Welcome to the
Ontario Laboratories Information System

*The Ontario laboratories information system, or OLIS, is a health information system that facilitates the secure, electronic exchange of laboratory test orders and results.*

OLIS is a province-wide repository of lab information that can be shared between hospitals, community laboratories, public health laboratories, and health care providers.

OLIS accepts data feeds from labs in the province such as public health Ontario laboratories, community and hospital laboratories and to date contains data representing over 90 per cent of community lab volume, and almost 60 per cent of the total provincial volume.

The goal is to have 100 per cent of all lab tests performed in Ontario in OLIS. For the most up-to-date list of current data providers and the latest about OLIS, visit: [www.ehealthontario.on.ca/initiatives/view/olis](http://www.ehealthontario.on.ca/initiatives/view/olis).
Feedback from the Field

“It’s reassuring for me as a type 1 diabetic that anywhere in the province I go, my health care team has access to my records with the click of a mouse. No more extra testing, no more frustrating, confusing processes that have to take place. Now there’s a central hub of a computer system that can be plugged into by the entire health care team.”

Steve Stresman
Patient

“Patients are going to notice that they are not having duplicate tests or being asked the same questions over and over again, and that their care providers are more confident about the care they are delivering because they have better information and are more comfortable with the decisions they are making.”

Dr. Glen Geiger
Chief medical information officer
The Ottawa Hospital

“The Ontario laboratories information system and eHealth Ontario have revolutionized my practice over the last year. And, in fact, I’m constantly learning new ways to use this system to my patients’ advantage.”

Dr. Greg Rose
Infectious disease consultant
The Ottawa Hospital

“I think everyone wants to see movement forward in reducing inefficiencies in clinic. Everyone wants to use their time wisely, both patients and providers.”

Dr. Erin Keely
Chief, endocrinology & metabolism
The Ottawa Hospital
Benefits to You

- Ensures timely access to information for decision making at point-of-care
- Facilitates more comprehensive and broader lab test information as produced by laboratories outside of your organization
- Provides better coordination of care between multiple practitioners and within health care teams
- Improves workflow and reduces dependency on paper-based systems

Benefits to Your Patients

- Ensures fewer gaps in patient information as patients move between hospital, practitioner’s office (e.g. family physicians, specialists), home care and long-term settings
- Provides an effective tool to integrate and track patient laboratory history over time, monitor progress of treatments and support chronic disease management
- Reduces the number of unnecessary lab tests due to greater availability and sharing of information
- Enables timelier and broader access to lab test results by practitioners
Getting Started

Your project manager will work with an OLIS contact to get you started. As part of this process, you or your organization will need to complete the following steps:

• Complete all necessary forms and agreements required by eHealth Ontario/your organization;
• Sign all applicable eHealth Ontario data access agreements outlining user responsibilities under the Personal Health Information Protection Act, 2004 (PHIPA); and
• Establish contacts at your site who will serve as key contacts for eHealth Ontario including a: privacy coordinator; site user coordinator; end users coordinator; and lead physician.

A Patient Query Search
Step-by-Step

The new OLIS functionality may differ in look and feel from one clinical viewer to the next. Your organization will provide you with training specific to your system.

Regardless of the system you use, an OLIS patient query will involve the same steps:

1. Select a patient (e.g. by viewing that patient’s chart).
2. Filter results by specifying information. For instance, you can select specific types of tests, or those tests from a specific ordering/attending/admitting health care provider, or that were processed by a specific specimen collection centre or lab. At a minimum, you must specify the date range for the search.
3. OLIS will search for all lab results that meet the stated criteria.
4. You may also sort the list of returned results (e.g. test type, or date).
Important Notices about Privacy and Security

Your Privacy and Security Obligations
As custodians of patient personal health information (PHI), health care providers have obligations under the Personal Health Information Protection Act, 2004 (PHIPA) and Ontario Regulation 329/04 (the “Regulation”).

eHealth Ontario has the authority as an agent of the Ministry of Health and Long-Term Care (MOHLTC) — a health information custodian (HIC) — under PHIPA and under section 6.2 of O.Reg. 329/04 to operate and manage OLIS, as eHealth Ontario is receiving personal health information (PHI) from the MOHLTC for the purpose of creating or maintaining one or more electronic health records (EHRs).

