

1. Consider Adoption of 2024 Fall National Meeting Minutes

Attachment 1

—*Commissioner Michael Humphreys (PA)*

Draft Pending Adoption

Attachment 1
Big Data and Artificial Intelligence (H) Working Group
3/11/25

Draft: 12/3/24

Big Data and Artificial Intelligence (H) Working Group
Denver, Colorado
November 17, 2024

The Big Data and Artificial Intelligence (H) Working Group of the Innovation, Cybersecurity, and Technology (H) Committee met in Denver, CO, on Nov. 17, 2024. The following Working Group members participated: Michael Humphreys, Chair, and Shannen Logue (PA); Doug Ommen, Co-Vice Chair (IA); Kevin Gaffney, Co-Vice Chair, and Mary Block (VT); Sian Ng-Ashcraft and Molly Nollette (AK); Richard Fiore (AL); Tom Zuppan (AZ); Ken Allen (CA); Michael Conway and Jason Lapham (CO); Wanchin Chou (CT); Karima M. Woods and Dana Sheppard (DC); Richie Frederick (FL); Shannon Hohl (ID); Julie Rachford and Joanna Coll (IL); Holly W. Lambert and Victoria Hastings (IN); Shawn Boggs (KY); Tom Travis (LA); Caleb Huntington and Jackie Horigan (MA); Kory Boone (MD); Sandra Darby (ME); Jeff Hayden (MI); Phil Vigliaturo (MN); Chlora Lindley-Myers and Cynthia Amann (MO); Colton Schulz and John Arnold (ND); Connie Van Slyke (NE); Christian Citarella (NH); Seong-min Eom (NJ); Hermoliva Abejar (NV); Matt Walsh (OH); Teresa Green (OK); Raven Collins (OR); Karl Bitzky (SC); Travis Jordan (SD); Emily Marsh (TN); J'ne Byckovski and Cassie Brown (TX); Michael Peterson (VA); Jay Bruns (WA); Tim Cornelius (WI); Juanita Wimmer (WV); and Lela Ladd (WY). Also participating was Melissa Robertson (NM).

1. Adopted its Nov. 12 Minutes

Commissioner Ommen made a motion, seconded by Commissioner Gaffney, to adopt the Working Group's Nov. 12 minutes (Attachment One-A). The motion passed unanimously.

2. Received an Update on the Health AI/ML Survey

Commissioner Humphreys stated that the health AI/ML survey workstream has held weekly discussions for the past year to set the scope of the health artificial intelligence (AI)/machine learning (ML) survey, refine questions, and incorporate input, and clarified that the Working Group is not conducting the survey, rather the participating group of states is doing research to assist the Big Data and Artificial Intelligence (H) Working Group. Commissioner Humphreys reiterated that the goals of the surveys were to: 1) gain a better understanding of the insurance industry's use and governance of AI; 2) seek information that could aid in the development of guidance or potential regulatory framework to support the insurance industry's use of AI; and 3) inform regulators of the current and planned business practices of companies. On Oct. 31, the call letter to the surveyed companies was issued. On Nov. 11, the surveys were launched with a due date of Jan. 22, 2025. By March 17, the responses will be compiled, and the report of the findings is targeted to be published on March 24.

Logue reported that, in response to consumer representative feedback, the main differences between the health AI/ML survey and prior AI/ML surveys included: 1) individually tailoring questions to different product lines (comprehensive individual major medical plans, comprehensive small employer major medical plans, comprehensive other [i.e. large] employer major medical plans, and individual and group student health plans) and 2) tailoring the questions to the areas of data usage, arrangements with third parties, coordination of governance with existing health provider governance standards, and the different operational AI functions of health insurers.

3. Received an Update on the Follow-Up to the PPA AI/ML Survey

Logue stated that the purpose of the follow-ups to the private passenger auto (PPA) surveys was to compare the current state of AI usage in 2024 with the baseline from the 2021 surveys. Follow-up discussions are being held with a subset of companies that responded to the 2021 surveys to gather updates on the companies' approach to AI since the 2021 survey. The types of questions asked during the follow-up meetings included if the NAIC *Model Bulletin on the Use of Algorithms, Predictive Models, and Artificial Intelligence Systems by Insurers* has been helpful, if the carrier has established a governance program, and if testing is performed and the extent of it, including testing of third-party-provided AI systems. The follow-up surveys will take place through the first quarter of 2025.

