

Harry Reyes Nieva, MAS, MA

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Place of Birth: New York, NY, USA

Education

Columbia University in the City of New York, New York, NY
Doctor of Philosophy in Biomedical Informatics, Expected May 2024
Master of Arts in Biomedical Informatics, May 2021 (GPA: 4.0)
Advisor: Noémie Elhadad, PhD
Coursework includes: Intelligent Decision Systems, Computational Methods, Symbolic Methods, Natural Language Processing, Computer Applications in Health Care, Programming and Statistics

Beijing Language and Culture University, Beijing, China
北京语言大学, 北京, 中国
Summer Student, Intensive Mandarin, 2019

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
Master of Applied Science in Spatial Analysis, June 2019
Thesis: Spatiotemporal modeling of opioid prescribing and persistent opioid use, 2000-2018
Coursework included: Biostatistics, Spatial Statistics, Epidemiology, Spatial Data Technologies

Harvard T.H. Chan School of Public Health, Boston, MA
Special Student, International and Population Health, 2009-2011
Coursework included: Immunology, Tuberculosis, Planning and Evaluation of Health Programs, Financing Health Care in Developing Countries, Survey Research Methods in Community Health

Yale University, New Haven, CT
Bachelor of Arts in Sociology and History, May 2005
Coursework included: Elements of Computing, Current Issues in Biological Sciences, General Chemistry, Calculus I & II, Social Policy Analysis, Portuguese for Spanish Speakers, Elementary Yoruba

Research Experience

2019-present	<i>National Library of Medicine Predoctoral Research Trainee</i> , Department of Biomedical Informatics, Columbia University in the City of New York, New York, NY
2013-present	<i>Visiting Postgraduate Research Fellow</i> , Department of Medicine, Harvard Medical School, Boston, MA
2013-2019	<i>Predoectional Research Fellow</i> , Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA
2012-2019	<i>Research Manager</i> , Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA
2007-2008	<i>Research Assistant</i> , Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, MA
2004	<i>Research Assistant (work study)</i> , Yale University, Department of Sociology, New Haven, CT

Teaching Experience

Spring 2022	<i>Teaching Assistant</i> , BINF G5000 Defining, Evaluating, and Improving Quality in Healthcare, Columbia University, New York, NY
Spring 2021	<i>Preceptor in Clinical Informatics</i> , INTC M7210 Mechanisms and Practice, Columbia Vagelos College of Physicians and Surgeons, New York, NY
Fall 2020	<i>Teaching Assistant</i> , BINF G4011 Acculturation to Medicine & Clinical Informatics, Columbia University, New York, NY
Summer 2017	<i>Teaching Fellow</i> , HPM 299 Research with Large Databases, Harvard T.H. Chan School of Public Health, Boston, MA
Summer 2016	<i>Teaching Fellow</i> , HPM 299 Research with Large Databases, Harvard T.H. Chan School of Public Health, Boston, MA
2005–2006	<i>Teacher, English-as-a-Second-Language</i> , New York City Board of Education/New York City Teaching Fellows, New York, NY
2000–2001	<i>Reading Tutor (work study)</i> , America Reads, New Haven, CT

Other Professional Positions

2010–2012	<i>Data Quality Assurance Manager</i> , Harvard University/U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Boston, MA
2008–2010	<i>Data, Training, and Education Coordinator</i> , Harvard University/U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Boston, MA
2006–2007	<i>Emergency Medical Technician</i> , Tufts Emergency Medical Services, Medford, MA
2004–2005	<i>Client Outreach Officer</i> , Advanced Strategies for Healthcare Access, New Haven, CT
2003–2004	<i>Editorial Assistant/Contributor (work study)</i> , Yale Medicine Magazine, New Haven, CT
2003	<i>Paralegal</i> , Raymond B. Schwartzberg & Associates, New York, NY
2001–2002	<i>Client Advocate (work study)</i> , Student Health Outreach (SHOut), New Haven, CT
2000–2001	<i>Library Clerk (work study)</i> , Yale University, Sterling Memorial Library, New Haven, CT
2000–2001	<i>Program Assistant (work study)</i> , Yale International Affairs Council, New Haven, CT

Committee Service

2021–present	<i>Toward Diversity, Equity, and Inclusion in Informatics, Health Care, and Society Seminar Series Planning Committee</i> , Columbia University
2021–present	Member
2020–present	<i>Biomedical Informatics Departmental Seminar Series Planning Committee</i> , Columbia University
2020–present	Member
2019–present	<i>Electronic Health Record Phenotyping Working Group</i> , Columbia University
2019–present	Member
2015–2018	<i>Partners Sexual Orientation and Gender Identity Working Group</i>
2015–2018	Founding Member
2015–2016	<i>Brigham Health Equity and Diversity Council</i>
2015–2016	Founding Member
2015–2016	Co-Chair, Data Working Group
2013–2015	<i>Partners eCare Research Working Group</i>
2013–2015	Member
2013–2015	<i>Partners eCare Sexual Orientation and Gender Identity Working Group</i>
2013–2015	Founding Member

