

Monitoring the Cyberattack

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Prescription data week ending March 15, 2024

Medical claims data week ending March 15, 2024

U.S. Research & Insights, IQVIA

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Current situation

On February 21st, [a switch provider experienced a cyber security event](#)

IQVIA continues to monitor the situation and is in contact with relevant parties

We will continue to keep our customers informed as the situation develops



Have patients been impacted?

- Public news reports indicate at least some patients have experienced difficulty filling prescriptions
- IQVIA is actively working on quantifying this impact
- *The following page contains an overview of potential ways patients and pharmacies may be impacted and how that might be mitigated*



What is IQVIA's process for responding to this?

- IQVIA's established practices for catastrophic events help our customers understand how these events impact their information



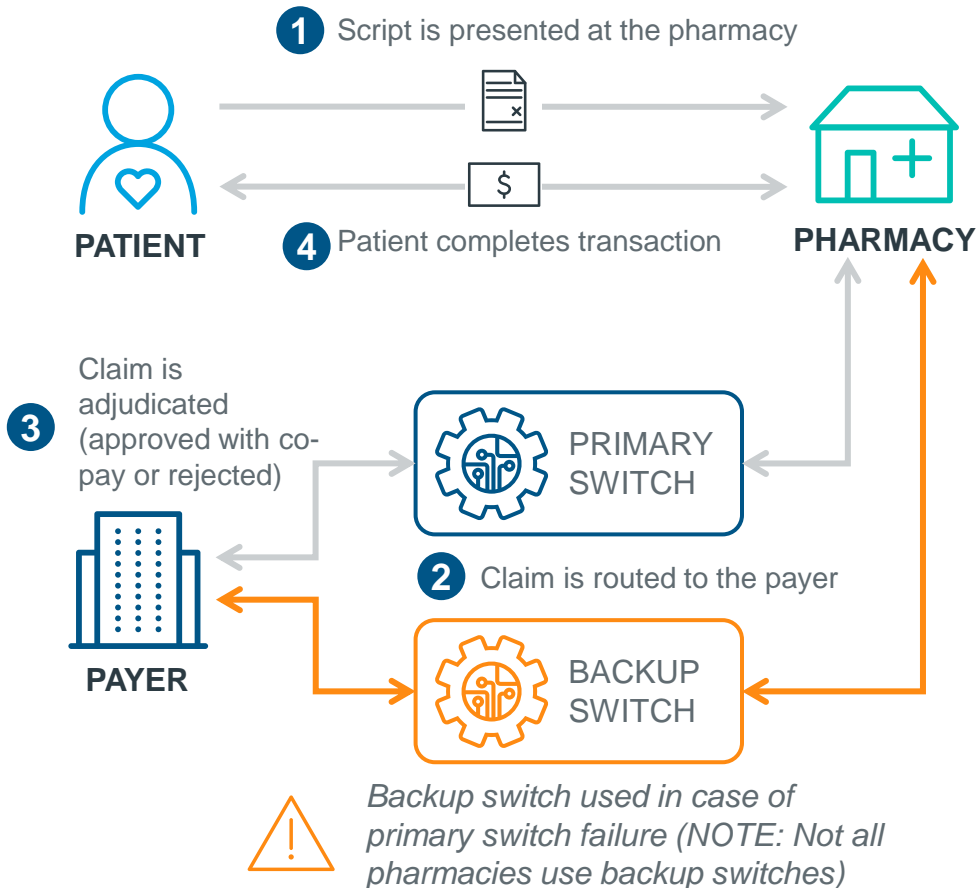
How will IQVIA's Information feeds be impacted?

- IQVIA's data sourcing strategy is driven by direct pharmacy relationships and supplemented by switch providers
- This sourcing strategy will greatly mitigate the potential direct impact of any missing data files

Pharmacy Switch Overview and Potential Impact

How will patients and providers weather the impact?

Switches facilitate the real-time adjudication of prescription claims



Switch outages can impact the patients' pharmacy experience and the commercial operations of manufacturers

Potential Impact to Patient Experience

Patient **can still fill** because...

- Pharmacy does not use the switch experiencing the outage or utilizes a backup switch
- Patient visits an alternative pharmacy not impacted by the outage
- Patient elects to pay cash for their prescription

Patient **can't fill** because...

- Pharmacy does not have a backup switch
- Pharmacy does not use the switch, but the PBM relies on the switch
- The switch is utilized for co-pay card adjudication

Patient **can partially fill** because...

- Patient elects to fill less days supply and pay cash as a stop-gap during outage

Potential Impact to Manufacturer Operations

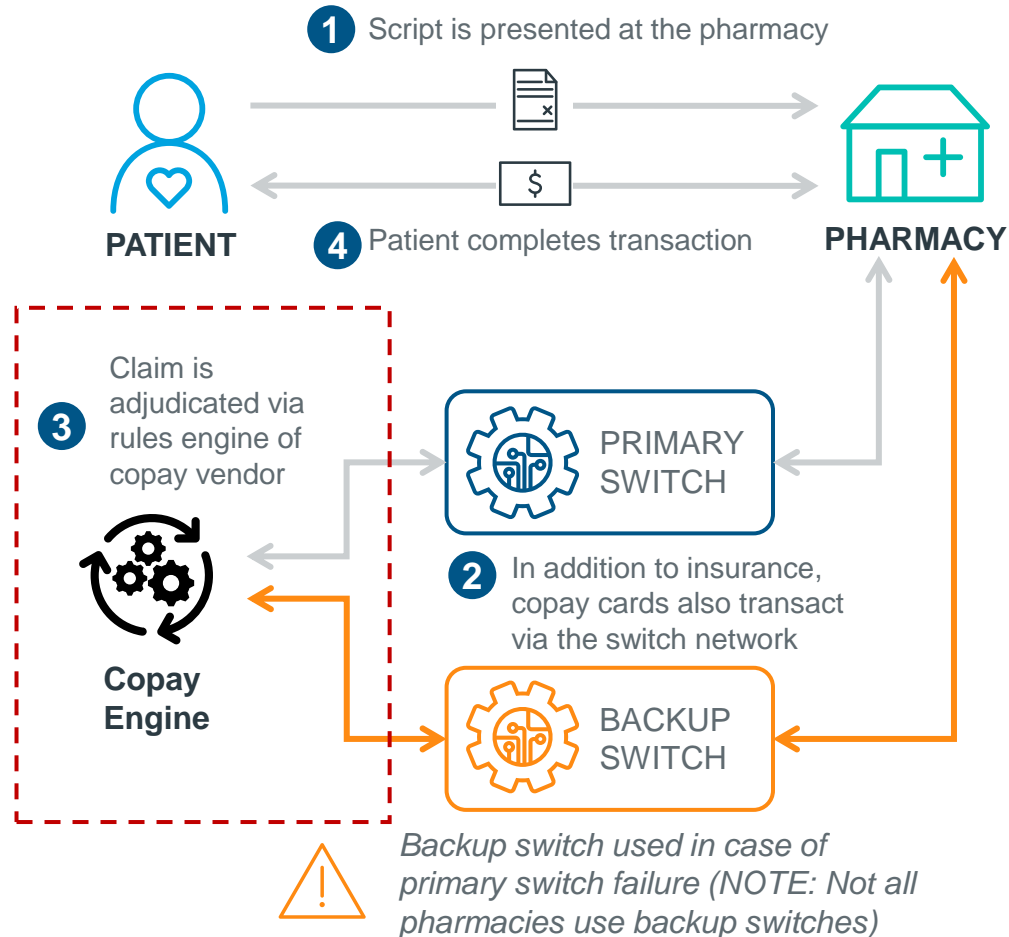
- Sourced data feeds provided by the switch to data aggregators are **interrupted**
- **Increased likelihood** of inconsistent claims reporting due the use of backup switches and non-accepted adjudication from alternative switches
- Interruption of specialty pharmacy feeds and integration of SP data impacted by lack of adjudicated Rx claims from the switch outage