4. Heard a Presentation on Health Insurance Companies' Use of AI to Conduct Utilization Management

Lucy Culp (Leukemia & Lymphoma Society—LLS) and Lauren Seno (NORC at the University of Chicago—NORC) summarized the comprehensive report "Artificial Intelligence in Health Insurance: The Use and Regulation of AI in Utilization Management," focusing on prior authorization. The report was a collaborative effort between NORC and the LLS and provided an in-depth analysis of AI's current implementation and potential implications for health care services. Culp and Seno highlighted both promising opportunities and significant concerns surrounding AI's role in health care decision-making. While AI technologies offer potential benefits, such as reducing administrative burden, expediting approval processes, and allowing health care professionals to focus on more complex clinical tasks, i.e., to practice "at the top of their license," there are concerns about current limitations and potential risks, including inherent bias in training data about the historical underrepresentation of marginalized and minoritized communities in health care data sets and significant gaps in clinical data. They noted that many demographic groups have been systematically excluded from clinical trials and claims data, and these data limitations could potentially perpetuate existing health care inequities.

Culp and Seno emphasized the risk of misaligned incentives, where AI systems might prioritize cost containment over patient care, and the potential for AI algorithms to evolve beyond their original intended usage, creating challenges for regulation and oversight. In response to these challenges, the report proposed a comprehensive regulatory framework consisting of three pillars: 1) meaningful transparency; 2) accountability mechanisms; and 3) robust human oversight. It was noted that current regulatory efforts are limited, with only a few states (California, Colorado, and Utah) actively developing comprehensive AI regulations for health insurance processes, suggesting that technological implementation is significantly outpacing the development of regulatory frameworks. They stated that regulation is a way to bring alignment between the use of AI with how society expects them to function.

Culp and Seno noted that a critical recommendation in the report was the development of governance structures that can effectively measure and prevent potential harm to historically marginalized communities, stressing the importance of ongoing monitoring, testing, and refining of AI systems to align their functionality with societal expectations. They concluded by emphasizing that human oversight is important. Robust and accessible appeals processes for coverage denials need to be established and considered a guaranteed right for all health insurance consumers. Human oversight must be embedded into underwriting management when AI is used, and those reviewers must have the authority and ability to overturn decisions made by the AI without undue consequences. AI regulation needs to be considered an evolving practice.

Commissioner Humphreys asked the presenters when transparency should be provided to the consumer and in what form it would be most helpful. The presenters responded that, in particular, consumers should be informed

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whether they are interacting with an AI tool and in cases where prior authorization is denied. They added that transparency disclosures should follow a risk-based approach.

Horigan asked whether changes should be made to the appeals process. The presenters responded that it should be based on accountability behind the AI system and that the process should be clarified when an AI tool is involved.

Boone asked whether insurance companies are indicating that they want proper safeguards on a granular level or on a higher level. The presenters responded that the goal is not to stifle innovation but to make sure that consumers are protected. Innovation that can have positive impacts should be encouraged while accountability should be established for when there is not always a positive impact.

Commissioner Gaffney asked the presenters to comment on how to better assess the input data. The presenters responded that health care data is understood through claims data, but that only captures what happened and what was paid for. There is so much care that is not happening for systemic reasons that does not get captured in that data, so thinking beyond claims data is a potential start. Other approaches are truing up data sets and auditing input training data sets to ensure the data is representative.

5. Heard a Presentation on Use Case Applications of AI in Insurance Underwriting and Claims

Frank Quan (University of Illinois) presented AI use cases in insurance underwriting and claim management, noting that these two areas are the most impactful on consumers. Quan first highlighted that recent advancements in generative AI can replicate institutional knowledge to help streamline the underwriting process and improve the customer experience by using external data to prefill policyholder information, drastically reducing the number of questions the consumer needs to answer during the submission process. However, Quan noted that this may raise important questions about how to ensure accuracy, how consumers can correct errors, how consumers can dispute unfair outcomes, and what transparency disclosures should be made to consumers.

As another example, Quan highlighted how AI can be used in claims management, where AI-powered systems can automatically review and process claims by analyzing claim documentation, images, and historical data, in order to prioritize suspicious claims to be routed to humans within a special investigations unit. He noted that AI models may have many submodels to handle the variety of data, such as computer vision models, large language models, and supervised learning models. These systems require continuous monitoring and regular data audits. For example, most insurers do not have sufficient loss experience for Tesla Cybertrucks, resulting in possibly inaccurate estimates of damage predictions. AI systems require a careful balance between automation and human oversight, transparent algorithm development, and a strong commitment to ensuring data quality. Regarding regulatory compliance, the focus should be whether the model is targeting certain demographic groups unfairly.