- 2013–2014 *Partners Human Research Committee, Insight Usability Working Group*
- 2013–2014 *Member*
- 2013–2014 *Partners Enterprise Research Portal Working Group*
- 2013–2014 *Member*
- 2011–2019 *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

- 2020–present *Member, Latinx in AI*
- 2019–present *Member, New York Academy of Sciences*
- 2017–present *Member, Association for Computing Machinery*
Special Interest Groups: Artificial Intelligence; Biomedical Informatics;
High Performance Computing; Knowledge Discovery in Data
- 2014–present *Member, American Medical Informatics Association*
Special Interest Groups: Clinical Decision Support; Ethics, Legal, and Social Issues;
Knowledge Discovery and Data Mining; Natural Language Processing
2014–present Abstract Reviewer, Annual Symposium
- 2012–2014 *Member, American Public Health Association*
Special Interest Groups: Medical Care, Health Informatics Information Technology
- 2012–2014 *Member, AcademyHealth*

Editorial Activities

Editorial Roles

- 2021–2023 *Student Editorial Board Member, Journal of the American Medical Informatics Association*

Ad hoc Reviewer

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| Health Services Research | Journal of General Internal Medicine |
| JAMA Network Open | Medical Care |

Honors and Prizes

- 2021–2024 *Computational and Data Science Fellowship, Association for Computing Machinery (ACM)*
Special Interest Group in High Performance Computing (SIGHPC)
- 2021–2023 *HOPE Scholarship, Biomedical Science Careers Program, Harvard Medical School*
- 2021–2022 *HSF Scholar, Hispanic Scholarship Fund*
- 2019–2024 *Predoctoral Research Trainee Fellowship, National Library of Medicine*
- 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, Third Prize, 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 & Patient Safety Oral Presentation*, Society of General Internal Medicine
- 2012 *Partners in Excellence Award for Leadership and Innovation*, Partners HealthCare
- 2004 *Mellon Forum Undergraduate Thesis Research Funding Award*, Yale University

Report of Education of Patients and Service to the Community Activities

- 2021 *COVID-19 Vaccination Effort, New York Presbyterian Hospital / Armory Volunteer*
Verify patients have scheduled appointments prior to entrance, check patients in for visit via Epic system, schedule follow-up visits for second dose administration, and assist with traffic flow as patients move through the vaccination process.
- 2020-present *Columbia University Biomedical Informatics 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.
- 2019-present *High School Scholars Program, American Medical Informatics Association/Mentor*
Support multiple high school students as they pursue research projects; review their work and help them practice scientific presentations; offer career advice and encouragement.
- 2018 *Queer Health Hackathon/Co-organizer*
Co-organized 3-day collaborative event to convene software engineers, data scientists, and clinical experts to examine longitudinal clinical database 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/Commissioner, Vice Chair*
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.
- 2006-2016 *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.

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: Develop methods using machine learning and natural language processing 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.
- 2016–2018 *Electronic Medication Adherence Reporting and Feedback During Care Transitions (Smart Pillbox)*
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 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 Treatments*
Astellas Pharma US, Inc.
Statistical Programmer (PI: Loughlin)
Aim: Characterize 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 *First Annual BWH DGIM Research Day*
BRI/ORC Microgrant Pilot Program
Principal Investigator (\$1,000)
Aim: Develop BWH Division of General Internal Medicine and Primary Care retreat to showcase contributions of research assistants and promote their career development.

- 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 (PROMISES)*
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 (PILL-CVD)*
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.

Unfunded Current Projects

- 2021-present *A Computational Scoping Review and Gap Analysis of Health Disparities and Minority Health Literature, 1975-2020*
 Principal Investigator, Advisor: Noémie Elhadad, PhD
 Given the vast wealth of literature regarding health disparities and minority health (HDMH) and limitations placed on scale and scope when performing traditional manual review, computational methods are useful for conducting large-scale assessments. We aim to leverage natural language processing and machine learning methods to perform a comprehensive scoping review and characterize major topics found in the HDMH literature, examine change in topic mention over time, identify any notable gaps in coverage, and derive actionable insights for further inquiry.
- 2020-present *Exploring Gender Disparities in Time to Diagnosis*
 Co-investigator, Advisor: Noémie Elhadad, PhD
 Sex and gender-based healthcare disparities contribute to differences in health outcomes. Focusing on time to diagnosis (TTD), we are conducting two large-scale, complementary analyses among men and women across 29 diseases and 195K patients. We further explore how TTD disparities affect diagnostic performance between genders, both across and persistent to time, by evaluating gender-agnostic disease classifiers across increasing diagnostic information.
- 2019-present *Gender-based differences in presentation and treatment of acute myocardial infarction*
 Principal Investigator, Advisor: Noémie Elhadad, PhD
 We aim to measure and characterize differences in presentation and treatment of acute myocardial infarction (AMI) using structured electronic health record data and free-text from clinical notes. We are using empirical distributional semantics methods (e.g., word2vec and GloVe) to identify potential biases and empirical associations based on demographics. We are also analyzing clinical notes over time prior to and after initial diagnosis to understand differences in the trajectories of sign or symptom documentation for patients, lengths of time to treatment, and resulting impact on patient outcomes.

