

Data Quality Management

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Introduction

Reliable data is critical

- all pool operations rely on data to some extent

Data quality is becoming more important

- new data sources, analytical methods, etc.

Goal is to make you an educated board member

- how should I evaluate how we are doing?

Common statement of pool assets

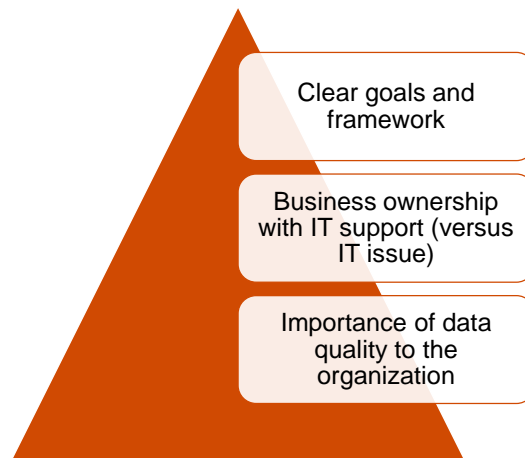
Data not recognized as a financial asset

Pool Assets	Value
Cash and Cash Equivalents	\$4.1 million
Investments	7.4 million
Reinsurance Receivable	1.1 million
Building	1.9 million
Data	???

Implications of data quality on key functions

Underwriting	<ul style="list-style-type: none">• Better understanding of risks facing members• Develop coverage more reflective of the actual risk
Pricing	<ul style="list-style-type: none">• Pricing dependent on quality and quantity of data available• Collect pertinent and consistent data to allow future flexibility
Claims	<ul style="list-style-type: none">• Function with largest growth in the use of data• Quality data leads to better claims handling
Reserving	<ul style="list-style-type: none">• Actuarial methods only as accurate as the data used• Delayed recognition of adverse trend and/or false alarm
Capital Adequacy Assessment	<ul style="list-style-type: none">• High quality data required to accurately measure the various sources of risk• Leads to more informed risk and capital decisions

Key foundational steps





Data quality: the degree to which data meets stated requirements, allowing users to trust that it is a reliable representation of the information needed for its intended purpose

Data quality is a relative concept
Intended purpose is the key

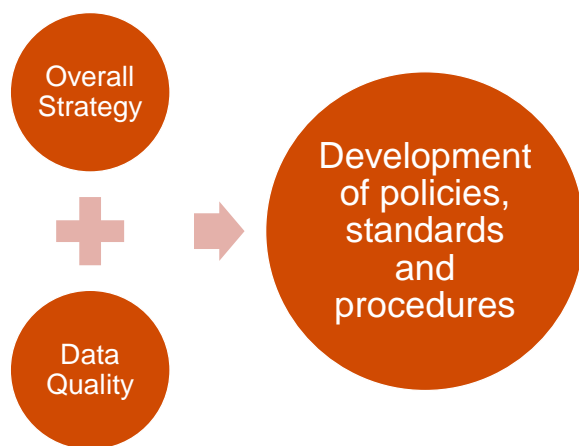
Data Quality Management (DQM)

Ongoing process



Planning & Strategy

Pre-requisite



- At what level is data needed?
- How will the data be used across the various functions?
- What external data should be gathered and how?
- What data elements should be captured and maintained over time?
- How should the massive volume of data enabled by new technologies be managed?
- What data do we need to capture now to give us flexibility in the future?

Quality Control

- Rules for storing, using and updating data
- Process of delivering data to the end users at level of granularity required
- Monitoring data quality
 - Identifying and responding when the data delivered to the end user fails to meet requirements

Rules and Procedures

Quality Assurance

- Even with quality control, there will be some exceptions
 - data delivered to end users was not of appropriate quality
- Quality assurance focuses on measuring the magnitude to data quality challenges
- Many data experts emphasize the importance of measuring results
 - provides motivation and monitoring tool of overall process

