سلطنة عُمان
وزارة النقل والاتصالات وتقنية المعلومات
Sultanate of Oman
Ministry of Transport, Communications and Information Technology

Accident & Incident Database Establishment

01 Oman Transport Safety Bureau

02 The Importance of Data in Aviation Safety

03 OTSB Reporting systems

04 Data Collection Benefits

05 Data Management systems

01 Oman Transport Safety Bureau

- Before 2019, Investigation Department was part of CAA
- Aligned with ICAO recommendation – Fully independent
- Issues safety recommendation in Aviation and Marine sectors

02 The Importance of Data in Aviation Safety

- lifeblood that drives safety improvements.
- Identifying patterns and trends
- By analyzing, develop and implement measures to prevent accidents

Royal Decree 76/2019

An independent administrative unit for aviation accident and incident investigation shall be established

Article (46)

New Proposed Civil Aviation Law - MOR article

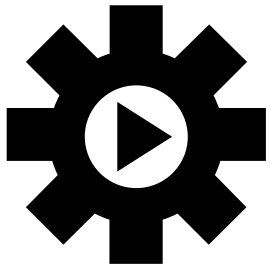
على الوحدة إنشاء وتطبيق نظام إبلاغ ملزم لجمع البيانات والمعلومات عن حوادث ووقائع الطيران.

Article (48)

CAR13 – A/C Accident & Incident Manual

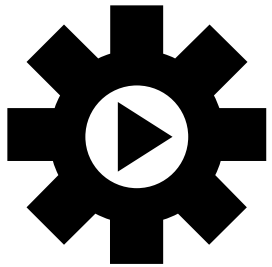
OTSB Shall establish and maintain an accident and incident database to facilitate the effective analysis

13.405 Database Systems



03 OTSB reporting systems

1. Mandatory Reporting System
2. Voluntary Reporting System



03 OTSB reporting systems

Mandatory Reporting System

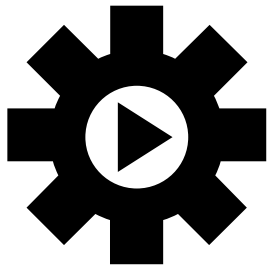
- It's not about attributing blame
- We align our national regulations with ICAO Annex 13 and Annex 19
- CAR 13 titled “Aircraft Accident & Incident Investigation & Reporting Procedures” was developed
- CAR 100 titled “Safety management System” was developed

Occurrence Reporting System

OTSB shall establish a **Mandatory Occurrence Reporting (MOR)** system to facilitate collection of information on actual or potential safety deficiencies, any accident, serious incident or incident within seventy-two (72) hours from the time of occurrence

State shall establish **a voluntary incident reporting system** to facilitate collection of information on actual or potential safety deficiencies that may not be captured by the mandatory occurrence reporting system.

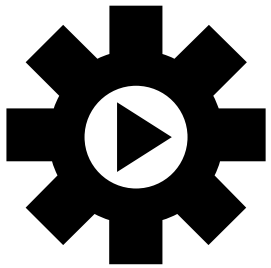
CAR 13 & CAR 100 Database Systems



03 OTSB reporting systems

Mandatory Reporting System

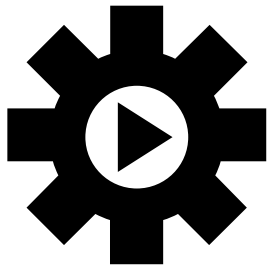
- What are the challenges ?
- Enhancing Compliance and Encouraging Reporting – Just Culture
- The Impact – tangible safety improvement.



03 OTSB reporting systems

Voluntary Reporting System

- Captures information beyond what is required by law
- The smallest piece of information can help
- The more safety data we collect, the safer we become in the skies



03 OTSB reporting systems

Voluntary Reporting System

- What are the challenges ?
- Encouraging Reporting – confidential non-punitive.
- Provide feedback – each report is taken seriously
- The Impact on Safety – positive results.