Further, Quan noted that AI systems can also be exploited by fraud actors who analyze which claims are likely to be approved and adjust their claim submissions to fit the preferred patterns. This can undermine automated processes, so insurers need fraud detection models. One of the challenges in creating a fraud detection system is sampling from a biased or unrepresentative data set. Another challenge is that fraud detection models may generate high rates of false positives and false negatives, potentially resulting in an unfair outcome.

Chou asked whether Quan has had the chance to do a cost-benefit analysis of using AI in underwriting and claims, and the relationship between a third-party actor, the lawyer, and the doctor in fraudulent claims. Quan responded that on the first question, he has not worked at an insurance company, so therefore, he does not have access to

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the data needed to do a cost/benefit analysis. On the second question, it is very difficult to identify fraud claims and relationships among acting parties because of the very low number of actual fraud claims available in historic training data.

Horigan asked whether there should be AI model pushback on some human-in-the-loop decisions if the model perceives that the human is making biased decisions. Quan responded that AI is just a replication of human beings, and if humans are already biased, then the model must be biased, so there is no way an AI system can correct human beings based on historically biased information. One way to correct this is from the data inputs perspective, and the other way is to correct this from the output level.

6. Discussed its 2025 Proposed Charges

Commissioner Humphreys noted that the charge “Overseeing the Work of the Data Call Study Group” will be addressed by the H Committee, not the Big Data and Artificial Intelligence (H) Working Group. The inclusion was an error, and he apologized for any confusion.

Commissioner Humphreys said the Working Group is taking steps to advance the discussion on what comes next, as the group adopted the AI principles in 2020. The *Model Bulletin on the Use of Artificial Intelligence Systems by Insurers* was adopted last year, and 19 states have adopted it. He said that each adoption was an important milestone in the Working Group’s path to updating the regulatory framework for the use of AI.

He said the two items that the Working Group will begin to work on will be a discussion with Commissioner Ommen on AI systems evaluation which he explained during the Working Group’s Nov. 12 meeting. Commissioner Humphreys said the Working Group has additional charges that shift the overall discussions to consumer outcomes, i.e., what does the Working Group want to protect the consumer from? He clarified that the Working Group understands AI is a transformative technology that many are using beneficially, and this may lead to a gap analysis. He said that once the Working Group has specified what it wants to protect consumers from, it will have to decide if its framework holds up against those potential harms. He said that there will be more discussion to come, and he looks forward to the group’s engagement.

Having no further business, the Big Data and Artificial Intelligence (H) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Committees/H CMTE/2024_Fall/WG-BDAI/Fall-Minutes/Minutes-BDAIWG111724.docx

2025 Adopted Charges

BIG DATA AND ARTIFICIAL INTELLIGENCE (H) WORKING GROUP

1. The **Big Data and Artificial Intelligence (H) Working Group** will:
 - A. Research the use of big data and AI (including ML) in the business of insurance. Proactively communicate findings, and present recommendations to the Innovation, Cybersecurity, and Technology (H) Committee.
 - B. Monitor state, federal, and international activities on AI, including working with the Innovation, Cybersecurity, and Technology (H) Committee to: 1) respond to such activities, where appropriate, and 2) address potential impacts on existing state insurance laws or regulations.
 - C. Facilitate discussion to consider updates to the regulatory framework for the oversight of the use of AI by insured entities. Provide recommendations to the Innovation, Cybersecurity, and Technology (H) Committee in response to such activities.
 - a. Monitor and support adoption of the *Model Bulletin on the Use of Artificial Intelligence Systems by Insurers*.
 - b. Monitor and report on state, federal, and international activities related to governmental oversight and regulation of the use of AI in insurance and non-insurance industries.
 - c. Research, identify, and monitor the impacts of the use of AI systems by insurance companies to understand the potential benefits, value propositions, risks, and adverse consumer outcomes related to the use of AI systems.
 - D. Facilitate discussion related to AI systems evaluation including:
 - i. Identifying existing tools, resources, materials, and training that will assist and guide regulators in their review of AI systems used by licensees, including an insurer's AI program. This includes establishing a coordinated work plan and timeline for further development of those resources.
 - ii. Develop new regulatory tools or regulatory guidance to assist regulators in their review of AI systems used by licensees, including an insurer's AI program.
 - iii. Coordinate the development of review and enforcement tools, resources, guidelines, and training related to AI systems for regulators across the NAIC.
 - E. Facilitate and coordinate foundational and contextual educational content for regulators on topics related to the use of big data and AI techniques, tools and systems in the insurance industry.