In accordance with PHIPA, health care providers may only collect lab data from the OLIS system for the purpose of providing health care, or assisting in the provision of health care, to the provider’s patients. Once lab information from OLIS has been copied into the provider’s local record in any format (paper or electronic), it can be used for any purpose permitted by PHIPA or other applicable law.

When collecting, using, retaining and disclosing OLIS data, each health care provider is responsible for ensuring that he or she complies with their obligations set out in:

a. All agreements entered into between eHealth Ontario and the health care provider or the organization for which the health care provider works (whether as employee, partner, agent, or under contract);
b. All agreements entered into between the health care provider or the organization for which the health care provider works;
c. PHIPA and Ontario Regulation 329/04 (the regulation);
d. Any other applicable legislation or regulation; and

e. Any applicable judicial or administrative tribunal judgments, orders, rulings, or decisions.

Each health care provider should ensure that his or her employees, agents and service providers handling PHI on the provider’s behalf are in compliance with the provider’s obligations, listed above, and are aware of,
and comply with, any specific obligations under PHIPA or the regulation applicable to the provider’s employees, agents or service providers.

A more complete description of provider privacy responsibilities can be found in PHIPA and the regulation.

A useful overview of security best practices for small medical offices (for example, family health teams) and larger, more complex organizations (for example, hospitals) can be found on the eHealth Ontario website: http://www.ehealthontario.on.ca/security/guides.

Privacy Incidents and Breaches
If you become aware of a suspected or confirmed privacy or security breach of OLIS data by you or any of your employees, agents, or service providers, follow the procedure outlined in Appendix B.

If a health care provider or a privacy officer requires a record of who from your organization accessed OLIS data via your clinical viewer system, please refer to the process outlined in Appendix C.

Individual Access
Where a patient or substitute decision maker (SDM) requests information about their personal health information contained in OLIS and/or who has accessed their information in OLIS, please refer to Appendix C.

Should your patients wish to request corrections to their information in OLIS, they should speak to the health care provider who ordered the test or to the laboratory which performed the test.

Note: An individual seeking to make a correction to their health record may first need to make a request to the MOHLTC regarding “what information does OLIS have on me” to determine the source laboratory or health care provider that ordered the test. Please see Appendix C for more details.

Enquiries and Complaints Related to OLIS
Please see Appendix D for information on how to address patient enquiries or complaints related to OLIS data or to eHealth Ontario.

Patient Consent
Your patients may be concerned with the privacy and security of their personal health information (PHI), now that their laboratory test results may be more easily shared with other health care providers. Under PHIPA, patients have the right to refuse or restrict consent with regard to the collection, use and distribution of their PHI.

OLIS gives patients or their substitute decision maker(s) the option to restrict access to their lab data in OLIS.

A patient may restrict access at either:

- The patient level — restricts access to all of his/her laboratory test results in OLIS or
- The test level — restricts access to a particular test (to be specified at the time the test is conducted)

Restricting access at either the patient or test level means only the following are allowed to see it:
• The health care providers who were named on the lab requisition (e.g., the ordering or copied provider)
• The reporting lab, the lab that performed the test and the organization that placed the test request

If a patient restricts access to his/her results in OLIS, other health care providers involved in the patient’s care will not be able to access any patient information that has been, or will be, submitted into OLIS. When a restricted provider queries lab results for this patient, the clinical viewer will notify him/her of this when returning the results of a patient query.

If a patient wishes to place a restriction on access to his/her information in OLIS, or wishes to reinstate access (remove the restriction), he/she can call Service Ontario at 1-800-291-1405 (TTY 1-800-387-5559).

**Overriding a Consent Directive**

In special cases (with the express consent from the patient or the patient’s substitute decision-maker) the patient directive restricting access to the test can be overridden by a provider, from within the clinical viewer. All consent overrides in OLIS are temporary and will last for a duration of four (4) hours, after which, access will once again be restricted.

Such an override is logged in the system, along with the identity of the overriding health care provider. OLIS logs all accesses to its data, and an audit of this information can be requested. In addition, a notification letter will be sent to the patient by eHealth Ontario informing them of the override.