04 Data Collection Benefits

- Pilot Reports
- Near-Miss Reports
- Air Traffic Control (ATC) Data
- Weather Data

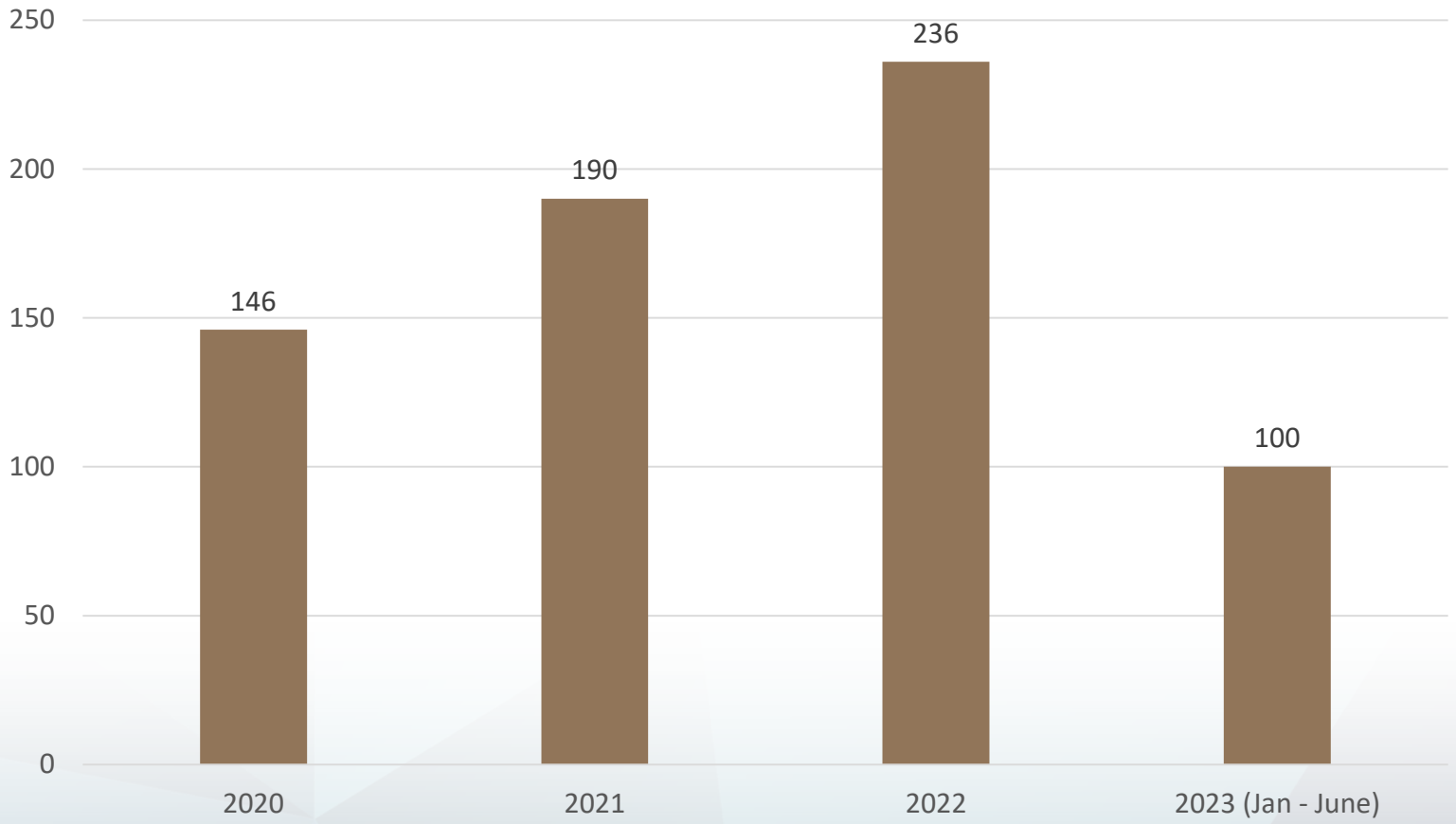
05 Data Management system

- Excel Spreadsheets
- Transition to Software

