

OUR MEETING WILL BEGIN SHORTLY

Welcome to the 2021 Mortality Data Collection Training Webinar: Validations

April 28, 2021

- ✓ All attendees will be muted throughout the presentation.
- ✓ Please use the “Q&A” for questions and send to all panelists. Questions will be addressed at the end of the presentation.
- ✓ This webinar is being recorded and will be made available on the NAIC website.
- ✓ For technical help, please contact the NAIC Technical Support Team at MeetingTechHelp@naic.org or 866-874-4905



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INSURANCE COMMISSIONERS

2021 Mortality Data Collection Training Webinar: Validations

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April 28, 2021



NATIONAL ASSOCIATION OF
INSURANCE COMMISSIONERS

Agenda

- VM-50 Validity and Reasonability Checks
- Multiple Review Methods
- RDC Form and Format Screening
- Actuarial Data Review/Validations
- Actuarial Data Review/Field Distributions
- Key Company Responsibilities

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NAIC Data Validity and Reasonability Checks

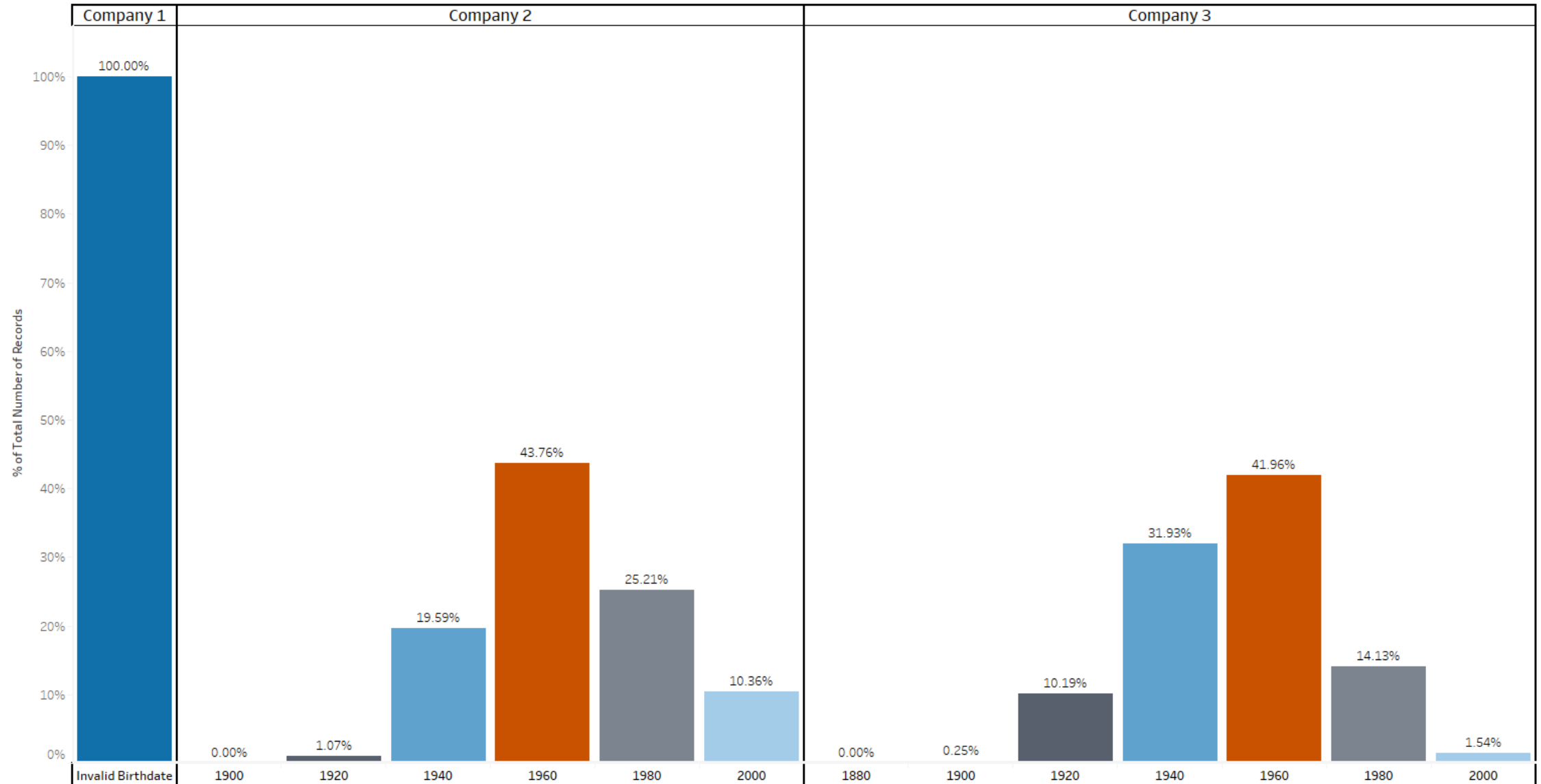
VM-50 Section 4.B.4: **Validity checks** are designed to identify:

- a. Improper syntax or incomplete coding
- b. Data elements containing codes that are not contained within the set of possible valid codes
- c. Data elements containing codes that are contained within the set of possible valid codes but are not valid in conjunction with another data element code
- d. Required data elements that are not populated

VM-50 Section 4.B.8: At a minimum, **reasonability checks** will include:

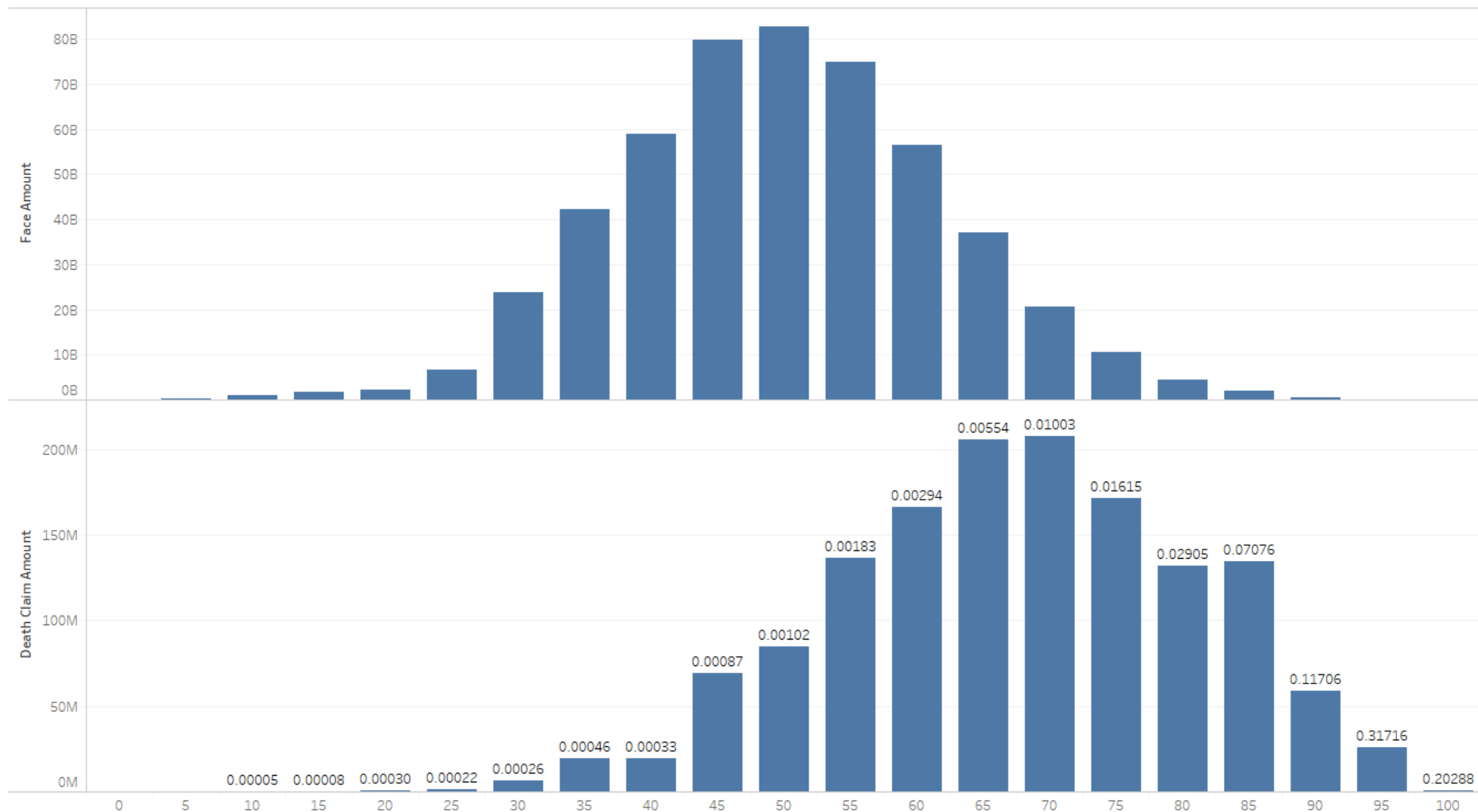
- a. An unusually large percentage of company data reported under a single or very limited number of categories
- b. Unusual or unlikely reporting patterns in a company's data
- c. Claim amounts that appear unusually high or low for the corresponding exposure
- d. Reported claims without corresponding policy values and exposures
- e. Unreasonable loss frequencies or amounts in comparison to ranges of expectation that recognize statistical fluctuation
- f. Unusual shifts in the distribution of business from one reporting period to the next.

