

April 2025

## BACKGROUND

Researchers have long identified the potential of linked administrative data systems to evaluate the delivery and impact of home visiting services.<sup>1</sup> Looking at individual-level data across multiple data sources, for example, can provide a more comprehensive view of home visiting experiences, outcomes, and context than a single data source.<sup>2</sup> However, linking data also requires resources, including time to facilitate secure access to and understand datasets, specialized expertise to harmonize variables across sources, and processes to ensure administrative data quality.<sup>3</sup>

In keeping with our objective to promote data sharing and interoperability, the Home Visiting Applied Research Collaborative (HARC) conducted a scoping review of published, peer-reviewed research using home visiting data linked with other administrative datasets. Specifically, we set out to identify articles 1) about home visiting services delivered in pregnancy and early childhood and 2) using two or more quantitative data sources with caregiver or child records. Reviewers examined data sources, methods for linkage (including governance), study designs, research questions, and outcome categories. Studies were limited to those conducted in the United States to better represent U.S. data sources and the data-sharing regulatory environment.

This brief summarizes the methods used to conduct the scoping review, results from our article extraction and analyses, and implications. It also examines patterns across articles to inform researchers, state home visiting administrators, and policy makers. Understanding the existing literature can highlight gaps and opportunities for expanding the range of home visiting research questions and the rigorous study designs they can use, identifying other systems for data linkage projects, and engaging partners and communities in this kind of research.

## METHODS

We selected a scoping review so we could examine the characteristics of home visiting research that has used linked data. Scoping reviews are descriptive in nature, meaning they produce numerical summaries and highlight recurring themes instead of evaluating the effectiveness of an intervention or methodological strengths and limitations.<sup>4,5</sup> To complete the review, we followed the recommended steps outlined by Peters et al.: search strategy, article screening and full text review, and data extraction and analysis.<sup>6</sup>

### Search Strategy

First, in consultation with a research librarian at Johns Hopkins University, we developed four search concepts (specific home visiting models, general home visiting, expectant parents and families with young children, and study type). See Exhibit 1 for search concepts and example search terms. For search concept 1, we included home visiting models deemed evidence-based by the [Home Visiting Evidence of Effectiveness](#) (HomVEE) project and promising approaches previously and currently implemented through Maternal, Infant, Early Childhood Home Visiting (MIECHV) funds (see appendix for list). Search concept 2 focused on home visiting broadly to capture articles that did not specify a home visiting model in the article title or abstract. Search concept 3 narrowed the home visiting population to pregnant women or families with young children. Search concept 4 focused on specific study types.

## Exhibit 1. Search Concepts and Example Search Terms

Search Concept	Example Search Terms
1. Evidence-based or promising home visiting models	Attachment and Biobehavioral Catch-Up, Family Connects, Family Spirit, Healthy Families America, Nurse-Family Partnership
2. General home visiting	Home visit, in-home visit, home-based
3. Expectant parents/families or families with young children	Child, infant, pregnant, antenatal, mother, maternal, father, paternal, parent, families
4. Study type	Observational, cross-sectional, retrospective, randomized control trial, program evaluation

*Note: The full list of search terms is available from the authors on request.*

We systematically searched the PubMed, PsycInfo, and CINAHL (Cumulative Index to Nursing and Allied Health Literature) databases using controlled vocabulary terms (i.e., database-defined indexing terms) and keywords for articles published since 2010. We identified 10,160 unduplicated articles for screening.

### Article Screening and Full Text Review

The study team then uploaded references for the 10,000-plus identified articles to Covidence for screening, full text review, and data extraction. Each title and abstract were reviewed by one screener, using the inclusion and exclusion criteria listed in Exhibit 2. Reviewers participated in training and had access to example reference articles to ensure consistency in screening. Articles advanced to full text review if they met inclusion criteria or if the screener could not determine inclusion based only on the title and abstract review ( $n = 454$ ). The study team met weekly to ensure reliability. See the Identification and Screening phases of Exhibit 3.

One study team member screened the full text of articles ( $n = 454$ ), using the inclusion and exclusion criteria in Exhibit 2, identifying 71 articles to include in the review (see appendix for list of articles). Most articles excluded at this stage ( $n = 274$ ) did not use two or more linked or integrated data sources; additional reasons are noted in Exhibit 3, Screening phase. The full-text reviewer brought articles to the study team meetings for further discussion as needed.

## Exhibit 2. Inclusion and Exclusion Criteria

Category	Inclusion Criteria	Exclusion Criteria
General	<ul style="list-style-type: none"><li>• Published in a peer-reviewed journal</li><li>• Study took place in the U.S.</li><li>• Published 2010 or later</li><li>• Full text available in English</li></ul>	<ul style="list-style-type: none"><li>• Abstract only</li><li>• Dissertation</li></ul>
Population	Pregnant women and families or families with young children (0-5 years)	Home visitor-focused studies
Intervention	Evidence-based home visiting models or promising practices. Studies may be about a home visiting intervention OR the context of the study is home visiting programs or participants.	Other home-based or home visiting services with model not specified; OR model is for specific conditions (i.e., cancer survivors, children with autism)
Study characteristics	<ul style="list-style-type: none"><li>• Quantitative studies</li><li>• Caregiver/child records used</li><li>• Two or more linked or integrated secondary data sources</li></ul>	<ul style="list-style-type: none"><li>• Systematic or integrative reviews</li><li>• Commentaries</li><li>• Conceptual articles</li><li>• Qualitative studies</li><li>• Single data source or data sources not linked or integrated</li></ul>

