MEETING SUMMARY

NAHDO 2026

Annual Meetings in Miami

May 6-7, 2026
DoubleTree Biscayne Bay
Miami, FL

Introduction and Executive Director Remarks

The NAHDO 2026 Annual Meeting in Miami brought together health data professionals from across the country, and it was a pleasure to reconnect with so many members, colleagues, and friends in person. The energy across the two days, in the sessions themselves and in the conversations that filled the gaps between them, was a reminder of why this gathering matters and what we miss when we only meet on screens.

Over two days we worked through challenges that are real and, in places, still unresolved, from standardizing data and linking sources that were never built to connect, to earning the public trust that lets data be used, to adopting new tools with the right measure of caution. What struck me was how pragmatic the discussions were. Members were not chasing ideal solutions; they were asking what is actionable, what one state has already solved that another can adopt, and where collective effort gets us further than going it alone. Most of what we took up in Miami remains unfinished work, and the progress that comes next will depend on the same kind of sustained collaboration that filled the room.

We hope this report preserves the insights and the momentum of the meeting and helps carry them into the year ahead. A compilation of the recommendations raised across the sessions appears in Appendix B. The NAHDO team will review these carefully to determine where we can be most useful, recognizing that we cannot take on every item. We ask you, our members, to identify the ideas that resonate most, to put them to work within your own programs, and to share your progress so that it can guide our support and benefit others. Our virtual Annual Conference this November is the natural place to bring that work back, to share what you have tried, what you have learned, and what is ready to build on, and we hope to see your sessions on the program. We look forward to reconnecting there, and then in person in New Orleans in 2027.

Thank you for the work you do, and for the generosity with which you share it.

Norm Thurston
Executive Director
NAHDO

Executive Summary

This report distills the core insights from the NAHDO 2026 Annual Meeting in Miami. Across sixteen working sessions, members returned to a consistent message: the technical capability of the health data field is advancing quickly, and most of the work that remains is not about new methods. It is about standardizing data, completing the picture that claims alone cannot give,

earning the trust that lets data be published and used, and adopting new tools without surrendering judgment.

Key Themes

Standardization. The absence of common definitions, formats, and submission rules came up more often than any other barrier. Members described the All-Payer Claims Database Common Data Layout (APCD-CDL™) less as a finished standard than as a floor to build on, with states layering custom fields on top and payers asking for greater consistency. Several went further, calling for shared operational references and a voluntary certification of what qualifies as an APCD, so the community defines its own standards rather than ceding the label.

Data Quality. Data collected to support payment is more complete than data collected for compliance or public reporting, which means the most policy-relevant fields, including social determinants, behavioral health, race and ethnicity, and the gap between a licensed and a practicing provider, are often the least reliably captured. Validation practice in the room was mature, with per-member-per-month figures used as a canary and historical norms as the first comparison, but members agreed that completeness is rarely absolute and is best judged against fitness for use. Documentation of decisions, release notes that get read, and communication between intake teams and end users all surfaced as the discipline that turns quality work into trustworthy output.

Linkage. The most valuable work discussed in Miami, and the hardest, was joining claims to clinical results, vital records, registries, and social-needs data to show not only what care was delivered but whether it changed an outcome. Governance concerns are increasingly solvable through business associate agreements, honest-broker arrangements, and enclaves; field-level matching across systems that were never built to connect is the binding constraint. Members pointed to Delaware's combined HIE and APCD under a single master patient index as the clearest example of what becomes possible when the linkage problem is solved.

Trust and governance. Whether the subject was publishing hospital prices or adopting artificial intelligence, initiatives stalled on trust before they stalled on technology. The recurring lesson was that the first public release is the hardest, and the sky does not fall once stakeholders have a seat at the table. On privacy, the field is moving away from the premise that data can be fully de-identified and toward enforceable controls such as secure enclaves, contractual prohibitions on reidentification, and minimum-necessary release.

Artificial Intelligence. Adoption moved from rare to nearly universal in a single year, while governance lagged and state legislatures introduced hundreds of bills to catch up. The consistent posture across the room was cautious optimism: treat output as a capable draft rather than a finished product, keep a person in the loop, work in secure environments, and validate everything downstream.

Communication. Several sessions converged on the principle that analysis is useful only once it is understood. Teams were urged to find and tell the story in the data rather than publish a data dump, to match the level of detail to the audience, and to favor a clear chart over a clever one. The same discipline shaped visual design, where honest scales and accessible color separated frictionless visuals from misleading ones, and public reporting built around the researchers, insurers, and legislators who actually use it.

Sustainability and Federal Policy. Across rural health, analytic tooling, and program operations, participants warned against spending without planning to learn, a pattern several traced to the pandemic, and named measurement as the weak point when initiatives are funded but never evaluated. Standards, documentation, and the people who run them all need sustained investment rather than a one-time build. Federal policy is part of that footing, from the Rural Health Transformation Program and HRSA funding to the federal sharing restrictions and substance use disorder rules that shape what members can do with the data they already have.

Call to Action

The recommendations raised across the sessions are compiled in Appendix B, organized by where members asked NAHDO to focus: promoting standardization, providing education and technical support, advocating on federal policy, and strengthening the network. Several of the most concrete items depend on collective work that no member can do alone, including negotiating shared licensing terms for reference code sets, agreeing on a voluntary certification of what counts as an APCD, and coordinating standards across multistate analyses. NAHDO is positioned to convene that work, and members' engagement with Appendix B will help direct where we put our effort.

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List of Conference Attendees

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2026 Annual Meetings Session Summaries

Session 1A: Using Data to Inform Policy and Improve Care

Organizers: Kyle Russell (Virginia Health Information), Katie Martin (Health Care Cost Institute)
Sponsor: hMetrix

This session ran as a competitive exercise. A fictional Agency for Health Policy Analysis issued a deliberately open-ended request for proposals (RFP), and each table assembled a roughly 20-minute pitch in one of three topic areas: 1) maternal health, 2) rural health, and a third the room chose live, 3) behavioral health. Teams acted as both issuers and responders, then voted on a winner per topic. The value lies less in any single pitch than in the shared reasoning teams used to turn a vague policy charge into a defensible analytic proposal.

A common scaffold for turning a policy question into a proposal

Every team converged on the same build order, set out at the top of the session: 1) define the responding organization and tagline, 2) fix the geographic scope, 3) state a key analytic question, 4) choose data sources and an analytic approach, 5) specify deliverables, and 6) price the work. The judging rubric (analytic rigor, data availability, policy relevance, and cost feasibility) visibly shaped choices.

A recurring early decision was how wide to cast the geography. Several teams warned against trying to "boil the ocean" and narrowed to a single state as a proof of concept, arguing the analytics and dashboard could be replicated elsewhere at lower cost, though one rural team noted that no state wants to be the expensive first customer. The maternal teams split between a single-state heat-map analysis and a multistate quasi-experiment comparing policy-adopting states against control states.

Data sources and the gap between licensed and practicing providers

Data-source selection was the most heavily worked theme. The recurring building blocks were:

- **All-payer claims databases (APCDs)** for utilization, cost, and provider activity, with repeated caveats that an APCD captures only the insured and runs on a multi-month lag.
- **Vital statistics** (birth, death, and fetal death records) linked to claims, often the backbone of the maternal proposals.
- **Hospital discharge and emergency department data**, valued for reaching uninsured and self-pay encounters and claims miss.
- **CMS files**, including ambulance pickup and drop-off fields used to study rural transport.

- **Workforce and licensure data**, such as the National Plan and Provider Enumeration System (NPPES), workforce registries, and the American Community Survey (ACS) for broadband.

A sharp, repeated insight in the rural discussions was that a license does not mean a practicing provider, so claims data showing who actually billed gives a truer picture of capacity. One attendee described a rural cardiologist credentialed locally but seeing patients once a month, and another described clinicians who drive in from a city on set days, both cases where a provider index overstates real access and billing location can be recorded incorrectly. Participants also flagged that available-on-paper capacity hides long appointment waits that no standard dataset captures well.

Deliverables, audiences, and budgeting under a competitive bid

Deliverables were strikingly uniform. Nearly every team proposed an interactive dashboard, frequently paired with a policy brief, and several noted that legislators respond to dashboards. Most settled on annual refreshes, since vital statistics and survey data do not turn over faster than that.

On budgeting, teams reasoned from staffing and period of performance rather than a fixed ceiling. A typical mix was a project manager, two analysts (one for linkage, one for visualization), a quality-assurance analyst, and a part-time subject-matter expert. To control cost, teams assumed the client state would supply its own data and infrastructure, treating paid external data as the real expense. Competitive pricing was both a running joke and a real tactic, with figures clustered under $500,000 for single-state work and one team undercutting a rival in real time at $499,000.

Topic-specific framings and open tensions

The maternal teams centered on postpartum coverage and access. One built a multistate evaluation of whether twelve-month postpartum Medicaid extension improves outcomes, using a treatment-versus-control design and linking claims, vital records, the Pregnancy Risk Assessment Monitoring System (PRAMS), and quality measures. Others proposed midwifery programs, a 90-day episode-of-care reimbursement model covering screening and mental health, and drive-time analysis of where mothers travel to give birth, with the recurring worry that screening and follow-up care that should be standard often does not appear in claims.

Rural teams focused on access, distance, and workforce, using drive-time analysis (computed both straight-line and by road network) and ambulatory-care-sensitive conditions as intervention targets. One team distinctively built community engagement and co-design into both the analysis and the budget, arguing priorities should be validated with rural residents rather than assumed, since dispersed communities will not trust an organization that does not deliver.

The behavioral health team worked through a notable design tension. An initial real-time crisis-routing concept gave way to a planning-oriented analysis of provider gaps, because identifying gaps does not require instantaneous data and maps more directly to policy levers. The team also proposed mandating provider data submission to capture mental health services delivered outside insurance, a blind spot in claims-only approaches.

Session 1B: America's Next Top Data Model (Data Models for Analytics)

Organizers: Angela Taylor (Kentucky Cabinet for Health and Family Services), KeriAnn LaSpina (Mathematica)
Sponsor: Mathematica

This world cafe ran five tables in parallel, each working a different prompt about analytics data models then reporting out to the room. A data model was framed at the open as a blueprint for how data is organized, connected, defined, and used, with the point of the session being not a single best model but the principles and trade-offs behind different ones. The themes below synthesize the table conversations and the two table writeups produced during the session.

Two data models: ingestion versus analysis

The most consistent structural idea across the all-payer claims database (APCD) tables was that a working system runs two distinct models. An ingestion model stages submitted data, an extract-transform-load (ETL) process moves it forward, and an analysis model serves as the final product for reporting. Several participants treated this split as the place where messy inputs get resolved, framing the ingestion-side validation as serving the goal of getting data ready for ETL rather than as an end in itself. The practical question they kept returning to was how clean data needs to be at ingestion: clean, or merely "clean enough" to pass through ETL, was described as a real open question. The APCD Common Data Layout (APCD-CDL™) was characterized as a transport layout rather than an ingestion format, which fit the two-model framing.

The Common Data Layout, plus and minus

States described building on the APCD-CDL rather than adopting it wholesale. Common patterns included:

- **CDL with custom additions.** Multiple states reported using the APCD-CDL as a template and layering state-specific fields on top, a pattern participants called "CDL plus."
- **CDL minus.** One participant raised the inverse question of which APCD-CDL fields are necessary, suggesting some implementations carry fewer.
- **Non-CDL builds.** One state does not use the APCD-CDL at all because its database is defined narrowly by statute as a multi-payer claims database built around a consumer price-finder website and contracted out to an external data vendor, leaving it with comparatively little in-house infrastructure.