Copay Card Adjudication

Why are not all copay programs impacted equally?

Switches facilitate the real-time adjudication of prescription and copay claims

Switch outages can impact the copay vendor if they use the impacted switch as their rules engine



Potential Impact to Patient Experience

For copay eligible patients, patient **can still fill** because...

- Copay vendor utilizes a non-impacted source for their rules engine
- Patient decides to pay out of pocket for their portion of the transaction
- Pharmacy floats the patient copay assuming they can submit later to the copay provider

For copay eligible patients, patient **does not fill** because...

- Out of pocket requirement is too high without affordability assistance
- Patient waits to come back at a later date

For copay eligible patients, patient **can partially fill** because...

- Patient elects to fill less days supply and pay cash as a stop-gap during outage

Potential Impact to Manufacturer Operations

- Patient disruption is possible if eligible patients are unable to access affordability assistance programs leading to abandonment and discontinuation of treatment
- Program and budget fluctuations occur as pharmacies and patients alter usage patterns
- Increase in manual claim submission as patients seek post adjudication reimbursement

Data Interruption Update

How could IQVIA's data feeds be impacted?



- On February 21st, a switch provider experienced a cyber security event
- As a subsequent measure, steps were taken to temporarily disconnect systems to prevent further impact

Impact to IQVIA Information

- IQVIA's data sourcing strategy is driven by direct pharmacy relationships and supplemented by switch providers
- This strategy allows us the ability to rely on direct supplier volume in lieu of switch when business disruptions occur
- At this time, IQVIA anticipates the following impact to our information products:

Asset	Impact
NPA	No Impact
Xponent / Xponent PT	No Impact
Longitudinal Rx (LRx)	Limited Impact
Medical Claims (Dx)	Limited Impact

Active Initiatives

- IQVIA continues to monitor the situation and is in close contact with relevant parties
- As our data feeds arrive, we are analyzing our data to assist our customers in answering questions such as:
 - *Were my patients unable to fill prescriptions?*
 - *Were my patients utilizing alternative methods to fill prescriptions (i.e. cash)?*
 - *What is the impact to my copay card program?*
 - *What is the impact to my KPIs?*
 - *What is the short and long-term impact to IQVIA's information offerings?*

Industry Perspective

- IQVIA's sourcing strategy **does not rely** on switch sources as primary suppliers of Rx data
- Data sourcing strategies that rely primarily on switch volume may not be able to accurately quantify the outage impact on the patient experience
- In addition, data sourcing strategies that rely heavily on closed claims may not be able to quantify the impact of the outage in a timely manner, due to significant data lag
- Due to the industry's standard for sourcing medical claims, we expect that most data aggregators will experience an impact to medical claims availability

IQVIA joins the frontlines in ensuring continuity of care for patients

External Response

Other switch pharmacies are managing volume

- Both [RedSail](#) and [RelayHealth](#) appear to be handling volume typically routed through the impacted switch provider

90% of pharmacies have an electronic workaround

- The impacted switch provider has reportedly stated it is confident individuals are able to receive medications through workarounds
- The remaining 10% of pharmacies appear to be using offline workarounds

The impacted switch provider reportedly stated they are providing a loan program for providers

- According to media reports, it is offering a loan program to pay providers during the outage
- Payments are based on prior year claims volume

IQVIA Response



Universal copay card

- IQVIA's universal copay card is a stop gap solution designed to ensure patients receive treatment without interruption
- Could primarily be useful for new patients without claims history, but continuing patients may also benefit

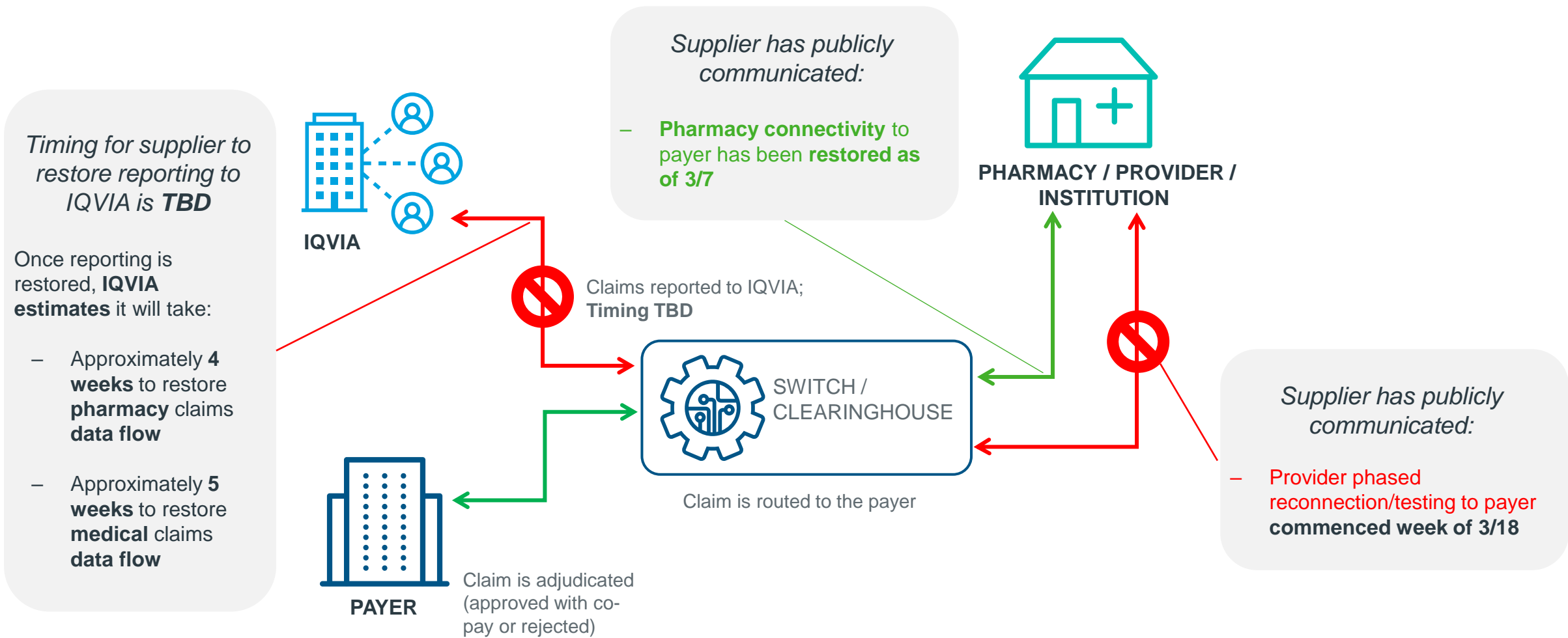


Guidance

- Thought partner in understanding the downstream impacts
- Proactively having conversations with market access, brand, and C-suite
- Mitigating concerns around forecasting as it relates to accumulators and maximizers

