Digital Technology Committee – Care Pathways

Objective

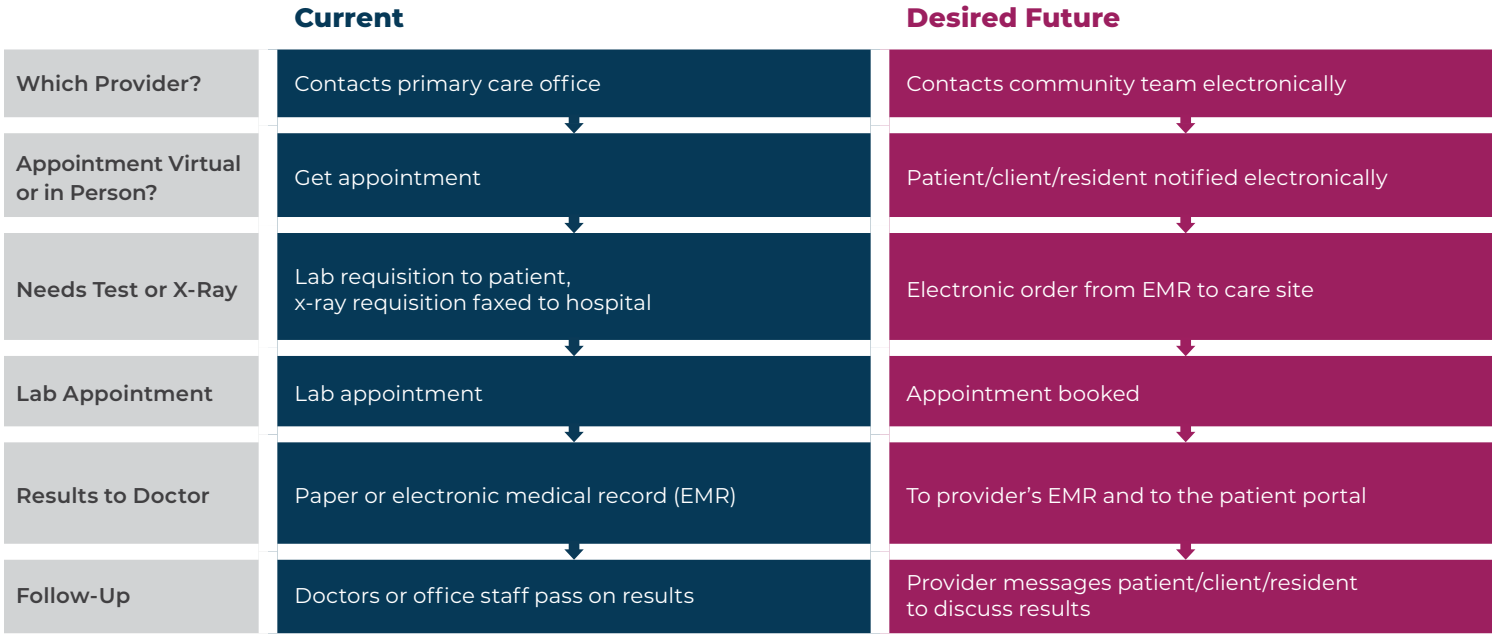
One of the major benefits of modernizing the Health Information System (HIS) will be the upgrading of the communication, integration, and flow of care pathways for both patients and providers.

Methods

The Digital Technology committee of Health Accord NL engaged with key informants on existing care pathways and what an upgraded care pathway would provide.