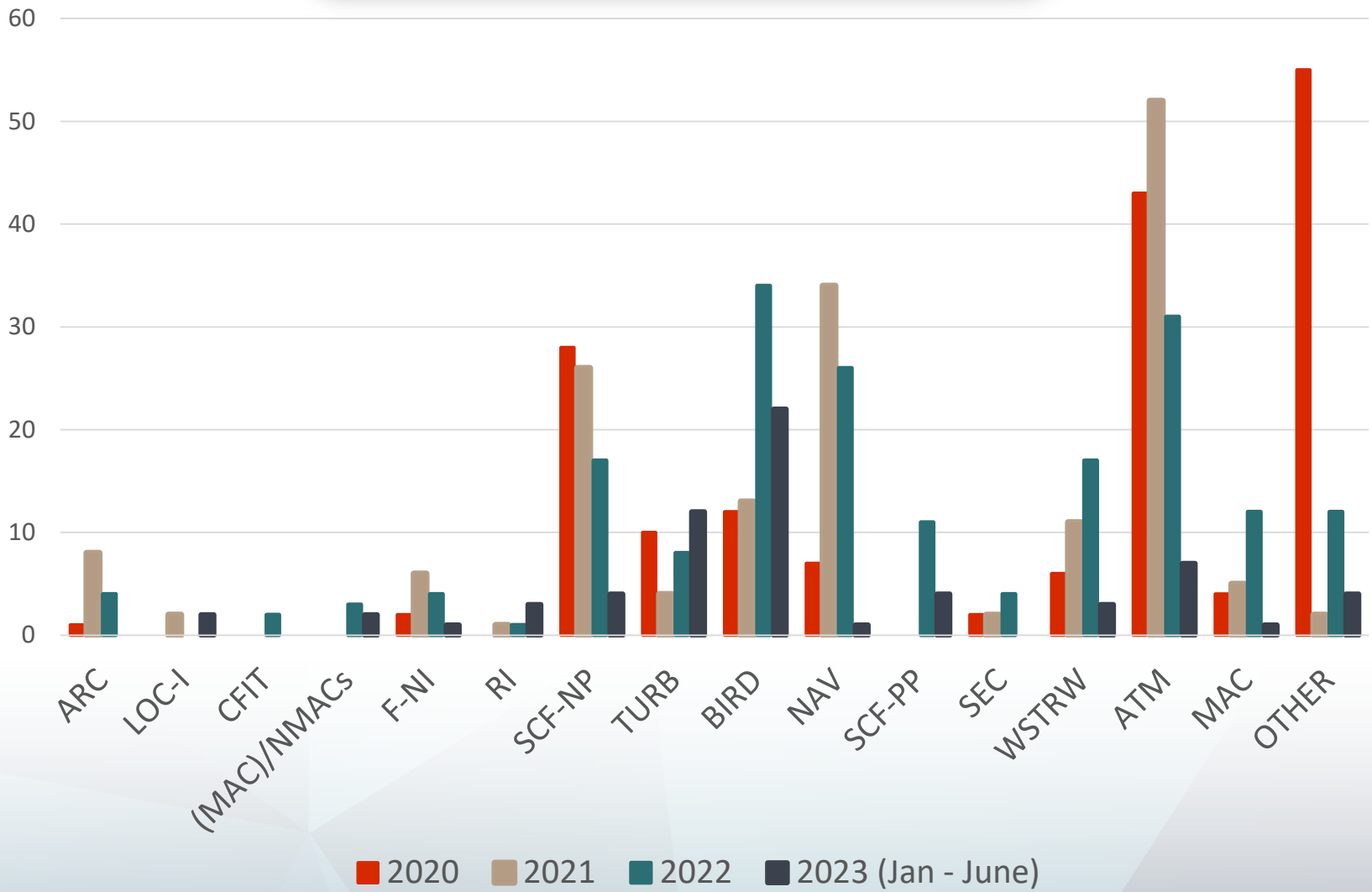
05 Data Management and analyze system

- Excel Spreadsheets
- Data Collection
- Data Management
- Data Analysis
- charting features can be used to visualize trends and patterns