A recurring point was that payers already using the APCD-CDL for other states are pushing for standardization so they can process and submit consistently, and that the same standardization would also help with optional fields and with data sets that come in as voluntary rather than

mandatory submissions. The APCD-CDL also drew a vocabulary disagreement. Calling it the "lowest common denominator" struck some as carrying a negative, minimal-data connotation, while its intent was the opposite, to lift the floor and raise what the common denominator is.

Governing custom fields and changes over time

The APCD tables spent considerable energy on how custom fields enter a model and how they are maintained. Requests for new fields arrive from many external clients, and one state described how unvetted additions leave the data messy or serve only a one-time use case. The shared conclusion was a need to push back and ask why a field was requested in the first place, getting a level deeper to improve the model rather than bolting fields on. One state walked through a concrete transition: it currently uses a state submission guide with APCD-CDL fields plus Colorado-specific additions, including special Medicaid fields and fields requested by the insurance department, and plans to move to the APCD-CDL format in 2027. Specific modeling problems surfaced included denied claims (one state began collecting partially denied claims without fully working out the downstream processing) and dual-eligible duplication, where receiving Medicare fee-for-service directly from the Centers for Medicare and Medicaid Services (CMS) alongside Medicaid submissions produced duplicative cost information that the team is still learning to separate.

Maintenance over time was treated as its own discipline. Validations themselves change as the underlying reality changes, so a value rejected years ago can become valid, and one participant described expanding an accepted value range only to find the data dictionary and reporting team out of sync until the change propagated everywhere. Participants stressed that standards and documentation require upkeep and that an efficient process for pushing changes out to data recipients matters for change management. One organization, CIVHC, maintains a publicly available change log tied to its bimonthly warehouse refresh so that licensees can see which release their delivery came from, which it described as a way to give clients a single reference point.

Provider, clinical, and EHR data

The provider-data table focused on hospital discharge data, health information exchange (HIE) data, electronic health record (EHR) data, and custom provider extracts rather than provider directories. Fast Healthcare Interoperability Resources (FHIR) came up as a possible avenue to ease ingestion of clinical data, though participants noted it was not discussed in depth. The harder problems were concrete:

- **Local-to-standard code mapping.** Providers send local codes. Mapping them to standard sets such as the International Classification of Diseases, Tenth Revision (ICD-10) and SNOMED was called a persistent challenge, made worse when more than a hundred providers use different local sets.

- **Identity resolution and linkage.** Joining clinical data to APCD data, or to any source, requires matching individuals across disparate systems, and deduplication across feeds with mismatched update cadences forces fuzzy logic to avoid counting a person twice. There are also legal hurdles because PHI is generally needed for linkage.
- **Multi-location provider attribution.** A single clinician practicing at three locations is unambiguous as a person but ambiguous in how the service location rolls up to an organizational affiliation, which one participant said the model still needs to be built out to handle.
- **Source-of-truth conflicts.** Hospital data-entry screens that list providers do not always match other feeds, requiring time-consuming reconciliation.

One enclave-based linkage approach was described in detail: an APCD that receives personally identifiable information from all health plans runs it through an Enterprise Master Patient Index (EMPI), assigns a state identifier, and joins external data through an honest broker so researchers can link claims to EHR data and registries. A separate caution emerged about claims diagnoses, which exist to get a claim paid and do not confirm a person has the condition, so several participants advised requiring multiple claims for a diagnosis before treating it as real and excluding lab and radiology claims when identifying conditions to limit false positives.

Incentives behind data quality

A theme that spanned several tables was that data populated for payment is more complete than data collected for compliance or reporting. Participants repeatedly observed that providers submit exactly what payment requires and no more, so every other use of that data is administrative and carries artifacts several layers downstream. Examples offered included sharp quality differences between data tied to hospital rate-setting and voluntary public-health reporting where basic fields like height and weight go missing. There was broad agreement that the better the upstream data, the better the resulting policy, and that closing the gap is a hard conversation because no resources are allocated at the hospital level for corrections that serve outside uses. AI came up as a possible aid for flagging discrepancies and data-quality issues, but participants were skeptical of using it for interpretation, describing it as confident and frequently wrong on nuanced mapping and likening it to a well-intentioned intern.

Public use files, de-identification, and dissemination

The public-use table distinguished public use files (e.g., aggregated, HIPAA de-identified, often following the CMS cell-size rule, usable by anyone without review) from limited data sets (e.g., granular but stripped of reidentifying fields under safe-harbor rules). A live tension ran through the discussion: lawyers increasingly argue nothing is truly de-identifiable anymore, so one participant described shifting from a promise of de-identification toward contractual prohibitions on reidentification as the realistic remedy. The group found use cases more fruitful than restating best practices. Examples named by participants included CMS provider public use files used as a benchmark for comparison, a vendor linking longitudinal immunization data

with EHR records to connect mothers and children for a federal sponsor, and public university researchers in one state able to obtain extensive discharge data at no cost.

Dissemination practices clustered around several governance mechanisms:

- **Application and review.** Multiple states route requests through a release-review committee that weighs the stated purpose against what data is needed.
- **Data use agreements with destruction.** Requesters sign agreements, and several states require a data-destruction acknowledgment or certificate at project end, with compliance teams handling enforcement.
- **Enclaves and data marts.** Rather than sending records out, some states grant logins to a secure enclave or data mart, an approach one state plans to use even for standard datasets.
- **Purpose and benefit tests.** One state limits use to the benefit of its residents and bars use for market advantage, which participants found mostly but not always easy to judge.

Suppression and minimum-necessary release recurred throughout. One organization releasing sensitive cancer-registry dashboards described suppressing not only protected health information but small cells that fragment into identifying detail, and several participants noted the balance between suppressing enough to protect individuals and leaving data useful enough to act on. As a best practice, states said they give requesters only what they ask for, steering short-term needs toward smaller datasets even when a full historical extract is technically available.

Dashboards and multistate collaboration

The dashboard table organized around 1) privacy and aggregation (e.g., whether to suppress on the front end or back end and how granularity behaves across tools), 2) tool-specific trade-offs (e.g., Tableau, Power BI, custom builds, and Qlik Sense, with Tableau most popular), 3) accessibility (e.g., screen readers and color-blindness under accessibility standards, plus desktop versus mobile use), and 4) audience (e.g., matching terminology and metrics to data analysts versus the general public). The writeup also flagged data structure, noting that a vertical or long layout is easier for tools to use and warning against the "kitchen sink" dashboard that muddies the story.

Multistate collaboration drew interest as an unresolved problem. One initiative is standardizing APCD data from three pilot states to surface cross-state trends, and participants pointed to rare-disease prevalence and gene-therapy cost variation as questions only multistate data can answer. The open challenge is what happens when a partner state does not collect a variable others do, which forces reconciliation toward a single submission guide and points back to the APCD-CDL as a candidate floor.

Session 2: Effective Data Visualizations

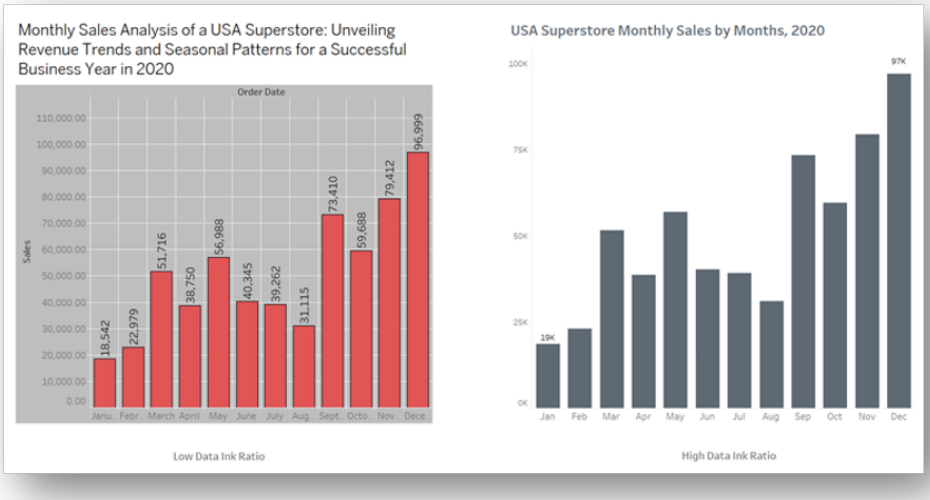
Organizers: Victoria Razin (Georgia Tech Research Institute), Alexa Medlin (Georgia Tech Research Institute), Sam Chick (Onpoint Health Data), Monique Cote (Onpoint Health Data)
Sponsor: System13

Four design principles as the working framework

After a short opening framing, the session ran as a world-cafe critique in which tables evaluated a shared gallery of example charts and redrew the weakest ones. The baseline idea was that good visuals are "frictionless," and most real-world charts sit on a spectrum between intuitive and misleading. Four principles, distributed as a handout, organized the exercise:

- **Accuracy.** Does the visual convey information without bias, and are scales and framing honest?
- **Color.** Does color aid comprehension and accessibility (including color-blind and grayscale use) without obscuring the message?
- **Layout, visual flow, and user experience.** Is information organized to match how people read, left to right and top to bottom, without unneeded ornamentation?
- **Audience.** Who is the chart for, since that should drive granularity and form?

A recurring caution under layout was restraint: do not add an element just because you can. One paired example illustrated the data-ink ratio directly. The same monthly sales appeared first with a verbose title, heavy gridlines, and labels on every bar, then redrawn with a plain title, light gridlines, and two highlighted endpoints. Removing the ornamentation made the trend easier to see, not harder.

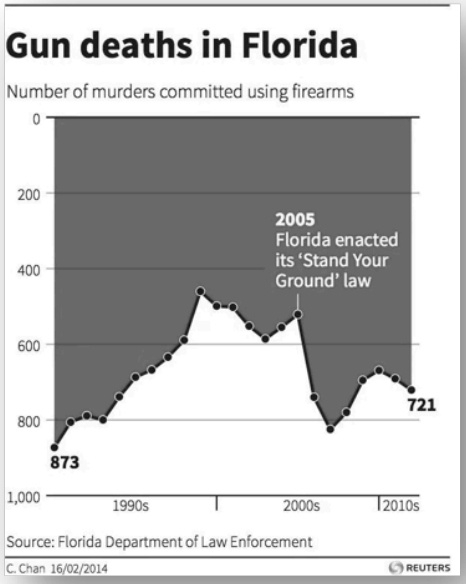


(1) USA Superstore Monthly Sales

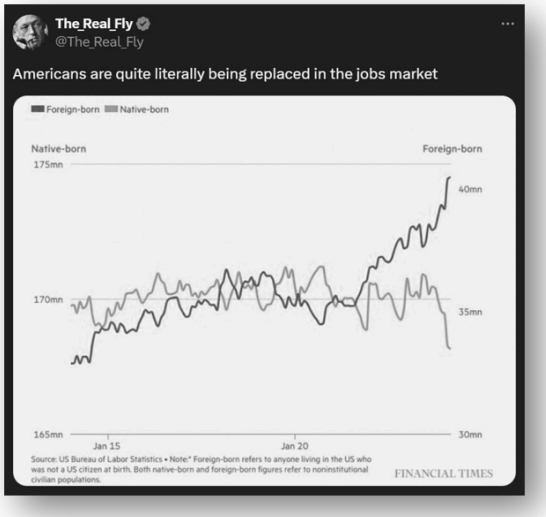
Misleading scales and axes

Across nearly every table, the sharpest accuracy critiques centered on manipulated axes. The stand-your-ground chart on Florida firearm deaths drew the most attention, and most tables that redrew one chose it. Its vertical axis was inverted, so deaths appeared to fall after the 2005 law took effect when they actually rose. Several tables independently flipped the axis to put zero at the bottom, set the time axis to five-year increments instead of vague decade labels, marked 2005 with a reference line, and rewrote the title from "gun deaths in Florida" to "murders in Florida using firearms" because the original conflated the two. One table went further, arguing the measure should be an age-adjusted death rate rather than a raw count.