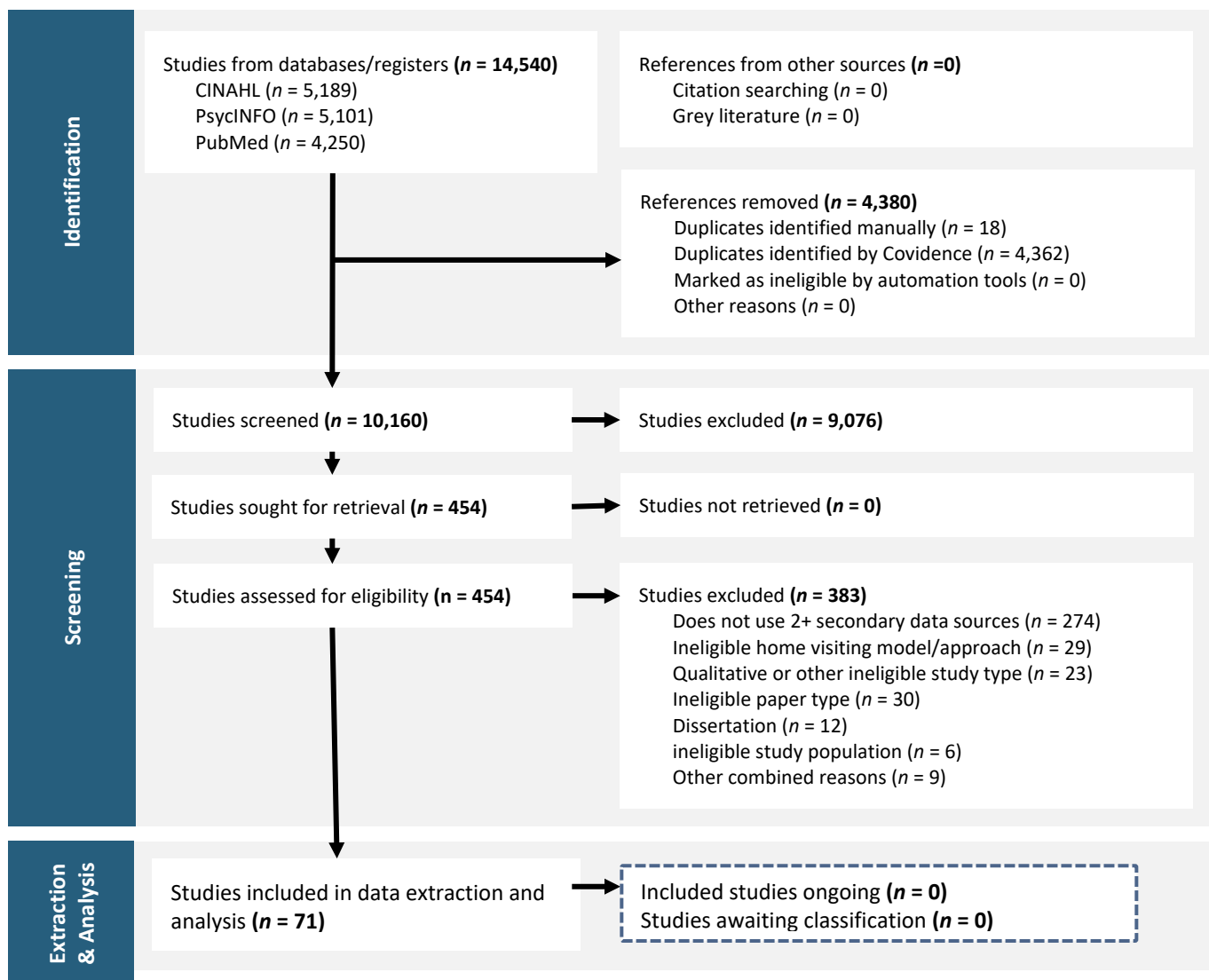
## Data Extraction and Analysis

The study team next developed an extraction form in Covidence and then completed two rounds of testing the form and its instructions before finalizing it. The form elements included:

- Article title, first author, publication year
- Research aims and methods, including study design, home visiting model(s), study outcome domain(s), study population, and study setting
- Data sources, data linkage and integration method(s), comparison group, data approval and governance, and participant consent process

Finally, one reviewer extracted data from each study (see Exhibit 3, Extraction and Analysis phase). A different study team member reviewed each extraction form for completeness before finalizing. Data from the 71 articles were exported from Covidence to Excel to quantify close-ended elements and conduct a thematic analysis of qualitative elements.

**Exhibit 3. Scoping Review Screening and Selection Diagram**



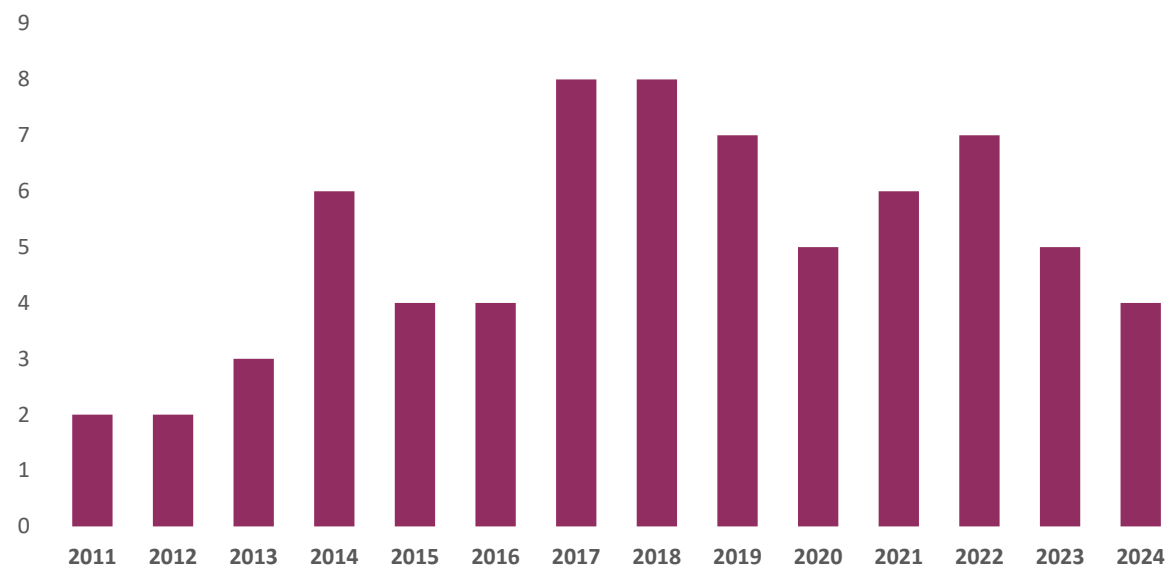
# FINDINGS

This section presents findings from the scoping review including general article characteristics such as the distribution of articles by publication year, models represented, and funding sources.

## Article Characteristics

The number of published articles each year ranged from two to eight (Exhibit 4).