Policy Distribution by BirthDate Year



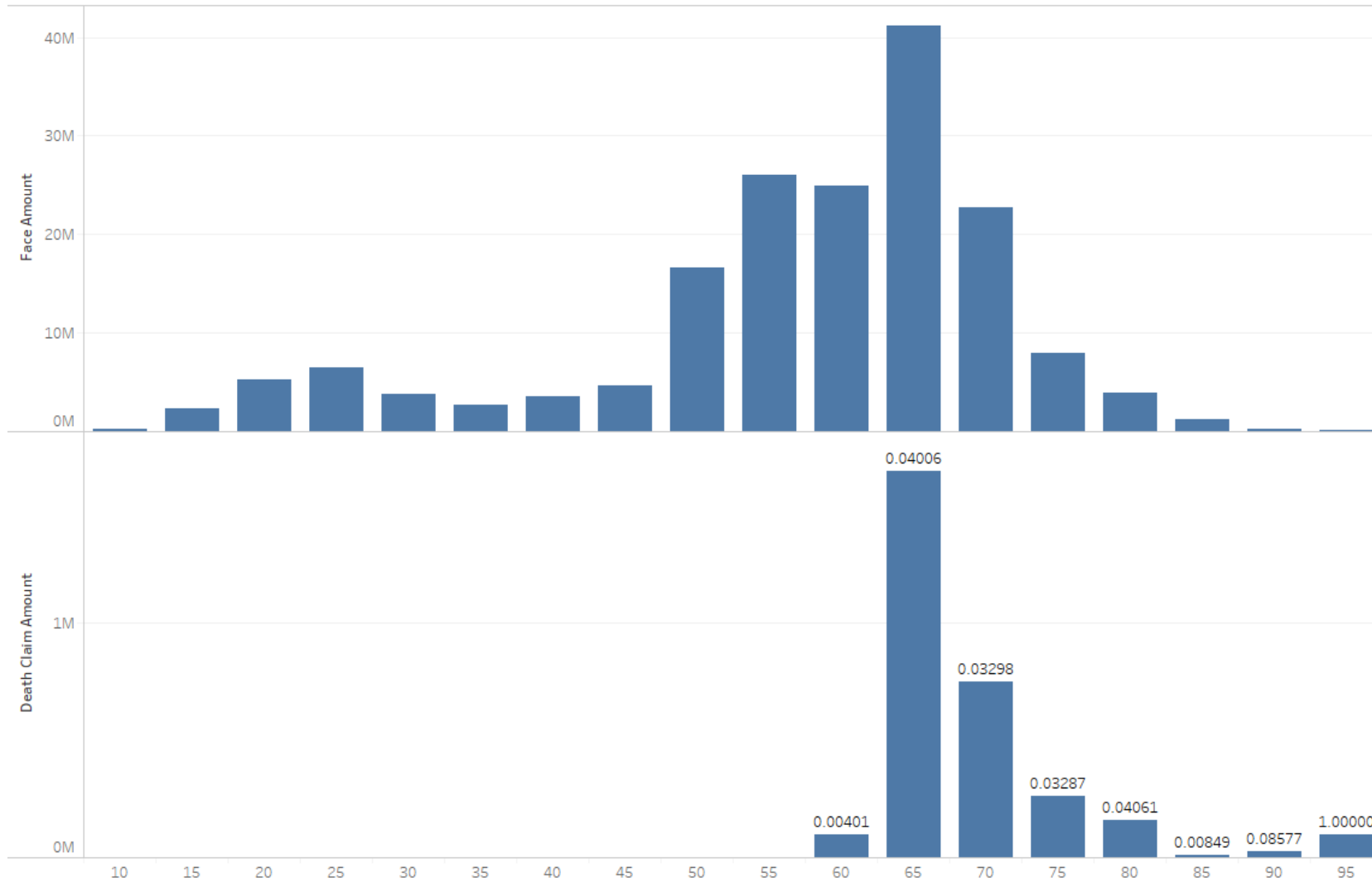
Company A (Expected View)