Following the cyber event, supplier has stated it is working towards operational systems for pharmacies and providers to submit claims

Restoration of commercial feeds (e.g., reporting to IQVIA) is still unknown

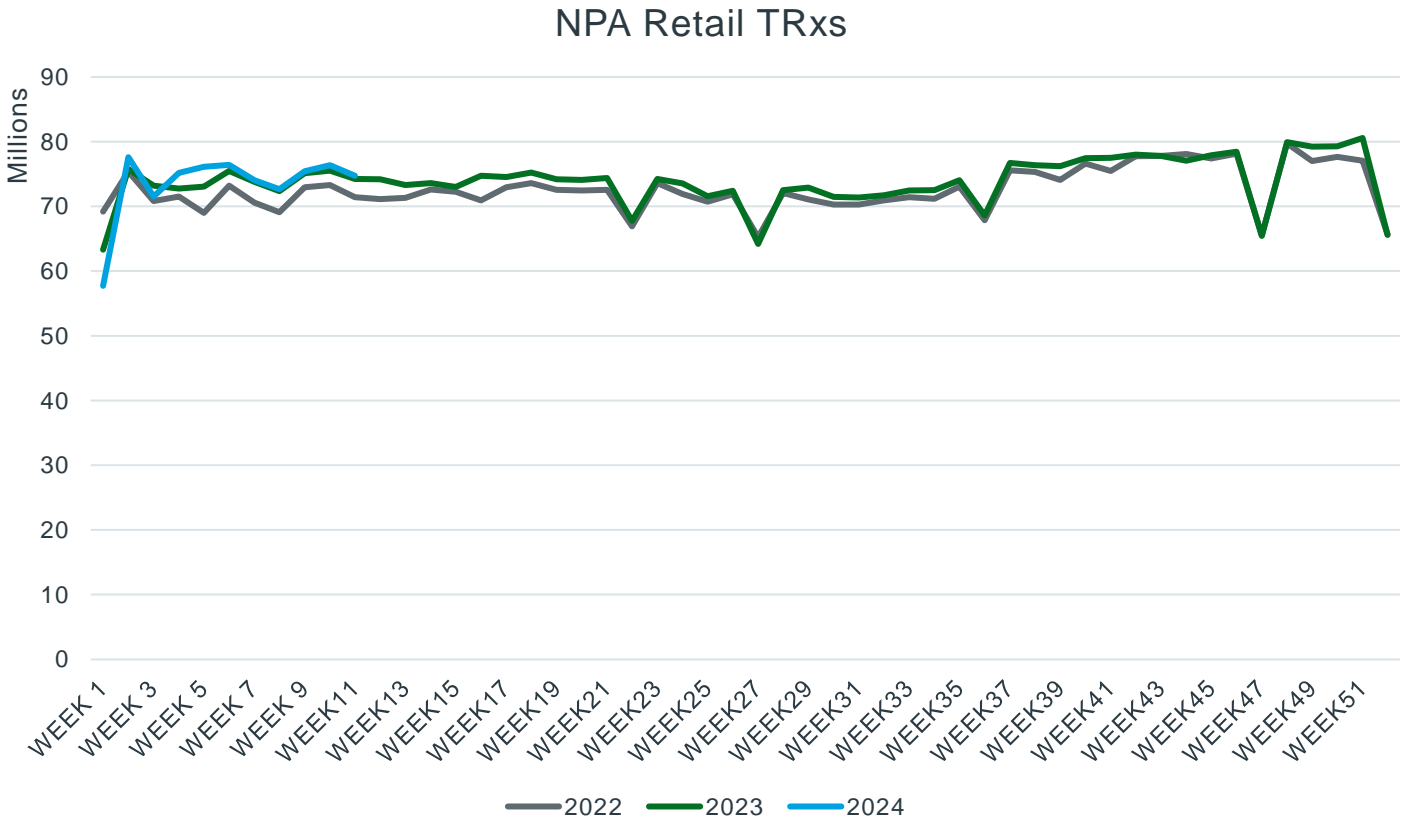


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Evaluating the impact – Rx

Current trends in total prescription volume in 2024 align with previous years

Volume appears similar and follows seasonality trends typical in the early part of the year

