360-1372. `PMID:31680102`.

5. Mixon AS, Smith GR, Mallouk M, **Reyes Nieva H**, Kripalani S, Rennke S, Chu E, Sridharan A, Dalal A, Mueller S, Williams M, Wetterneck T, Stein JM, Stolldorf D, Howell E, Orav J, Labonville S, Levin B, Yoon C, Gresham M, Goldstein J, Platt S, Nyenpan C, Schnipper JL. Design of MARQUIS2: study protocol for a mentored implementation study of an evidence-based toolkit to improve patient safety through medication reconciliation. *BMC Health Serv Res.* 2019 Sep 11; 19(1):659. `PMID:31511070`.

6. Schiff GD, **Reyes Nieva H**, Griswold P, Leydon N, Ling J, Federico F, Keohane C, Ellis BR, Foskett C, Orav EJ, Yoon C, Goldmann D, Weissman JS, Bates DW, Biondolillo M, Singer SJ. Randomized Trial of Reducing Ambulatory Malpractice and Safety Risk: Results of the Massachusetts PROMISES Project. *Med Care.* 2017 08; 55(8):797-805. `PMID:28650922`.

7. Schiff GD, **Reyes Nieva H**, Griswold P, Leydon N, Ling J, Biondolillo M, Singer SJ. Addressing Ambulatory Safety and Malpractice: The Massachusetts PROMISES Project. *Health Serv Res.* 2016 12; 51 Suppl 3:2634-2641. `PMID:27892623`.

8. Kroll DS, **Reyes Nieva H**, Barsky AJ, Linder JA. Benzodiazepines are Prescribed More Frequently to Patients Already at Risk for Benzodiazepine-Related Adverse Events in Primary Care. *J Gen Intern Med.* 2016 09; 31(9):1027-34. `PMID:27177914`.

9. Bell SP, Schnipper JL, Goggins K, Bian A, Shintani A, Roumie CL, Dalal AK, Jacobson TA, Rask KJ, Vaccarino V, Gandhi TK, Labonville SA, Johnson D, Neal EB, Kripalani, PILL-CVD Study Group*. Effect of Pharmacist Counseling Intervention on Health Care Utilization Following Hospital Discharge: A Randomized Control Trial. *J Gen Intern Med.* 2016 May; 31(5):470-7. (*member of the investigative team cited in the appendix of the manuscript) `PMID:26883526`.

10. Solomon SR, Gooding HC, **Reyes Nieva H**, Linder JA. Acute Care Utilization by Patients After Graduation of Their Resident Primary Care Physicians. *J Gen Intern Med.* 2015 Nov; 30(11):1611-7. `PMID:25896089`.

11. Singer SJ, **Reyes Nieva H**, Brede N, Ling J, Leydon N, Weissman JS, Goldmann D, Griswold P, Yoon C, Orav EJ, Bates DW, Biondolillo M, Schiff GD. Evaluating ambulatory practice safety: the PROMISES project administrators and practice staff surveys. *Med Care.* 2015 Feb; 53(2):141-52. `PMID:25464161`.

12. Linder JA, Doctor JN, Friedberg MW, **Reyes Nieva H**, Birks C, Meeker D, Fox CR. Time of day and the decision to prescribe antibiotics. *JAMA Intern Med.* 2014 Dec; 174(12):2029-31. `PMID:25286067`.

13. Chaplin B, Meloni S, Eisen G, Jolayemi T, Banigbe B, Adeola J, Wen C, **Reyes Nieva H**, Chang C, Okonkwo P, Kanki P. Scale-up of networked HIV treatment in Nigeria: creation of an integrated electronic medical records system. *Int J Med Inform.* 2015 Jan; 84(1):58-68. `PMID:25301692`.

14. Schiff G, Griswold P, Ellis BR, Puopolo AL, Brede N, **Reyes Nieva H**, Federico F, Leydon N, Ling J, Wachenheim D, Leape LL, Biondolillo M. Doing right by our patients when things go wrong in the ambulatory setting. *Jt Comm J Qual Patient Saf.* 2014 Feb; 40(2):91-6. `PMID:24716332`.