In cases where a health care provider obtains the express consent of the patient or the patient’s substitute decision-maker to override a directive restricting access, MOHLTC as the custodian of OLIS, requires the provider to make a note in the patient’s chart and clarify for the patient that although the consent override is temporary in respect of OLIS, the information that the patient has allowed the provider to view will be saved in the system, flagged as sensitive information, and may be available to other providers involved in the patient’s care.

Further, in the case that the SDM has provided consent to override the consent directive, MOHLTC, as the custodian of OLIS, requires the provider to note in the patient’s chart the name of the SDM and the relationship of the SDM to the patient. In the event the computer application and/or the viewer service(s) does not have the functionality to support this, (i.e. log electronically) the health care provider is required to record the SDM’s name and the SDM’s relationship to the patient manually. This information must be available to eHealth Ontario upon request.
Your Questions Answered

**What is different between lab results from OLIS and the results I get now?**

OLIS will not yet replace your existing sources of lab results; rather it will augment them with additional information that you may not have access to today.

- OLIS provides data from more sources; eventually all labs in Ontario.
- Generally faster access to results.
- Access to historical, as well as current, results.
- OLIS uses international standard names for test results; these may be different from what you have been seeing up until now.

**How will using OLIS affect the way I work?**

OLIS is an additional tool for your use — specifically for getting a more comprehensive lab test history for a specific patient. It augments what you already do; there is no change to your existing workflow. You can choose how to integrate the OLIS patient query into your day-to-day work.

OLIS uses a standardized set of test names. Therefore, depending on what test names you are using, there may be some naming differences.

**How secure is OLIS?**

OLIS uses sophisticated security features to keep patient information secure. OLIS runs in a state-of-the-art data centre to manage personal health information. A summary of administrative, technical, and physical safeguards is provided in Appendix E.
How complete and accurate is the OLIS data?

OLIS data is the information in OLIS as provided by connected hospitals and laboratories. OLIS presents the data as it is received. The submitting laboratories remain accountable for completeness and accuracy. Submitting laboratories may amend lab reports in OLIS from time to time so that when providing care, health care providers should always be able to access the latest information in the OLIS repository.

Accuracy: OLIS data is provided to you exactly as it is sent by the labs.

Completeness: Currently, there are a number of hospitals as well as public health and community labs feeding data into OLIS. Some of their results may not be available in OLIS, for reasons such as:

- Tests were referred to sites not yet connected to OLIS.
- Results that were initially rejected due to formatting or information errors may not have been resubmitted by the labs.

Beyond the organizations currently feeding data into OLIS, work is underway to continually add new data sources.

For the most up-to-date information regarding OLIS accuracy and completeness, visit: http://www.ehealthontario.on.ca/images/uploads/resources/OLIS_EN.pdf.

For the most up-to-date list of live labs, visit: http://www.ehealthontario.on.ca/initiatives/view/olis/.

What are the future plans for OLIS?

Future plans for OLIS include the continued introduction of both new features and additional sources of lab data. The goal is to capture 100 per cent of all laboratory test data for Ontario.

What if OLIS goes down?

In the event of an OLIS outage, planned or unplanned, eHealth Ontario will email notifications to your technical contacts or lead practitioners.

What if something isn’t working?

- Your existing support model will remain in place for your clinical viewer, and your support team will be able to respond to any concerns regarding OLIS.
- If necessary, your support team may contact eHealth Ontario for additional assistance.

What are the accountabilities of each client site helpdesk?

When any issues with the clinical viewer used to access OLIS data are detected, local site helpdesk will assist in:

- Troubleshooting the issues;
- Providing a resolution where possible;
- Determining potential impact of the issues; and
- Escalating to the appropriate support groups and/or eHealth Ontario service desk.
Appendix A—Common Types of Personal Information and Personal Health Information

**Personal information (PI)** means information about an identifiable individual, and includes:

- Information relating to the race, national or ethnic origin, colour, religion, age, sex, sexual orientation or marital or family status of the individual;
- Date of birth;
- Address, telephone number;
- Photograph;
- Any identifying number, symbol or other particular information assigned to an individual;
- Employment history;
- Criminal history;
- Financial transactions;
- Personal cell numbers; or
- IP address.