“Audit” process – what gets measured gets managed

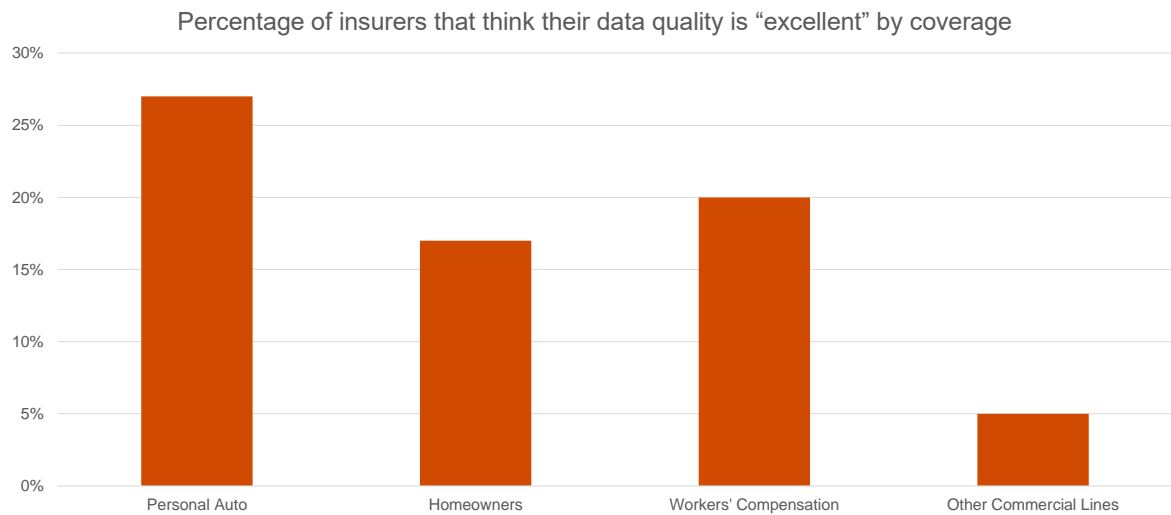
Quality Improvement

- Analyzing why and how poor quality data is produced
- Take steps to improve data processes
 - Otherwise data quality issues will persist