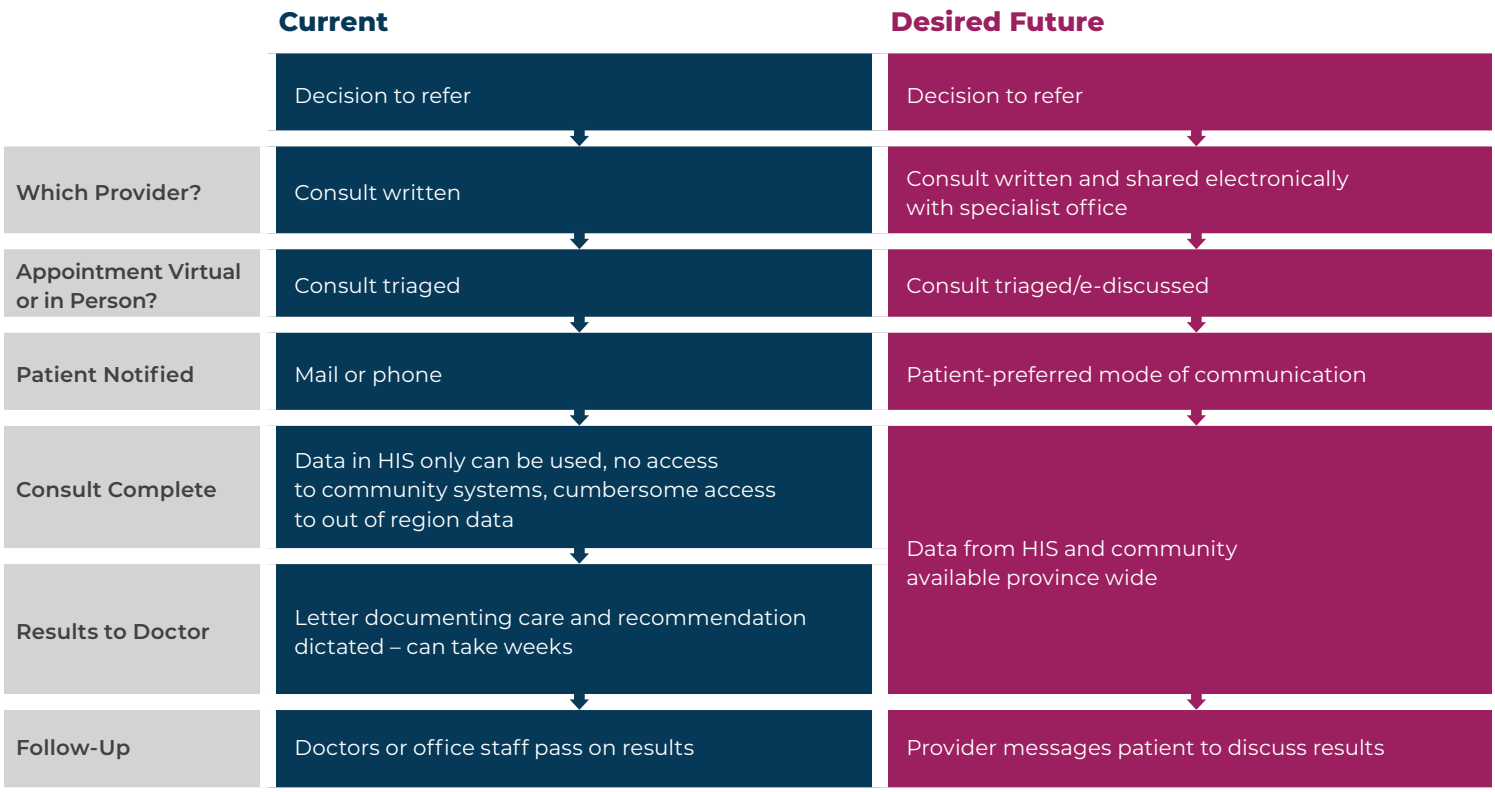
Results

Person in Community



Pain Points	Advantages to Desired Future
May only be able to enter care path via a family physician (FP) or nurse practitoner (NP)	Less delay
Getting through to a clinic can be a challenge	Less manual processing
Setting up a virtual visit other than by telephone is not easy	More flexibility in timing
Regional Health Authorities' (RHA) systems can't accept electronic orders, lots of paper requisitions and faxes, sometimes misplaced leading to delay	Avoids paper, faxes and possible lost requests
Booking systems are inefficient, there is either no or a cumbersome triage process	At all points in the process all users are aware of the status
Providers are not usually made aware of when tests are booked – patients waiting to hear often call FP offices for this information	Patient has ready access to appointments
Patients cannot easily track their own results	Patients have ready access to results

Patient Requires Specialist Care



Pain Points	Advantages to Desired Future
Non-interactive referral process inhibits best triage & early feedback to referring provider (how necessary, what to do while waiting, how urgently this can be dealt with)	Opportunity for interaction to facilitate triage and timeliness of appointments
Referring provider often not aware of when the appointment is booked	Providers and patients aware at all points of where they are in the process
Not all relevant data easily available at time of assessment	Automation: no need for transcription, filing, or scanning
Time delays in exchange of information	All necessary data available to assist in the specialist assessment
Laborious process in ensuring all health care records have a copy of the consult	Timely and complete filing of consults in patient records

In-Patient Medication Prescription

	Current	Desired Future
Med Order	Written on carbon copy forms	Electronic by FP
Drug Order	Taken off by nurse	Decision support for dosing/allergy and drug interaction
Pharmacy Received Order	Form sent	Nurse notified of change
Prescription Filled	Drug delivered to unit Pyxis	Drug delivered to unit Pyxis
Nurse Retrieves	Drug when needed	Barcoded dose when needed
Drug Given	To patient	To patient after cross-checking barcode against identification (ID)
Drug Administration	Drug administration or not noted on paper medication administration record (MAR)	Drug administration or not noted on electronic MAR

Pain Points	Advantages to Desired Future
Handwriting and transcription error risks	Reduction in errors due to handwriting
Lack of built-in decision support around drug dosing/interactions/allergy checks	Elimination of paper and associated inventory management
Cumbersome process for cross-checking orders versus drug administration	Decision support at point of order may reduce drug adverse effects
Large volume of paper used, requires clerical inventory management	Opportunity for closed loop medication controls reduces risk for administration errors
Time delays between order writing and pharmacy receipt of prescription	Facilitates review of medication use and adjustments
Lack of closed loop identification from order to drug administration	

Conclusions

1. Many current digital health records are not designed for data extraction or analysis.
2. A Learning Health and Social System relies on accurate point of care data to support analyses of patterns of care and outcomes both to identify opportunities for improvements and to assess the impacts of any changes.
3. A fully integrated data system is required for care teams and broader systems to operationalise a Learning Health and Social System.