The above list is not exhaustive. See subsection 2(1) of the *Freedom of Information and Protection of Privacy Act (Ontario)* for a complete definition of personal information.

**Personal health information (PHI)** includes any information in oral or recorded form about an identifiable individual, if the information:

- Relates to the physical or mental health of the individual;
- Relates to the family medical history of the individual;
- Identifies the patient by name;
- Identifies the individual’s health card number;
- Can identify an individual and link him/her to health care;
- Can identify an individual and link him/her to a health information custodian;
- Identifies an individual’s substitute decision-maker;
- Relates to the donation of any body part or bodily substance of the individual or the testing or examination of any body part or bodily substance; or
- Includes patient health records.

The above list is not exhaustive. See section 4 of the *Personal Health Information Protection Act, 2004 (Ontario)* for a complete definition of personal health information.

Appendix B—Reporting a Privacy or Security Incident/Breach

This section includes instructions for providers at clinics and privacy officers at medium and large organizations (such as hospitals) on reporting to eHealth Ontario any privacy and security incidents or breaches (defined below) by you or your organization, including health care providers, agents, employees or service providers.

A privacy incident is a:

- A contravention of the privacy policies, procedures or practices implemented by your organization or any applicable policies of eHealth Ontario, where this contravention does not constitute non-compliance with applicable privacy law.
- A contravention of any agreements entered into between eHealth Ontario and your organization, where the contravention does not constitute non-compliance with applicable privacy law.
- A suspected privacy breach.
A privacy breach is:

- The collection, use or disclosure of PHI in contravention of PHIPA and its regulation;
- The collection, use or disclosure of PI in contravention of FIPPA and its regulations; and/or
- Any other circumstances where there is an unauthorized or inappropriate collection, use or disclosure, copying, modification, retention or disposal of PI/PHI including theft and accidental loss of data.

A security incident is an unwanted or unexpected situation that results in:

- Failure to comply with the organization’s security policies, procedures, practices or requirements.
- Unauthorized access, use or probing of information resources.
- Unauthorized disclosure, destruction, modification or withholding of information.
- A contravention of agreements with eHealth Ontario by your organization, users at your organization, or employees, agents or service providers of your organization.
- An attempted, suspected or actual security compromise.
- Waste, fraud, abuse, theft, loss of or damage to resources.

Instructions for Health Care Providers

This section also provides guidance on reporting any issues with the OLIS system which have caused or may lead to a privacy or security breach by your organization or eHealth Ontario.

You are expected to cooperate in any incident or breach containment activities or with any investigation undertaken by eHealth Ontario. During the investigation by eHealth Ontario you may be required to provide additional information which may include personal health information or personal information, in order to contain or resolve the incident or breach.

If you become aware of, or suspect, a privacy or security incident or breach of OLIS data by you or any of your employees, agents, or service providers, you must immediately report the incident or breach to your privacy office. If you do not have a privacy office, or you are unable to reach your privacy office or support team to report a breach, please contact the eHealth Ontario service desk at 1-866-250-1554 and advise the eHealth Ontario agent that you would like to open a privacy incident ticket.

It is extremely important that you do not disclose any patient personal health information and/or personal information to the eHealth Ontario agent when initially reporting a privacy or security incident or breach.

It is expected that you will cooperate with any investigations conducted by eHealth Ontario in respect of any privacy or security incidents or breaches in relation to OLIS data.

Instructions for Privacy Officers

If you become aware of, or suspect, an incident or breach related to OLIS or OLIS data by any of your organization’s staff members, including employees, agents or service providers, you must immediately report the incident or breach to the eHealth Ontario service desk at 1-866-250-1554 and advise the eHealth Ontario agent that you would like to open a privacy incident ticket.
Note: It is extremely important that you do not disclose any patient personal health information and/or personal information to the eHealth Ontario agent when initially reporting a privacy or security incident or breach. Further, you may not contact any patient or SDM directly, unless expressly instructed to do so in writing by eHealth Ontario.

It is expected that you and the organization’s staff members will cooperate with any investigations conducted by eHealth Ontario in respect of any privacy or security incidents or breaches related to OLIS data.

