The Data Exchange Framework Stories of a Connected CA: Lisa and Dr. Tom

Lisa is a high risk patient of Dr. Tom, her Primary Care Physician (PCP). To provide her with the best possible care, Dr. Tom, the local hospital and the local EMS provider have signed the Data Sharing Agreement (DSA), and Dr. Tom and EMS have onboarded to the QHIO as their choice for participating in the Data Exchange Framework (DxF).

Dr. Tom's practice lists Lisa in their request for notifications with the QHIO to help them monitor for acute care events.

Lisa has a medical emergency.

Lisa notices swelling in her leg and calls 911.

Before arriving at Lisa's home, EMS queries the regional QHIO for information. The HIO responds immediately with Lisa's clinical summary. EMS used Lisa's medications, allergies, and medical history to make decisions on how to treat Lisa while she was transported to the emergency department.

Lisa is admitted to the hospital.

Upon admission, Lisa identifies Dr. Tom as her PCP.

The hospital uses a nationwide network to request records from Dr. Tom's practice through the QHIO. As a DxF Signatory, both the QHIO and Dr. Tom's practice are required to respond immediately with details from Lisa's medical record.

The emergency department also sends a notification to the QHIO of Lisa's admittance. The QHIO receives the notification, matches it to Lisa, a high-risk patient of Dr. Tom and notifies his practice.

Lisa receives informed care.

Having the knowledge of Lisa's medication history, allergies, current medication and dosages, and other problems that make her a high-risk patient, the attending physician treats Lisa for cellulitis with antibiotics.

In the days following, Lisa is discharged from the hospital. The hospital sends a notification to the QHIO of Lisa's discharge.

Lisa is on the road to recovery.

In addition to Lisa's hospital admission, Dr. Tom receives a notification of Lisa's discharge from his QHIO. He uses his QHIO to request Lisa's discharge summary from the hospital over the nationwide network to prepare for Lisa's next visit.

Dr. Tom and Lisa connect, review her discharge medications and reconcile these with her maintenance medications. Lisa continues to see Dr. Tom at regularly scheduled visits.

EMS also sends a request to the hospital for Lisa's discharge summary. EMS uses the data to understand how care in the field aligns with the hospital assessment, filling in gaps of understanding to improve outcomes.

LISA'S MODERN PATIENT EXPERIENCE:

This exchange of health information is possible because Lisa's PCP, the EMS, local hospital, and QHIO have all signed the DSA. With the DxF, Lisa's providers have a clear understanding of her full health history and the information needed to provide her with timely, safe, and effective whole-person care.

Secure data exchange between Dr. Tom, EMS, the local hospital, and the regional QHIO are regulated by the Data Sharing Agreement Policies and Procedures (P&Ps), which serve as rules of the road for the DxF. Some P&Ps that played central roles in the story of Lisa and Dr. Tom include:

- **QHIO P&P** establishes the role of Qualified Health Information Organizations (QHIOs) who are available to help participants exchange data and monitor for acute care events

- **PERMITTED, REQUIRED, AND PROHIBITED PURPOSES P&P** establishes Health Care Operations and Treatment as a required purpose for exchange.

- **TECHNICAL REQUIREMENTS FOR EXCHANGE P&P** defines the standards used to match digital identities, send information and respond to requests.

- **REQUIREMENT TO EXCHANGE P&P** establishes the requirement to respond.

- **REAL-TIME P&P** defines the timeliness of response.

- **PRIVACY STANDARDS AND SECURITY SAFEGUARDS P&P** protects the data throughout the exchange.