

Why research on low-income Hispanic children and families matters

Hispanic children currently make up roughly one in four of all children in the United States,^a and by 2050 are projected to make up one in three,^b similar to the number of non-Hispanic, white children. Given this, how Hispanic children fare will have a profound and increasing impact on the social and economic well-being of the country as a whole. Notably, though, two-thirds of Hispanic children live in poverty or near poverty,^c defined as less than two times the federal poverty level.^d Despite their high levels of economic need, Hispanics, particularly those in immigrant families, have lower rates of participation in many government support programs when compared with other racial/ethnic minority groups.^e High-quality, research-based information on the characteristics, experiences, and diversity of Hispanic children and families is needed to inform programs and policies supporting the sizable population of low-income Hispanic children and families.

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Integrated Data Systems: An Emerging Tool to Support Services for Low-Income Hispanic Families with Young Children

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Overview

A growing body of research suggests that Hispanic families may use public services such as preschool, health care, and nutrition assistance differently than members of other ethnic groups do. For example, the enrollment of Hispanic children in center-based child care lags well behind that of non-Hispanic black and non-Hispanic white children.^{1,2} Research on service use among Hispanics is complicated by the fact that Hispanic families are diverse across many characteristics, such as country of origin, immigration status, educational level, and facility with English—each of which may be associated with families' needs, eligibility for, and use of public services. To better understand and support the varying needs of this heterogeneous population, policymakers, service providers, and researchers require comprehensive, detailed, and up-to-date information regarding Hispanic families' use of different public service systems.

Integrated data systems (IDS) represent one potentially powerful new tool which policymakers and researchers might use to better understand low-income families' (including, but not necessarily limited to, Hispanic families') patterns of public service use, the family and community characteristics that predict service use, and the links between service receipt and important child and family outcomes. Developed by states and municipalities across the country, IDS link administrative and program data from discrete service agencies (e.g., child care, education, social service, health, etc.). Prior to the development of IDS, the wealth of information regarding individuals' participation in health and social service programs typically was collected and analyzed separately by each specific program or agency. While such analyses can provide important information about families' service use within that program/agency, it offers limited insight into families' service use across multiple programs or agencies. For example, using only child care subsidy data, an examination of the patterns of child care subsidy use by Hispanic families would not necessarily take into account these families' use of other types of public assistance programs (e.g., Temporary Assistance for Needy Families, Special Supplemental Nutrition Program for Women, Infants, and Children, etc.). IDS bridge this gap and allows for a more comprehensive examination of factors related to service use by linking data and allowing for analyses to be conducted across multiple programs and/or agencies that support low-income families with young children.

This brief explores how IDS data may be an important and cost-efficient resource for better understanding public service use among low-income Hispanics in the United States. This understanding could, in turn, inform policies and practices aimed at this population. This brief:

- 1. summarizes current information about the public service use patterns of low-income Hispanic families with young children,
- 2. describes IDS and their key features,
- 3. discusses how IDS may help us better understand public service use among low-income Hispanic families with young children,
- 4. provides examples of how IDS have been used to address important policy questions, and
- 5. offers guidance for researchers interested in using IDS to answer questions regarding low-income Hispanic families with young children.

Key findings

- There are substantial gaps in our understanding of the public service use patterns of low-income Hispanic families with young children, including which individual, family, and/or community characteristics may facilitate or impede access, how use patterns vary among Hispanic subgroups, and how differences in use patterns may be associated with outcomes for children.
- IDS have the potential to be comprehensive, timely, and cost-effective mechanisms for examining low-income Hispanic families' patterns of use of publically-funded services both within and *across* different service delivery agencies. An increasing number of state and local governments are developing new IDS that link information about individuals served across different agencies, and over time.
- In order for policy researchers to leverage IDS data, data collection must take into account the considerable heterogeneity of the Hispanic population (e.g., by including country of origin, nativity status, language proficiency, etc.).
- Accessing IDS data can be challenging for researchers, since many IDS systems have not yet been set up for easy access by outside researchers. As we seek to improve the data infrastructure to study low-income Hispanic populations, increasing the accessibility of IDS information will be paramount.

What do we know about service use among low-income Hispanic families?