Exhibit 4. Number of Articles by Publication Year



Articles reflected 13 evidence-based and promising-approach models (Exhibit 5). Most articles included a single model, and nine studies included multiple models (combinations of Early Head Start, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers). Healthy Families America and Nurse-Family Partnership were each featured in 20-plus articles.

## Exhibit 5. Models Represented in Articles

Model	Count	Percent
Healthy Families America	23	32%
Nurse-Family Partnership	21	30%
Parents As Teachers	11	15%
Early Head Start-Home Based Option	7	10%
Maternal Infant Health Program	6	8%
Family Connects	5	7%
Arizona Health Start*	3	4%
Following Baby Back Home*	3	4%
Home Instruction for Parents of Preschool Youngsters	2	3%
Nurses for Newborns*	2	3%
Early Steps to School Success*	1	1%
Health Access Nurturing Development Services Program	1	1%
Maternal, Infant, Early Childhood Home Visiting (MIECHV) Program**	1	1%
SafeCare Augmented	1	1%
<b>Unduplicated Count of Articles</b>	<b>71</b>	<b>100%</b>

Notes: Models noted with an asterisk (\*) are promising approaches. Articles including multiple models are represented in each model row. \*\*Refers to [Georgia's MIECHV program](#), but models were not named specifically in the article.

We identified several groups of articles reflecting the same data linkage effort or integrated data system.

Examples include:

- Articles about the Maternal Infant Health Program and Following Baby Back Home drew on data from existing integrated data systems in Michigan and Arkansas, respectively.
- The Family Connects articles drew from the same randomized control trial (RCT) conducted in Durham County, NC; each article focused on a different outcome(s) and/or data sources merged with primary data.
- Multiple articles on Healthy Families America and Nurse-Family Partnership used data from a single study conducted in the greater Cincinnati, OH, area.

Most articles had a single source of funding ( $n = 38$ ). The most common funding sources were federal ( $n = 38$ ), followed by state ( $n = 17$ ) and private ( $n = 16$ ) funding. Examples of federal funding sources included HRSA-funded MIECHV and R40 Maternal and Child Health Research Program grants, the National Institutes of Health, specifically the Eunice Kennedy Shriver National Institute of Child Health and Human Development, and the National Institute on Drug Abuse.

## Data Sources, Methods of Linkage, and Governance

The most common **data source** linked with home visiting data was vital statistics (e.g., birth certificate data, infant mortality). Common sources were Medicaid, child welfare, and electronic health records (Exhibit 6). All studies used primary or secondary data collected by home visiting programs. Some used primary data for the study collected prospectively during home visits, but most ( $n = 61$ ) used secondary administrative data already collected by the home visiting program. These secondary data are usually collected by home visiting programs for performance measurement and program administration purposes. The range of data resources spanned from two ( $n = 14$ ) to six ( $n = 2$ ), with most articles linking three data sources ( $n = 27$ ).

### Exhibit 6. Data Sources Linked to Home Visiting Data

Data Source	Number of Articles
Vital Statistics	42
Medicaid/Insurance Claims, Medicaid Enrollment	25
Child Welfare	22
Electronic Health Records ( <a href="#">infant well-child care visits, maternal postpartum visits</a> )	18
Social Services (e.g., SNAP/WIC, TANF)	14
Census	11
Education	4
Public Health	3
Other Data Sources	37

*Note: Some articles included multiple data sources and therefore are counted one or more times in the number of articles column.*

- Vital statistics were the most commonly linked data used in articles identified in the review. Two factors may explain the common use of vital statistics: such data are relatively easy to obtain and some MIECHV priority outcomes can be derived from vital statistics (e.g., preterm birth).
- While electronic medical records (EMRs) were not among the most commonly linked, the adoption of EMRs by hospitals and healthcare systems expanded quickly during the years covered by our review and continue to be a source for ongoing linkage opportunities.<sup>7</sup>
- Articles in the scan included a wide range of “Other” types of data sources. These sources included publicly available data (e.g., Child Opportunity Index, Kids Count, public court records), data from previous studies, interviews, and more. This variety of additional data sources demonstrates 1) the flexibility available when linking home visiting data and 2) the range of opportunities to leverage neighborhood and community-level data sources to provide more nuance about the [context](#) of families and programs.

Many articles provided little to no detail on how they linked data included in the study. Among the articles that did, **data linkage** methods ranged from manual matching by the project team to the use of an early childhood integrated data system (i.e., individual data already linked across sources). Exhibit 7 provides examples of the methods used to link records across data sources.

## Exhibit 7. Example Data Linkage Methods

Method	Example
Unique identifier(s)	Match on participant names using date of birth to verify record matches.
Record request	Provide program participant information to child welfare and receive matched anonymized records.
Geocoding	Use a program such as ArcGIS, identify the number of MIECHV households enrolled in different Zip Code Tabulation Areas.
Deterministic	Use a program such as MatchIt for R or LINKS for SAS, identify matches that agree on a set of identifiers (can be one-to-one or iterative). <sup>3</sup>
Probabilistic	Use a program such as DataLever or LINKS for SAS, identify matches that assess the discriminatory power of each identifier, and the likelihood that two records are a true match based on whether they agree or disagree on the various identifiers. <sup>3</sup>

There was not enough information on **data governance** methods<sup>†</sup> to describe patterns across articles. Only one-quarter ( $n = 18$ ) of articles mentioned any version of data governance, several of which reflected the same study. Governance methods that were described included Data Use or Sharing Agreements, state agency approval, Federal Certificate of Confidentiality, a Governing Council, and participant consent. Some studies also described Institutional Review Board (IRB) approval (note that IRBs would not consider studies for program evaluation purposes or analyses of secondary deidentified data as human subjects research).

## Study Designs, Research Questions, and Outcomes

The articles described the use of linked data across a mix of observational, quasi-experimental, and experimental study designs (Exhibit 9). Observational studies addressed a range of research aims describing associations, primarily between participant categories and other variables (e.g., home visiting engagement, child welfare involvement, community-level characteristics). Studies with experimental and quasi-experimental designs generally compared outcomes for home visiting participants to those of non-participants.

The observational study articles included investigations of risk profiles, identification of factors associated with engagement in home visiting services, assessments of associations between child welfare incidents and receipt of services, and descriptions of the relationships between family and community-level characteristics and home visiting engagement.