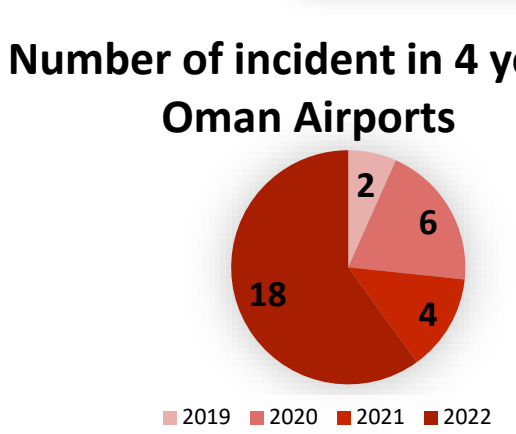
Number of Incidents From 2020 to 2023

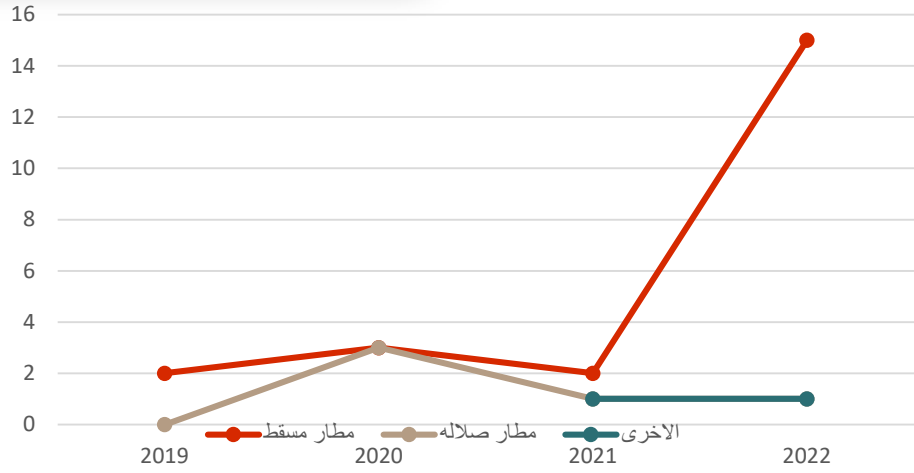


Number of Incidents Vs Incident Category



Bird strikes in Oman





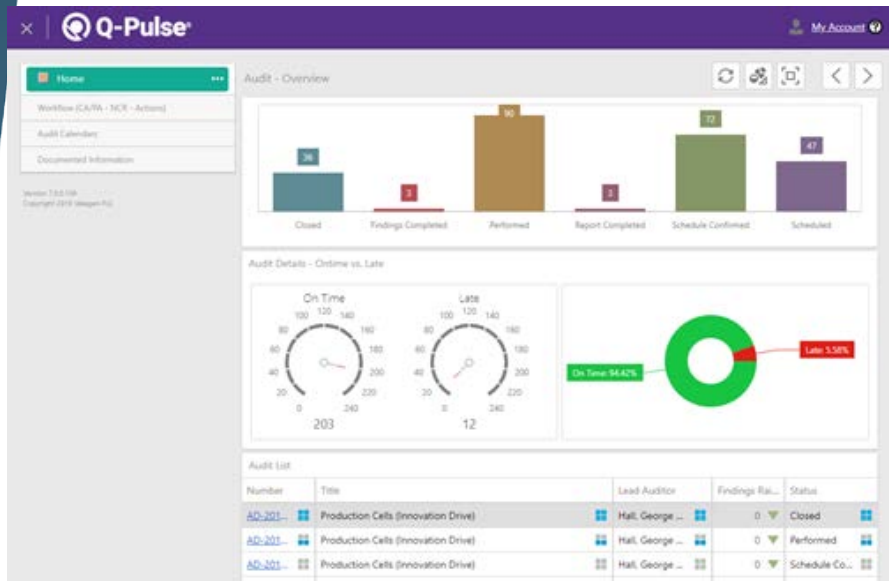
2022

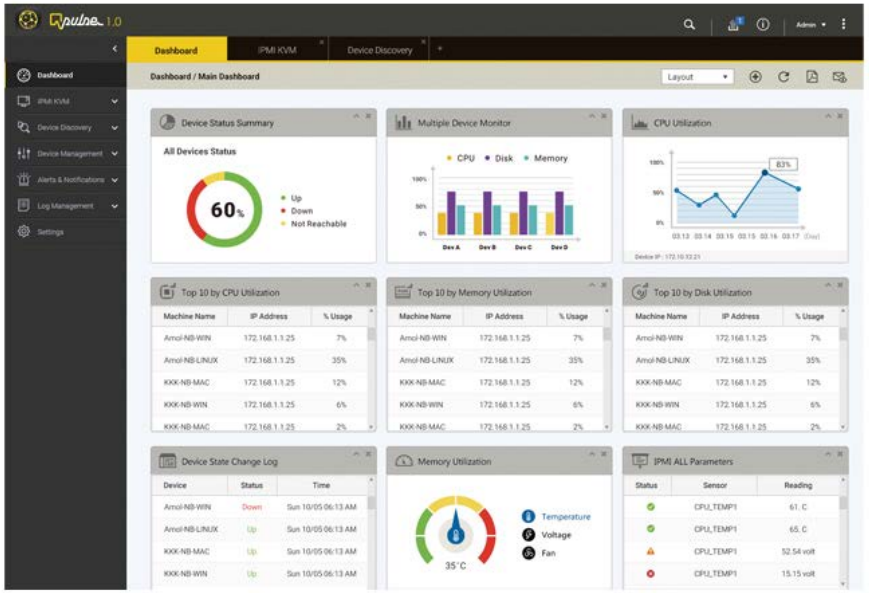
05 Data Management and analyze system

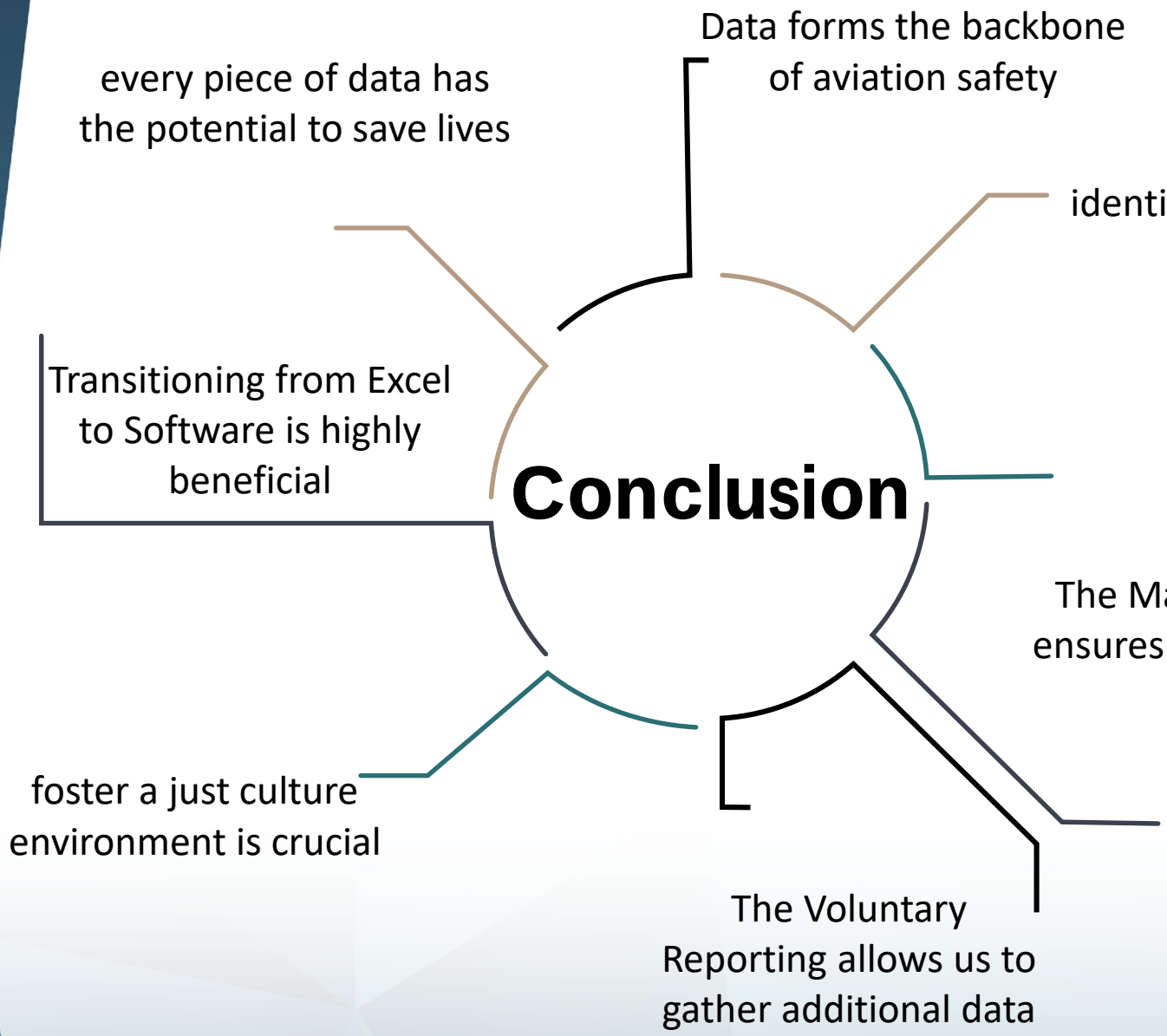
Transition to Software

- Q-Pulse
- More powerful analytical capabilities
- Integration with SMS
- Reporting & Visualization

Ideagen Q-pulse Dashboard






Conclusion
Data forms the backbone of aviation safety
identifying patterns and trends
The Mandatory Reporting ensures significant reporting
The Voluntary Reporting allows us to gather additional data
foster a just culture environment is crucial
Transitioning from Excel to Software is highly beneficial
every piece of data has the potential to save lives

Thank you

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Questions