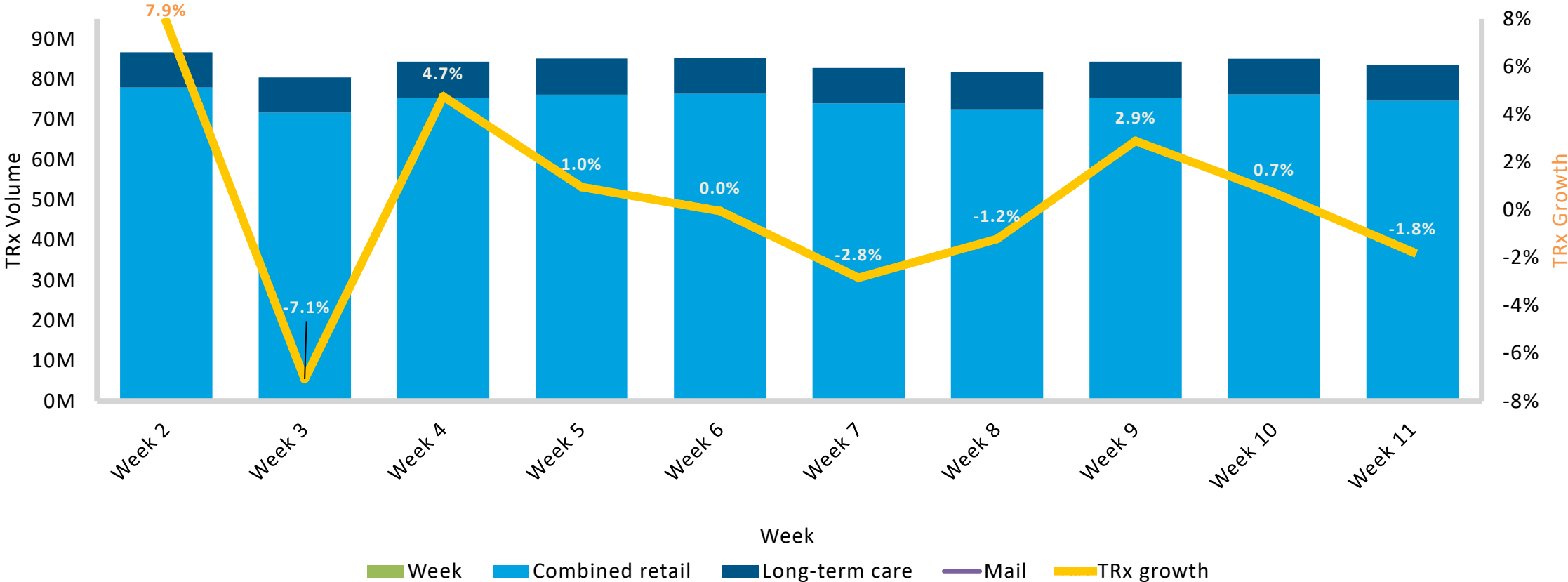


TRx %	2023	2024
Prior Week	-1.7%	-2.1%
Same Week, Prior Year	3.9%	0.7%
QTY/Rx	2023	2024
Current Week	67.7	68.4
Prior Week	67.5	67.8
% NRx	2023	2024
Current Week	62.3%	63.0%
Prior Week	62.6%	63.1%
% Cash	2023	2024
Current Week	3.3%	3.6%
Prior Week	3.4%	3.7%

Source: National Prescription Audit, IQVIA, March 2024
 Notes: Excludes USC 27350 (Coronavirus vaccine) and USC 82250 (Coronavirus antivirals). Week 11 includes data through 3/15/2024. Includes impacts from holidays, weather storms and other natural disasters. NRx = new prescription; QTY/Rx = quantity per prescription; TRx = total prescriptions.

National-level Rx data suggests there is little aggregate change to the total market during the cyberattack timeframe

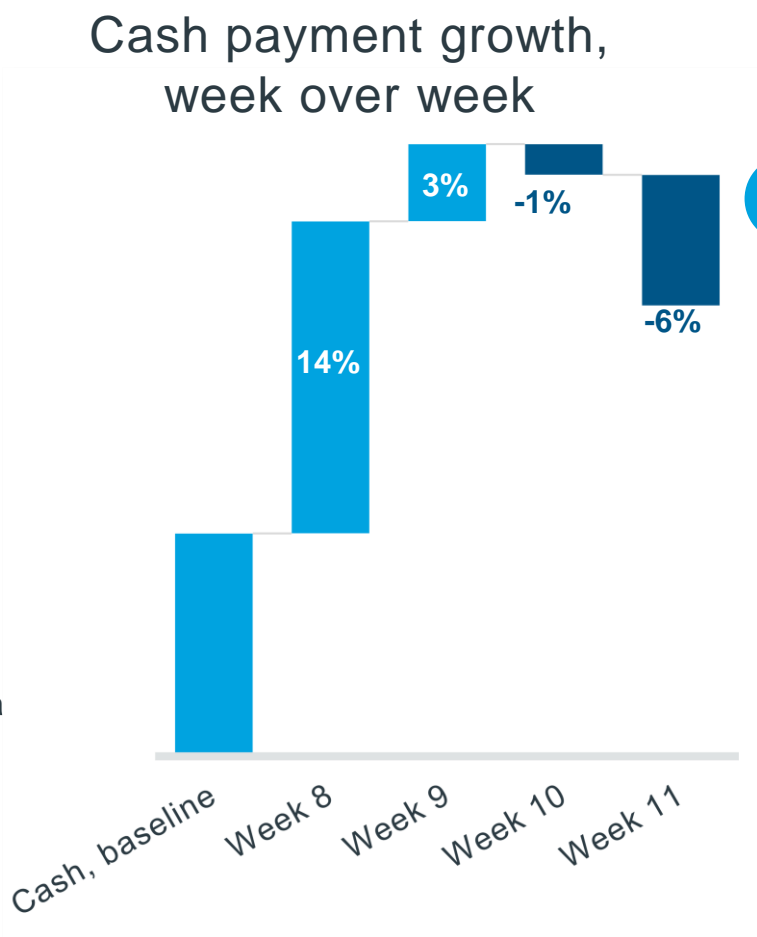
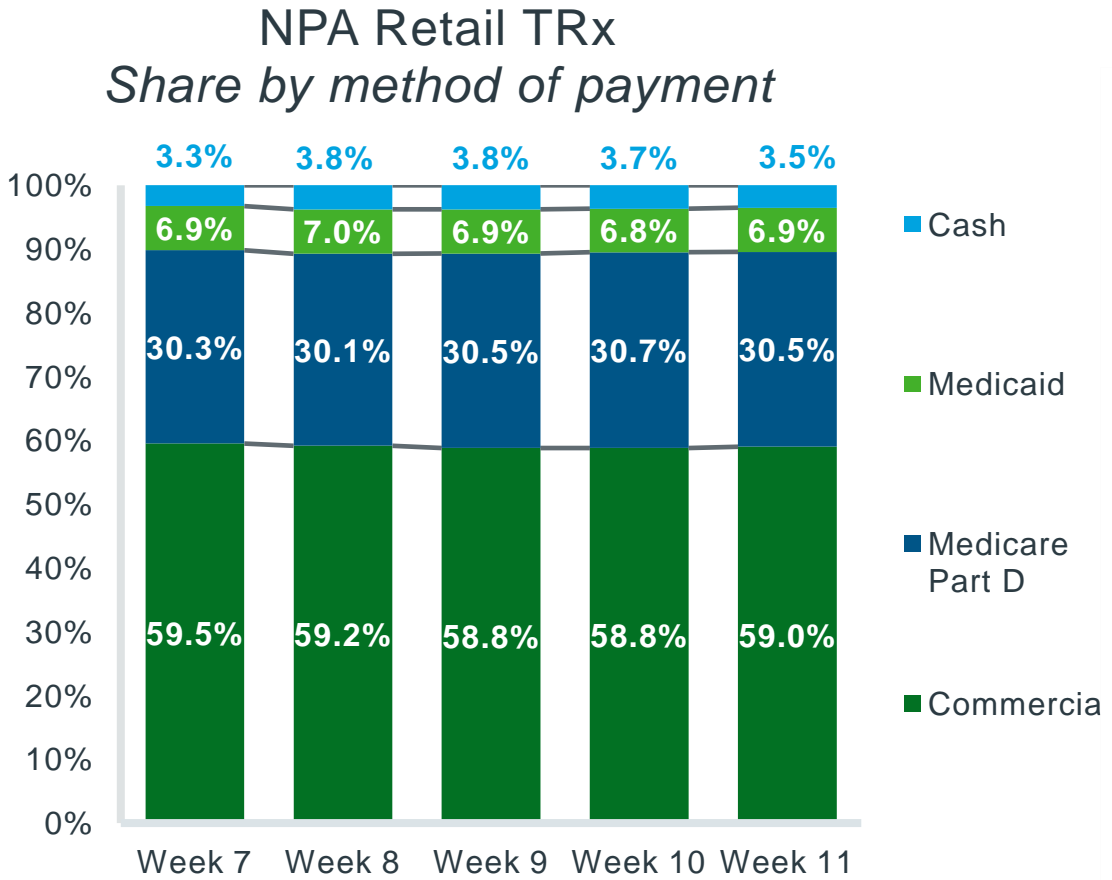
Week 7 is the first affected week; Week 11 is down -1.8% versus prior week



Source: National Prescription Audit, IQVIA, March 2024
 Notes: Excludes USC 27350 (Coronavirus vaccine) and USC 82250 (Coronavirus antivirals). Week 11 includes data through March 15, 2024. Includes impacts from holidays, weather storms and other natural disasters. TRx = total prescriptions. TRx Growth is week over week in the current year.