15. Kripalani S, Roumie CL, Dalal AK, Cawthon C, Businger A, Eden SK, Shintani A, Sponsler KC, Harris LJ, Theobald C, Huang RL, Scheurer D, Hunt S, Jacobson TA, Rask KJ, Vaccarino V, Gandhi TK, Bates

DW, Williams MV, Schnipper JL, PILL-CVD Study Group*. Effect of a pharmacist intervention on clinically important medication errors after hospital discharge: a randomized trial. *Ann Intern Med.* 2012 Jul 03; 157(1):1-10. (*member of the investigative team cited in the appendix of the manuscript) `PMID:22751755`.

16. Schnipper JL, Roumie CL, Cawthon C, Businger A, Dalal AK, Mugalla I, Eden S, Jacobson TA, Rask KJ, Vaccarino V, Gandhi TK, Bates DW, Johnson DC, Labonville S, Gregory D, Kripalani S, PILL-CVD Study Group*. Rationale and design of the Pharmacist Intervention for Low Literacy in Cardiovascular Disease (PILL-CVD) study. *Circ Cardiovasc Qual Outcomes.* 2010 Mar; 3(2):212-9. (*member of the investigative team cited in the appendix of the manuscript) `PMID:20233982`.

17. Linder JA, **Reyes Nieva H**, Blumentals WA. Antiviral and antibiotic prescribing for influenza in primary care. *J Gen Intern Med.* 2009 Apr; 24(4):504-10. `PMID:19225847`.

Manuscripts under peer review for publication

1. Groisser A, **Reyes Nieva H**, Ruan E, Wright A, Schiff GD. Terminations in Primary Care: A Retrospective Observational Study of 16 Primary Care Clinics in Eastern Massachusetts. *J Gen Intern Med.*

2. Schnipper JL, **Reyes Nieva H**, Mallouk M, Mixon AS, Rennke S, Chu ES, Mueller SK, Smith GR, Williams MV, Wetterneck TB, Stein JM, Dalal A, Labonville S, Sridharan A, Stolldorf D, Orav J, Levin B, Gresham M, Yoon C, Goldstein J, Platt S, Nyenpan C, Howell E, Kripalani S, and MARQUIS2 Site Leaders for the MARQUIS2 Study Group. Effects of a Refined Evidence-based Toolkit on Medication Reconciliation Quality and Safety at Multiple Hospitals: Results of the MARQUIS2 Pragmatic Quality Improvement Study. *BMJ Qual Saf.*

3. Stolldorf DP, Schnipper JL, Mixon AS, **Reyes Nieva H**, Dietrich MS, Kripalani S. MARQUIS Medication Reconciliation Toolkit Implementation: Do Organizational Context and Readiness for Change Matter? *Jt Comm J Qual Patient Saf.*

Manuscripts in preprint

1. Sun TY, Bear Don't Walk OJ IV, Chen JL, **Reyes Nieva H**, Elhadad N. Exploring gender disparities in time to diagnosis. `arXiv:2011.06100`.

Research Experience

2019-present	National Library of Medicine Predoctoral Research Fellow, Department of Biomedical Informatics, Columbia University, New York, NY
2013-present	Visiting Postgraduate Research Fellow, Department of Medicine, Harvard Medical School, Boston, MA
2013-2019	Predoctoral Research Fellow, Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA
2012-2019	Research Manager, Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA

2012-2019	Network Manager, Brigham and Women's Primary Care Practice-Based Research Network, Boston, MA
2008-2011	Research Assistant (per diem), Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA
2007-2008	Research Assistant (full-time), Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA
2004	Research Assistant, Yale University, Department of Sociology, New Haven, CT

Teaching Experience

Summer 2021	Instructor, Data Science Bootcamp, Biomedical Informatics Summer Research Program, Columbia University, New York, NY
Fall 2020	Teaching Assistant, Acculturation to Medicine & Clinical Informatics, Columbia University, New York, NY
Summer 2017	Teaching Fellow, Research with Large Databases, Harvard T.H. Chan School of Public Health, Boston, MA
Summer 2016	Teaching Fellow, Research with Large Databases, Harvard T.H. Chan School of Public Health, Boston, MA
2005–2006	Teacher, English-as-a-Second-Language, New York City Board of Education/New York City Teaching Fellows, New York, NY
2000-2001	Reading Tutor (work study), America Reads, New Haven, CT