2. Update on AI/ML Surveys

Attachment 2

—Commissioner Michael Humphreys and Shannen Logue (PA)

Health AI/ML Survey

Timeline:

11/11/2024	Survey Response Launch – Done
1/22/2025	Survey Completion – Extension granted to 2/12
2/12/2025	Latest Survey Response Extension Granted
2/14/2025	Completion of Analysis Spreadsheet – Done
3/17/2025	Write Report
3/24/2025	Publish Report (Tentative)



Big Data and Artificial Intelligence (H) Working Group

Update on the Follow Up to the Private Passenger Auto (PPA) AI/ML Survey

**Shannen Logue, Deputy Commissioner
Pennsylvania**

3/11/2025

Why follow up with companies on use of AI?

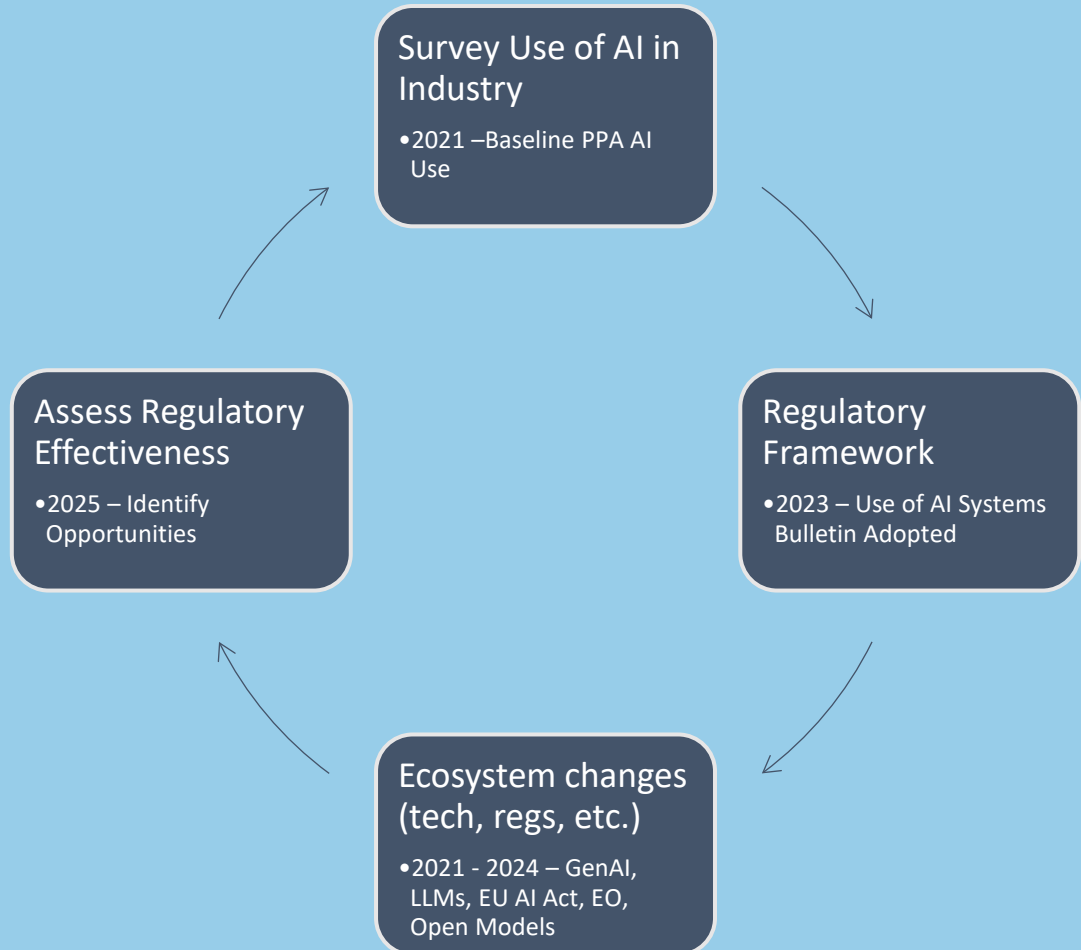
Recent consumer exposure and acceptance of AI

Rapid adoption of AI by companies for multiple use cases

Three years lapsed since initial AI/ML survey completed

Understanding the effectiveness of AI/ML Model Bulletin

Getting feedback on what's needed for AI regulatory framework



Private Passenger AI/ML Follow Up Survey

Company met one or more

- ✓ National Footprint
- ✓ Innovative Reputation
- ✓ Utilized Unique Vendors
- ✓ Utilized Multiple Vendors
- ✓ Created Internal Models

Survey Topics

How has their use of AI changed since 2021?

What's changed in their use of AI in operations?

How are they engaging with third-party data and AI vendors?

Where are they in governance journey and monitoring AI models?