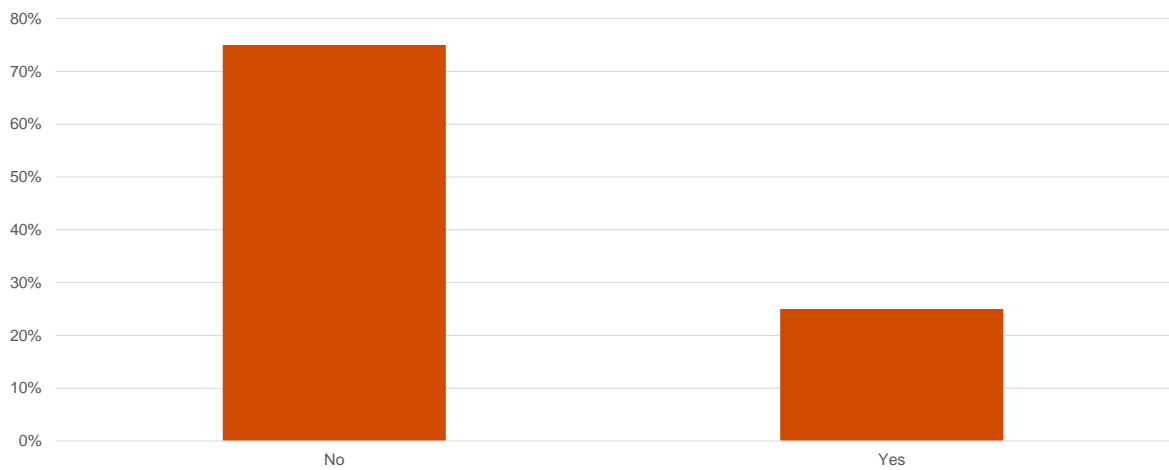


Root cause analysis

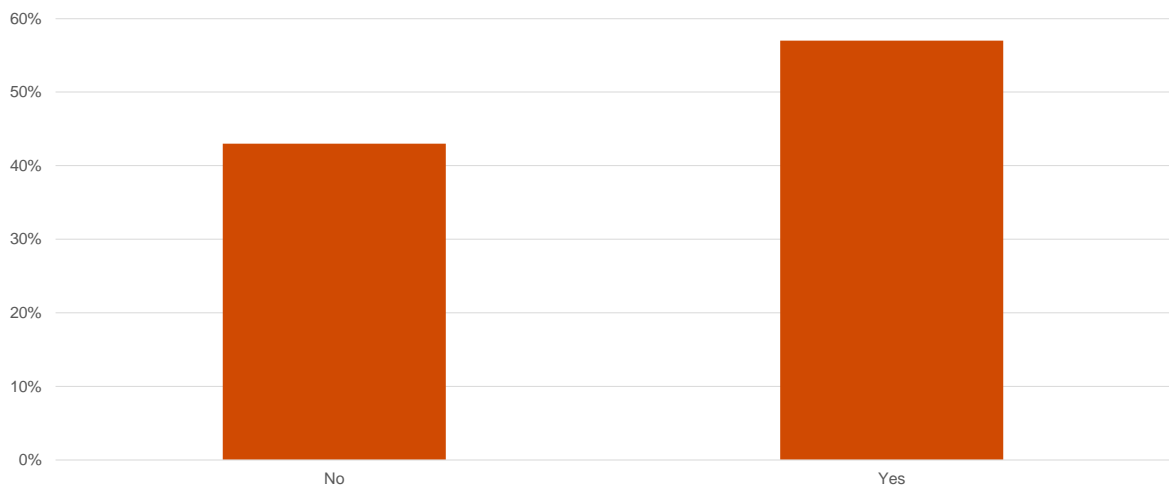
How is the private insurance market doing?



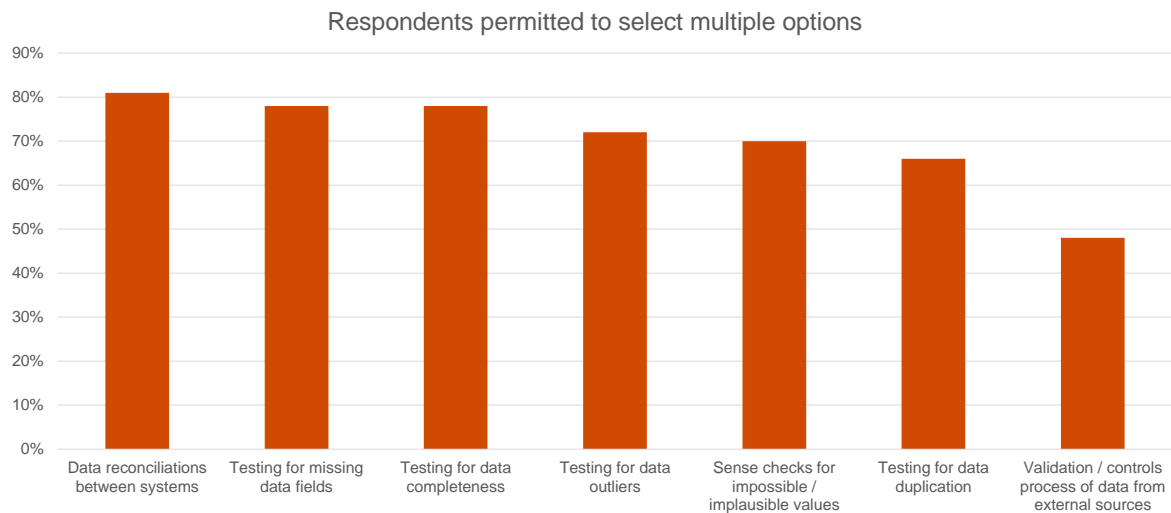
Have insurers defined quantitative metrics to measure data quality?



Do insurers have specific staff with primary responsibilities related to data quality?



What data quality checks have insurers implemented?



Thank you

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