Committee Service

2020–present	Biomedical Informatics Seminar Series Planning Committee, Columbia University 2020–present Member
2019–present	Electronic Health Record Phenotyping Working Group, Columbia University 2019–present Member
2015–2018	Partners Sexual Orientation and Gender Identity Working Group 2015–2018 Founding Member
2015–2016	Brigham Health Equity and Diversity Council 2015–2016 Founding Member 2015–2016 Co-Chair, Data Working Group
2013–2015	Partners eCare Research Working Group 2013–2015 Member

2013–2015	Partners eCare Sexual Orientation and Gender Identity Working Group 2013–2015 Member
2013–2014	Member, Partners Human Research Committee, Insight Usability Working Group 2013–2014 Member
2013–2014	Member, Partners Enterprise Research Portal Working Group 2013–2014 Member
2011–2019	Member, Brigham Health LGBTQ and Allies Employee Resource Group 2011–2019 Member 2014–2016 Co-Chair
2007–2008	Association of Multicultural Members of Partners Healthcare 2007–2008 Member 2007–2008 Vice-Chair, Brigham and Women's Hospital Chapter

Professional Organizations and Societies

2019–present	Member, New York Academy of Sciences
2017–present	Member, Association for Computing Machinery Special Interest Groups: Artificial Intelligence; Knowledge Discovery in Data; High Performance Computing; Bioinformatics, Computational Biology, and Biomedical Informatics
2014–present	Member, American Medical Informatics Association Special Interest Groups: Clinical Decision Support; Natural Language Processing; Knowledge Discovery and Data Mining; Ethics, Legal, and Social Issues 2014–present Abstract Reviewer, Annual Symposium 2019–present Mentor, AMIA High School Scholars Program
2012–2014	Member, American Public Health Association Special Interest Groups: Medical Care, Health Informatics Information Technology
2012–2014	Member, AcademyHealth

Editorial Activities

Ad hoc Reviewer

Health Services Research

JAMA Network Open

Journal of General Internal Medicine

Medical Care

Honors

2019–present	National Library of Medicine Predoctoral Research Fellowship, Training in Biomedical Informatics at Columbia University (T15LM007079-28)
2019	Dean's Fellowship, Columbia University Vagelos College of Physicians and Surgeons
2018	Ford Foundation Predoctoral Fellowship Honorable Mention, National Academies of Sciences, Engineering, and Medicine
2018	Partners in Excellence Award for Leadership and Innovation, Partners HealthCare
2018	Ruth and William Silen, MD Award, New England Science Symposium
2016-2018	Merit Scholarship, Johns Hopkins Bloomberg School of Public Health
2016	LGBTQ Leadership Award, Brigham Health
2015	Brigham Way honoree, Brigham and Women's Hospital
2015	Practice-Based Research Network Conference Travel Scholarship, North American Primary Care Research Group
2014	Partners in Excellence Award for Quality Treatment and Service, Partners HealthCare
2014	Outstanding Quality and Patient Safety Oral Presentation Award, Society of General Internal Medicine
2012	Partners in Excellence Award for Leadership and Innovation, Partners HealthCare
2004	Mellon Forum Undergraduate Thesis Research Award, Yale University
2002	Y50K Business Plan Competition, Second Place (Social Enterprise), Yale Entrepreneurship Society

Report of Funded and Unfunded Projects

Funding Information

Past

2018–2019	A Multicenter Randomized Controlled Trial of Pharmacist-Directed Transitional Care to Reduce Post-Hospitalization Utilization National Institute on Aging (NIA) R01 AG 058911-01 Project Manager (Site PI: Schnipper) Aim: To measure the impact of pharmacist-led discharge (PHARM-DC) interventions on post-discharge utilization within 30 days. We will also identify patient sub-populations most likely to benefit from PHARM-DC.

2017–2018   Novel electronic health record phenotyping of LGBTQ intersectional identities and associated health disparities using natural language processing and machine learning
Harvard Catalyst
Co-Investigator (PI: Zhou)
Aim: To examine documentation of sexual orientation and gender identity (SOGI) in the electronic health record (EHR) and characterize LGBTQ health and potential health inequities.

2016–2018   Electronic Medication Adherence Reporting and Feedback During Care Transitions
Agency for Healthcare Research and Quality (AHRQ) R21 HS 024587-01
Project Manager/Statistical Programmer (PI: Schnipper)
Aim: To implement a smart pillbox intervention for patients discharged from the hospital to the community and to evaluate the effects of the intervention on post-discharge medication discrepancies, medication adherence, and chronic disease management.