In the quasi-experimental design category, most articles (85 percent) used propensity score methods to develop comparison groups, primarily as a matching technique, with some using propensity score weights in analyses as well. The remainder of the studies using quasi-experimental designs compared families enrolled in home visiting to eligible or referred participants who did not enroll.

Experimental study articles mainly used an intent-to-treat approach in their primary analyses, where the participants randomized to the home visiting intervention are compared to the control group, regardless of the frequency or duration of services received. Many used primary data collection in addition to routine program data

---

<sup>†</sup> Data governance is defined as the policies and procedures that determine how data are managed, used, and protected.<sup>8</sup> Data governance is particularly important for planning and implementing an integrated data system because it defines how data are handled throughout the lifecycle and ensures that all organizations are held accountable for data privacy and security, data quality and integrity, and necessary system updates. Data governance methods can also be helpful when linking datasets in addition to documents that outline data use and sharing agreements.



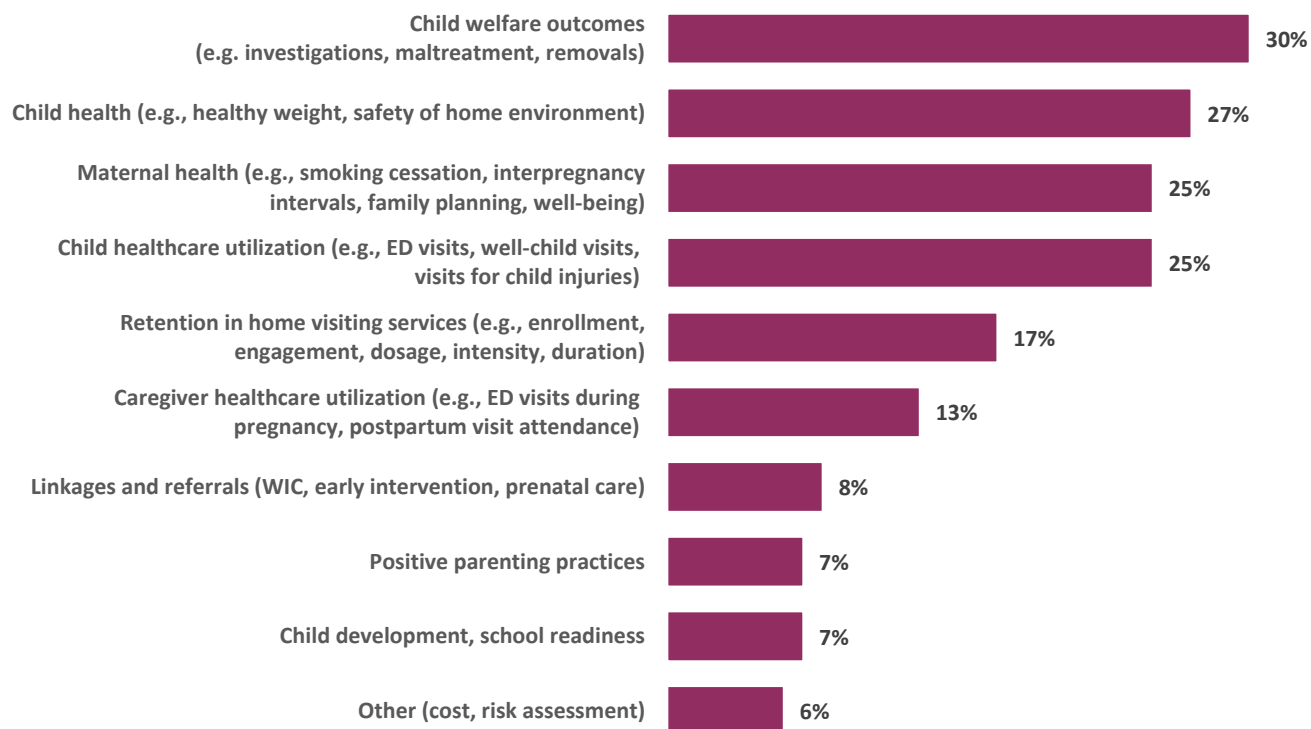
(for example, periodic surveys of parental risk factors, behaviors, or depressive symptoms). Several used primary data in mediation analyses. Very few articles reported mixed methods (e.g., administrative data with staff or client qualitative interviews).

#### Exhibit 9. Summary of Design Types and Example Research Questions

Design type	Count of Articles	Percentage of Articles	Example Research Questions
Observational	16	23%	<ul style="list-style-type: none"> <li>After adjusting for clinical and demographic characteristics, what are the associations between enrollment in home visiting, well-child visit attendance, and emergency department use?</li> <li>What are the relationships between participation in home visiting and participation in other services (domestic violence assistance, substance abuse services, housing supports) and court substantiated child maltreatment?</li> <li>What factors influence engagement in home visiting (clustering for community, agency, and maternal factors)?</li> </ul>
Quasi-experimental	34	48%	<ul style="list-style-type: none"> <li>Are participants in home visiting more likely to have adequate frequency and timing of prenatal care visits, have fewer pregnancy complications, have lower rates of preterm birth and low birth weight, and be more likely to initiate breastfeeding?</li> <li>Are birth outcomes for second children of home visiting participants improved, and do race and age moderate these effects?</li> <li>Does home visiting increase the likelihood of children from low-income households passing a standardized kindergarten readiness screener and being promoted to first grade?</li> </ul>
Experimental	21	30%	<ul style="list-style-type: none"> <li>Do children randomly assigned to home visiting have less total emergency department visits through two years of age?</li> <li>Does participation in home visiting prevent infant and maternal mortality in disadvantaged contexts?</li> <li>What are the short-term impacts of home visiting on healthcare utilization (Medicaid claims), and how do variations in service use affect health outcomes?</li> </ul>
<b>Total</b>	<b>71</b>	<b>100%</b>	

Most articles investigated a single outcome category (66 percent); fewer articles investigated two categories (21 percent) or three to six categories (13 percent). Exhibit 10 presents the range of outcomes included in the articles. The number of outcome categories examined may have been influenced by the types of data collected and/or datasets available to researchers.

## Exhibit 10. Outcomes Reported in Experimental and Quasi-Experimental Designs using Linked Data



*Notes: This exhibit includes all articles reporting outcomes, including all data sources (N = 55). Some articles reported multiple outcomes, so articles may be counted in one or more categories above. The observational studies did not compare outcomes between home visiting participants and comparison groups.*

## CONCLUSIONS

This scoping review identified 71 articles about home visiting that used linked data, a relatively small number given the large body of research on home visiting. Our review may not represent the totality of research and evaluation in this area because not all teams doing this work submit articles for peer review.