When reporting a confirmed or suspected privacy or security incident, please have the following information ready:

1. If possible, a description of the situation and condition that led to the incident.
2. Who was involved (name and role)?
3. Where did the incident happen?
4. When and at what time was the incident noticed?
5. If possible, describe how the incident was detected.
6. If possible, provide information on the most likely cause – for example:
   • Human error
   • Negligence
   • Technical failure, caused by failure of an application or system to maintain privacy
   • Process failure, caused by not following a process
   • Wilful wrongdoing
   • Act of nature
7. Describe the type of PI/PHI involved in the incident.
8. If possible, list measures taken to contain the incident or breach or any risks that could eventually result in an incident or breach.
9. If possible, list any corrective measures taken or additional controls applied.
10. What services, if any, are impacted?
11. Are eHealth Ontario’s services impacted or involved?

Once a call has been logged with the eHealth Ontario service desk, the eHealth Ontario privacy and security teams will be engaged to deal with the situation.

Appendix C – Access Requests

This section provides instructions to health information custodians (HICs) (i.e., health care providers and/or privacy officers) for responding to an individual access request from a patient, and to assist HICs in auditing access by users at their facility.

There are two types of access requests that can be made of eHealth Ontario in respect of OLIS data:

1. An access request made by a HIC for OLIS access audit logs for that HIC’s site (e.g., hospital, physician practice).
2. An individual access request related to OLIS data made by a patient to a HIC, including one or both of the following questions:
   a. What information is contained in OLIS about me?
   b. Who has accessed my information in OLIS: (i) in general; or (ii) from a particular facility?
Access request made by HIC

As a HIC (privacy officer or health care provider) you may require a record of who from your organization accessed OLIS data via your clinical viewer system. In the event that you are unable to fulfill this requirement using your own internal system logs, you may request access log information from eHealth Ontario. We are able to provide you with a record of the following:

a. By facility request: eHealth Ontario will provide you with a log of all users in your organization, who have accessed OLIS data in the timeframe set out in the request.
b. By user request: eHealth Ontario will provide you with a log of all accesses to OLIS data by a particular user from your organization, within the timeframe set out in the request.

Process for contacting eHealth Ontario for OLIS audit logs for your site:

1. Contact the eHealth Ontario service desk at 1-866-250-1554 and request audit report by user or audit report by facility. The eHealth Ontario service desk will open a ticket on your behalf.
2. A representative from the eHealth Ontario privacy office will call the contact person/privacy officer to confirm the type of report requested and to validate that eHealth Ontario is permitted to release the audit logs for the particular request.
3. If you are requesting “audit report by facility”, the eHealth Ontario privacy representative will request the following information:
   • Date range for the report
   • Health care facility and facility ID number
4. If you are requesting “audit report by user”, the eHealth Ontario privacy representative will request the following information:
   • Date range for the report
   • Health care facility and facility ID number
   • User name (in instances when user report is requested)
5. An eHealth Ontario privacy representative will encrypt the report and send it to you via email.
6. An eHealth Ontario privacy representative will call and provide you with the password.
7. You must notify the eHealth Ontario privacy representative if the encrypted report received cannot be opened.

Individual access request

A patient or SDM may make an individual access request pertaining to OLIS data, which may involve each of the following three types of questions:

Question 1: An individual asks a health care facility who from that facility accessed their PHI in OLIS (note: A valid health card number is required to access individual's PHI in OLIS).

You should be able to provide logs yourself. If you are unable to produce such logs, follow the steps below:

- Contact the eHealth Ontario service desk at 1-866-250-1554 and request audit report by user. The eHealth Ontario service desk will open a ticket on your behalf.
- A privacy representative from eHealth Ontario will call you to confirm the type of report requested.
- Provide the following information to eHealth Ontario privacy representative.
  • Patient name
  • Date of birth
  • Health insurance number
If you receive a request from an individual regarding what OLIS information the MOHLTC has about them, please refer the individual to the MOHLTC’s Access and Privacy office at the following address:

Attention: Freedom of Information and Privacy Coordinator
Access and Privacy Office
Ministry of Health and Long-Term Care
5700 Yonge Street
6th Floor
Toronto, ON M2M 4K5
416-327-7040
generalapo@ontario.ca