The share of cash payments appears to be returning to typical levels, with continued declines for the most recent two weeks

Prescriptions paid for with cash continue to slightly increase compared to the prior unaffected week



Cash

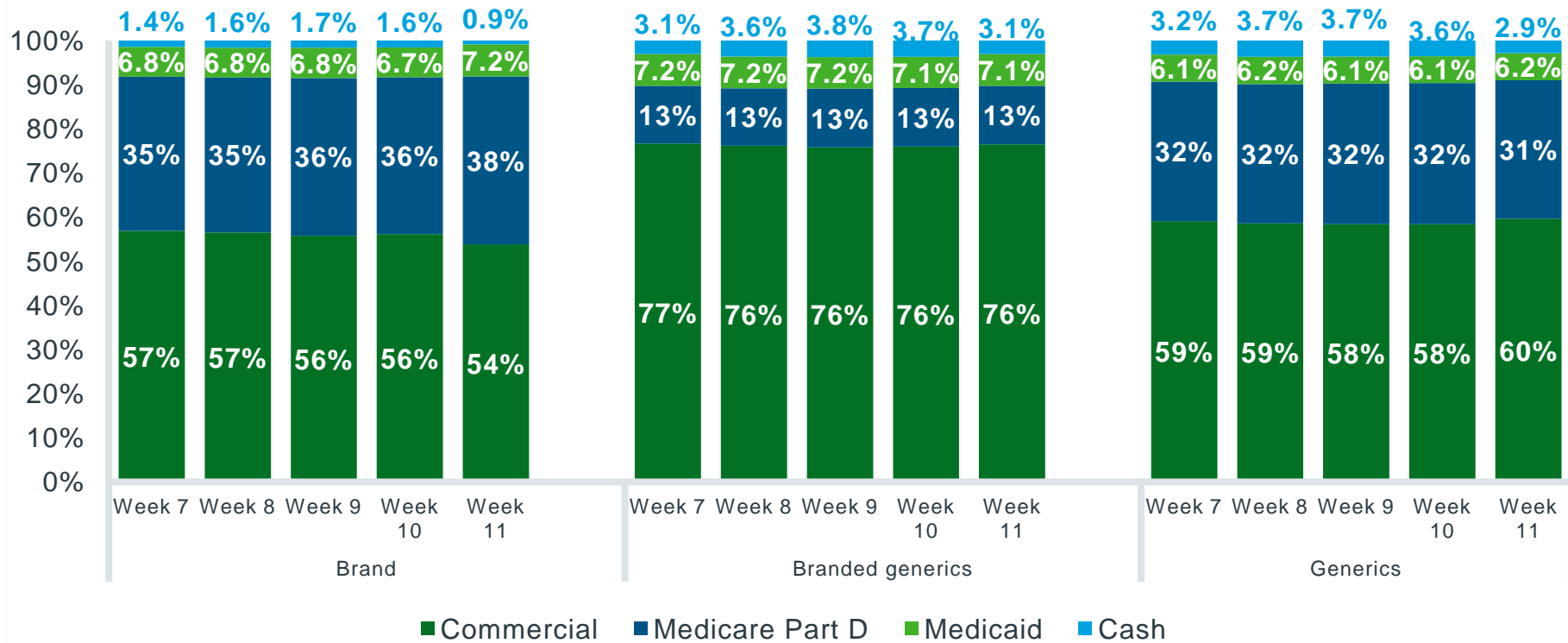
- Typically represents a small share of prescriptions
- The increase in cash payments appears to be receding towards a more typical cash share
- Acute generic treatments, like those for infections or colds, drove up the cash share

Source: National Prescription Audit, IQVIA, March 2024
 Notes: Excludes USC 27350 (Coronavirus vaccine) and USC 82250 (Coronavirus antivirals). TRx = total prescriptions. Cash baseline is week ending 2/16/2024

The share of cash payments is declining across all product types

All product types are at or below the unaffected week share

Share of TRx by method of payment



Generics

- Cash payments in the unaffected week are ~3% for lower price-point products, like generics and branded generics
- After slight increases in the share of cash payments across product types, that share is now declining

Source: National Prescription Audit, IQVIA, March 2024

Notes: Excludes USC 27350 (Coronavirus vaccine) and USC 82250 (Coronavirus antivirals). TRx = total prescriptions. Week ending 2/16/2024 is the unaffected week.