Face Amount, Death Claim Amount, and Death Claim Rate by Attained Age



Company B (Irregular View)

Face Amount, Death Claim Amount, and Death Claim Rate by Attained Age



NAIC Data Validity and Reasonability Checks

Identification of Critical Indications

- “Critical indications” are those that, if not corrected or confirmed, would leave a significant degree of doubt whether the affected data should be used (VM-50 Section 4.B.11)
- The NAIC will report “critical indications” to the company with an explanation of the unusual findings and their possible significance. Under the direction of the state insurance regulators, the NAIC will have reasonable flexibility to implement this, and may grade the severity of indications or simply identify certain indications as critical. (VM-50 Section 4.B.11)

Data Scoring System

- Where quality would not appear to be significantly compromised, the NAIC may use records with missing or invalid data if such invalid or missing data do not involve a field that is relevant or would affect the credibility of the report (VM-50 Section 4.B.5)
- For companies with a body of data for a state, line of business, product type or observation period that fails to meet these standards, the NAIC will use its discretion, with regulatory disclosure of key decisions made, regarding the omission of the entire body of data or only including records with valid data

Multiple Review Methods

		Screen to decide whether to reject:	
Review Method	Record	Company's Submission	Comments
Valid Submission Company Code		X	RDC confirms submitter is authorized for company code and checks that only one company code is used throughout the file.
RDC Form and Format Checks	N/A	N/A	RDC provides feedback upon file submission. RDC will not reject records based on form and format checks. Example: smoker status is not a valid value.
Control Totals		X	This serves as an inclusion control, ensuring that all records intended to be submitted were received. VM-50 Section 4.B.2 requires each data submission to be balanced against a set of control totals provided by the company. At a minimum, these control totals shall include applicable record counts, claim counts, amounts insured and claim amounts. NAIC has developed a sample template for companies to use.

Multiple Review Methods

Screen to decide whether to reject:

Review Method	Record	Company's Submission	Comments
Reconciliation to Annual Statement		X	<p>This serves as an inclusion control, ensuring that only business in scope is submitted.</p> <p>VM-50 Section 4.B.3 requires companies to provide a reconciliation between submitted experience data and its statistical and financial data, along with an explanation of differences. NAIC has developed a sample template for companies to use.</p>
Critical Indications from a Single Observation Year (e.g., 2019)	X		<p>A record with one or more critical indications will be rejected.</p> <p>Example: issue age is missing.</p>
Year-over-Year Critical Indications (e.g., 2019 vs. 2018)	X		<p>Certain fields must remain consistent from year to year, and these are deemed to be critical.</p> <p>Example: issue date cannot change.</p>

Multiple Review Methods

	Screen to decide whether to reject:		
Review Method	Record	Company's Submission	Comments
Data Scoring System	X		<p>Each data exception in a record is assigned a score based on severity. A record is rejected if its total score exceeds a threshold.</p> <p>Example of low severity: issue state is left blank. Example of high severity: preferred class structure on a substandard policy.</p>
% of Accepted Records		X	A company's submission will be rejected if the % accepted records is below a threshold.
Company Distribution for each of the 46 VM-51 Data Fields		X	<p>Identifies unlikely reporting patterns.</p> <p>Example: submission includes no deaths.</p>

RDC Form and Format Screening

- The NAIC's RDC tool will automatically perform data validity checks when a company uploads their mortality experience data
- The company will be able to view the data exceptions identified by RDC shortly after they upload their experience data file. The company will then have the option to remove the file and make corrections, or submit their data with exceptions.