Appendix D – Privacy-Related Enquiries and Complaints from Patients

Upon receipt by a provider of a complaint or inquiry relating to eHealth Ontario or the agency’s privacy policies and procedures, the provider should advise the patient to submit their complaint, concerns or inquiry by telephone, email, fax or mail to the director, privacy:

eHealth Ontario Privacy Office
P.O. Box 148
777 Bay Street, Suite 701
Toronto, ON M5G 2C8
416-946-4767
Fax: 416-586-6598
privacy@ehealthontario.on.ca

Individuals may submit anonymous complaints and inquiries; however, in order to receive a response, complaints and inquiries must include the sender’s name, address, telephone number, or email address. Identifiable personal information or personal health information should not be submitted with the complaint or inquiry.
Appendix E — Summary of Security Safeguards in Place at eHealth Ontario

Administrative Safeguards
- eHealth Ontario has a director of privacy and a director of security services; these individuals are accountable for health information privacy and security.
- All providers who use OLIS must sign a data access agreement with eHealth Ontario, which, among other things, spells out their responsibilities regarding privacy and security.
- eHealth Ontario requires its representatives to implement privacy and security safeguards, as appropriate, to the service being provided.
- eHealth Ontario regularly reviews and enhances its privacy and security policies. Staff and contractors are required to read the relevant policies and acknowledge in writing that they have read and understood them.
- All staff and contractors must sign confidentiality agreements and undergo criminal background checks prior to joining or providing services to eHealth Ontario.
- eHealth Ontario has a security screening policy that requires staff to have an appropriate level of clearance for the sensitivity of the information they may access.
- eHealth Ontario staff and contractors generally have no ability or permission to access personal health information. If access to personal health information is required in the course of providing eHealth Ontario services, individuals are required to follow the access request process and are prohibited from using or disclosing such information for other purposes.
- eHealth Ontario ensures, through contracts, that any third party it retains to assist in providing services to health information custodians will comply with the restrictions and conditions necessary for eHealth Ontario to fulfill its legal responsibilities.
- eHealth Ontario has developed a full privacy and security incident management system.
- eHealth Ontario has mandatory privacy and security awareness and training programs for all staff and contractors.
- eHealth Ontario staff, contractors, suppliers and clients must promptly report any privacy and/or security breaches to eHealth Ontario for investigation.
- eHealth Ontario conducts privacy and security risk assessments for both product/service development and client deployments. Mitigation activities are well established and tracked as part of each assessment.
- eHealth Ontario provides a summary of the results of privacy and security risk assessments to the affected health information custodians.
- eHealth Ontario ensures all operational and systems changes follow the agency’s change management procedures.

Technical Safeguards
- Authorization and authentication (i.e., confirming who each user is, and what he/she is permitted to do) controls limit access to OLIS to only those individuals who require it to perform their job function.
- OLIS users are authenticated each time they access the system.
- Authorized systems/users must be able to supply a patient’s health card number, date of birth, and gender in order to be able to access the patient’s lab records.
- Information about each data request is
recorded in an audit trail maintained by OLIS, in compliance with PHIPA.

- Patients can expressly withhold or withdraw their consent to use or disclose information related to their lab tests.
- Consent directives can subsequently be revoked by a patient who contacts Service Ontario. Reinstatement can only be done at the patient level and not at the test request level.
- When a laboratory order is received by OLIS, the patient and all health care providers named on the order are validated against appropriate data stores. The laboratory license is also validated for each laboratory.
- OLIS verifies all inbound messages to ensure that they are well formed.
- Personal health information is transmitted to and from OLIS securely using a mutually authenticated encryption tunnel.
- Networks are protected by devices (firewalls and routers) which limit access to and from systems.
- The systems are kept up-to-date by installing software updates on a regular basis.
- Security agents are installed on each system to protect OLIS from malware and detect intrusions.
- eHealth Ontario’s hosting environment provides continuous secure data backup and immediate failover capabilities for all system components.

Physical Safeguards

- OLIS resides in a specially-built facility that is physically secured against unauthorized access.
- Biometrics, secure cabinets and access cards control physical access to facilities and equipment.
- OLIS equipment is located in isolation from other health information systems.
- The facilities are staffed and monitored continuously by security staff/employees.
- The facility is protected against environmental issues such as power outages and extreme weather conditions.