To develop a more nuanced understanding of low-income Hispanic children and families' access to and use of public services, we need to improve our understanding of the answers to these broad questions:

- 1. Which public services are used by low-income Hispanic families? When and where do families access these services? And how do families change and/or combine services over time?
- 2. How do use patterns differ among Hispanic subgroups (e.g., by country of origin, region of the country, nativity status, etc.)?
- 3. To what extent are different use patterns associated with Hispanic children's short- and long-term development?

Existing research has begun to address some of these questions and suggests subtle but important differences in low-income Hispanic families' use of social service programs. Hispanic families with young children remain underrepresented in some programs. For example, the enrollment of Hispanic children in center-based child care lags well behind that of non-Hispanic black and non-Hispanic white children.^{1,2} A larger proportion of low-income Hispanic children lack access to health insurance than do their non-Hispanic black and white counterparts.³



By contrast, there are some services in which low-income Hispanic families participate at higher rates. For example, Hispanic families receive Women, Infants, and Children (WIC) benefits at a rate that is nearly double that of non-Hispanic whites,⁴ and Hispanic families are more likely than non-Hispanic white families but less likely than non-Hispanic black families to enroll their young children in Head Start.⁵

Although these findings are informative, they leave important questions unanswered, such as whether use patterns are similar for different public services and why low-income families may shift their service use over time.

In addition, there are differences in service use by Hispanic subgroup. Characteristics of some Hispanic subgroups, including limited English proficiency, undocumented status, and poverty, may present barriers to certain types of service use.⁶⁻⁹ At the same time, patterns of use for Hispanic subgroups are not always consistent across social service programs. For example, compared with families headed by documented Hispanic immigrants, Hispanic families headed by undocumented parents are *less* likely to participate in cash benefit programs but *more* likely to receive WIC benefits, and *just as* likely to access food stamp services.¹⁰

Finally, many researchers and policymakers are interested in whether service use has an impact on child and family well-being. For example, there is substantial research examining the short- and long-term gains related to participation in early childhood education programs,^{11,12} with evidence that such programs are especially effective for Hispanic children.^{13,14} However, we know less about how receiving other public assistance services or combinations of services is related to low-income Hispanic children's long-term success and well-being.

What are integrated data systems?

IDS are data systems developed by groups of service providers, researchers, and policymakers who are interested in delivering more effective and efficient public services. Although IDS differ from one municipality or other geographic area to another, most systems contain some common features. First, **IDS typically contain data that are collected as part of the day-to-day business of operating government public assistance, social service, health, and/or education programs.** These data often include the demographic characteristics of individuals who receive/access services; the timing, type, and intensity of services received; and, in some cases, indicators of the well-being of families, parents, and children via relevant metrics of health, development, or educational achievement.

The second key feature of IDS is that **they link individual data across multiple, independent agency data systems,** allowing service access and use patterns to be tracked *across* service delivery systems. Linking data from multiple agencies can be complicated, because social service delivery programs develop unique data sets for different purposes. There may even be multiple data systems for one kind of service; for example, multiple agencies administer early childhood programs at the local, state, and federal level. Further, agencies typically develop their own standards for collecting and identifying data. Unfortunately, it is often the case that the way one agency identifies and defines data elements is different from the way other agencies do. These inconsistencies in definitions of data elements may create challenges when agencies try to share data with each other.¹⁵

To facilitate linking across data systems, IDS require that administrative and program data contain certain elements, such as a unique

identifier (a unique number assigned to each person that follows them across different programs), and follow common data standards. A unique identifier facilitates the matching of individual records across datasets, while common data standards ensure that data fields represent the same type of information (e.g., consistent definitions for race/ethnicity categories, parental countries of birth, language(s) spoken at home, etc.) when linking databases. In addition, the kinds of questions that can be answered by IDS depend on which agencies' data systems are included, the type of data collected by contributing agencies within different municipalities, and the geographic area (e.g., city, state

Examples of information that can be included in IDS

- Birth certificates
- Public school records
- Home visiting and early intervention participation
- Medicaid participation
- Participation in publically subsidized child care
- Juvenile justice filings
- Child welfare placements
- Child abuse and neglect investigations
- TANF participation
- SNAP participation

or county) covered by any given IDS. For example, as shown below, in Florida, there are two distinct levels of IDS: state and county.