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Example Age Basis Exceptions

naic_company_code	observation_year	policy_number	segment_number	issue_state	gender	birth_date	age_basis	issue_age	issue_date
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	5	XXXXX	XXXXX

Exception Message:

The value, 5, is not one of these values: [0,1,2].

naic_company_code	observation_year	policy_number	segment_number	issue_state	gender	birth_date	age_basis	issue_age	issue_date
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX		XXXXX	XXXXX

Exception Message:

The value, null, is not one of these values: [0,1,2].

The value, null, is not a number.

This value is required and cannot be null or empty.

Example Issue Date and Birth Date Cross Validation Exceptions

naic_company_code	observation_year	policy_number	segment_number	issue_state	gender	birth_date	age_basis	issue_age	issue_date	smoker_stat
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	19480304	XXXXX	XXXXX		XXXXX

Exception Message:

Birth Date is Not Before the Issue Date

naic_company_code	observation_year	policy_number	segment_number	issue_state	gender	birth_date	age_basis	issue_age	issue_date	smoker_stat
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	19430127	XXXXX	XXXXX	18900101	XXXXX

Exception Message:

Birth Date is Not Before the Issue Date

Validation Listing is on the NAIC Website

https://content.naic.org/pbr_data.htm (Go to the VM-50/VM-51 Experience Reporting section)

VM-50 / VM-51

Experience Reporting

For Questions Please Contact: experience_reporting@naic.org

Note: The NAIC expects to receive comma-delimited VM-50/VM-51 files in RDC. The recorded presentation incorrectly specified fixed width files.

Company Training on Mortality Experience Data Reporting-2019

Company Training on Mortality Experience Data Reporting - 2019 PowerPoint (PDF)

2021 Mortality Data Collection Kick-Off Call - 04212021 PowerPoint (PDF)

Questions From Kick-Off Call - 04212021 (PDF)

RDC Rate File Submission Instructions (PDF)

VM-51 Mortality Experience Data Collection Frequently Asked Questions

VM-51 Reporting when Business is Administered by Third-parties

VM-51: Instructions, Questionnaires, and File Formats (extracted from Valuation Manual) (PDF)

Control Totals Template

Reconciliation Template

VM-51 Appendix 1-3 Questionnaires Template

VM-51 Data Validations

1 VM-51 DATA FILE VALIDATIONS - INTRODUCTION

2

3 DEFINITIONS

4 RDC

Regulatory Data Collection system developed by the NAIC

5 RDC Validations

Those validations which RDC will perform when a company uploads their file.

6 Actuarial Validations

Those validations that will be performed by members of the NAIC actuarial staff

7 Single Field Validations

Those validations which relate to only one field (e.g. valid values, etc.)

8 Cross Field Validations

Those validations where the relationship between two or more fields is being tested

9 Year Over Year Validations

A comparison of values from one observation year to the next.

10

11 This spreadsheet contains the validations (both RDC and actuarial) that will be performed on the Mortality Experience Data Collection files.

12 It is being provided to allow companies to prepare for the validity and reasonability checks that will be applied to their data during the NAIC's review.

13 Please be aware that these validations

14 represent only a portion of the complete review that will be undertaken by the NAIC. Additional review elements will include

15 verification of control totals (required by VM-50 Section B.2 cited below), verification of the reconciliation to the company's statistical and

16 financial data (required by VM-50 Section B.3 cited below), distribution of fields across possible values, etc.

17

18 Each tab of validations contains the VM-51 Item number and Data Element name along with a description of the validation

19 to be performed. The RDC Validation column represents those validations that will be performed within RDC when the company

20 uploads their data file. If the company chooses to submit their file (with or without RDC exceptions), then the file will undergo actuarial validations.

21 The Actuarial Validation column identifies those validations that will be performed by the NAIC actuarial staff. Once the actuarial validations are

22 complete, the company will receive a report showing all data validation exceptions.