The native-born versus foreign-born employment chart drew parallel criticism for plotting two series on two different y-axes, which exaggerated a divergence that nearly vanished once both sat on a shared scale. Tables also flagged that the measure was undefined, with axis units that might be days or years, so several redrew it on a single scale, added a legend, and declined to label the categories "American" since the source did not support that reading. One table rebuilt it as a stacked bar chart to show total job growth and the ratio between groups. One capture distilled the rule plainly: synchronize axes when using dual axes.



(2) Gun Deaths in Florida

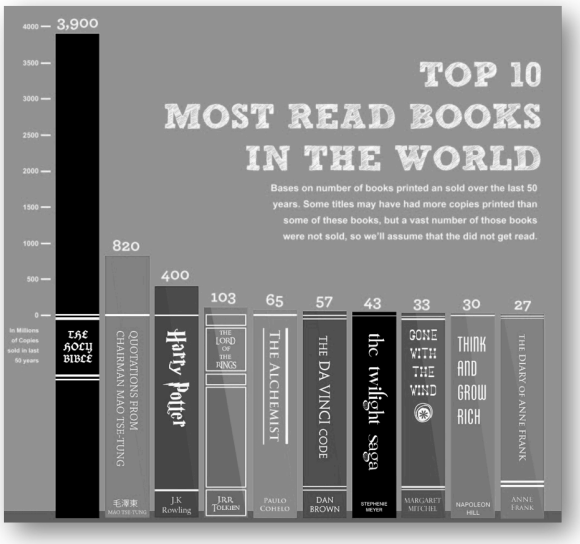


(3) Native- vs. Foreign-Born Employment

When the data itself is the problem

A widely shared takeaway was that a clean chart cannot rescue bad inputs, summarized at the report-out as bad data in, bad visuals out. The "top 10 most read books" chart was the prime example. Participants noted the title said "most read" while the fine print said "most printed" and assumed figures, which is not the same as accurate. One table rebuilt it with actual 2025

unit-sales figures, a clear break in the axis to handle a wide range, and no color for accessibility. They also flagged that a title released in two print editions could be shown combined or separately, which would change the ranking.

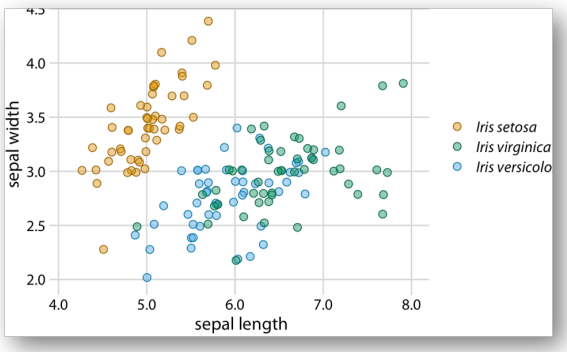


(4) Top 10 Most-Read Books in the World

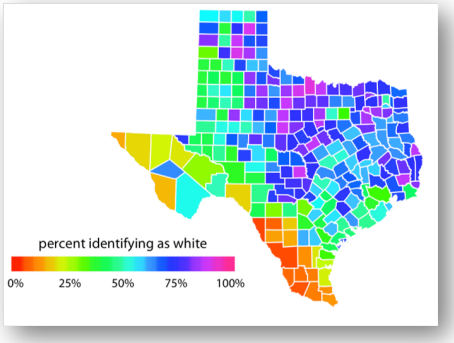
Color choices and accessibility

The color exercise produced a clear consensus that a rainbow scale fails when its ends look alike. On a Texas map shaded by the share of residents identifying as white, both 0 percent and 100 percent rendered as red, making it impossible to read accurately. The fix repeated at several tables was a single-hue gradient from light to saturated, so the meaning survives grayscale printing or color-blind viewing. Tables praised one line chart because the series was labeled directly on the graph, keeping it legible even without color.

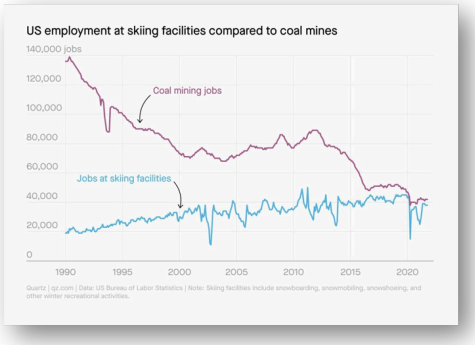
A coal-mining versus ski-facility jobs chart was cited as a stronger example, telling a clear comparative story with a simple two-color palette.



(5) Distribution of Eye Characteristics



(6) Percentage of People Identifying as White in Texas Counties



(7) US Employment at Skiing Facilities Compared to Coal Mines

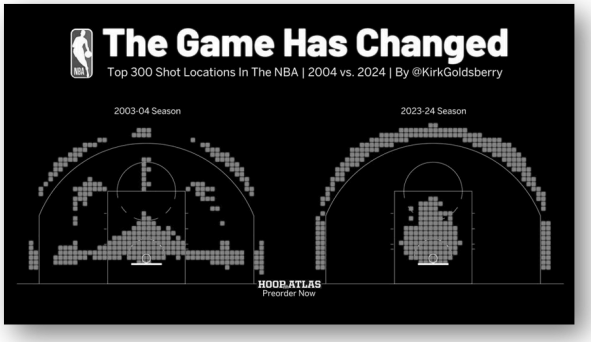
Matching the chart to its audience

The NBA shot-location chart drew the most debate. Tables agreed it carried a clear message about the shift toward three-point shots, but only for viewers who already understand basketball, and it left "shot location" undefined and the on-court legend hard to read. One table proposed a heat map and distinguishing two-point from three-point zones for non-fans.

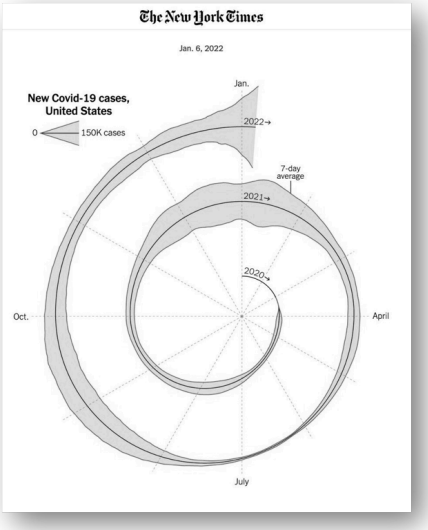
A spiral chart of COVID cases sparked a genuine disagreement. Several found the cyclical layout unreadable because brains do not process information in circles, while others defended it as dense and rewarding for an audience willing to study it. The common redesign converted it to overlapping yearly lines so seasonality stayed visible.

A CFO dashboard was offered as a positive counterexample of a visual matched to its audience. A furniture-shaped dashboard was judged to convey no real message, illustrating the ornamentation warning.

At the other end, the IKEA Billy bookcase assembly instructions were offered as a visual that needs no shared context at all, designed to be understood by anyone regardless of language or background.



(8) The Game Has Changed



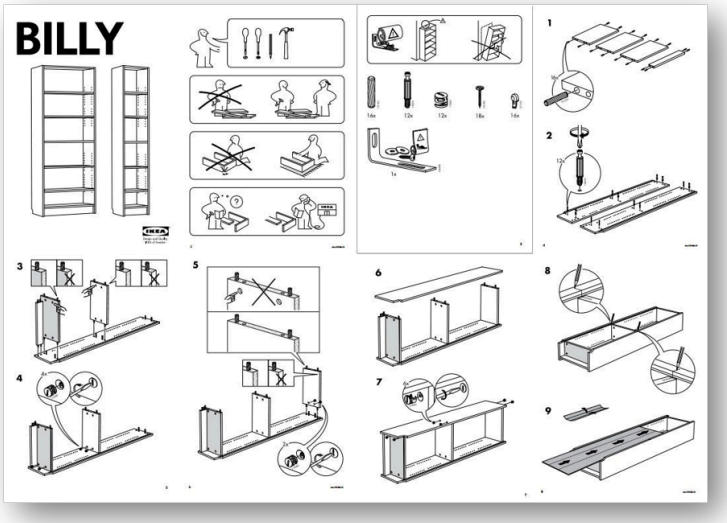
(9) New Covid-19 Cases, United States



(10) CFO Dashboard



(11) The Many Shapes of IKEA Furniture



(12) BILLY Assembly Instructions

Visualization as a collaborative practice

The closing point, echoed across tables, was that visualization should not be solo work, since designers are often blind to their own assumptions. The recommended habit was a "bystander test," showing a finished draft to someone uninvolved who will quickly spot what does not make sense, against the sunk-cost pull to leave a flawed chart alone.

Image Sources:

1. *USA Superstore Monthly Sales,* Source: https://www.thedataschool.co.uk/nitesh-shrestha/data-ink-ratio-why-it-matters/
2. *Gun Deaths in Florida.* Source: C. Chan, Reuters, Gun Deaths in Florida, 2014. Reproduced for educational critique.
3. *Native- vs. Foreign-Born Employment, Dual Y-Axes*. Source: Eva Xiao, Financial Times, The US's shrinking native-born populace, 2024. Reproduced for educational critique.
4. *Top 10 Most-Read Books in the World,* Jared Fanning, Business Insider, Top 10 Most Read Books in the World, 2012. Reproduced for educational critique.
5. *Distribution of Eye Characteristics*. Source: Unknown, Reproduced for educational critique.
6. *Percentage of People Identifying as White in Texas Counties*. Source: Claus O. Wilke, Fundamentals of Data Visualization, Percentage of people identifying as white in Texas counties, 2020. Reproduced for educational critique.
7. *US Employment at Skiing Facilities Compared to Coal Mines.* Source: Quartz, US employment at skiing facilities compared to coal mines, 2022. Reproduced for educational critique.
8. *The Game Has Changed,* The Ringer, "Seven Charts That Explain the 21st-Century NBA," 2025. Reproduced for educational critique.
9. *The New York Times, Here's When We Expect Omicron to Peak, 2022.* Reproduced for educational critique.
10. *CFO Dashboard*, Unknown. Reproduced for educational critique.
11. *The Many Shapes of IKEA Furniture,* Reddit r/dataisbeautiful (original poster), derived from IKEA, 2020.
12. *BILLY Assembly Instructions,* IKEA (assembly instructions), 2024.