2015–2018   Implementation of a Medication Reconciliation Protocol to Improve Patient Safety
Agency for Healthcare Research and Quality (AHRQ) R18 HS 023757-01A1
Project Manager/Statistical Programmer (PI: Schnipper)
Aim: The long-term objective of this research is to widely disseminate, implement, and evaluate sustainable medication reconciliation interventions that improve patient safety during care transitions.

2015–2017   Clinician-Patient Relationships: Boundaries, Barriers, Breakdowns
Gold Foundation/Lucian Leape Family Foundation
Project Director (PI: Schiff)
Aim: This study examines physician attitudes and practices related to caring acts that have been questioned as "inappropriate" or "unethical" crossing of professional-patient boundaries.

2014–2016   Understanding and Preventing Diagnostic Pitfalls
Risk Management Foundations of the Harvard Medical Institutions (CRICO)
Project Director (PI: Schiff)
Aim: The goal of this project is to identify leading diagnostic pitfalls that pose safety and malpractice risks, then design and test the accuracy of electronic screens for these pitfalls in the electronic health record.

2014–2016   Evaluating Variation in Overactive Bladder Medication Use and Other Treatment Options
Astellas Pharma US, Inc.
Statistical Programmer (PI: Loughlin)
Aim: To understand variation in overactive bladder treatment, medication adherence, and outcomes.

2014–2015   Are Physicians and Patients Adhering to the Published Guidelines for Fasting during Ramadan?
Martin P. Solomon Award for Primary Care Scholarship, BWH
Co-Investigator (PI: Ali)
Aim: To measure differences in rates of health care utilization for Muslim patients just prior to, during, and after Ramadan.

2014   BWH DGIM Research Day
BRI/ORC Microgrant Pilot Program
Principal Investigator ($1,000)
Aim: To develop the first annual Division-wide retreat for showcasing contributions and promoting career development of research assistants in the BWH Division of General Internal Medicine and Primary Care.

2013–2015   Patient Outcomes Associated with Year-End Departure of Resident Primary Care Physicians
Support for Excellence in Educational Development (SEED) Grant, BWH
Co-Investigator (PI: Solomon)
Aim: To investigate whether acute care utilization is increased disproportionately among patients of graduating resident physicians compared to non-graduating residents.

2013–2014   Acute Respiratory Infection Telephone Management Service
Brigham and Women's Physicians Organization Care Redesign Incubator and Startup Program – Round 1 and Round 2
Data Manager (PI: Linder)
Aim: To develop, implement, and evaluate an acute respiratory infection telephone management service at one of the Brigham and Women's Primary Care Practices.

2012–2014   Medical Malpractice and Patient Safety Protocol
Agency for Healthcare Research and Quality (AHRQ) 1R18HS019508-01
Project Manager (PI: Schiff)
Aim: To test the impact of quality improvement techniques to accomplish innovations and improvements in 3 high risk ambulatory malpractice areas: 1) medication management, 2) test ordering and results management 3) follow-up and referral management.

2012–2014   Use of Behavioral Economics to Improve Treatment of Acute Respiratory Infections
National Institutes of Health/University of Southern California 1RC4AG039115-01
Data Manager/Statistical Programmer (Site PI: Linder)
Aim: To evaluate the use of behavioral economic concepts such as enhanced defaults, alternative options, and social norms on inappropriate antibiotic prescribing for acute respiratory infections.

2010–2012   President's Emergency Plan for AIDS Relief (PEPFAR)
Health Resources and Services Administration (HRSA) U51HA02522
Data Quality Assurance Manager (PI: Kanki)
A $362 million grant for work in Nigeria, Botswana, and Tanzania to train health care workers, develop monitoring and evaluation systems, strengthen health care infrastructures, and collaborate with local hospitals and clinics that provide treatment for patients living with HIV/AIDS.

2008–2010   President's Emergency Plan for AIDS Relief (PEPFAR)
Health Resources and Services Administration (HRSA) U51HA02522
Data, Training, and Education Coordinator (PI: Kanki)
A $362 million grant for work in Nigeria, Botswana, and Tanzania to train health care workers, develop monitoring and evaluation systems, strengthen health care infrastructures, and collaborate with local hospitals and clinics that provide treatment for patients living with HIV/AIDS.