23

24 The validations that are identified as "critical" are those that are considered significant enough to cause the entire record to be omitted from

Introduction

Single Field

Cross Field

Year Over Year

VM51 Appendix 4



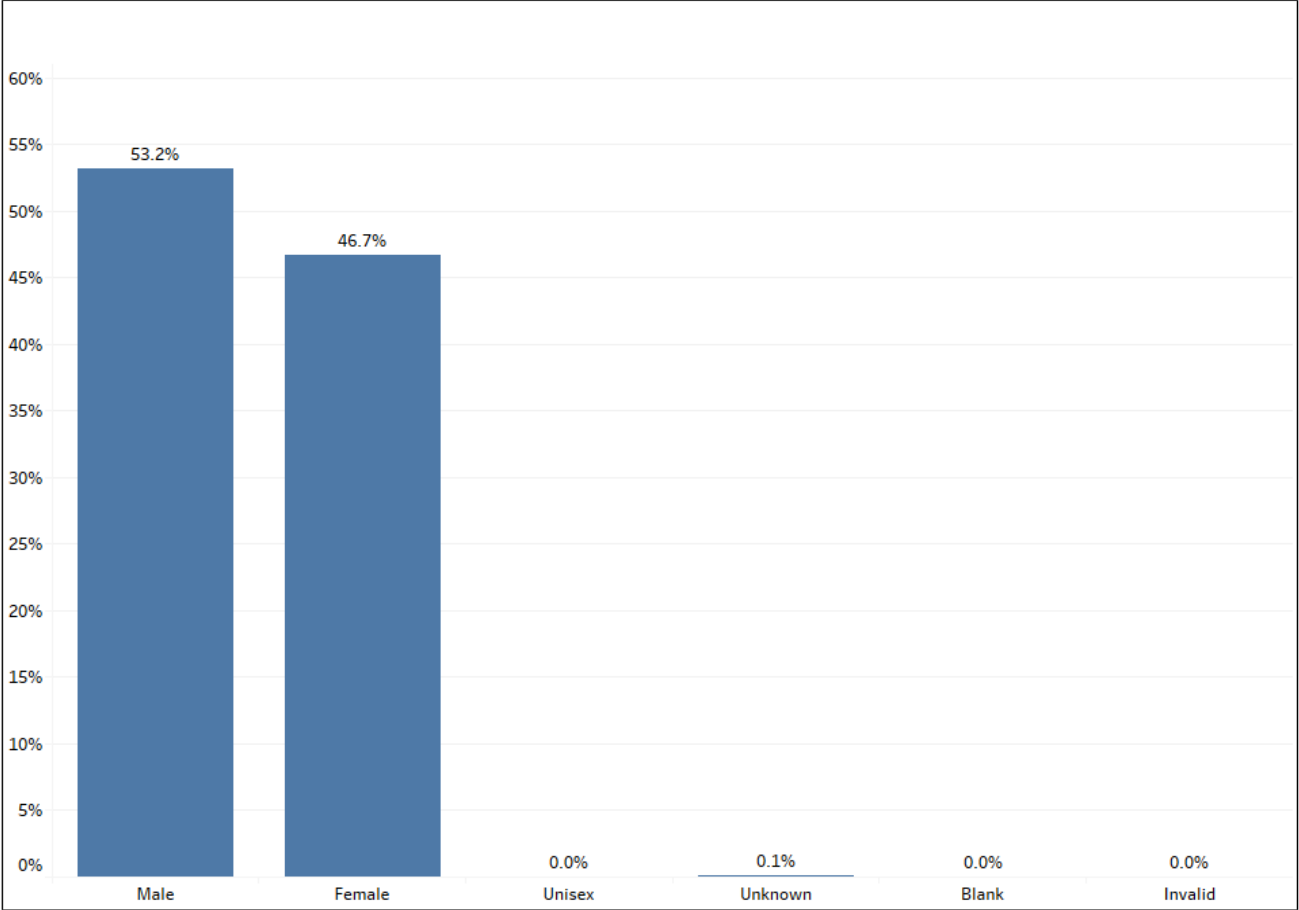
Add-ins loaded successfully

	A	B	C	D	E	F	G
1	VM-51 DATA FILE VALIDATIONS - SINGLE FIELD VALIDATIONS						
2							
3			SL - Applies to Single Life Policies only				
4			JL - Applies to Joint Life Policies only				
5							
6	ITEM	DATA ELEMENT	Data Exception	RDC Validation	Actuarial Validation	Critical	
7	1	NAIC Company Code	Company code is missing	X		X	
8			Company code invalid		X	X	
9	2	Observation Year	Observation Year is missing	X		X	
10			Observation Year incorrect	X		X	
11	3	Policy Number	Policy Number is missing	X		X	
12	4	Segment Number	Segment Number is missing or zero	X		X	
13			SL: Policy does not contain a Segment Number = 1		X	X	
14			JL: First to Die Policy does not contain both Segment Numbers 1 and 2		X	X	
15			JL: Second to Die Policy does not contain either Segment Numbers 1 or 2		X	X	
16	5	State of Issue	Issue State is missing or invalid	X			
17	6	Gender	Gender is not a valid value (0-5)	X			
18	7	Date of Birth	Birthdate is missing	X		X	
19			Birthdate is not a valid date		X	X	
20			Birthdate < 1900		X	X	
21	8	Age Basis	Age Basis is not a valid value (0-2)	X		X	