Session 3A: Analytics and Use Cases Relating to Cost and Quality of Care

Organizers: Laurie Paxson (Kentucky Cabinet for Health and Family Services), Sara Hallvik (Comagine Health)
Sponsor: Milliman MedInsight

A maternal-health scenario that framed the work

The session opened with a worked example: building cost and quality reporting on maternal health for a state Medicaid program where half of children are covered by Medicaid. Birth certificates are issued immediately, but the matching claim may not arrive for nine months, so linking the two takes substantial data wrangling. Source records carry implausible values such as births recorded for very old women or for young boys. Birth certificates in one state code a physician as the attendant even when only a midwife was present, so the team is working at the source to improve the underlying coding. Vital statistics and Medicaid also define maternal mortality differently, which forces a separate rules engine and a long list of exceptions to reconcile. The takeaway framed the session: useful cost and quality reporting depends on disciplined handling of messy, mismatched source data.

Telling the cost and quality story

The clearest recurring message was to find and tell the story in the data rather than publishing a data dump, and to match the telling to the audience. Several specific do's and don'ts surfaced across the report-outs and the storytelling worksheets:

- **Explain the basics.** Do not assume an audience knows terms such as co-payment, and be explicit about what "cost" means, whether the provider's cost to deliver the service, the charge, the allowed amount, or what the consumer pays.
- **Separate price from cost and from quality.** Low price is not low cost, because cost is price multiplied by quantity, and high price is not high quality.
- **Be transparent about the method.** Avoid a "black box," disclose limitations, and refine the methodology over time on stakeholder feedback.
- **Assess data before analyzing.** Check quality and completeness first, and account for gaps such as the large share of self-insured employer coverage missing from most all-payer claims databases (APCDs).
- **Use standard, comparable metrics.** Total cost of care, per-member-per-month spending, total health care expenditures, and utilization per ten thousand, disaggregated where it helps, for example by payer.

Audience considerations and tailoring reporting

A parallel set of groups focused on tailoring. One group organized audiences as policymakers, payers, providers, patients, purchasers, and employers, each with different information needs. Patients want to know out-of-pocket cost, which is hard to derive from claims without benefit-design information. Several attendees stressed prioritizing clarity over a visually exciting chart that loses the reader, and noted that a plain bar chart often communicates better than a clever one. Other recommendations included segmenting audiences into subgroups, showing wireframe mockups before building dashboards, comparing one measure against a meaningful benchmark, and defining a way to measure engagement after release. One discussion turned on relevance: when a required report seems pointless, the recommended response is to find why it matters to the state rather than defending it as a mandate. Attendees disagreed on how much consumers will act on cost data, noting that patients often go where their physicians send them.

Applying groupers

The groupers discussion produced the most detailed practice list, captured on the groupers worksheet and reinforced in the report-outs.

- **Involve analysts and read the documentation early.** One table traced a year-long erroneous output to an unpopulated input flag that thorough documentation review would have caught.
- **Match the grouper to the population and validate on it.** Tools built for one population, such as Medicare, may handle another poorly.
- **Plan for versions and ownership.** Regroup historical data after version changes to preserve comparable series, assign a process owner with a documented procedure and a backup, and keep update calendars aligned with reporting periods.
- **Validate, do not trust blindly.** Budget time to test inputs and outputs, keep a human in the loop, and use peer review and clinical or subject-matter review. Cost does not equal quality, and nothing is plug and play.
- **Weigh sustainability and homegrown tools.** Some free groupers are abandoned after a few years, and internal crosswalks need clinical and administrative review. Attendees noted the PACES grouper as a promising low-cost episode option, alongside a broader inventory that included APR-DRG, MS-DRG, ambulatory payment groups, and CMS classification systems.

Data limitations and non-claims payment data

Two further groups addressed limitations and the integration of claims with non-claims or alternative payment data. On limitations, the advice was to state caveats clearly when sharing incomplete data, account for adjudication lag that can run three to twelve months, watch for upcoding, and confirm the audience understands what they received. On non-claims data, one state's pilot to collect alternative payment dollars found that payers often cannot say how much flows to primary care or behavioral health, and that claims-based versus non-claims-based

payment does not map cleanly to who receives care under a given model. The open question was how to align non-claims spending with the claims foundation it still rests on, with one suggested fix being to flag value-based arrangements in eligibility files.

Session 3B: Data Quality and Validation

Organizers: Kenley Money (Arkansas Center for Health Improvement), Gina Robertson (Onpoint Health Data)
Sponsor: hMetrix
Sources: 260506_1111.cleaned.txt; New Recording 30.cleaned.txt; New Recording 31.cleaned.txt; 2026–05–06 Session 3B Data Quality & Validation.pdf
Generated: 2026-05-28 with prompts/summarize.txt
Reviewed and Edited: 2026-06-01 by Charles Foldyna-Hawley

Validating submissions and spotting anomalies

The session ran as a world cafe in which tables worked on a common set of questions: 1) how they validate incoming data, 2) what completeness means, and 3) what to do when quality is poor. The most common first check is comparing a new submission against historical norms, with per-member-per-month (PMPM) figures treated as a canary in the coal mine. A plan whose member-months or spend swings sharply from prior submissions gets flagged for explanation, and only a serious gap escalates to a formal exemption. Tables agreed the mechanics are easy but the judgment is hard. A drop from 500,000 to 450,000 member-months could mean a lost account or a failed submission, and a spike in drug spend could reflect a new therapy such as a weight-loss or hepatitis C drug rather than an error. One recurring lesson was that some errors are invisible within a single data stream and surface only across submitters, for example when most payers adopt a new place-of-service code but one keeps bucketing it as "other."

Variances, critical fields, and claim adjustments

Several tables focused on managing variances at scale. One described a medical-claims file with variances tracked across all 250 fields and a plan to narrow scrutiny to roughly 50 critical fields, then time-bound each payer's variance. A payer that will never clear a threshold is treated differently from one promising to improve within three months, and the table wanted a payer scorecard that identified issues before a file actually fails and forces a resubmission. Claim adjustments drew a detailed discussion of how to consolidate multiple submissions of the same claim. Three scenarios came up:

- **Stable identifiers,** where the submitter sends the same claim ID each time.
- **New identifiers,** detected by matching a fingerprint of fields, with several programs narrowing that fingerprint to fewer fields over time.
- **Interim claims,** where the claim itself signals that more is coming.

Run-out was the key constraint, since a claim more than a year old is a flag and validations often cannot pass until a six-to-eighteen-month run-out window closes. Tables also noted that denied

claims, especially the line between fully and partially denied, have become a bigger topic, with no consistent practice across states for collecting fully denied claims.

Completeness and sensitive data

Tables agreed data is never truly complete, so the working standard is whether it is as complete as last year and fit for the intended use. Completeness failures often surface late, such as a submitter truncating diagnosis codes or sending the wrong code version, which then calls earlier reports into question and requires going back to data users. One state team described certifying complete reporting periods up front, catching cases where a facility switched electronic health record (EHR) systems mid-quarter and dropped a month, and distinguishing a real drop such as a hurricane month in Florida from a reporting gap before certifying data for public release. For substance use disorder (SUD) data, legislation and policy shape what can be reported, and payers tend to mitigate risk by over-suppressing entire facilities or codes. Tables leaned on curated references for consistency and on other sources to fill gaps:

- Federal code and terminology references, including the Centers for Medicare and Medicaid Services (CMS) and the Substance Abuse and Mental Health Services Administration (SAMHSA), for code sets such as procedure, diagnosis, and drug codes
- Electronic medical records to supplement incomplete SUD claims
- Reframing the analytic question to match the data actually available

One table noted that multi-state aggregation can re-identify a state at the census-division level when a policy change shifts its trend, a privacy angle beyond individual patients. Maryland was cited for strong collaboration across its APCD and health information exchange to benchmark SUD completeness.

Documentation, communication, and fitness for use

A closing theme was that data quality is inseparable from data use, since the use case determines which checks matter and there are few use-case-agnostic validations beyond format and presence. Tables stressed memorializing decisions so the same trend does not get adjudicated inconsistently a year later, and keeping release notes short enough to actually be read. Many described a gap between the intake team that spots an issue and the analysts and end users who need to know, and floated a shared database of data-quality notes organized by data layout, plus AI tools to surface past decisions, with the caveat that any AI output still needs validation.

Session 4: Data Integration

Organizers: Generosa Kakoti (Tennessee Department of Health), Leanne Candura (HSRI)
Sponsor: System13

Integrating hospital price transparency data

A central thread was the difficulty of turning Hospital Price Transparency (HPT) machine readable files (MRFs) into usable data. One state described pulling all publicly posted hospital price transparency data, cleaning it, and feeding a state-agency dashboard, but noted that the machine-readable JSON files are massive, hard to process, and not functional for an average user. Integrating them with an all-payer claims database (APCD) is harder still, because the files break price out by payer and coverage type, such as an insurer's HMO versus PPO product, in ways that do not always match. That mismatch forces manual roll-up and methodology decisions before any comparison report can be built.

Building trust for public price reporting

Tables agreed that the politics of publishing prices are as hard as the data work. Hospitals resist, sometimes arguing that being shown as higher-priced threatens access if patients go elsewhere. One participant recalled an early reporting effort that drew threats of litigation. The recurring lesson was that the first release is the hardest, and that the sky does not fall once stakeholders have a seat at the table. The Center for Improving Value in Health Care (CIVHC) in Colorado described a repeatable practice. A fixed two-week window lets a representative advisory group, including the state hospital association, review a draft dashboard and submit input, after which the window closes and the team makes holistic changes at once. Provider-payment tools get a slightly longer window. Pairing price with utilization gives stakeholders a fuller picture during those discussions, and every dashboard gets an annual refresh with a new review period.

Transparency in Coverage and linking to claims

The session worked through the distinction between hospital price transparency and the federal Transparency in Coverage (TiC) rule, which requires insurers and group plans to publish negotiated in-network rates and historical out-of-network payments in monthly MRFs. Several use cases surfaced:

- **Contracting.** Payers pair transparency data with their own claims experience to negotiate provider prices, and providers could in principle do the same.
- **Quality checking.** Negotiated rates can be compared against APCD claims to confirm the claims match.
- **Consumer cost.** Linking negotiated prices to APCD claims could show patient out-of-pocket cost alongside payer-paid amounts, feeding total-cost-of-care reporting.

Participants were candid that linking TIC files to APCD data is technically demanding and that the analytic payoff is not always clear, which kept the discussion grounded in specific, bounded use cases rather than blanket integration.

Federal data, linkage, and governance

Other tables ranged across federal and non-claims data. Useful public sources named included:

- Environmental and public-health data from the Centers for Disease Control and Prevention (CDC) and the National Oceanic and Atmospheric Administration (NOAA)
- Census products such as the American Community Survey
- A national provider directory for workforce analysis

Participants noted that workforce data means different things in different states, ranging from true employment and wage records to, in some states, just the provider network used for analytics. A promising pattern was linking public registries such as immunization data back to the APCD to study outcomes, reversing the usual direction of analysis. Linking environmental or address-level data also raised re-identification concerns at fine geographies such as zip codes. The challenge that dominated most tables was not governance but field-level linkage across sources, where data use agreements were seen as solvable while technical capacity, time, and inconsistent clinical data structures were the real obstacles, since even nominally standard formats such as Fast Healthcare Interoperability Resources (FHIR) are not stored or collected uniformly. On governance, one participant described an integrated "ecosystem" in Rhode Island in which agencies spanning health, corrections, workforce, education, and vital records feed a shared environment governed through a single data-license-request gateway. Antiquated federal sharing restrictions and the need for better electronic health record standardization were flagged as the policy changes that could unlock progress.