Collectively, the included articles demonstrate the value of linking data to answer research questions that cannot be readily answered with home visiting program data alone; they also highlight gaps and opportunities for research questions, study designs, data linkage work, and partner and community engagement outlined below.

**Data sharing and linking facilitates possibilities for asking an expanded range of possible home visiting research questions.** The variety of outcomes and data sources identified through the scoping review demonstrates how linked data can expand the types of outcomes assessed in home visiting studies. Linking with other systems makes it possible to answer research questions about the impact of home visiting compared to a control group on outcomes including, for example: maltreatment investigations, substantiations, and out-of-home placements using linked CPS data; emergency department use for infants and adequacy of prenatal care visit frequency using linked electronic health records data; and student academics and behavior using linked school achievement and disciplinary records. Linked data may be more reliable and less resource-intensive to collect than self-reported data; linked data may also make it easier to reach adequate statistical power to detect differences. Sample sizes may be large enough for subgroup analyses (e.g., by racial groups), a critical need for understanding what aspects of home visiting work best for whom, why, and how.

**Data sharing and linking can support efficient research designs, such as low-cost RCTs and quasi-experimental designs, that can help build or strengthen evidence for home visiting.** Although RCTs may still be the gold standard for building evidence, low-cost RCTs that rely on administrative data for outcomes and quasi-experimental study designs with rigorous comparison groups may be more feasible to implement and still produce strong evidence. Models building evidence of effectiveness for HomVEE review can consider for their research portfolios quasi-experimental designs using propensity score-matched comparison groups and linked administrative data for outcomes.

**Researchers generally relied on manual linkage processes with fewer accessing linked data through an integrated system.** Most articles included in this review reported manual linking processes to create datasets for research. Few articles described processes for requesting data from integrated data systems. Data request processes may become more streamlined in the future as more integrated systems are developed for program management and cross-agency collaboration. Additional funding opportunities and internal evaluation budgets can support collaborations between programs and researchers to increase opportunities for using existing linked data.

**Researchers have opportunities to better incorporate community and partner engagement in the research process.** The absence of examples from this scoping review demonstrates the opportunities to expand research engagement. Researchers can gather diverse perspectives across stages of the research process including developing research questions, selecting variables to include in the analyses, and interpreting and disseminating findings.

In conclusion, these findings provide the home visiting research community with 1) a summary of characteristics of published articles using linked data, 2) a list of included articles for researcher reference, and 3) several opportunities to further this work. Our next resource in this series will outline secondary data sources available for home visiting research.

### **Resource List to Support Data Sharing for Collaborative Home Visiting Research**

Researchers from the HARC team reviewed resources related to sharing home visiting data and compiled a list of resources that can support this work. The [brief](#) includes resources that are relevant to home visiting program administrators and data leads who are interested in sharing data with other administrative data sources, especially other early childhood programs.

## ACKNOWLEDGMENTS

The authors thank Allison West, Jill Filene, Joelle Ruben, and the HARC Leadership team for helping shape and edit the brief and Lori Rosman for her guidance and support in constructing the search terms for the review.

This brief is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under cooperative agreements UD5MC30792, Maternal, Infant, and Early Childhood Home Visiting Research and Development Platform and X104358, Maternal, Infant, and Early Childhood Home Visiting Grant Program. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, or the U.S. Government.

## SUGGESTED CITATION

Heberlein, E., Sturmfels, N., & Bruning, J. (2025). *A scoping review of home visiting research using linked data*. Home Visiting Applied Research Collaborative.

## APPENDIX

### List of MIECHV-Eligible Models and Promising Approaches\* Included in the Scoping Review

- Attachment and Biobehavioral Catch-up (infant)
- Arizona Health Start\*
- A Vision of Achievement for Nurturing Children and Families\*
- Baby TALK\*
- Child First
- Family Connects
- Early Head Start-Home Based Option
- Early Steps to School Success\*
- Family Check-Up for Children
- Family Spirit
- Following Baby Back Home\*
- Health Access Nurturing Development Services Program
- High Risk Perinatal Program\*
- Healthy Families America
- Home Instruction for Parents of Preschool Youngsters
- Intervention Nurses Start Infants Growing on Healthy Trajectories
- Maternal Early Childhood Sustained Home-Visiting Program
- Maternal Infant Health Outreach Worker
- Maternal Infant Health Program
- Nurses for Newborns\*
- Nurse-Family Partnership
- Parents As Teachers
- ParentChild+ \*
- Play and Learning Strategies
- Preparing for Life—Home Visiting
- Parent Child Assistance Program\*
- Promoting First Relationships
- SafeCare Augmented
- Team for Infants Exposed to Substance Use\*
- Video-Feedback Intervention to Promote Positive Parenting
- Welcome Baby\*

## Articles Included in the Scoping Review

The search includes articles published between January 1, 2010, and July 26, 2024.

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Ammerman, R.	<a href="#">Cost-effectiveness of In-Home Cognitive Behavioral Therapy for low-income depressed mothers participating in early childhood prevention programs.</a>	2017	Experimental	Healthy Families America; Nurse Family Partnership	Other
Bae, D.	<a href="#">Multilevel Interaction Effects of Family and Community Factors on Mothers' Engagement in Evidence-Based Home Visiting.</a>	2019	Quasi-experimental	Early Head Start-Home Based Option; Healthy Families America; Nurse Family Partnership; Parents As Teachers	Home visiting information system; Other
Bowers, K.	<a href="#">Participation in Home Visitation is Associated with Higher Utilization of Early Intervention.</a>	2018	Quasi-experimental	Healthy Families America	Census data; Educational records; Home visiting information system; Vital statistics
Casey, P.	<a href="#">Home Visiting and the Health of Preterm Infants.</a>	2017	Quasi-experimental	Following Baby Back Home (promising approach)	Home visiting information system; Medicaid/CHIP/insurance claims; Social services; Vital statistics; Other
Chaiyachati, B.H.	<a href="#">Preventing child maltreatment: Examination of an established statewide home-visiting program.</a>	2018	Quasi-experimental	Parents As Teachers	Child welfare system data; Home visiting information system
Cho, J.	<a href="#">Beyond Family Demographics, Community Risk Influences Maternal Engagement in Home Visiting.</a>	2017	Correlational/observational	Healthy Families America; Nurse Family Partnership; Parents As Teachers	Census data; Home visiting information system; Other
Cho, J.	<a href="#">Community contextual effects on at risk mothers' engagement in Georgia's Maternal, Infant, and Early Childhood Home Visiting programme.</a>	2018	Correlational/observational	Healthy Families America; Nurse Family Partnership; Parents As Teachers	Census data; Home visiting information system