2007–2008   Pharmacist Intervention to Decrease Medication Errors in Heart Disease Patients (The PILL-CVD Study)
National Heart, Lung, and Blood Institute (NHLBI), R01HL089755
Research Assistant (Site PI: Schnipper)
Aim: To evaluate a literacy-focused program that provides educational assistance from pharmacists at the time of hospital discharge to people hospitalized with heart problems.

2007 Influenza in the Partners Primary Care Practice-Based Research Network
Roche Laboratories, RLI 06001207
Research Assistant (PI: Linder)
Aim: To measure and evaluate antiviral and antibiotic prescribing for patients with influenza being treated in primary care clinics.

Projects Submitted for Funding

2020 Financial Toxicity and Cancer Treatment: Examining Trends and Disparities via Causal Inference
Robert Wood Johnson Foundation HD4A Award
Co-Principal Investigator (PI: Elhadad)
The goal of this study is to apply state-of-the-art causal inference methods to a large, longitudinal cohort to isolate factors contributing to financial toxicity following cancer diagnosis. We will derive actionable insights that identify and quantify disparities in clinical and catastrophic financial outcomes, enabling policymakers and providers to prioritize targeted interventions that are most likely to reduce financial toxicity for the greatest proportion of the population while mitigating disparities in outcomes among different sociodemographic and socioeconomic groups.

2018 ARtificial Intelligence for the Study and Enhancement of Sexual and Gender Minority health (ARISE-SGM)
NIH/NIMHD 1R21HD097292-01
Co-investigator (PI: Zhou)
The goals of the ARISE-SGM (ARtificial Intelligence for the Study and Enhancement of Sexual and Gender Minority health) research project are to leverage advances in artificial intelligence to address logistical challenges in obtaining representative samples of sexual and gender minority (SGM) populations and characterize comorbidity prevalence and potential health inequities associated with different segments of SGM populations.

Report of Clinical Activities and Innovations

Clinical Innovations

2011 Electronic health record (EHR) data quality assessment tool, version 2.0 at 33 Harvard PEPFAR sites in Nigeria
Instituted major modifications to and evaluated a pre-existing EHR utility to incorporate expanded data quality indicators. With this utility, central and site-level data managers are able to better monitor and improve data completeness, validity, accuracy, and currency.

2011 EHR pediatric quality improvement tool at 33 Harvard PEPFAR sites in Nigeria
Co-developed and evaluated a utility to extract information from data warehouse and generate measures based on 23 pediatric quality of care indicators. Programmed module to review continuity of care, drug therapy initiation, medication adherence, loss to follow-up, laboratory monitoring, disease screening based on clinical symptoms assessment or diagnostic evaluation, treatment failure, toxicity management, nutritional assessment, and treatment response.

2010 EHR adult quality improvement tool at 33 Harvard PEPFAR sites in Nigeria
Co-developed and evaluated a utility to extract information from data warehouse and generate measures based on 15 adult quality of care indicators. Module reviews continuity of care, drug therapy initiation, loss to follow-up, laboratory monitoring, disease screening based on clinical symptoms assessment, treatment failure, and treatment response.

Report of Invited Teaching and Presentations

No presentations below were sponsored by outside entities.

Local

2019 Diversity, Culture, and Inclusion Series - LGBTQ Health
Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital

2018 Documentation of Sexual Orientation and Gender Identity in the Electronic Health Record
Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital

2017 Algorithmic Bias and Health Disparities
Machine Learning Working Group, Partners HealthCare

2017 Improving and Leveraging Sexual Orientation and Gender Identity Demographics in Epic
Sexual Orientation and Gender Identity Working Group, Partners HealthCare

2014 Designing and Building Clinical Research Databases
Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital

2014 Data Management and Manipulation using Microsoft Access
Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital

2014 The LGBTQ Data Collection Gap: Sexual Orientation and Gender Identity in the EHR
LGBTQ and Allies Employee Resource Group, Brigham Health

2013 How Busy Clinicians Can Improve Care and Pursue Scholarship/Faculty Retreat
Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital

Regional

2016 Identifying and Understanding Malpractice-Prone Diagnostic Pitfalls.
Risk Management Foundation of the Harvard Medical Institutions Incorporated (RMF), CRICO Research Day. Boston, MA

National

2020 LGBTQ Health Services Research in the Age of Deep Learning.
Co-hosted by MedTech and Queers & Allies, Oakland University William Beaumont School of Medicine, Rochester, MI