Example of IDS at two levels^a

The Policy and Services Research Data Center based at the University of Southern Florida consists of two distinct IDS with different contributing agencies.

Statewide Data System	Pinellas County Data Collaborative
Florida Department of Law Enforcement	Pinellas County Criminal Justice Information System
Florida Child Welfare	Pinellas County Emergency Medical Services
Florida Department of Corrections	Pinellas County Juvenile Welfare
Florida Agency of Health Care Administration	Pinellas County Health and Human Services
Florida's Involuntary Psychiatric Evaluation	
Florida Department of Children and Families	
Department of Education	
Department of Health	
Department of Labor	

^a Kitzmiller, Erika M. (2013). IDS Case Study: University of South Florida: Fulfilling a Statewide Need to Enhance Policy Analysis and Service Delivery. Actionable Intelligence for Social Policy (AISP), University of Pennsylvania.

The third key feature of IDS is that **they permit data on individuals to be linked** over time. IDS can retain historical data at the individual level. By compiling this, IDS allow for the examination of service use over time, as well as the disentangling of short- and long-term effects of programs on children and families.

Although IDS share common features, differences in system design affect the type of information they can provide. For example, the data architecture, or the way the IDS is structured, can vary depending on its intended use. A *data warehouse* is one method of IDS organization that collects data from multiple administrative systems, links them together, and stores them in a centralized repository. This approach is designed to support a broad scope of work rather than one specific analytic question. This allows users to answer complex questions, but it also makes maintenance more difficult due to the large quantity of data involved. A *federated data* architecture, on the other hand, maintains one or more cross-agency indexes rather than a shared database. These cross-agency indexes can include identifiers—such as name, date of birth, or another key identifier—from each administrative system that has client information. When a user makes a data request, the federated data system separates the user's query into its component parts and extracts the information needed from the different agencies' respective data systems. Given that the majority of client data stays within each administrative data system, legal requirements related to disclosure of sensitive client data are easier to enforce. A third type of data architecture is a *hybrid* that uses elements of a data warehouse and federated data.

Regardless of the type of data architecture selected, it is necessary for any IDS to have a program governance team whose primary role is keeping confidential data secure and ensuring that data are used responsibly. The governance team, often comprised of representatives from key agencies and stakeholders who have contributed data to the IDS, typically oversees decisions and issues related to the design and implementation of the IDS. For example, researchers interested in using the IDS would apply to use the data following the protocols put in place by the governance team. The governance team, in turn, would be responsible for reviewing researchers' targeted research questions to ensure that sensitive, personally identifiable information about program recipients would be used in a secure and responsible manner. The team's role includes managing policies related to data use, compliance risk, data quality, technology architecture, data exchange standards, and service levels, as described in more detail below.¹⁶

- 1. Data use refers to issues related to data sharing, data interpretation, and training requirements for cross-program data use.
- 2. Compliance risk involves concerns about monitoring, measuring, and controlling the disclosure of sensitive client information.
- 3. Data quality includes monitoring, managing, and controlling the accuracy, timeliness, consistency, and reliability of data.
- 4. *Technology architecture* and *data exchange standards* entail identifying stakeholders, processes, roles, and expectations for coordinating the IDS data and systems architecture.
- 5. Service levels help clarify the roles and responsibilities of data providers and consumer agencies for each respective agency data set represented within the IDS.



How IDS might fill knowledge gaps about use of services by Hispanic families with young children

IDS data allow researchers and policymakers to examine a wide range of policy-relevant research questions, notably, those identified earlier in this brief as particularly relevant to low-income Hispanic children and families (i.e., questions related to service use across public assistance programs/agencies, variation in use by subgroups of low-income Hispanic children and families, and links between service use and child development).

Through the linking of data sources from multiple service delivery agencies, IDS permit researchers to describe the use of a range of services, alone and in combination with other services. In addition, examining individual-level data from multiple service delivery agencies allows researchers to examine associations among relevant child and family characteristics and service use. The ability to track individual data across agencies and over multiple years also enables researchers to understand how low-income Hispanic families' public service use patterns might change over time. Finally, if some agencies collect data related to child and family outcomes, IDS can track the relationships between various patterns of public service use and short- and long-term outcomes for low-income Hispanic children and families.