Feedback for regulators?

Follow Up PPA AI Survey Responses

64% changed their use of AI

- 56% changed their use of AI for Marketing
- 0% changed their use of AI for Underwriting
- 28% changed their use of Generative AI in operations
- 18% changed their use of AI, data, or logic in Telematics

91% Advised the AI Bulletin was Helpful

- 91% Conduct regular audits, measure, and validate the performance of their AI models
- 91% Monitor for model drift
- 82% Measure outcomes for unfair discrimination
- 50% of insurers are able to validate their marketing models do not inadvertently exclude certain cohorts

Vendor Models

- 72% require vendors to demonstrate they have tested their model(s) prior to use
- 46% independently test vendor models
- 0% use a third-party to test for unfair discrimination in data and algorithmic outcomes
- 0% use a third-party to test their own models

Conversations with Companies Showed They Were at Different Points of the AI Systems Governance Spectrum

- Implemented AI/Risk Governance Framework
- Complete inventory of data & models
- Frequency of testing established by model type
- Established Risk Ranking Criteria
- Uses sophisticated drift detection
- Tests for adverse consumer outcomes
- Transparent with consumers about AI use
- Assesses risk during vendor procurement
- Avoids vendors who lack AI governance practices
- Uses human in the loop for consumer decisions
- AI use case documentation and evaluation
- Required employee AI training

- Governance Framework was Conceptual
- No inventory of data or models
- No set frequency to evaluate model drift
- Wanted guidance on risk ranking criteria
- Drift testing focused on intended results or performance
- Wanted guidance on testing for adverse outcomes
- No transparency to consumers about AI use
- No testing of vendor models or data (proprietary limitations)
- Low threshold for vendor credibility
- Difficulty validating model outputs treat cohorts similarly
- No use case documentation or evaluation
- Limited or no employee AI training

Modeled Best Practices

Not Able to Demonstrate

Summary of Feedback & Recommendations

- **Authority:**

- Regulators should regulate data/model vendors, rather than indirectly via insurers
- Create a national list of approved vendors
- Clarify who is responsible for inaccurate data or adverse impacts when data/models are from third-party vendors

- **Governance:**

- Need uniform standards and guidelines for AI governance across the insurance industry
- Need guidance on how to test for adverse outcomes by model type and risk
- Rate development templates to use in state filings when rate models use AI
- Continued principles and risk-based governance expectations from insurance regulators
- Identifying when human in the loop is required to mitigate adverse impact to consumers

- **Transparency:**

- Require consumer transparency when AI is used in decision making or chatbots
- Allow recourse for consumers to report bad data or appeal AI (non-human) decisions
- Need greater transparency in vendor contracts to insurers and during procurement process on how data will be utilized, retained, protected, and the purpose of retaining data

- **Systems Evaluations:**

- Develop objective and specific questions consistent across lines of business and states
- Incorporate into to annual statement filings, market conduct examinations, and/or financial examination reporting
- Standardize Questions Based on Model Types: There is a need for greater standardization on model questionnaires as well as specific guidance for use of AI models and other advanced modeling techniques

3. Review Charges

Attachment 3

—Commissioners Michael Humphreys (PA) and Doug Ommen (IA)

Big Data and Artificial Intelligence (H) Working Group 2025 Charges

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 - ii. Monitor and report on state, federal, and international activities related to governmental oversight and regulation of the use of AI in insurance and non-insurance industries.
 - iii. Research, identify, and monitor the impacts of the use of AI systems by insurance companies to understand the potential benefits, value propositions, risks and adverse consumer outcomes related to the use of AI systems.

Big Data and Artificial Intelligence (H) Working Group 2025 Charges

(continued)

- D. Facilitate discussion related to AI systems evaluation including:
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 - iii. Coordinate the development of review and enforcement tools, resources, guidelines, and training related to AI systems for regulators across the NAIC.

- E. Facilitate and coordinate foundational and contextual educational content for regulators on topics related to the use of big data and AI techniques, tools and systems in the insurance industry.

4. Discuss Updates to the Regulatory Framework for the use of AI Systems

Attachment 4

—*Commissioner Michael Humphreys (PA)*

Regulatory Framework Roadmap

General concepts of ideas to consider for further discussion:

1. Regulatory filings
2. Governance program:
 - a. Required/best practices
 - b. Prohibited practices/data elements
3. Disclosures to regulators & consumers
4. Other considerations

Regulators will leverage past presentations from industry, consumer representatives, and subject matter experts in considering possible updates to the regulatory framework to be debated more substantively this year.

5. Spring National Meeting Preview

—Commissioner Michael Humphreys (PA)