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Cristian, M.	<a href="#">Community Health Worker Home Visiting, Birth Outcomes, Maternal Care, and Disparities Among Birthing Individuals With Medicaid Insurance.</a>	2023	Correlational/observational	Maternal Infant Health Program	Home visiting information system; Medicaid/CHIP/insurance claims; Other
Dodge, K.	<a href="#">Implementation and Randomized Controlled Trial Evaluation of Universal Postnatal Nurse Home Visiting.</a>	2014	Experimental	Family Connects	Electronic health records; Social services; Other
Dodge, K.	<a href="#">Effect of a Community Agency-Administered Nurse Home Visitation Program on Program Use and Maternal and Infant Health Outcomes: A Randomized Clinical Trial.</a>	2019	Experimental	Family Connects	Child welfare system data; Electronic health records; Home visiting information system; Other
Dodge, K.A.	<a href="#">Randomized Controlled Trial of Universal Postnatal Nurse Home Visiting: Impact on Emergency Care.</a>	2013	Experimental	Family Connects	Electronic health records; Other
Donelan-McCall, N.	<a href="#">Maternal and Child Mortality: Analysis of Nurse Home Visiting in 3 RCTs.</a>	2021	Experimental	Nurse Family Partnership	Vital statistics
Duffy, J.	<a href="#">Child maltreatment and risk patterns among participants in a child abuse prevention program</a>	2015	Correlational/observational	Parents As Teachers	Child welfare system data; Home visiting information system
Easterbrooks, M.A.	<a href="#">Limiting Home Visiting Effects: Maternal Depression as a Moderator of Child Maltreatment.</a>	2013	Experimental	Healthy Families America	Child welfare system data; Home visiting information system; Other
Easterbrooks, M.A.	<a href="#">Recurrence of Maltreatment After Newborn Home Visiting: A Randomized Controlled Trial.</a>	2019	Experimental	Healthy Families America	Child welfare system data; Home visiting information system; Other
Folger, A.	<a href="#">Evaluation of Early Childhood Home Visiting to Prevent Medically Attended Unintentional Injury.</a>	2017	Quasi-experimental	Healthy Families America	Home visiting information system; Public health systems; Vital statistics
Goodman, W.B.	<a href="#">Randomized controlled trial of Family Connects: Effects on child emergency medical care from birth to 24 months.</a>	2019	Experimental	Family Connects	Electronic health records; Home visiting information system; Other
Goodman, W.B.	<a href="#">Effect of a Universal Postpartum Nurse Home Visiting Program on Child Maltreatment and Emergency Medical Care at 5 Years of Age: A Randomized Clinical Trial.</a>	2021	Experimental	Family Connects	Child welfare system data; Electronic health records; Home visiting information system

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Gourevitch, R.	<a href="#">Home Visits With A Registered Nurse Did Not Affect Prenatal Care In A Low-Income Pregnant Population.</a>	2023	Experimental	Nurse Family Partnership	Electronic health records; Home visiting information system; Medicaid/CHIP/insurance claims; Vital statistics
Goyal, N.	<a href="#">Effects of Home Visiting and Maternal Mental Health on Use of the Emergency Department among Late Preterm Infants.</a>	2015	Correlational/ observational	Healthy Families America	Electronic health records; Home visiting information system; Vital statistics
Goyal, N.	<a href="#">Home visiting for first-time mothers and subsequent pregnancy spacing.</a>	2017	Quasi-experimental	Healthy Families America; Nurse Family Partnership	Electronic health records; Home visiting information system; Vital statistics; Other
Goyal, N.	<a href="#">Primary Care and Home Visiting Utilization Patterns among At-Risk Infants.</a>	2018	Quasi-experimental	Healthy Families America; Nurse Family Partnership	Electronic health records; Home visiting information system; Vital statistics
Goyal, N.	<a href="#">Adherence to Well-Child Care and Home Visiting Enrollment Associated with Increased Emergency Department Utilization.</a>	2020	Correlational/ observational	Healthy Families America; Nurse Family Partnership	Electronic health records; Home visiting information system; Vital statistics; Other
Goyal, N.	<a href="#">Multilevel assessment of prenatal engagement in home visiting</a>	2016	Correlational/ observational	Healthy Families America	Electronic health records); Home visiting information system; Public health systems; Vital statistics
Goyal, N.K.	<a href="#">Dosage Effect of Prenatal Home Visiting on Pregnancy Outcomes in At-Risk, First-Time Mothers.</a>	2013	Correlational/ observational	Healthy Families America	Electronic health records; Home visiting information system; Vital statistics
Goyal, N.K.	<a href="#">Association of Maternal and Community Factors With Enrollment in Home Visiting Among At-Risk, First-Time Mothers.</a>	2014	Quasi-experimental	Healthy Families America	Census data; Home visiting information system; Vital statistics
Green, B.	<a href="#">The effect of Early Head Start on child welfare system involvement: A first look at longitudinal child maltreatment outcomes.</a>	2014	Correlational/ observational	Early Head Start-Home Based Option	Child welfare system data; Home visiting information system; Other
Green, B.	<a href="#">Using administrative data to evaluate the effectiveness of the Healthy Families Oregon home visiting program: 2-year impacts on child maltreatment &amp; service utilization.</a>	2017	Experimental	Healthy Families America	Child welfare system data; Home visiting information system; Social services; Other