Session 5: Behavioral Health, Mental Health, and Substance Use Disorder (SUD) Data

Organizers: Kathy Hines (Massachusetts Center for Health Information and Analysis), Emma Harrigan (Freedman HealthCare) , Mary Jo Condon (Freedman HealthCare)
Sponsor: System13

Privacy, masking, and 42 CFR Part 2

The session was a problem-solving workshop on behavioral health data challenges that attendees had submitted in advance. Privacy dominated. Substance use disorder (SUD) data falls under the federal rule 42 CFR Part 2, and tables noted that payers report it inconsistently, so an analyst often cannot tell what is missing. A core difficulty is that Part 2 attaches to a provider rather than a diagnosis or service, and there is no national registry or standardized list of Part 2 providers, which leaves states weighing whether to build their own register. Participants also flagged an optics problem, since fully compliant patient-level reporting can still alarm people who see sensitive diagnoses in the data. Paths forward leaned on advocacy, using stakeholders to explain to legislators why the data is needed while respecting restrictions, and on existing resources such as the National Association of State Mental Health Program Directors and its research institute, which collects annual state mental health reporting that can fill gaps where services are grant or contract funded rather than billed. Tables agreed that a one-size-fits-all statewide data classification scheme was the wrong approach.

Defining behavioral health: diagnosis versus provider type

A second thread weighed defining behavioral health spending by diagnosis code or by provider type. The consensus leaned toward diagnosis codes, with the caveat that the use case determines the approach, since a prevalence study and a cost study call for different code lists and different treatment of secondary diagnoses. Tables stressed being transparent about which list was used and its limitations. They also noted that diagnosis coding differs by claim type, since inpatient, professional, and outpatient claims carry diagnoses differently and emergency department claims often record a symptom in the first position rather than a confirmed diagnosis. Provider taxonomy was seen as useful mainly as a drill-down rather than the driver of an analysis, because the National Plan and Provider Enumeration System (NPPES) is frequently out of date and can misclassify clinicians such as nurse practitioners.

Diagnoses that span medical and behavioral health

One table took up whether conditions like dementia and intellectual disability should be treated as behavioral health. The discussion was nuanced. Including a dual diagnosis can open access to more services and give a fuller clinical picture, but it carries stigma, and participants worried that visible comorbidities could let an insurer justify denying coverage. Dementia drew particular attention, since it is often diagnosed late and its behavioral signs are symptoms of neurological

decline rather than a separate behavioral condition. The group concluded that inclusion should depend on the use case, that the provider on the claim is often the best signal, and that the guiding principle is to let the data tell the story rather than to suppress or inflate it.

Capturing spending outside claims

Because much behavioral health spending occurs outside payer-provider claims, tables discussed how to capture self-pay, out-of-network, and state-allocated care. Hospital discharge data was valued for including self-pay and uninsured encounters and for triangulating against the APCD, though joining the two is hard when discharge records carry only an encounter identifier rather than a person. One concrete model came from Maryland, which mandates that a provider explain differences beyond a threshold between its audited financial statements and its claims revenue. Prescription drug monitoring data and health information exchange data were offered as additional sources to round out the picture.

Telehealth, emergency boarding, and the COVID baseline

Three further problems rounded out the session. On telehealth, tables noted that 1) coding and billing have shifted since the rapid pandemic-era increase, 2) standard follow-up measures rarely separate telehealth from in-person care, and 3) meaningful analysis likely needs telehealth, non-telehealth, and hybrid populations, with mail-order prescriptions an easily missed form of remote care. On emergency department boarding, where psychiatric patients can wait days for a scarce inpatient bed in a non-therapeutic setting, participants wanted real-time visibility into open psychiatric beds within driving distance, more post-acute step-down beds, and data that connects the many agencies involved:

- Emergency medical services, police, and ambulance services
- Emergency departments and inpatient facilities
- Receiving centers, crisis teams, and behavioral health intervention programs

A final table cautioned that pandemic-era trends require care in separating a real change in prevalence from an apparent one driven by the timing and stressors of COVID-19.

Session 6: Using Data to Transform Rural Health in Your State

Organizers: Jessica Iben (Delaware Health Information Network), Craig Schneider (HMA)
Sponsor: hMetrix

Health data organizations and the Rural Health Transformation Program

Much of the session circled the federal Rural Health Transformation (RHT) Program and how state health data organizations can support it. A worksheet on influencing policy and programs framed the central question of getting a seat at the table, where data organizations help set baseline and monitoring metrics and then evaluate which initiatives to continue, adapt, or end. Three themes recurred:

- **Where the data organization sits matters.** An APCD inside or outside state government finds it easier or harder to join policy discussions, and the roles of an HIE and an APCD need clear governance.
- **The infrastructure already exists.** As one participant put it, the horsepower is there, and the real work is setting the policy on the back end to use it.
- **Measurement is the weak point.** Some states are funding rural initiatives without building in evaluation, repeating a COVID-era pattern of spending without learning or planning for sustainability.

Concrete approaches were shared. Nevada is starting with a needs assessment and baseline metrics tied to top priorities, using Medicaid claims to map where providers actually practice. In Georgia, the Department of Public Health looks to the Georgia Tech Research Institute (GTRI) for policy support. Florida found a seat at the table through its Medicaid program and expects its more mature HIE to serve as the early backbone. The Center for Improving Value in Health Care (CIVHC) in Colorado offered the evaluation of safety-net-clinic investments as a case where data is necessary but not sufficient without a workforce strategy. Participants stressed using neutral, trustworthy data early to protect a nonpartisan reputation.

Linking claims and clinical data

The richest example came from Delaware, where the Delaware Health Information Network (DHIN) operates both the state's only health information exchange (HIE), since 2007, and its APCD, since 2013, under a single master patient index, with legal counsel renewing provider and payer contracts to permit analytic use of clinical data. That lets the organization find diabetic patients in claims and then check clinical results such as A1C or blood pressure to see whether care is moving the needle, which claims alone cannot show. The Centers for Disease Control and Prevention (CDC) has drawn on Delaware data, including a study of chemical contamination in drinking water, partly because the state's demographics resemble the nation. Other states described harder paths. Maryland links its APCD, hospital discharge, and Medicaid data through its health information exchange but keeps clinical data segregated by use case. Some states

hold both an APCD and an HIE yet cannot link them, whether through a deliberate past choice made to gain approval or through HIE legislation that forbids linkage. The Arkansas Center for Health Improvement described acting as an honest broker on a congenital-syphilis project that linked its claims with electronic health record data from a medical school and a children's hospital and a state registry, enabled by business associate agreements and review boards.

Sustainability and interoperability

Tables examined how health information exchanges stay funded and connected. A common model charges hospitals a subscription based on patient-panel size and delivers value back through alerts when a patient appears at another system's emergency department, plus labs, reports, and a community health record. The data largely arrives pushed from large health systems, often through electronic fax rather than direct electronic health record feeds. Clinical data is unstructured and one team writes code to mine discrete values from document files into analytic-ready tables. Participants noted that quality measures computed from claims alone understate reality, since no one bills the actual lab value, and that consolidation onto a single dominant electronic health record platform does not automatically make cross-system sharing easy. One quality improvement organization described ingesting millions of pages of records and using natural-language processing, with human review for accuracy, to structure them for decision-making.

Workforce, community organizations, and social needs

The session also covered the people and community side of rural health. California described modeling workforce supply and demand across behavioral health, oral health, and nursing, using a provider survey to inform rural-health planning. Comagine Health presented community care hubs and a community information exchange that connect community-based organizations and govern social-determinant data through a neutral convener. Tables returned repeatedly to a core claims limitation: claims show what care was delivered but not what people need and are not getting, which pushes states toward Medicaid claims, health-related social needs (HRSN) data, and community-based sources to fill the gap.

Session 7: Artificial Intelligence (AI) Adoption and Use

Organizers: Maggie Mueller (CIVHC), Kevin McAvey (Manatt Health)
Sponsor: Milliman MedInsight

Framing and the state of adoption

The closing session set out to build a shared foundation for evaluating readiness to adopt artificial intelligence (AI). A lead distinguished AI, the broad field of systems that learn from data and perform cognitive tasks, from large language models (LLMs), a subset of generative AI trained on text to converse, summarize, and extract information. A hand-raise poll made the trajectory concrete. Few attendees reported daily AI use a year earlier, but nearly the whole room reported regular use now.

A two-by-two framework organized the opportunity. Administrative efficiency spanned back-office work (prior authorization, claims processing and fraud detection, Medicaid eligibility and managed care contracting) and consumer-facing work (AI-powered call centers, eligibility verification, member engagement). Clinical support spanned provider-facing tools such as clinical decision support and ambient scribing alongside patient-facing tools such as symptom triage and care coordination. The recurring theme was that adoption is outpacing trust while governance lags. Citing a publicly available state AI policy tracker, a lead noted that 43 states had introduced more than 240 AI bills in 2026, nearly matching all of 2025, even as a 2025 federal executive order sought a national framework to preempt a patchwork of state rules.

Use cases attendees are already running or want to try

Tables worked from current practice and wish-list ideas, then chose two use cases each to carry forward. The tier-2 worksheet and the report-outs converged on a wide set, roughly from administrative to technical:

- **Administrative drafting and summarization.** Condensing long documents, webinars, and CMS proposed rules, drafting RFPs and training materials, and translating one message for different audiences and health-literacy levels.
- **Meeting and knowledge management.** Automated meeting notes that tag attendees, plus connecting a copilot to cloud-stored files so prior decisions can be queried.
- **Documentation management.** Loading laws, regulations, data dictionaries, and submission guides into a retrieval tool that answers conversationally and reduces dependence on a single subject-matter expert.
- **Coding partnership.** Code review and debugging, writing queries, translating code during SAS, SPSS, or R migrations, and generating synthetic or test data.
- **Data quality and visualization.** Anomaly detection that flags unexpected shifts in field completeness, plus generated charts, in place of analysts scanning trend reports for hours.

- **Person and identity matching.** Linking unique person identifiers across datasets, building a master patient index, and fuzzy matching that recognizes nickname variants rather than exact equality.
- **Consumer- and payer-facing chatbots.** Natural-language access to public price and quality information, and bots answering routine technical questions payers ask every day. Multiple tables cited Indiana's consumer-facing chatbot as the model they wanted to follow.

Several tables singled out a price-transparency use case, ingesting publicly posted hospital files required under Centers for Medicare and Medicaid Services (CMS) rules and running price-benchmark analytics, while flagging that site terms of use carry legal implications. One table described pulling posted prescription prices from multiple pharmacy websites into a cost comparison. A point of nuance recurred. Other forms of machine learning (ML) and predictive modeling are older and narrower than LLMs, and some suggested that maturity more comfortable to adopt first.