International

2011 Introduction to Data Management/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Critical Elements in Database Cleaning, a Checklist /Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Basics of Programming and Scripting/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Monitoring data and trouble-shooting/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Programming: Creating a Utility and Basics of Scripting/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Programming and Trouble-shooting databases/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Cohort Analyses I: Using EHR Data/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2011 Cohort Analyses II: Using EHR Data/Seminar
AIDS Prevention Initiative Nigeria Plus (APIN Plus), Abuja, Nigeria

2009 Improving Understanding and Medication Adherence with Flipcharts/Podium Presentation
HIV Counselor Training, AIDS Prevention Initiative Nigeria (APIN), Abuja, Nigeria

Report of Education of Patients and Service to the Community Activities

2020-present Columbia DBMI Summer Research Program/Co-organizer
Develop and implement summer program that aims to promote biomedical informatics and health data science as a career choice for rising high school seniors and college undergraduates. Serve as an instructor during an intensive data science bootcamp for summer students.

2018 Queer Health Hackathon/Co-organizer
Organized 3-day collaborative data analysis event to convene software engineers, data scientists, and clinical experts to examine EHR data for potential LGBTQ health disparities. Extracted and transformed/de-identified EHR data from health system enterprise data warehouse; loaded on Amazon Web Services Cloud platform.

2013-2016 Human Rights Commission, City of Cambridge/Vice Chair, Commissioner
Adjudicated complaints of discrimination occurring in Cambridge, Massachusetts related to housing, employment, education, and public accommodation. Facilitated conciliations to settle disputes among parties. Conducted information sessions on civil rights throughout Cambridge.

2006-2009	Boston Medical Reserve Corps/Emergency Medical Technician
	The Boston Medical Reserve Corps is a group of volunteers who are ready to respond should there be a public health emergency in Boston.
2007	Timmy Global Health, Dominican Republic/Medical Relief Volunteer
	Helped establish temporary medical clinics along Haiti-Dominican Republic border; triaged patients, managed pharmacy, translated proper drug use and application.
2001-2005	Latino Youth Enrichment Team (LYET), New Haven, CT/Co-Director
	Managed community center mentorship program and developed instructional methods for Latino youth ranging in age from 6 through 13.

Educational Material for Patients and the Lay Community

No educational materials below were sponsored by outside entities

Books, monographs, articles and presentations in other media

2012	Harvard School of Public Health/AIDS Prevention Initiative in Nigeria: Reducing the Burden of AIDS U.S. President's Emergency Plan for AIDS Relief
	Contributor, Harvard PEPFAR Nigeria Program Report
2012	Harvard School of Public Health/Management and Development for Health: Reducing the Burden of AIDS in Tanzania U.S. President's Emergency Plan for AIDS Relief
	Contributor, Harvard PEPFAR Tanzania Program Report
2012	Botswana-Harvard AIDS Institute Partnership: Reducing the Burden of AIDS U.S. President's Emergency Plan for AIDS Relief
	Contributor, Harvard PEPFAR Botswana Program Report

Report of Scholarship

Proceedings of meetings and other non-peer reviewed research publications

1. **Reyes Nieva H**, Kaplan RL, Madani N. Women and HIV: Update from the Middle East and North Africa. Global Network of Researchers on HIV/AIDS in the Middle East and North Africa (GNR-MENA). 2010 International AIDS Conference, Vienna, Austria.

Professional educational materials or reports, in print or other media

1. When Things Go Wrong in the Ambulatory Setting. 2013. The PROMISES Study.*
   *member of the writing committee

2. Using the Monthly Report Form Tool. 2011. Harvard PEPFAR Nigeria. Training Manual.

3. Using the Adult Quality Improvement Tool. 2011. Harvard PEPFAR Nigeria. Training Manual.

4. Using the Pediatric Quality Improvement Tool. 2011. Harvard PEPFAR Nigeria. Training Manual.

5. Using the Data Quality Assessment Tool. 2011. Harvard PEPFAR Nigeria. Training Manual.

6. Data Quality Control and Assurance (Intermediate Data Manual). 2010. Harvard PEPFAR Nigeria. Training Manual.

7. Guidelines for Reporting Clinical Data Quality Assessments. 2010. Harvard PEPFAR Nigeria. Technical Guideline.

8. Generating Adult Quality of Clinical Care Indicators in an HIV Program. 2010. Harvard PEPFAR Nigeria. Technical Guideline.