22	9	Issue Age	Issue Age is unreasonable (less than 0 or greater than 90)	X			
23			Issue Age is missing	X		X	
24			Issue Date is missing	X		X	

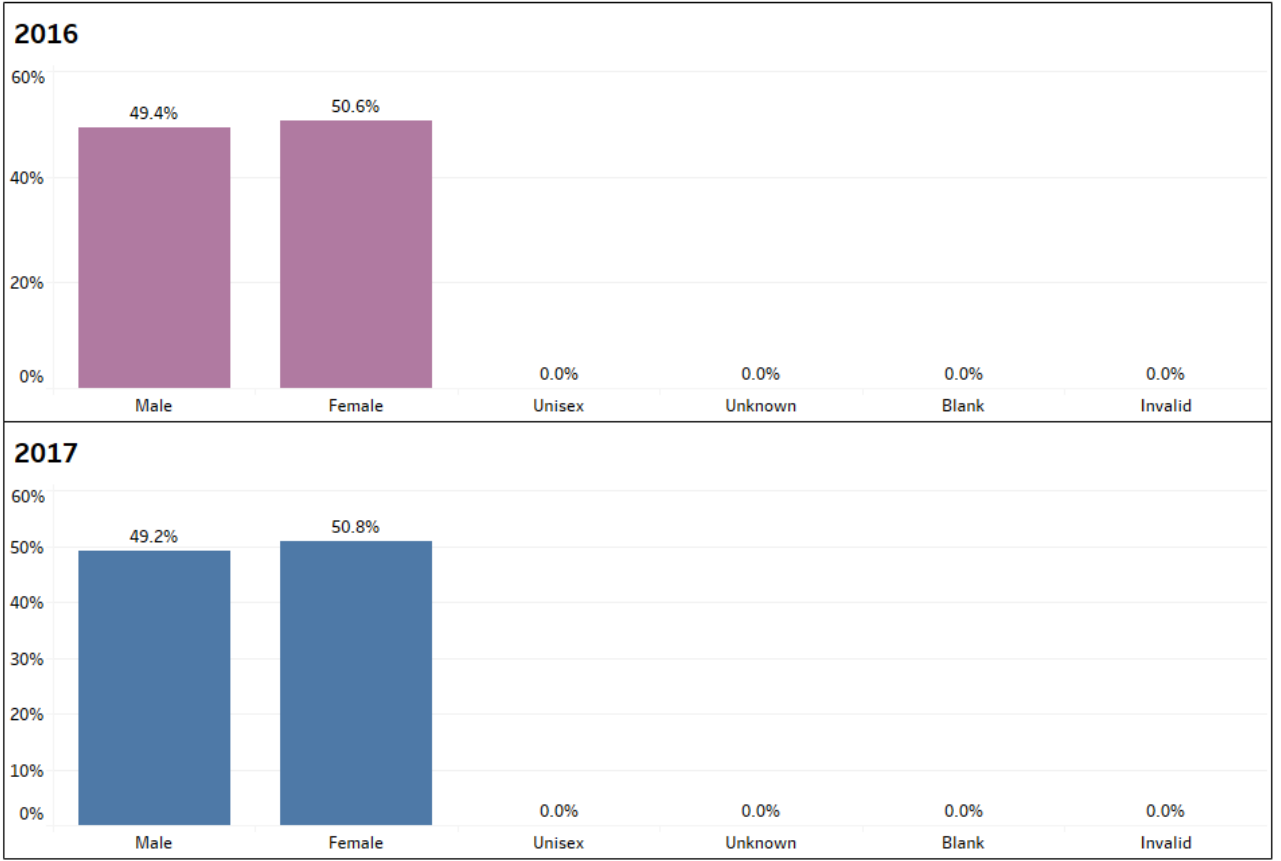
	A	B	C	D	E	F	G	H
1	VM-51 DATA FILE VALIDATIONS - CROSS FIELD VALIDATIONS							
2								
3			SL - Applies to Single Life Policies only					
4			JL - Applies to Joint Life Policies only					
5								
6	ITEMS	DATA ELEMENTS	Data Exception	RDC Validation	Actuarial Validation	Critical		
7	2	Observation Year						
7	7	Date of Birth	Birthdate is after the Observation Year	X		X		
8	7	Date Of Birth						
8	8	Age Basis						
8	9	Issue Age	Issue Age is not consistent with Date of Birth, Issue Date, and Age Basis	X		X		
8	10	Issue Date						
9	4	Segment Number	SL: Segment Number > 1 and Issue Age < Issue Age of Segment 1		X	X		
9	9	Issue Age						
10	4	Segment Number	JL: Segment Number > 2 and Issue Age < minimum Issue Age of Segment 1 and 2		X	X		
10	9	Issue Age						
11	2	Observation Year						
11	10	Issue Date	Issue Date is after the Observation Year	X		X		
12	7	Date of Birth						
12	10	Issue Date	Issue Date is before the Birthdate	X		X		
13	10	Issue Date						
13	25	Termination Reported Date	Issue Date is after the Termination Reported Date	X		X		
14	10	Issue Date						
14	26	Actual Termination Date	Issue Date is after the Actual Termination Date	X		X		