Barriers to implementation

The worksheet and report-outs treated barriers as seriously as opportunities. The most frequently raised:

1. **Hallucinations and sycophancy.** The tools aim to please and will agree with a user or fabricate confident answers, including invented citations. One memorable failure involved a model that could not produce a simple yellow rectangle and substituted unrelated images.
2. **Accuracy and verification burden.** Output still has to be checked, which can erase the time saved, and the same prompt can return different answers across runs.
3. **Data exposure and privacy.** Concern about what data is fed to a model, whether inputs are used to train it, and how proprietary logic or identifiable information might leak.
4. **Governance and policy patchwork.** Organizational rules ranged from enterprise-only tools to outright prohibitions, and working across states with different data-governance regimes complicated multistate data release.
5. **Staff resistance and reskilling.** Adoption stalls on stigma, fear of job loss, the shift from coding to prompt engineering, and, for some staff, the environmental footprint of AI. Smaller organizations also flagged the training burden.
6. **Vendor and ownership questions.** Data suppliers sometimes prohibit AI use of their data, and ownership of model-generated code was an open question.

A disagreement surfaced over how to measure success for person matching. Several attendees pressed on how to know an LLM matches better than an existing method when the prior process was itself imperfect, distinguishing a true error rate from a discrepancy rate. One view held that the more dangerous failure is over-merging, collapsing many members under one identifier, rather than failing to link.

Mitigation principles

Strategies clustered tightly across tables and the worksheet:

- **Keep a human in the loop.** Treat output as an interim draft, often described as roughly 80 percent of the way there, and never the last step before something goes out. A common analogy was managing the tool like a smart but unsupervised intern.
- **Constrain and pressure-test.** For external chatbots, script responses, set hyper-specific parameters and guardrails, and test that a consumer cannot push incorrect information into the model or pull it off topic.
- **Work in secure environments.** Use enterprise or closed instances and keep identifiable data out. Where data sits behind an authorized-to-operate boundary, ask general questions outside it and apply the knowledge inside. Several attendees distinguished that locked environment from a separate development sandbox built on de-identified data.
- **Invest in prompting and references.** Treat prompt-writing as a learnable skill, require the tool to cite where it pulled information, and start from one's own thinking to avoid groupthink with the model.
- **Validate and standardize.** Build validation checks and error-rate thresholds, spot-check downstream metrics for unexpected movement, and standardize approaches across organizations so translated data stays consistent.
- **Pair operations with development.** Build tools with end users so they fit real workflows, a point also raised about ambient clinical scribing, where a helpful tool can still add a review step and change how clinicians work.

One table summed up the posture as embracing AI and building guardrails on the assumption that people will use it regardless, a stance they coined as cautious optimism.

APCD Council Learning Network

Organizers: Maureen Mustard (NAHDO APCD Council), Jonathan Mathieu (Freedman HealthCare)
Sponsor: Onpoint Health Data

Standardizing and streamlining data release

One table worked through how all-payer claims databases (APCDs) release data, and a useful synthesis emerged that most programs follow a similar four-stage process:

1. **Application and approval.** A multi-step review modeled on the federal research data center (CMS ResDAC) as the long-standing gold standard, beginning with technical assistance on the request, then a small-committee deep dive, then a larger committee for final approval. Arkansas adds a final sign-off by its insurance commissioner, and most programs require the data use agreement and payment before release, though Colorado allows release first with payment to follow.
2. **Data access.** The clear direction of travel is toward secure enclaves. Several states already run them, while others, such as Arkansas, still cut and ship datasets and are now moving to an enclave model.
3. **Data engineering.** Programs offer limited, standardized, and custom datasets depending on the request, delivered in formats from text files to database backups.
4. **Monitoring and destruction.** Outputs return for review of cell-size suppression and alignment with the program's mandate, and an enclave makes data destruction enforceable rather than depending on a requester's good faith.

Tables also described shifting from bespoke custom extracts toward limited data sets to save resources. Georgia offers modular requests, where users select a medical or enrollment module rather than naming individual fields, and a request-committee model, as in Delaware, helps manage volume. Several programs noted that downloadable datasets and custom reports can generate revenue and build a clearer picture of how the data is used.

Public reporting and transparency tools

The other main tables turned to public-facing reporting. A recurring observation was that the audience is rarely consumers and is mostly researchers, insurers, and legislators, so reporting should be structured around those users. Participants discussed building dashboards to answer the questions payers ask repeatedly, and the persistent challenge of making a good dashboard known to the stakeholders who would use it. Legislative constraints shape what can be shown. Minnesota recounted how it once could not publish provider- or hospital-specific prices and resorted to unlabeled "Hospital A, B, C" reporting, which proved unhelpful and invited assumptions that price equals quality, until the law evolved to permit hospital-specific information. Minnesota is also developing a spending-driver dashboard and a data enclave, and

Georgia described a data-release team and an APCD transparency tool. On artificial intelligence, one state now requires vendors to disclose AI use in their contracts, and one firm noted its policy never to use AI to produce a final product.

Exception processing and shared questions

The third topic, exception and variance processing, drew interest as a pain point more than a solved problem. When a payer cannot fully meet submission specifications, programs fall back on manual, liaison-driven review across a large set of claim fields, which participants saw as ripe for automation and better tooling. Across the tables, two cross-cutting threads surfaced: 1) many requesters want to link APCD data to their own data, which raises protected health information concerns, and 2) programs increasingly receive the same research questions, prompting a suggestion to identify common questions and prepare answers collectively within each state's rules. One state's APCD development was noted as having faced particular challenges, a reminder that program maturity varies widely. The organizers planned to synthesize the tables' notes into an informative guide shared through the network.

Hospital Data Forum

Organizers: Claudine Williams (Maryland Health Services Cost Review Commission), Josie Bechara (NORC)
Sponsor: hMetrix and System13

Diagnosis fields, Z-codes, and coding incentives

A foundational discussion asked whether expanding hospital discharge records from 30 diagnosis fields to 100 would capture more, and concluded that capacity is not the constraint, since most hospitals do not use all 30. The harder problem is that the most policy-relevant codes are the least reliably captured. External-cause and social-determinant codes are collected inconsistently, and one analysis found morbid obesity recorded in roughly 2% of cases against a population prevalence near 30%. The group traced this to incentives, observing that a code that does not drive payment gives a provider little reason to record it accurately. The proposed fixes were a regulatory mandate or a payment incentive, with one suggestion modeled on disproportionate-share hospital (DISH) payments, where Maryland's workflow already ties qualification partly to Z-code and population analysis.

Present-on-admission coding and its accuracy

Present-on-admission (POA) coding drew scrutiny because it is hard to audit and easy to question. A federal Office of Inspector General (OIG) evaluation around 2013 found a low error rate, near 3%, but participants believed gaming may have grown since, particularly where POA status determines whether a hospital-acquired infection or a potentially preventable condition counts against a facility. The clinical nuance is real. Consultation with the Centers for Disease Control and Prevention (CDC) on Clostridioides difficile (“C diff”) showed that symptom-onset windows differ by condition, so an infection appearing within a few days of admission may still be correctly coded as present on admission. Participants also flagged that critical access hospitals are exempt from POA reporting, even though small, resource-strapped settings may be exactly where hospital-acquired infections most warrant tracking.

Race, ethnicity, and language data

Tables spent significant time on demographic data quality. A single hospital using the wrong lookup table for one quarter, for example reversing race codes, can cascade through downstream reporting, which led one program to run a quarterly race and ethnicity check across all hospitals and compared to state benchmarks. Beyond miscoding, participants distinguished self-reported data from values entered by front-desk staff, noted large and distinct "unknown" and "refuse to answer" categories, and described reconciling conflicting values across sources such as an eligibility file and managed-care submissions. Language proved even harder than race. Spoken, written, and native language can differ for one person, and one state tracks 87 languages, which it narrows to the 15 with translated documents for manageable reporting. The shared lesson was that standards are needed not only for codes but for how the data is

collected, and that the perfect should not block useful disparities analysis. Washington was cited for reporting Healthcare Effectiveness Data and Information Set (HEDIS) measures by race and ethnicity for several years, ahead of national benchmarking bodies.

Completeness, social needs, and multistate sharing

Several threads concerned what counts as usable hospital data. Tables worked through defining a complete reporting period for hospital discharge by quarter, where missing months and the gap between discharge dates and paid dates complicate certification. On social-determinant data, participants stressed explaining to patients why the information is collected, since the questions can feel intrusive, and they questioned response accuracy and how to win provider buy-in, noting that social-need profiles vary sharply even within a single ZIP code. Sharing hospital data across states remained a barrier, with mismatched data-release policies and sensitive-data rules making multistate work difficult even when the underlying data exists. Federal sources such as the Healthcare Cost Report Information System (HCRIS) and machine-readable transparency files were discussed as complements to discharge data.

NAHDO Member Meeting

Organizers: Chris Krawczyk (NAHDO Board Chair), Norm Thurston (NAHDO)

Member value and the strategic plan

The meeting opened with recognition of the board and introductions of new members and sponsors, then turned to the work the board had done the day before. Leaders explained that the strategic plan's goals are sound and will not change, and that the focus now is making the strategies specific, actionable, and operational given staff, volunteer, and committee capacity. A member survey put overall satisfaction at 8.5 out of 10. Leaders stressed the everyday value of the network, the ability to ask what another state is doing and reach someone who has already solved a problem, and described a new Claims Data 101 training module that members will be able to use. Staff also walked through a detailed baseline of the day-to-day work done on members' behalf, presented both to take stock and to make that work visible.

Technical assistance and collective action on licensing

A survey finding prompted a direct pitch. A surprising number of members marked technical assistance "not applicable," apparently unaware that membership includes it. Leaders encouraged members to call with operational or coding questions, noting that a single member's question often becomes a shared lesson distributed across the community. The member email list is not published, partly for privacy and partly because it is a higher-tier sponsor benefit, but staff will connect any member with any other on request.

Members pressed on a shared cost: licensing for procedure codes and similar reference lists. Current Procedural Terminology (CPT) licensing and comparable list licensing impose repeated fees on states and vendors for the same content. Leaders said the organization is interested in convening members to negotiate collectively rather than each entity bargaining alone, while acknowledging that a small association may have limited leverage with a large national licensor.

Certifying what counts as an APCD

The longest discussion was a proposal for an all-payer claims database (APCD) certification. The concern is that some published studies cite proprietary data products marketed as a "national APCD" that are not APCDs as the community understands them, sometimes on politically sensitive topics, which produces weak science and reflects badly on legitimate programs. The proposal is a lightweight, voluntary review against criteria the members themselves would set, with certification issued under the APCD Council name and protected as a trademark. Illustrative criteria raised included:

- State or quasi-state governance with transparency to the public
- Documented privacy and security policies
- An institutional review board (IRB) requirement before identifiable data is used

- Claims for a defined population over time

An informal show of hands ran heavily in favor of exploring it, on the order of ten to one. Supporters noted a future benefit as well, that if a federal grant program ever offered money per APCD, a recognized standard would distinguish established programs from entities that adopt the label opportunistically. Recertification frequency and enforcement details were left for a follow-up group, and participants drew comparisons to public-health department accreditation and to medical-home accreditation standards.