9. Generating Pediatric Quality of Clinical Care Indicators in an HIV Program. 2010. Harvard PEPFAR Nigeria. Technical Guideline.

10. Introduction to Data Management (Beginner Data Manual). 2009. Harvard PEPFAR Nigeria. Training Manual.

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

Works resulting in publication are not included below.

Regional

1. **Reyes Nieva H**, Blackley S, Streed C, Fiskio J, Zhou L. High physician and clinic-level variation in documentation of sexual orientation and gender identity in the electronic health record. Plenary presentation. New England Science Symposium, Boston, MA; 4/2018.
   Received a *Ruth and William Silen, MD Oral Presentation Award*

2. Singer S, **Reyes Nieva H,**, Ling J, Leydon N, Weissman J, Griswold P, Yoon C, Bates, DW, Biondolilo M, Schiff GD. Risks for Making Promises: Increased Expectations but Limited Improvement with a Malpractice Safety Intervention. Poster presentation. Society of General Internal Medicine New England Regional Meeting. Boston, MA; 03/2015.

National

1. Pang C, **Reyes Nieva H**, Chen R, Kalluri KS, Sun TY, Jiang X, Rodriguez VA, Natarajan K. Characterization and Comparison of Embedding Algorithms for Phenotyping across a Network of Observational Databases. Podium Presentation. American Medical Informatics Association Annual Symposium. Virtual Event; 11/2020.

2. **Reyes Nieva H**, Sun T, Gorman SR, Mao G, Elhadad N. Delays in care and differential presentation of acute myocardial infarction. Oral presentation. National Library of Medicine Informatics Training Conference. Virtual Event; 06/2020.

3. **Reyes Nieva H**, Ruan E, Volodarskaya M, Wright A, Lim A, Singh H, Agarwal S, Schiff GD. Diagnostic Pitfalls: Operationalizing a New Paradigm to Understand and Prevent Diagnostic Errors. Poster presentation. Society of General Internal Medicine Annual Meeting. Washington, DC; 05/2019.

4. Schnipper JL, **Reyes Nieva H**, Mallouk M, Mixon AS, Rennke S, Chu E, Mueller S, Smith GR, Williams M, Wetterneck TB, Stein J, Dalal A, Labonville SA, Sridharan A, Orav EJ, Levin B, Yoon C, Gresham M, Goldstein J, Kripilani S. Effects of a Refined Evidence-based Toolkit on Medication Reconciliation Quality and Safety at Multiple Hospitals: Results of the MARQUIS2 Study. Plenary presentation. Hospital Medicine 2019. National Harbor, MD; 03/2019.

5. Groisser A, **Reyes Nieva H**, Wright A, Ruan E, Schiff GD. Don't Come Back: Patient Terminations in Primary Care. Poster presentation. Society of General Internal Medicine Annual Meeting; 04/2018.

6. Schnipper JL, Cruz Garcia J, **Reyes Nieva H**, Chabria A, Shannon EM, Czado K, Jain R, Cerciello E, Ganesan E, Dave J. Barriers and Facilitators to Implementing an Electronic Pillbox Intervention During Care Transitions. Poster presentation. Hospital Medicine 2018. Orlando, FL; 04/2018.

7. Mlaver E, Dalal AK, **Reyes Nieva H**, Chang F, Hanna J, Ravindran S, McNally K, Stade D, Morrison C, Bates D, Dykes P. An Analysis of Patient Portal Use in the Acute Care Setting. Oral Presentation. American Medical Informatics Association Annual Meeting. San Francisco, CA; 11/2015.

8. **Reyes Nieva H**, Palm K, Zucconi T. Advocacy and Implementation: Gathering SOGI Demographics in the Clinical Setting. Oral presentation. GLMA 33rd Annual Conference. Portland, OR; 9/2015.

9. Kroll DS, **Reyes Nieva H**, Barsky A, Linder JA. Benzodiazepines and Primary Care. Poster presentation. Academy of Psychosomatic Medicine, 61st Annual Meeting; 11/2014.