First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Green, B.	<a href="#">Pathways to prevention: Early Head Start outcomes in the first three years lead to long-term reductions in child maltreatment.</a>	2020	Experimental	Early Head Start-Home Based Option	Child welfare system data; Home visiting information system; Other
Green, B.	<a href="#">Effects of Home Visiting Program Implementation on Preventive Health Care Access and Utilization: Results from a Randomized Trial of Healthy Families Oregon.</a>	2020	Experimental	Healthy Families America	Electronic health records; Home visiting information system; Medicaid/CHIP/insurance claims; Social services; Other
Griffis, H.	<a href="#">Home visiting and perinatal smoking: a mixed-methods exploration of cessation and harm reduction strategies.</a>	2016	Correlational/observational	Nurse Family Partnership	Home visiting information system; Social services; Vital statistics; Other
Holland, M.	<a href="#">Birth-Related Outcomes for Second Children Following Home Visiting Program Enrollment for New Parents of First Children.</a>	2022	Quasi-experimental	Parents As Teachers	Census data; Home visiting information system; Vital statistics; Other
Holland, M.	<a href="#">Low birthweight in second children after nurse home visiting.</a>	2018	Quasi-experimental	Nurse Family Partnership	Home visiting information system; Vital statistics; Other
Holland, M.	<a href="#">Estimating Surveillance Bias in Child Maltreatment Reporting During Home Visiting Program Involvement.</a>	2024	Quasi-experimental	Parents As Teachers	Census data; Child welfare system data; Electronic health records; Home visiting information system; Vital statistics
Hooper, A.	<a href="#">Area Deprivation Index as a predictor of economic risk and social and neighborhood perceptions among families enrolled in Early Head Start.</a>	2022	Correlational/observational	Early Head Start-Home Based Option	Other
Jacobs, F.	<a href="#">Improving Adolescent Parenting: Results From a Randomized Controlled Trial of a Home Visiting Program for Young Families.</a>	2016	Experimental	Healthy Families America	Child welfare system data; Home visiting information system; Vital statistics; Other
Janczewski, C.	<a href="#">Intergenerational transmission of child protective services involvement: Exploring the role of ACEs and domestic violence among families who receive home visiting services.</a>	2023	Correlational/observational	Early Head Start-Home Based Option; Healthy Families America; Nurse Family Partnership; Parents As Teachers	Census data; Child welfare system data; Home visiting information system; Other

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Jonson-Reid, M.	<a href="#">A Randomized Trial of Home Visitation for CPS-Involved Families: The Moderating Impact of Maternal Depression and CPS History.</a>	2018	Experimental	Parents As Teachers	Child welfare system data; Home visiting information system
Kelly, C.	<a href="#">Can we measure risk in home visitation? An examination of the predictive validity of the Healthy Families Parenting Inventory (HFPI).</a>	2022	Correlational/ observational	Healthy Families America	Child welfare system data; Home visiting information system; Other
Lahti, M.	<a href="#">Parents as Teachers home-visiting intervention: A path to improved academic outcomes, school behavior, and parenting skills.</a>	2019	Quasi-experimental	Parents As Teachers	Census data; Educational records; Home visiting information system
Lanier, P.	<a href="#">Comparing Primiparous and Multiparous Mothers in a Nurse Home Visiting Prevention Program.</a>	2014	Correlational/ observational	Nurses for Newborns (promising approach)	Child welfare system data; Home visiting information system; Vital Statistics
Lee, E.	<a href="#">Reducing maltreatment recurrence through home visitation: A promising intervention for child welfare involved families.</a>	2018	Experimental	Healthy Families America	Child welfare system data; Social services; Other
Lewis, K	<a href="#">Cost-benefit analysis of home visiting to reduce infant mortality among preterm infants.</a>	2023	Quasi-experimental	Following Baby Back Home (promising approach)	Home visiting information system; Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Vital statistics; Other
Matone, M.	<a href="#">Home visitation program effectiveness and the influence of community behavioral norms: a propensity score matched analysis of prenatal smoking cessation.</a>	2012	Quasi-experimental	Nurse Family Partnership	Home visiting information system; Social services; Vital statistics; Other
Matone, M.	<a href="#">Emergency Department Visits and Hospitalizations for Injuries Among Infants and Children Following Statewide Implementation of a Home Visitation Model.</a>	2012	Quasi-experimental	Nurse Family Partnership	Child welfare system data; Home visiting information system; Medicaid/CHIP/insurance claims; Social services; Vital statistics

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Matone, M.	<a href="#">A Mixed Methods Evaluation of Early Childhood Abuse Prevention Within Evidence-Based Home Visiting Programs.</a>	2018	Quasi-experimental	Early Head Start-Home Based Option; Nurse Family Partnership; Parents As Teachers	Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Social services; Vital statistics; Other
McConnell, M.	<a href="#">Effect of an Intensive Nurse Home Visiting Program on Adverse Birth Outcomes in a Medicaid-Eligible Population: A Randomized Clinical Trial.</a>	2022	Experimental	Nurse Family Partnership	Electronic health records; Home visiting information system; Medicaid/CHIP/insurance claims; Vital statistics
McCue, K.	<a href="#">Impact of a Community Health Worker (CHW) Home Visiting Intervention on Any and Adequate Prenatal Care Among Ethno-Racially Diverse Pregnant Women of the US Southwest.</a>	2022	Quasi-experimental	Arizona Health Start (promising approach)	Home visiting information system; Vital statistics
McKelvey, L.	<a href="#">Home Visiting for NICU Graduates: Impacts of Following Baby Back Home.</a>	2021	Quasi-experimental	Following Baby Back Home (promising approach)	Electronic health records; Home visiting information system; Medicaid/CHIP/insurance claims; Vital statistics
McKelvey, L.	<a href="#">Examining Impacts of Healthy Families America on Infant Health Care.</a>	2024	Quasi-experimental	Healthy Families America	Home visiting information system; Medicaid/CHIP/insurance claims; Vital statistics
Meghea, C.	<a href="#">Statewide Medicaid Enhanced Prenatal Care Programs and Infant Mortality.</a>	2015	Quasi-experimental	Maternal Infant Health Program	Home visiting information system; Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Social services; Vital statistics
Meghea, C.	<a href="#">A Statewide Medicaid Enhanced Prenatal and Postnatal Care Program and Infant Injuries.</a>	2015	Quasi-experimental	Maternal Infant Health Program	Home visiting information system; Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Vital statistics
Mistry, J.	<a href="#">Heterogeneity among adolescent mothers and home visiting program outcomes.</a>	2016	Experimental	Healthy Families America	Child welfare system data; Vital statistics; Other