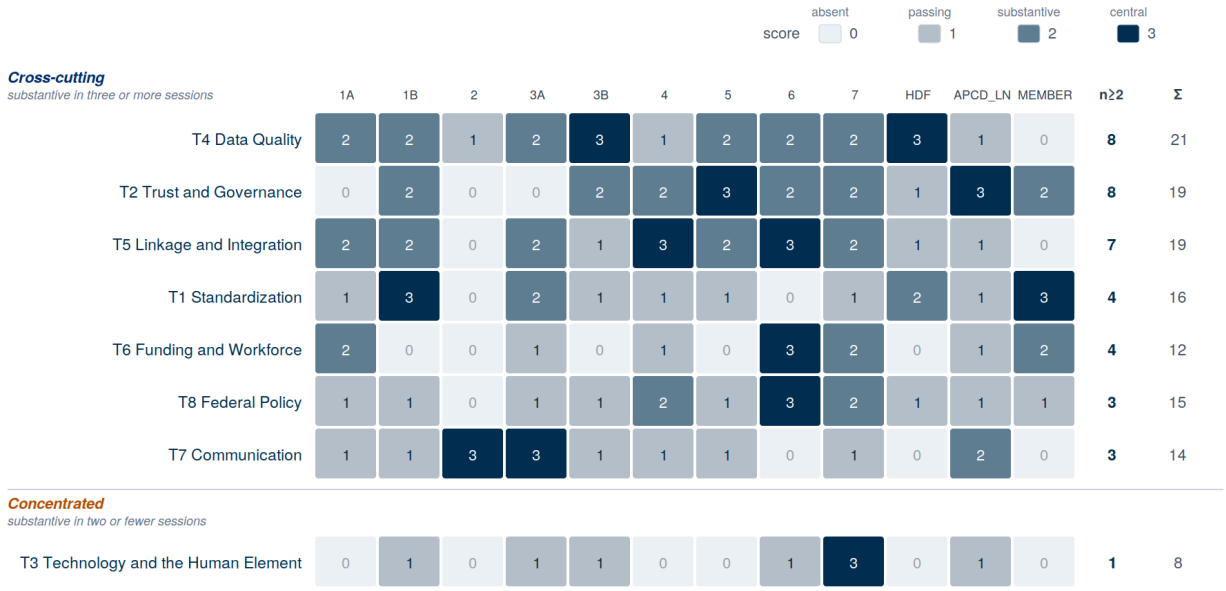
Standardization, the website, and rural transformation

Several threads converged on standardization. Members asked for an operational reference, possibly a comparison of how different programs handle data release, enclaves, and vendors, to help newer states replicate what fits their legislative structure. The organization's website is being revamped to archive dated content, improve search, and add a members-only area for standard operating procedures, decision rubrics, and lessons learned. On rural health, participants observed that standardized APCD data could help measure the impact of the federal Rural Health Transformation (RHT) Program, and that better coordination between state health departments and the Centers for Medicare and Medicaid Services (CMS) side of rural funding could turn that into a shared opportunity. Bigger-ticket federal items, including Health Resources and Services Administration (HRSA) funding, were flagged as areas where collective effort could add member value.

Appendix A. Cross-Cutting Themes

This appendix organizes the 2026 National Association of Health Data Organizations (NAHDO) Annual Meetings in Miami around the eight spine themes of the theme taxonomy: 1) standardization, 2) trust and governance, 3) technology and the human element, 4) data quality, 5) linkage and integration, 6) funding and workforce, 7) communication, and 8) federal policy. Classification and order come from a theme-by-session matrix rather than from impression. The matrix scored each spine theme in each of the twelve public sessions on a four point scale, from absent through mentioned in passing and substantive treatment to central. Any measure of reach stated below is directly from the theme-by-session matrix.

NAHDO 2026 Annual Meetings: Theme by Session Strength



Part 1. Cross-cutting themes

Data Quality and the Limits of What Claims Capture

Data Quality was treated substantively, scoring two or higher, in eight of the twelve public sessions. That is the joint widest reach of any theme and the heaviest by strength. It was central to the data quality and validation session (3B) and to the Hospital Data Forum.

The premise underneath most of the meeting is that health data exists first to support payment, and every other use is downstream of that purpose. Data populated for payment is more complete than data collected for compliance or public reporting, so claims show what was

billed rather than what people need and are not receiving. A license on file is not the same as a practicing provider, and care delivered outside insurance does not appear at all, so every secondary use carries artifacts that an analyst has to know about before drawing a conclusion.

Because the data is imperfect, validation does most of the quiet work. The most common first check compares a new submission against historical norms, with per-member-per-month (PMPM) figures treated as an early warning signal. A sharp swing in member months or in spend gets flagged for explanation before it is accepted, though the judgment is harder than the mechanics, since a drop can mean a lost account or a failed submission and a spike can mean a new high cost therapy rather than an error. Programs manage variances at scale by narrowing scrutiny from every field to a smaller set of critical fields and time bounding each submitter, and they consolidate repeated submissions of the same claim by tracking stable identifiers, by fingerprinting fields when identifiers change, and by recognizing interim claims that signal more is coming. Run out is the binding constraint, since validations often cannot pass until a six to eighteen month window closes. Some errors are invisible inside a single data stream and surface only across submitters, as when most payers adopt a new place of service code and one keeps bucketing it as “Other.”

Completeness is judged against use, not in the abstract. The working standard is whether the data is as complete as the prior year and fit for the intended question, since nothing is ever truly complete. Programs certify reporting periods up front, catch cases such as a facility that changed electronic health record (EHR) systems mid quarter and dropped a month, and distinguish a real drop, such as a storm affected month, from a reporting gap before releasing anything publicly.

The fields that matter most for policy are often the least reliable. Social determinants and external cause of injury codes are recorded inconsistently, present on admission (POA) status is hard to audit and easy to question, and race, ethnicity, and language data suffer from miscoding, large unknown and refused categories, and the deeper problem that there is no standard for how the information is collected rather than only how it is coded. One illustration was a condition recorded in roughly two percent of cases against a population prevalence near thirty percent. The common diagnosis is that a code which does not drive payment gives little reason to record it accurately, so the fixes that participants reached for were a regulatory mandate or a payment incentive rather than better analysis after the fact.

Holding all of this together depends on memory. Participants pressed to memorialize decisions so the same question is not adjudicated differently a year later, to keep release notes short enough to actually be read, and to close the gap between the intake team that spots an issue and the analysts and end users who need to know. A shared store of data quality notes organized by data layout was offered as a way to reduce dependence on a single expert, with the caution that any automated aid to surface past decisions still needs validation.

Trust and Governance: Earning the Right to Publish

Trust and Governance was treated substantively in eight of the twelve public sessions, tied for the widest reach. It was central to the behavioral health session (5) and to the APCD Council Learning Network.

The direction of travel for data access is away from cutting and shipping extracts and toward secure enclaves and data marts. Programs route requests through application and review committees, require data use agreements that include a destruction acknowledgment, and apply purpose or benefit tests. An enclave matters because it makes destruction enforceable rather than dependent on a requester acting in good faith, and several programs are moving to enclaves even for standard datasets.

Running alongside that shift is an eroding premise. The belief that data can be fully de-identified is giving way to the view that little is truly de-identifiable, so programs lean on contractual prohibitions on reidentification, small cell suppression, and releasing only the minimum necessary. Re-identification risk is not only an individual matter. It appears at fine geographies such as a postal code and at the multistate level, where a single policy change can expose one state within a census division.

Governance is ultimately about earning the confidence to publish. Initiatives tend to stall on trust before they stall on data, the first public release is the hardest, and the practices that build trust include fixed advisory review windows, pairing price with utilization so a number is not read alone, and using neutral, trustworthy data early to protect a nonpartisan reputation. The lesson participants repeated is that the sky does not fall once stakeholders, including those being measured, have a seat at the table.

Some categories carry legal restrictions or stigma and demand special handling. Substance use disorder (SUD) data falls under a federal confidentiality regulation, 42 CFR Part 2, which attaches to a provider rather than a diagnosis and has no national registry, leaving programs to weigh building their own. Behavioral health reporting is inconsistent across payers, payers often mitigate risk by over suppressing whole facilities or codes, and the optics of patient level sensitive diagnoses shape what can responsibly be shown. The shared aim was to let the data tell the story without suppressing or inflating it, and to keep the perfect from blocking useful analysis.

Linkage and Integration: Joining Data That Was Never Designed to Connect

Linkage and Integration was treated substantively in seven of the twelve public sessions. It was central to the data integration session (4) and to the rural health session (6).

The hardest and most valuable work discussed was joining data that was never designed to connect. The constraint participants increasingly see as solvable is governance. The constraint that remains is field level matching, resolving identities across systems, building and maintaining an Enterprise Master Patient Index (EMPI), and deduplicating across feeds whose update cadences do not align. Person versus encounter joins, fuzzy matching, and the question of how to measure whether a match actually succeeded were all live, since a master patient index (MPI) is only as good as the confidence in its links.

The payoff is the ability to answer questions claims alone cannot. Linking claims to EHR results, to vital records, to registries such as immunization data, and to health-related social needs (HRSN) data can show whether care changed an outcome, and getting there often means mapping local codes to standard code sets so the join can happen at all. Hospital discharge data was triangulated against claims, birth records were linked to claims for maternal analysis, and electronic medical records were used to supplement incomplete claims.

A distinct strand of integration is turning regulatory files into usable data. Hospital price transparency files and Transparency in Coverage machine readable files are hard to process, and the work is to make them usable and to link them to claims for contracting, quality checks, and consumer cost. Beyond pairwise joins, participants described cross domain ecosystems that feed a shared, governed space through a single license request gateway, and honest broker models that join external data to a claims base while keeping the parties separated.

Standardization: A Floor to Raise

Standardization was treated substantively in four of the twelve public sessions. It was central to the data models session (1B) and to the NAHDO Member Meeting.

The recurring image was a floor to raise rather than a finished standard. The APCD Common Data Layout (APCD-CDL™) is built on through custom additions, a pattern attendees called “CDL plus,” or pared down to fewer fields, a pattern they called CDL minus, while payers press for the consistency that would let them submit the same way in every state. Standard, comparable metrics make results compare across programs, including total cost of care, PMPM spending, total health care expenditures, and utilization per ten thousand, disaggregated where that helps.

Standardization is not a one time act. Custom fields need governance, vetting why a new field is requested, maintaining validations as the underlying reality changes, and publishing change logs so a recipient can tell which release they received. The longest discussion of the meeting was a proposal for a voluntary review to certify what qualifies as an APCD, issued under the APCD Council name, so the community defines and defends its own standard rather than leaving the label to be claimed opportunistically. Reaching across state lines, participants pressed to reconcile submission guides and to resolve what happens when one state does not collect a variable that others do, since the questions participants most want to answer often need multistate data.

Funding and Workforce: Sustaining the Program and the People

Spine theme T6. Funding and Workforce was treated substantively in four of the twelve public sessions. It was central to the rural health session (6).

Programs run on limited resources, and the meeting kept returning to what it takes to keep them running. Sustainable funding and clear ownership were treated as design choices rather than afterthoughts, with subscription models tied to patient panel size offered as one approach and the abandonment of free tools after a few years offered as the cautionary case. The warning was against treating any tool or standard as a one time build, since each needs planning for maintenance, ownership, and the staff to run it.

The people-side drew equal attention. Participants described modeling workforce supply and demand to inform planning, the institutional knowledge lost to turnover, and a shift in the required skill mix as artificial intelligence (AI) moves some staff from writing code toward writing prompts, which raises questions of training burden and of who owns generated code. Evaluation was named as the weak point. Initiatives are too often funded without building in the baseline and monitoring metrics that would later show whether to continue, adapt, or end them, repeating an earlier pattern of spending without learning. Building measurement in from the start was treated as the difference between an investment and an expense. Finally, participants saw collective action as a lever on shared costs, negotiating procedure code and reference list licensing together rather than each program alone, and preparing shared answers to the questions every program faces.