	A	B	C	D	E	F	G
1	VM-51 DATA FILE VALIDATIONS - YEAR OVER YEAR VALIDATIONS						
2							
3							
4	ITEM	DATA ELEMENT	Data Exception	RDC Validation	Actuarial Validation	Critical	
5	3	Policy Number	Vanished from file without termination		X	X	
6	4	Segment Number	Vanished from file without termination		X	X	
7	5	State of Issue	Not the same from year to year		X	X	
8	6	Gender	Not the same from year to year		X	X	
9	7	Date of Birth	Not the same from year to year		X	X	
10	8	Age Basis	Not the same from year to year		X	X	
11	9	Issue Age	Not the same from year to year		X	X	
12	10	Issue Date	Not the same from year to year		X	X	
13	11	Smoker Status (at issue)	Not the same from year to year		X	X	
14	12	Preferred Class Structure Indicator	Not the same from year to year		X	X	
15	13	Number of Classes in NS Preferred Class Structure	Not the same from year to year		X	X	
16	14	NS Preferred Class	Not the same from year to year		X	X	
17	15	Number of Classes in SM Preferred Class Structure	Not the same from year to year		X	X	
18	16	SM Preferred Class	Not the same from year to year		X	X	
19	17	Type of Underwriting Requirements	Not the same from year to year		X	X	
20	18	Substandard Indicator	Not the same from year to year		X	X	
21	19	Plan	Not the same from year to year except RPU & ETI		X	X	
22	21	Face Amount at Issue	Not the same from year to year		X	X	
23	22	Face Amount at Beginning of Year	Not the same as end of prior year		X	X	
24	28	Annualized Premium at Issue	Not the same from year to year		X	X	

GENDER



Gender



Key Company Responsibilities

- There can be nothing known to be inaccurate or deceptive in the reporting (VM-50 Section 4.A.2)
- When the NAIC determines that the cause of an edit exception could produce systematic errors, the company must correct the error and respond in a timely fashion (VM-50 Section 4.A.3). Errors of a consistent nature are referred to as “systematic” (VM-50 Section 4.B.6).
- After notification of syntax errors and missing data elements, Companies are required to respond to the NAIC by submitting a corrected data file (VM-50 Section 4.B.1)
- Companies must respond to data exceptions identified by the NAIC as “critical” (VM-50 Section 4.B.11)
- Companies shall acknowledge and respond to reasonability queries from the NAIC. Corrections for critical indications shall be provided or, when a correction is not feasible, the extent and nature of the error shall be reported to the NAIC. (VM-50 Section 4.B.13)



Questions?

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