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Olds, D.	<a href="#">Prenatal and Infancy Nurse Home Visiting Effects on Mothers: 18-Year Follow-up of a Randomized Trial.</a>	2019	Experimental	Nurse Family Partnership	Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Social services (e.g. WIC, SNAP); Vital statistics (e.g. birth certificate records from state); Other
Olds, D.	<a href="#">Effect of Home Visiting by Nurses on Maternal and Child Mortality: Results of a 2-Decade Follow-up of a Randomized Clinical Trial.</a>	2014	Experimental	Nurse Family Partnership	Child welfare system data; Home visiting information system; Vital statistics
Pages, R.	<a href="#">Is the whole greater than the sum of its parts? Impacts on child outcomes from a home-visiting parenting program and its interaction with preschool.</a>	2024	Quasi-experimental	Home Instruction for Parents of Preschool Youngsters	Educational records; Home visiting information system; Medicaid/CHIP/insurance claims; Social services; Other
Payne, T.	<a href="#">Florida HIPPPY parents successfully prepare their children for kindergarten.</a>	2020	Quasi-experimental	Home Instruction for Parents of Preschool Youngsters	Educational records; Home visiting information system
Radcliff, E.	<a href="#">Are We Serving the Most At-Risk Communities? Examining the Reach of a South Carolina Home Visiting Program.</a>	2019	Correlational/observational	Other model not listed	Home visiting information system; Other
Raffo, J.	<a href="#">Clinical-Community Linkages: The Impact of Standard Care Processes that Engage Medicaid-Eligible Pregnant Women in Home Visiting.</a>	2021	Quasi-experimental	Maternal Infant Health Program	Census data; Electronic health records; Home visiting information system; Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Vital statistics
Raikes, H.	<a href="#">Evidence of the effectiveness of a home visiting model in rural communities: Early steps to school success</a>	2023	Quasi-experimental	Early Steps to School Success (promising approach)	Home visiting information system; Vital statistics
Roman, L.	<a href="#">The Impact of a Population-Based System of Care Intervention on Enhanced Prenatal Care and Service Utilization Among Medicaid-Insured Pregnant Women.</a>	2022	Quasi-experimental	Maternal Infant Health Program	Census data; Medicaid/CHIP/insurance claims; Vital statistics

First Author	Title with Link	Publication Year	Study Design	Home Visiting Model(s)	Data Sources
Rubin, D.	<a href="#">Variation in pregnancy outcomes following statewide implementation of a prenatal home visitation program.</a>	2011	Quasi-experimental	Nurse Family Partnership	Home visiting information system; Social services; Vital statistics; Other
Sabo, S.	<a href="#">Addressing maternal and child health equity through a community health worker home visiting intervention to reduce low birth weight: retrospective quasi-experimental study of the Arizona Health Start Programme.</a>	2021	Quasi-experimental	Arizona Health Start (promising approach)	Home visiting information system; Vital statistics
Scharff, D.	<a href="#">Evidence of Effectiveness of a Home Visitation Program on Infant Weight Gain and Breastfeeding.</a>	2021	Quasi-experimental	Nurses for Newborns (promising approach)	Electronic health records; Home visiting information system; Vital statistics
Schreier, A.	<a href="#">Early Head Start service use by families with court-substantiated maltreatment.</a>	2020	Correlational/observational	Early Head Start-Home Based Option	Home visiting information system; Other
Silovsky, J.	<a href="#">Prevention of child maltreatment in high-risk rural families: a randomized clinical trial with child welfare outcomes.</a>	2011	Experimental	SafeCare Augmented	Child welfare system data; Home visiting information system; Other
Thorland, W.	<a href="#">Status of Birth Outcomes in Clients of the Nurse-Family Partnership.</a>	2017	Quasi-experimental	Nurse Family Partnership	Home visiting information system; Vital statistics
Wightman P.	<a href="#">Community health worker intervention improves early childhood vaccination rates: results from a propensity-score matching evaluation.</a>	2022	Quasi-experimental	Arizona Health Start (promising approach)	Home visiting information system; Public health systems; Vital statistics
Williams C.	<a href="#">Kentucky Health Access Nurturing Development Services Home Visiting Program Improves Maternal and Child Health.</a>	2017	Quasi-experimental	Health Access Nurturing Development Services Program	Child welfare system data; Home visiting information system; Vital statistics
Yu, X.	<a href="#">Community Health Workers: Improving Home Visiting Engagement of High-Risk Birthing People in Segregated Neighborhoods.</a>	2024	Correlational/observational	Maternal Infant Health Program; Other model not listed	Census data; Home visiting information system; Medicaid/CHIP/insurance claims; Medicaid/CHIP/insurance enrollment data; Vital statistics
Yun K.	<a href="#">Effect of Maternal--Child Home Visitation on Pregnancy Spacing for First-Time Latina Mothers.</a>	2014	Quasi-experimental	Nurse Family Partnership	Home visiting information system; Social services; Vital statistics

## REFERENCES

1. Hall, E. S., Goyal, N. K., Ammerman, R. T., Miller, M. M., Jones, D. E., Short, J. A., & Van Ginkel, J. B. (2014). Development of a linked perinatal data resource from state administrative and community-based program data. *Maternal and child health journal*, 18, 316-325.
2. Jenkins, D., Berkowitz, E., Burnett, TC, Culhane, D., Hawn Nelson, A., Katz, M., Smith, K., & Zanti, S. (2021). Expanding Mobility: The Power of Linked Administrative Data and Integrated Data Systems. Actionable Intelligence for Social Policy. University of Pennsylvania.
3. SRI International, AnLar, Actionable Intelligence for Social Policy. (2024). Data Linkage and Integration for Research and Statistical Purposes: An Annotated Bibliography (OPRE Report 2024-355). Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
4. Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: advancing the methodology. *Implementation science*, 5, 1-9.
5. Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, 8(1), 19-32.
6. Peters, M. D., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., ... & Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBIM evidence synthesis*, 18(10), 2119-2126.
7. Office of the National Coordinator for Health Information Technology. 'National Trends in Hospital and Physician Adoption of Electronic Health Records,' [Health IT Quick-Stat #61](#).
8. Hawn Nelson, A., Jenkins, D., Zanti, S., Katz, M., Burnett, T., Culhane, D., Barghaus, K., et al. (2020). Introduction to Data Sharing and Integration. Actionable Intelligence for Social Policy. University of Pennsylvania.