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INITIAL TAKEAWAYS: PRELIMINARY MEDICAL CLAIMS ANALYSIS

Sustained care delivery

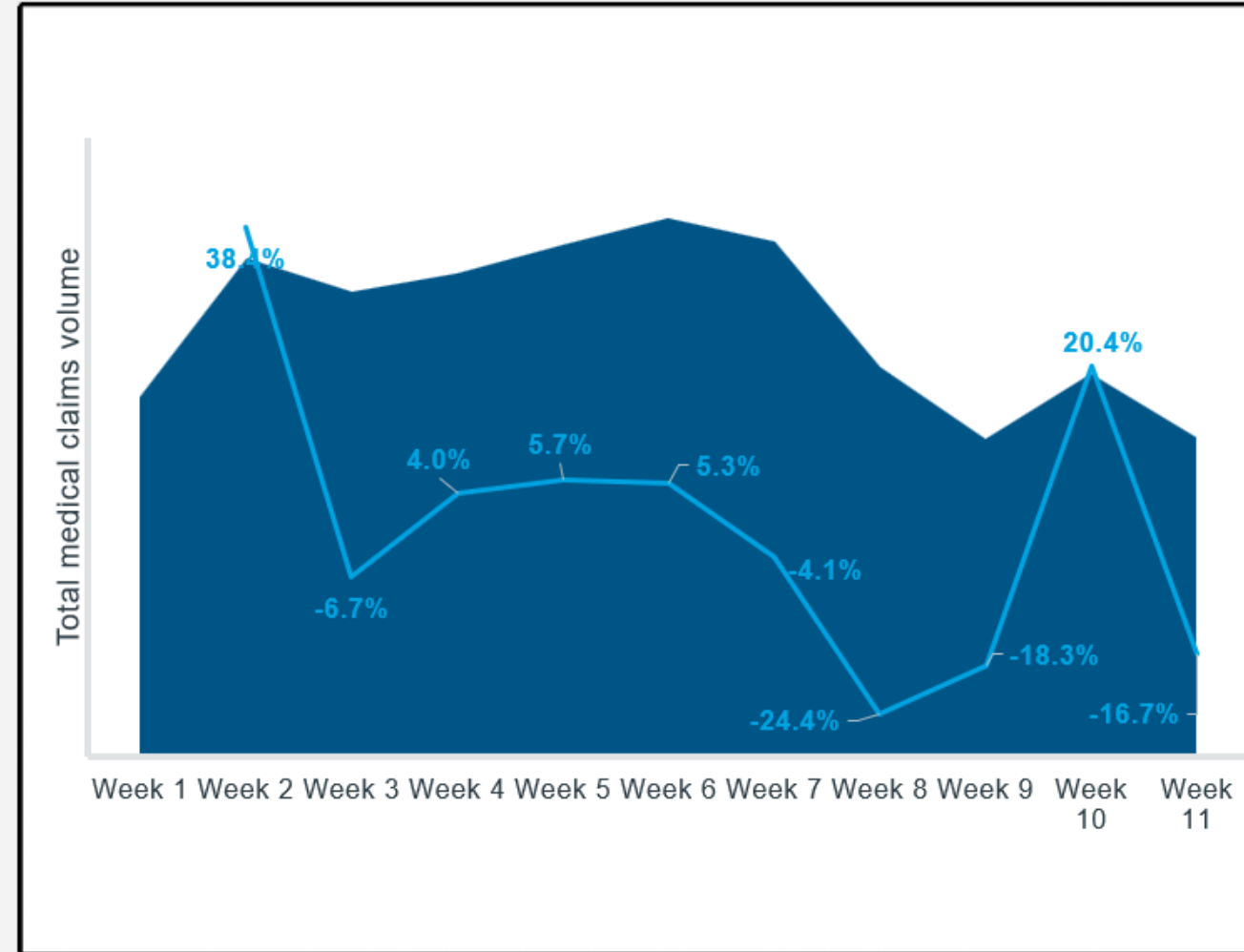
Based on publicly available reports and our internal assessments, at this time IQVIA does not believe the declines in medical claims volume suggest care interruption.

High quality data

Based on preliminary analyses, current data capture suggests medical claims are directional and may likely reflect current care decisions

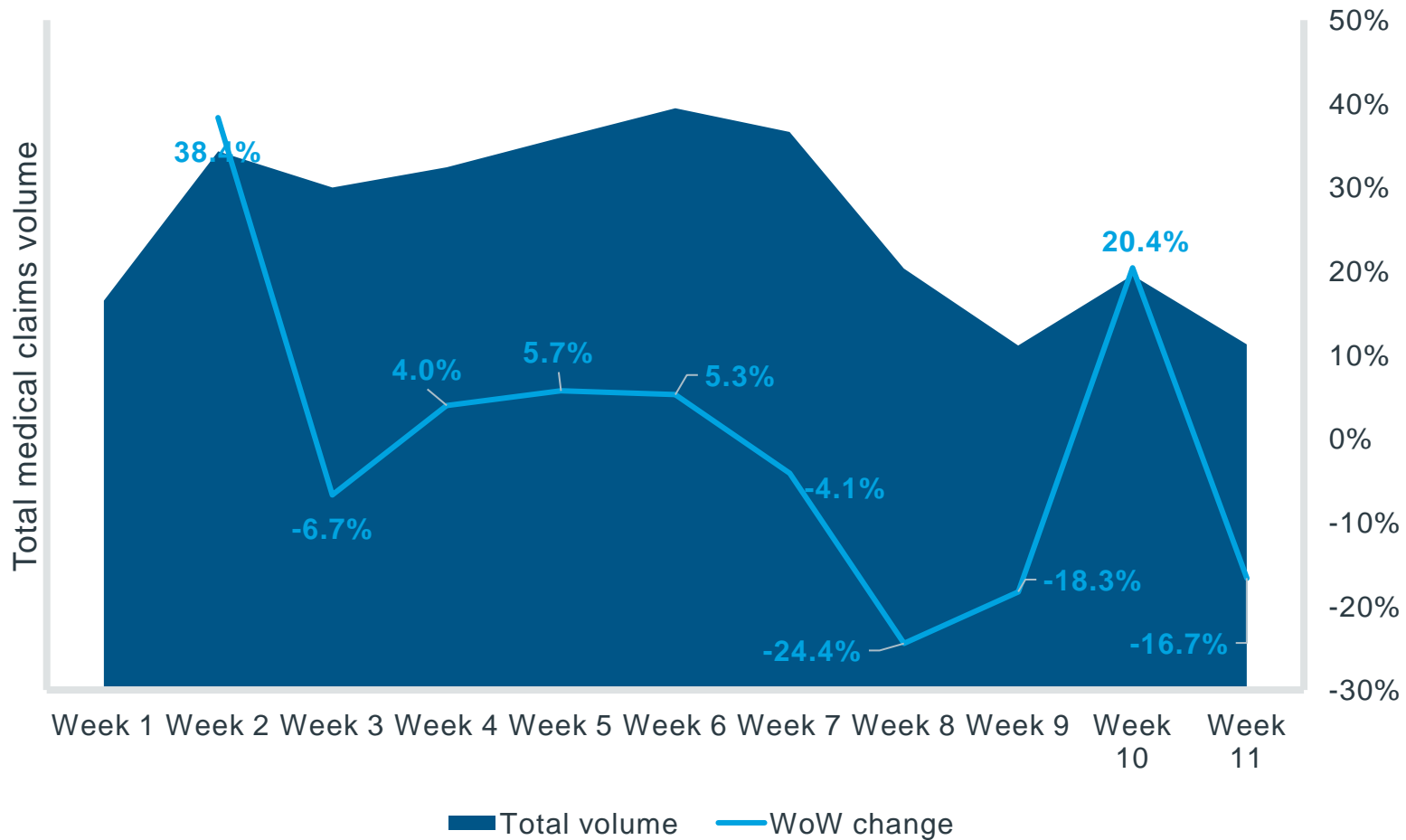
Data flow issue

IQVIA hypothesizes this a data flow issue, not a broad continuity of care concern, and may likely resolve as systems re-establish connection



Medical claims volume declined in the week of and following the cyber event

Week 8 medical claims volume declined by 23.1%, with a slight rebound before another ebb