10. **Reyes Nieva H**, Doctor JN, Friedberg MW, Birks C, Fiskio JM, Volk LA, Linder JA. Comparing Clinicians' Perception of Their Own and Their Peers' Antibiotic Prescribing to Actual Antibiotic Prescribing for Acute Respiratory Infections in Primary Care. Oral presentation. Society of General Internal Medicine Annual Meeting, San Diego, CA; 4/2014.
    Received the *Outstanding Quality and Patient Safety Oral Presentation Award*

11. Dempsey P, **Reyes Nieva H**, Businger A, Linder JA. Accuracy and Gaming of the Acute Bronchitis Antibiotic Prescribing Performance Measure. Poster presentation. Society of General Internal Medicine Annual Meeting. San Diego, CA; 04/2014.

12. Brede N, Singer S, **Reyes Nieva H**, Ling J, Leydon N, Colling CA, Satterstrom P, Yoon C, Orav EJ, Weissman JS, Goldmann D, Biondolillo M, Schiff GD. Patients Have Something to Say: Analysis of 514 Patient Safety and Quality Comments from the PROMISES Patient Survey. Oral presentation. Society of General Internal Medicine Annual Meeting; 04/2013.

13. Schiff GD, Brede N, Singer S, Foskett CA, **Reyes Nieva H**, Colling CA, Whitney DL, Ling J, Leydon N, Orav EJ, Bates DW, Biondolillo M. Courting Malpractice Risk: Failures in High Risk Outpatient Test and Referral Management and Documentation. Poster presentation. Society of General Internal Medicine Annual Meeting; 04/2013.

International

1. Sun TY, Bear Don't Walk OJ IV, **Reyes Nieva H**, Chen J, Elhadad N. Exploring Gender Disparities in Time to Diagnosis. Poster presentation. Machine Learning for Health (ML4Health) Workshop at the Conference on Neural Information Processing Systems (NeurIPS). Virtual Event; 12/2020.

2. **Reyes Nieva H**, Volodarskaya M, Wright A, Singh H, Ruan E, Schiff GD. Diagnostic Pitfalls: A New Approach to Understand and Prevent Diagnostic Error. Poster presentation. Society to Improve Diagnosis in Medicine 9th International Conference. Hollywood, CA; 11/2016.

3. **Reyes Nieva H**, Linder JA. Gathering Sexual Orientation and Gender Identity Demographics in the Clinical Setting. Oral Presentation. North American Primary Care Research Group Practice-Based Research Network Conference, Bethesda, MD; 7/2015.

4. **Reyes Nieva H**, Linder JA. PBRN Organization and Governance to Promote Practice, Clinician, Researcher, and Patient Engagement. Workshop. North American Primary Care Research Group Practice-Based Research Network Conference, Bethesda, MD; 07/2014.

5. Singer S, **Reyes Nieva H**, Brede N, Colling CA, Ling J, Leydon N, Weissman JS, Goldmann D, Griswold P, Yoon C, Orav EJ, Bates DW, Biondolillo M, Schiff GD. Malpractice Risk in Ambulatory Practices: Evaluation by Staff and Administrators in the PROMISES Study. Oral presentation. Israel National Institute for Health Policy Research, 5th International Jerusalem Conference for Health Policy; 06/2013.

Computer and Language Skills

Computing   Python, bash, SQL, R, SAS, LATEX, HTML, CSS, Javascript, ArcGIS, QGIS, SaTScan, REDCap, MS Access, FileMaker, git

Languages   English (native), Spanish (proficient), Mandarin (beginner)

Other Experience

2010-2012   Data Quality Assurance Manager, Harvard/US President's Emergency Plan for AIDS Relief (PEPFAR), Boston, MA

2008-2010   Data, Training, and Education Coordinator, Harvard/US President's Emergency Plan for AIDS Relief (PEPFAR), Boston, MA

2006-2007   Emergency Medical Technician, Tufts Emergency Medical Services, Medford, MA

2004-2005   Client Outreach Officer, Advanced Strategies for Healthcare Access, New Haven, CT

2003-2004   Editorial Assistant/Contributor, Yale Medicine Magazine, New Haven, CT

2003   Paralegal, Raymond B. Schwartzberg & Associates, New York, NY

2001-2002   Client Advocate, Student Health Outreach (SHOut), New Haven, CT, 2001-2002

2000-2001   Library Clerk, Yale University, Sterling Memorial Library

2000-2001   Program Assistant, Yale University, International Affairs Council, New Haven, CT

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