Report of Invited Teaching and Presentations

No presentations below were sponsored by outside entities.

Local

- 2022 *Machine Learning for Health Equity*
 Guest Lecturer, BINF G5000: Defining, Evaluating, and Improving Quality in Healthcare,
 Department of Biomedical Informatics, Columbia University
- 2020 *Health Equity and Informatics*
 Guest Lecturer, BINF G4011: Acculturation to Medicine and Clinical Informatics,
 Department of Biomedical Informatics, Columbia University
- 2019 *LGBTQ Health - Diversity, Culture, and Inclusion Series*
 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 *SQL-based Data Management and Manipulation*
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*
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

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/Podium Presentation*
HIV Counselor Training, AIDS Prevention Initiative Nigeria (APIN), Abuja, Nigeria

Report of Clinical Activities and Innovations

Clinical Innovations

- 2020-present *CovidWatcher / Co-developer*
CovidWatcher is an app and online portal that surveys users about their exposure to the new coronavirus (COVID-19), symptoms, access to medical care, and impact on daily life. The data collected is used to track the spread of coronavirus, giving citizens real-time information about hot spots and enabling health care officials to deploy resources where needed most.

- 2011 *Electronic health record (EHR) data quality assessment tool, version 2.0* / Co-developer
Instituted major modifications to and evaluated a pre-existing EHR utility to incorporate expanded data quality indicators at 33 Harvard PEPFAR sites in Nigeria. 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* / Co-developer
Co-developed and evaluated a utility to extract information from data warehouse and generate measures based on 23 pediatric quality of care indicators at 33 Harvard PEPFAR sites in Nigeria. 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* / Co-developer
Co-developed and evaluated a utility to extract information from data warehouse and generate measures based on 15 adult quality of care indicators at 33 Harvard PEPFAR sites in Nigeria. 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 Scholarship

Publications

Peer reviewed publications in print or other media

1. Kraemer KM, Litrownik D, Moy ML, Wayne PM, Beach D, Klings ES, **Reyes Nieva H**, Pinheiro A, Davis RB, Yeh GY. Exploring tai chi exercise and mind-body breathing in patients with COPD in a randomized controlled feasibility trial. *COPD*. 2021 Jun 09; 1-11. Online ahead of print. PMID:34106027.
2. Groisser A, **Reyes Nieva H**, Wright A, Ruan E, Schiff GD. Terminations in Primary Care: A Retrospective Observational Study of 16 Primary Care Clinics. *J Gen Intern Med*. 2021 May 04. Online ahead of print. PMID:33948801.
3. 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, Stollendorf 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 and Mentored Implementation on Medication Reconciliation Quality and Safety at Eighteen Hospitals: Results of the MARQUIS2 Quality Improvement Study. *BMJ Qual Saf*. 2021 Apr 29. Online ahead of print. PMID:33927025.
4. **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.
5. 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.

6. 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.
7. 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.
8. 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, Stollendorf 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.

19. 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.
20. 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.

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.

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 the Ruth and William Silen Award, Third Prize

National

1. **Reyes Nieva H**, Sun TY, Gorman SR, Mao G, Elhadad N. Differential Presentation and Delays in Treatment for Acute Myocardial Infarction Associated with Sex and Race/Ethnicity. Oral Presentation. American Medical Informatics Association. San Diego, CA; 11/2021.
2. **Reyes Nieva H** and Elhadad N. Probabilistic Topic Modeling and Trend Analysis of Health Disparities and Minority Health Literature, 1975-2020: A Scoping Review. Poster presentation. National Library of Medicine Informatics Training Conference. 06/2021.
3. 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. 11/2020.
4. Boskey E, Tabaac A, Wigell R, Wolf K, Lage I, Landrum S, **Reyes Nieva H**, Bearnot B, Streed C. Using patterns of missing EHR data to identify care disparities in gender diverse patients. Oral Presentation. APHA Annual Meeting and Expo. 10/2020.
5. **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.
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. 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.
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

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). 12/2020. arXiv:2011.06100.
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.

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.

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

Computer and Language Skills

Computing Python, SQL, Unix, bash, git, R, SAS, \LaTeX , HTML, CSS, ArcGIS, QGIS, SaTScan

Languages English, Spanish, Mandarin (beginner)