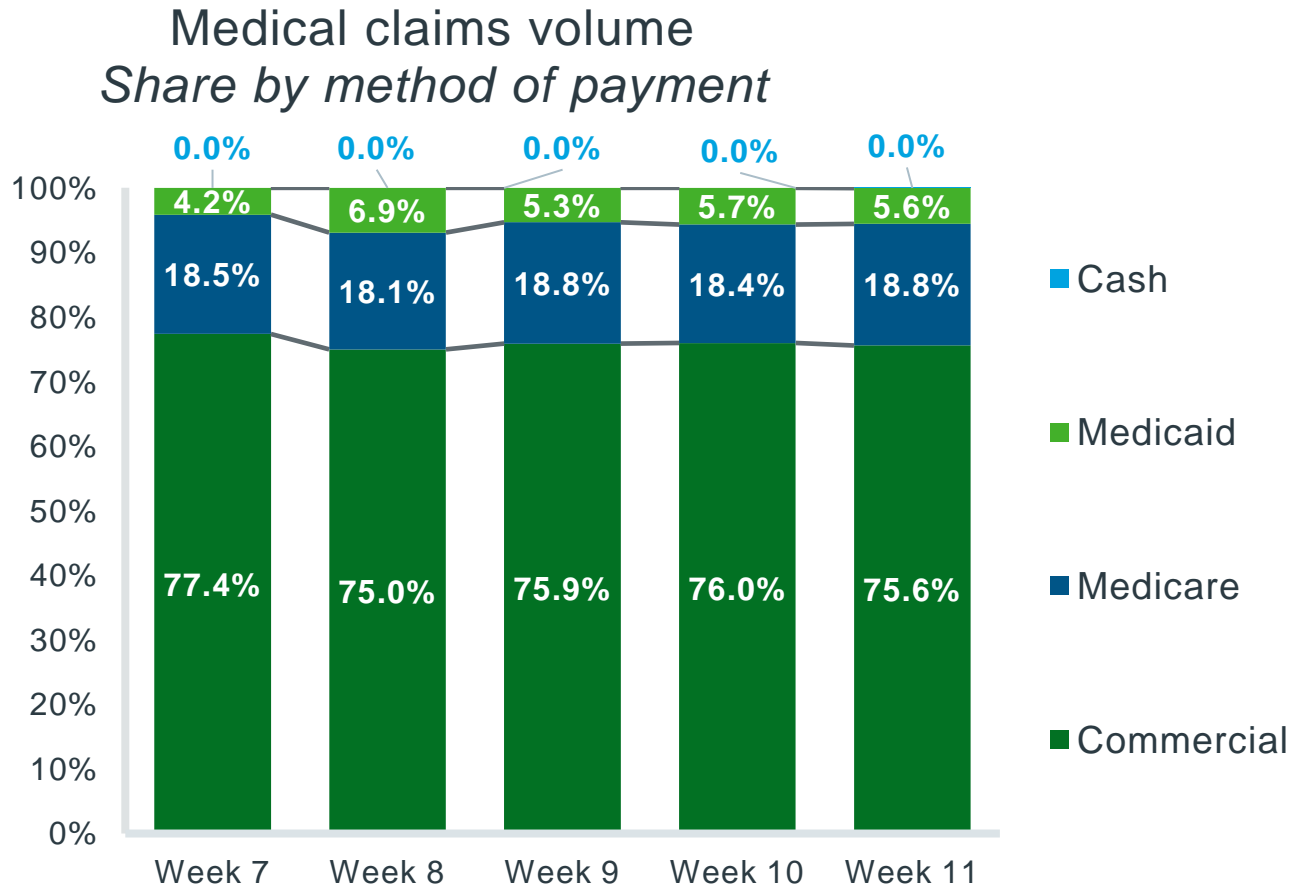


- Several market events occurred during Week 8: the cyber event, storms in California, wildfires in Texas, and a national holiday
- The initial decline in medical claims volume in Week 7 is likely due to typical seasonality
- The further declines in **Weeks 9-11 correlate with ongoing data outages** due to the cyber event
- However, it is hypothesized **this is not a reflection of interruption of care for patients**, but rather, a **medical data claims capture / flow artifact**

Source: Medical claims, IQVIA, March 2024
Notes: Week 11 = Week ending 3/15/2024; Week 8 include a holiday, natural disasters, and the cyber event.
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Ultimately there is little to no cash payment for medical claims, and other pay types remain stable

Slight changes in the share of each pay type are within expected ranges



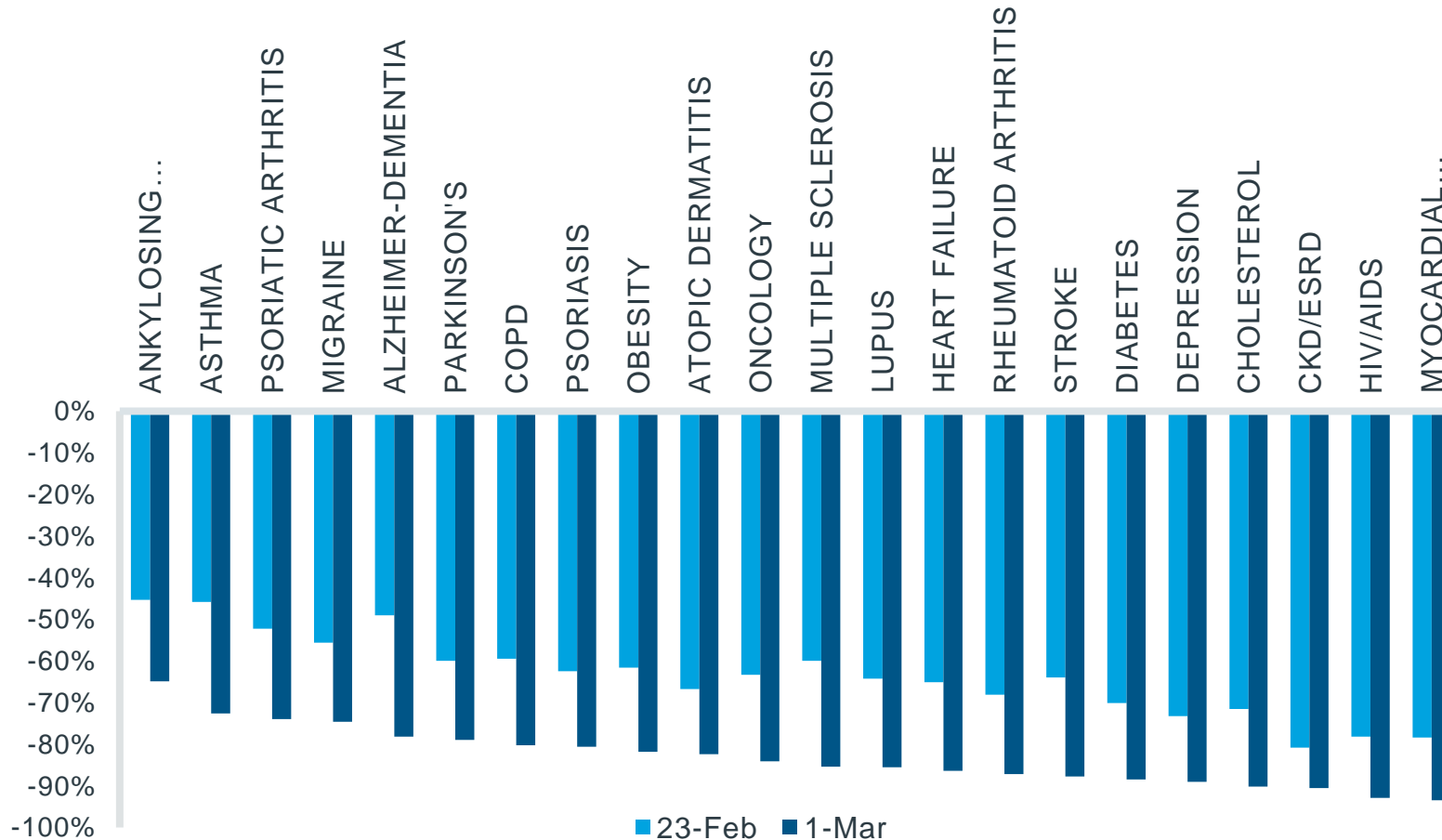
- ❑ There is a slight decrease in the commercial payments for procedures
- ❑ There are slight increases in Medicaid and Medicare payment types during the event period
- ❑ **This does not suggest commercially insured patients were not able to receive care**
- ❑ As expected, there is little to no cash payment