Questions about Hispanic children and families that can be addressed using IDS data

Service use

- Do low-income Hispanic families use individual or multiple public assistance services?
- How regularly do low-income Hispanic families use particular public services or combinations of services at any given point in time, over a given period of time?
- Do low-income Hispanic families experience frequent entries and exits from the public assistance system(s), or do they have sustained participation over time?

Variation in service use by subgroups

- How do Hispanic subgroups differ in their public service use, depending on family characteristics (e.g., immigration status, household composition)?
- Do service use patterns over time differ according to family

characteristics (e.g., parental nativity status, child/ parental citizenship status, parental time in U.S., language(s) spoken at home, etc.)?

• Do certain subgroups drop services more quickly than others?

Links between service use and child outcomes

- Are the timing or length of enrollment, particular combinations of services, or number of services received associated with academic or health outcomes for Hispanic children from low-income families?
- How is the use of family assistance programs by low-income Hispanic families related to long-term child health and academic outcomes?

Existing IDS

Several existing IDS have been used by researchers to examine questions that can be answered only through this type of linked data. Illinois state agencies, for example, were interested in understanding how families use public assistance services. Analyses of IDS data indicated that, among low-income families that received Illinois Department of Children and Family Services, Temporary Assistance for Needy Families, or Food Stamps in a given year, approximately 23 percent were served by multiple agencies. Nearly all (94 percent) of these multisystem families received some sort of mental health services and more than two-thirds (68 percent) experienced some interaction with either the juvenile justice or adult corrections systems. Multisystem families were also concentrated in a small number of Chicago neighborhoods. These analyses provided Illinois policymakers and program leaders with the necessary information to identify high-needs families and deploy public assistance resources more efficiently and effectively.^{17,18}

Similarly, research from Allegheny County, Pennsylvania illustrates how IDS can help address questions about public assistance service use. Pittsburgh Public Schools officials were interested in developing a program to support middle school students at risk of having poor academic outcomes. Researchers used school data to identify a group of students who were struggling in school despite having scored well on state standardized achievement tests. Using a locally-developed IDS (the Allegheny County's Data Warehouse), researchers discovered that more than 20 percent of these students were involved with one or more local social service providers, such as child welfare, behavioral health, and/or homeless services. Based on this information, school officials redesigned afterschool programs to better support the broader range of these students' needs.¹⁹



An example of particular relevance to our focus on Hispanic children and families is the use of the Kids Integrated Data System (KIDS) to learn more about the educational well-being of Latino children in Philadelphia public schools.²⁰ KIDS contains data on children's demographics, academic performance, and behavior from the School District of Philadelphia, as well as information about social, family, and health risk from City of Philadelphia social service agencies. Findings demonstrated that Latino children fared worse than their peers in reading and math skills and also had more reported issues with classroom conduct, truancy, and suspensions. Through IDS, researchers identified eight risk factors, publically monitored by various social service agencies, that contributed to these outcomes: lead toxicity, preterm birth, low birth weight, inadequate prenatal care, being the child of a teen mother or a mother without high school education, substantiated child maltreatment, and family homelessness. The more risks children had, the worse they performed academically and the more likely they were to be truant. Although nearly all third graders had some of these risk factors, Latino children were more likely to have mothers who did not have a high school diploma (35 percent) than were other children (12 percent). On the other hand, Latino children had a lower risk of homelessness. Data also revealed that third graders who had experienced formal early childhood education had a lower risk of poor reading and math outcomes, and of truancy. Latino children with three or more risk factors but who were proficient in third grade reading and math were more likely to have attended formal early childhood programs than students with similar risks who were not proficient by third grade.