Federal Policy and the State Response

Federal Policy was treated substantively in three of the twelve public sessions. It was central to the rural health session (6).

Federal action shapes the work in both directions, as a source of programs to support and as a set of rules and constraints to absorb. Much of the rural discussion circled the federal Rural Health Transformation (RHT) Program and how state data organizations can set baseline and monitoring metrics for it and coordinate with the federal side of rural funding so a program becomes a shared opportunity rather than an unfunded expectation. Federal price transparency rules are both a workload and a source, since the Hospital Price Transparency rule and the Transparency in Coverage rule require machine readable files that are hard to process but valuable once usable.

On technology, a 2025 federal executive order seeking a national framework was set against a patchwork of state artificial intelligence bills moving in parallel, so participants face federal and state direction at once. Participants also rely on federal data from agencies such as the Centers for Disease Control and Prevention (CDC), the National Oceanic and Atmospheric

Administration (NOAA), and the Census, even as they named antiquated federal data sharing restrictions as a barrier to linkage that would otherwise benefit the public.

Communication: Making Analysis Understood

Communication was treated substantively in three of the twelve public sessions. It was central to the data visualization session (2) and to the cost and quality analytics session (3A).

Analysis is useful only once it is understood, and the recurring guidance was to find and tell the story in the data rather than publish a data dump, favoring a clear chart over a clever one. Sound visual design follows from honesty and access, honest scales and framing, color that survives grayscale and color-blind viewing, layout that matches how people actually read, and restraint against ornamentation, with the simple discipline of showing a draft to an uninvolved colleague before release.

The same analysis serves different readers differently, so participants tailored metrics, terminology, and form to the specific audience, whether policymakers, payers, providers, patients, purchasers, or employers, and built public reporting around the researchers, insurers, and legislators who actually use it. Underpinning all of it is method transparency, defining basic terms so a reader is not assumed to know them, avoiding an unexplained black box, and disclosing limitations and caveats plainly when the data being shared is incomplete.

Part 2. Concentrated themes

Artificial Intelligence and the Human in the Loop

This is the most concentrated theme in the matrix. Artificial intelligence (AI) was the subject of one dedicated session and appeared only in passing in a few others, so the theme was treated substantively in only one of the twelve public sessions and was central to that one, the AI session (7). Two facts have to be kept separate here. The adoption participants described in their own organizations was near universal, while the meeting's own coverage of the subject was concentrated in a single room. The reach reported in this appendix is the reach of the meeting's coverage, not a claim about how widely the technology is used.

Within that one session, the picture was of adoption outpacing trust. AI moved from rare to near universal use within a year while governance and trust lagged, a posture participants described as cautious optimism, treating model output as a draft that is most of the way there rather than a finished product. The use cases spanned administrative and clinical work, including drafting and summarization, documentation retrieval, coding partnership, anomaly detection, identity matching, and consumer facing chatbots, reaching back office, consumer, provider, and patient settings. The barriers were named plainly, hallucination, sycophancy, the burden of verification, data exposure, and vendor limits, and the mitigations were consistent, keeping a person in the

loop, working in secure or closed environments, requiring tools to cite their sources, and validating everything downstream. Older and narrower machine learning was seen by several as a more comfortable place to begin than newer large language models.

Session-confined topics

A few topics drew detailed attention but stayed inside one session, so they did not reach the cross-cutting bar and are not spine themes. They are recorded here so the appendix preserves them without overstating their reach. The most developed is grouper and episode grouping practice from the cost and quality session (3A), which covered selecting a grouper and validating it on the population it will be used for rather than trusting it blindly, planning for versioning and ownership so historical series stay comparable after a version change, assigning a process owner with a documented procedure and a backup, and weighing the sustainability of free or homegrown tools that may be abandoned or that need clinical and administrative review. The same session also raised the narrower question of aligning non-claims and alternative payments data with the claims foundation it still rests on, including the difficulty payers have in saying how much spend flows to primary care or behavioral health. From the data quality session, the treatment of denied claims, and in particular the line between fully and partially denied claims, was noted as an emerging topic with no consistent practice across states. These are session level method notes, not themes that ran through the meeting.

Appendix B. Recommendations for NAHDO Activity

Promote Standardization

NAHDO has a direct interest in promoting shared standards and best practices across technical, policy, and operational work. When approaches are shared and adopted, data can be exchanged, linked, and trusted across states, which leads to better insights, stronger policy, and improved health outcomes.

Already Operational

- Steward the APCD Common Data Layout as the field's shared transport standard and a floor for state submission guides.

For Short-Term Consideration or Medium-Term Prioritization

Advocating for and Developing Standards and Tools

- Develop a voluntary APCD certification: a lightweight review against NAHDO-member-set criteria such as state or quasi-state governance with public transparency, documented privacy and security policies, an institutional review board requirement before identifiable data is used, and claims for a defined population over time, issued and protected under the APCD Council name.
- Maintain crosswalks between the APCD Common Data Layout and federal file layouts, including CMS fee-for-service files, and document the handling of dual-eligible duplication and denied or partially denied claims.
- Publish data-quality validation frameworks and benchmark thresholds organized by topic, including eligibility, claims adjudication, provider rosters, and code sets, with PMPM and member-month variance checks.
- Document standard practice for consolidating claim adjustments across submissions, covering stable identifiers, fingerprint matching, and interim claims, along with run-out windows.
- Recommend a change-log practice tied to warehouse refreshes so data recipients can trace which release their delivery came from.

Creating Data-Sharing Templates and Policies

- Design standard data use agreement templates that include a data-destruction acknowledgment and can accommodate multiple parties.
- Create a multistate data-request application template and work toward a single common submission guide.

- Document a reference data-release process covering application and approval, access through an enclave, data engineering, and monitoring and destruction.

Aspirational - Long-Term Strategic Concepts

- Establish shared standards for collecting race, ethnicity, and language data that address how the data is collected and not only the code sets.
- Develop guidance for integrating non-claims and alternative-payment data with the claims foundation, including flagging value-based arrangements in eligibility files.
- Develop methods for incorporating clinical data from health information exchanges and electronic health records, including approaches to inconsistent FHIR use and local-to-standard code mapping.
- Develop a recommended approach to defining behavioral health spending by diagnosis or by provider type, with transparency about the list used.

Education and Technical Support

NAHDO researches solutions to shared problems, disseminates practical guidance, and offers training so members can use data effectively and meet their operational and analytic challenges.

Already Operational

- Offer the Claims Data 101 training module to members.
- Provide members technical assistance on operational and coding questions, and make members aware that this is included in membership.
- Maintain the APCD Council Learning Network as a standing venue for shared practice.

For Short-Term Consideration or Medium-Term Prioritization

Knowledge Sharing

- Compile a comparison of how programs handle data release, enclaves, and vendors so that newer states can replicate what fits their legislative structure.
- Synthesize the Learning Network's data-release discussion into a shared guide.

Educational Opportunities and Training

- Offer visualization workshops grounded in accuracy, color, layout, and audience, including honest scales, accessible color, and the bystander test.
- Offer training on telling the cost-and-quality story and tailoring reporting to policymakers, payers, providers, patients, and purchasers.

- Offer training on applying groupers, covering documentation review, matching the grouper to the population, versioning and regrouping, validation, and sustainability, with an inventory of options including low-cost episode groupers.
- Offer practical artificial intelligence training that distinguishes large language models from other machine learning, treats prompt-writing as a skill, requires citations, and builds validation checks and error-rate thresholds.
- Provide guidance on integrating hospital price transparency and Transparency in Coverage machine-readable files with claims, including the payer and coverage-type roll-up problem.

Providing Guidance and Technical Assistance

- Develop guidance for secure enclaves and data marts, including monitoring and enforceable data destruction.
- Develop a privacy framework that moves from de-identification promises toward contractual prohibitions on reidentification, small-cell suppression, and minimum-necessary release.
- Provide guidance on 42 CFR Part 2 and substance use disorder data, including whether to build a state Part 2 provider register and how to supplement incomplete claims.
- Document approaches to capturing spending outside payer-provider claims, including self-pay and out-of-network care and the audited-financial-statement variance model.
- Develop guidance on present-on-admission coding accuracy and on capturing Z-codes and social-determinant data, including incentive or mandate options.
- Provide briefs members can use to explain the value of their data programs to legislators and other stakeholders.

Support Research

- Support or disseminate multistate analyses that only multistate data can answer, such as rare-disease prevalence and gene-therapy cost variation.
- Support evaluation of the federal Rural Health Transformation Program using standardized claims data.

Aspirational - Long-Term Strategic Concepts

- Create frameworks to assess and adopt artificial intelligence and machine learning tools responsibly, addressing bias, transparency, accountability, and data exposure.
- Develop identity-resolution and semantic-interoperability approaches, including master patient index and fuzzy-matching methods, that members can adopt.
- Build a NAHDO members-only library of standard operating procedures, decision rubrics, and lessons learned.

Federal Advocacy and Communication

NAHDO communicates members' needs to federal agencies, evaluates how federal policy and funding shifts affect state data work, and helps members adapt and respond.

- Engage on a national framework for artificial intelligence in health data and on the tension between a federal executive order and a state-by-state patchwork of rules.
- Advocate for coordination between state health departments and the federal side of rural funding so the Rural Health Transformation Program can be measured and sustained.
- Advocate against antiquated federal data-sharing restrictions that block beneficial linkage.
- Advocate for better clinical-data standardization, including more consistent use and storage of FHIR, to ease integration.
- Engage on procedure-code and reference-list licensing, including Current Procedural Terminology, and explore collective negotiation on members' behalf.
- Monitor federal price-transparency enforcement and the legal implications of website terms of use when ingesting publicly posted files.
- Track the availability and stability of the federal data sources members rely on.
- Flag larger federal funding items, including Health Resources and Services Administration programs, where collective effort could add member value.

Networking and Communication

NAHDO connects members so that one member's solved problem becomes another's solution, fostering a community where members exchange ideas and problem-solve together.

Foster Multistate Initiatives

- Facilitate multistate standardization efforts and frameworks for reconciling variables that one state collects and another does not.
- Convene collective negotiation on procedure-code and reference-list licensing.
- Advance the voluntary APCD certification through a follow-up group to set criteria, recertification frequency, and enforcement.

Convene and Connect Members

- Connect any member with any other on request, given that the member email list is not published.
- Identify the research questions programs receive repeatedly and prepare shared answers within each state's rules.

- Continue candid, working-format sessions, including world cafe, problem-solver workshops, and NED Talks, that surface real challenges.
- Convene a working group on artificial intelligence use cases and guardrails.

Promote Knowledge and Best Practices Sharing

- Create a shared repository of data-quality notes organized by data layout so that decisions are memorialized and not re-adjudicated.
- Share public-reporting approaches that build trust, including fixed advisory-review windows and pairing price with utilization.
- Capture state approaches to behavioral health, substance use disorder, and race, ethnicity, and language reporting.
- Continue revamping the website to archive dated content, improve search, and add a NAHDO members-only area for standard operating procedures, decision rubrics, and lessons learned.

Support Policy and Operational Implementation

- Help members coordinate consistent responses to common data requests.
- Support newer or less-mature programs with operational references and onboarding.
- Provide resources on the politics of first-time public price reporting, including stakeholder review and the reassurance that the sky does not fall.