Source: Medical claims, IQVIA, March 2024

Notes: Pre-event timeframe includes 1/1/2024–2/20/2024; Event day is 2/21/2024; Day of event is 2/21/2024; Event period includes 2/22/2024–3/9/2024

Certain therapy areas are more impacted by the data flow blockage than others

Modulation in medical claims volume compared to the Jan-Feb 6-week average



Therapy area differences

- With the block of data flow across the industry, there are some therapy area procedure markets that reflect the cyber event more than others
- There are declines across almost every therapy area market
- Myocardial infarction, which is typically treated as emergent, shows stark declines in medical claims
- However, the hypothesis remains unchanged; this **does not necessarily suggest an interruption of care for patients**, but rather, a medical data claims capture / flow artifact

Source: Medical claims, IQVIA, March 2024

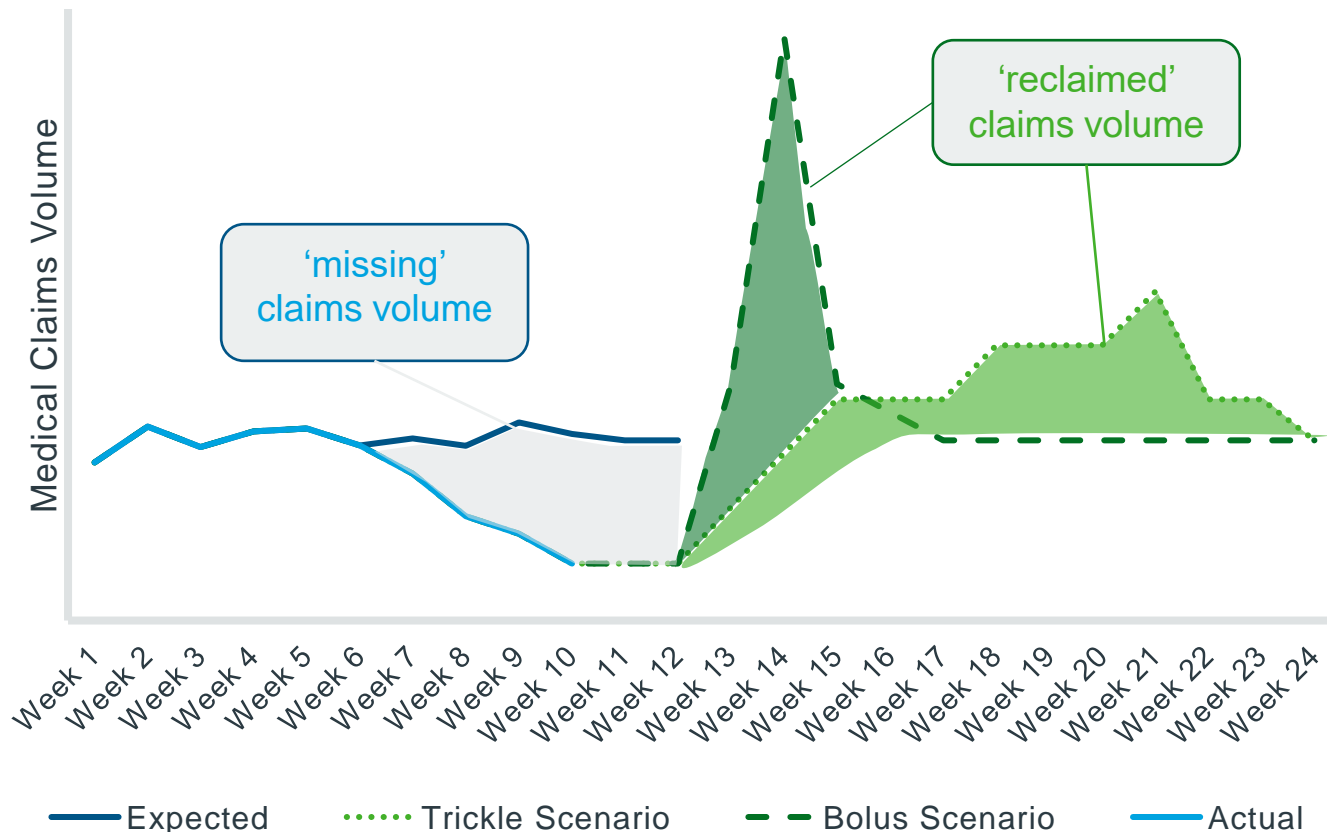
Notes: Therapy areas are standard IQVIA market definitions

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There are two expected models for medical claims data flow once connections are re-established

The two scenarios, trickle and bolus, suggest most 'missing' claims will be recaptured

Claims flow scenarios



Medical claim volume recapture scenarios

- When connections are re-established, there are two scenarios for the flow of data of medical claims with service dates during the cyber event interruption
- The **bolus scenario** suggests a sharp influx of claims initially, and the volume of 'missing' claims will be recaptured quickly
- The **trickle scenario** suggests 'missing' claims will steadily enter over the following weeks
- Regardless of scenario, **restatements based on service dates of the claims will redistribute the volume appropriately**

Source: Medical claims, IQVIA, March 2024

Notes: Scenarios are illustrative.

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The cyberattack of 2024: A glimpse of resilience

The digital frontier is before us, exhilarating yet treacherous. To reach new heights in healthcare, the focus must be on partnership, transparency, and trust



Quick thinking

The rapid response of several stakeholders appears to have minimized what could have been broad, catastrophic disruption



Activating workarounds is key

Pharmacies, PBMs, and payers nimbly facilitated the delivery of timely care



Patient behavior continues to evolve

Patients will invest in treatments when they can or when necessary to avoid care gaps



Future cyberattacks are possible

Investing in quick, effective, and patient-focused contingency plans is critical for all healthcare stakeholders



Partnership protects patients

Coordination, clarity, and transparency ensure individuals can receive needed care