Guidance for researchers interested in using IDS to address questions regarding Hispanic children and families' service use

Interest in the use of integrated data to support more responsive, efficient, and effective use of public services is growing. In 2010, the Office of Management and Budget encouraged federal, state, and local agencies to find ways to facilitate cross-agency data sharing and to use these data to better understand

Examples of existing IDS^a

Chicago

Chapin Hall's Integrated Database on Child and Family Programs

Cleveland

Case Western Reserve University's IDS for Cuyahoga County

Florida Statewide Data System Pinellas County Data Collaborative

New York City Center of Innovation for Data Intelligence (CIDI)

Philadelphia Kids Integrated Data System (KIDS)

Pittsburgh

Allegheny County Department of Human Services Data Warehouse

South Carolina

South Carolina IDS housed at the Office of Research and Statistics

Washington State

Integrated Client Data base

^a Members of the Actionable Intelligence for Social Policy Network. For more information, see <u>http://</u> www.aisp.upenn.edu/network/

the changing needs of the public and to inform policy and programmatic decision making.²¹⁻²³ Efforts to promote IDS have been reflected in competitive grant programs, such as the U.S. Department of Education's Race to the Top Early Learning Challenge grants,²⁴ and IDS efforts have been championed by nongovernmental organizations such as the Council of Chief State School Officers,²⁵ the Coalition for Evidence-Based Policy, and the Association for Public Policy and Management.²⁶ Despite the vast potential of IDS-based research, accessing and using these data can be challenging to researchers who not located within any of the agencies who are part of a given IDS, particularly those seeking to study low-income Hispanic families and children.

The underlying data in IDS may not yet contain sufficient information to accurately capture the heterogeneity of the Hispanic population. Although administrative data from public service agencies used in IDS often include important information such as race/ ethnicity and family income, the individual data systems that make up an IDS often exclude other critical information—such as the language spoken in the home, how many generations the family has lived in the United States, and for first-generation immigrant families, how recently they immigrated and their country of origin. In some cases, when looking at the multiple linked data sets within an IDS rather than at any one given data set, it may be possible to capture a greater number of variables and thereby better reflect the variability within the Hispanic population.

Moving forward, it is our hope that continued interest in using IDS data to study Hispanic children and families will spur the collection of a more complete set of data elements to better capture the variability of this rapidly growing population. Among agencies serving communities with large numbers of Hispanics, proactively adopting a common set of Hispanic subgroup indicators would be particularly useful for designing and improving the responsiveness of program service delivery.



The kinds of questions IDS can answer will depend on the level and the type of data included in a particular IDS. As described above, IDS can be used for multiple purposes and at multiple levels. However, many data systems contained within a given IDS were designed to capture data about service delivery and not about child and/or family outcomes. Also, some data systems may have less-stringent monitoring or less-complete quality control procedures to ensure the quality and completeness of the resulting data. For example, while some data sets may include variables capturing the heterogeneity of the Hispanic population, without careful quality control procedures, those variables may end up with a high percentage of missing data.

Researchers interested in using IDS need to be aware of the potential variability in the type and quality of data that are available. Not all IDS are the same, and variability in IDS structure, participating service agencies, and underlying data elements can affect the types of questions that can be addressed by researchers.

Many IDS are still developing procedures for sharing data with external researchers. At present, it is often difficult for external researchers who are not state employees or otherwise involved in the creation of the specific IDS to readily access the data from most IDS systems. IDS data dictionaries, codebooks, and user procedures may not be publically available. As interest in using IDS data increases, more knowledge about the availability and accessibility of IDS data will ensure that such data can improve our understanding of the populations served by various public assistance programs and policies. For example, IDS administrators could provide more readily accessible documentation listing the variables contained within the respective IDS, as well as documentation specifying the procedures for requesting access to the IDS data. These steps will help facilitate collaborations between researchers and policymakers, encourage innovative approaches to the analysis of IDS data, and maximize the impacts of the public investments in these data systems—issues of paramount importance to those seeking to support the well-being of low-income Hispanic families and children.

We'd love to hear your thoughts on this publication. Has it helped you or your organization? Email us at feedback@childtrends.





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About the Center

The National Research Center on Hispanic Children & Families is a hub of research to help programs and policy better serve lowincome Hispanics across three priority areas—poverty reduction and economic self-sufficiency, healthy marriage and responsible fatherhood, and early care and education. The Center was established in 2013 by a five-year cooperative agreement from the Office of Planning, Research, and Evaluation (OPRE) within the Administration for Children and Families (ACF) in the U.S. Department of Health and Human Services (HHS) to Child Trends in partnership with Abt Associates and New York University, University of North Carolina at Greensboro, and University of Maryland, College Park. This publication was made possible by Grant Number 90PH0025 from OPRE. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of OPRE, ACF, or HHS.

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