Welcome to the first in a series of e-learning modules about the Nova Scotia Drug Information System - an electronic repository of data related to patients’ medication information. The Drug Information System is part of the larger electronic health record system in Nova Scotia which is called SHARE (Secure Health Access Record).

The purpose of this module is to provide an introduction to the Drug Information System and its benefits, functions, and users. The module also outlines the involvement of pharmacy professionals in the development of the Drug Information System and how the system will interact with the Prescription Monitoring Program. To help provide the context of how the Drug Information System fits within the electronic health record system, this module starts with an overview of SHARE and the types of patient health information that is contained within it.
Learning Outcomes

At the completion of this module, you will be able to:

- Briefly describe the information contained in the electronic health record system in Nova Scotia (SHARE);
- Explain the primary functions and benefits of the Drug Information System;
- Identify the information not automatically collected in the Drug Information System;
- List the health care professionals who will have access to the Drug Information System;
- Recognize how pharmacy professionals have been involved in the development of the Drug Information System; and
- Explain how the Prescription Monitoring Program integrates with the Drug Information System.

Overview of SHARE

The Nova Scotia electronic health record system, SHARE, is a repository of essential patient health information from Nova Scotia's hospital systems. SHARE is available to authorized health care providers in hospitals, private health offices and long term care facilities through a view only SHARE clinical portal.
Information in SHARE

Notes:
SHARE consists of a number of clinical repositories of patient health information and registries that contain demographic information about patients and health care providers.

SHARE's clinical repositories contain the following information:

- lab test results;
- diagnostic imaging test results (X-rays, MRIs and CT scans);
- specific admission, discharge and transfer data; and
- specific clinical reports (e.g. discharge summaries, consult notes, etc.).

This information is sourced from the hospital information systems of the nine District Health Authorities and the IWK Health Centre.

The Drug Information System is the newest component of Nova Scotia's electronic health record.
Notes:
The two registries associated with SHARE are the provincial Client Registry (CR) and the Provider Registry (PR). The Client Registry is a consolidated source of client demographic information for identification of health service recipients including clients’ name, health card number, alternate identification number (if applicable), address, gender, telephone number and date of birth. The Drug Information System uses the Client Registry as its source for patient information.

The Provider Registry provides a consolidated source of demographic and credential information about the following health care professionals registered in Nova Scotia: physicians, nurse practitioners, nurses, pharmacists, dentists, optometrists, midwives, dental hygienists and regulated pharmacy technicians (once registered). The Provider Registry also contains demographic and credential information for out-of-province prescribers who are registered with the NS Prescription Monitoring Program. The information in the Provider Registry is sourced from the appropriate regulatory bodies for each profession, and for out of province prescribers, from the NS Prescription Monitoring Program. The Drug Information System uses the Provider Registry to valid authorized prescribers.

As will be shown in later modules, the Client Registry and the Provider Registry are integral to the functioning of the Drug Information System.
Drug Information System

Duration: 00:00:47
Advance mode: Auto

Notes:
The Drug Information System is intended to provide a comprehensive record of all of a patient's prescriptions that are dispensed by community pharmacies in Nova Scotia, as well as, medication related information such as allergies, immunizations and medical conditions.

The Drug Information System will capture medication information from the day each pharmacy and each authorized health care provider connects to the System. There will not be an initial load of patient files currently in your pharmacy system, therefore historical medication information that existed before connecting to the Drug Information System will not available.
Notes:
The Nova Scotia Drug Information System will be implemented in three phases or streams:

Stream 1 Pharmacy: (Summer 2013- December 2014) Community pharmacies will access the Drug Information System through their pharmacy software. Dispensary staff (pharmacists, pharmacy technicians and pharmacy assistants) will have access to patient medication profiles and be able to transmit prescription orders, dispenses and other medication related data to the Drug Information System.

Stream 2 Hospitals and Community Prescribers: (Spring 2014-Spring 2015) Hospital and community prescribers will access the Drug Information System through the SHARE clinical portal or the Drug Information System portal. Prescribers such as physicians, nurse practitioners, dentists, optometrists and dental hygienists will have access to patient medication profiles and e-Prescribing.

Stream 3 Electronic Medical Records: (Spring 2015) Physicians and clinic health care providers will be able to directly access the Drug Information System through the provincial electronic medical record.
In the current environment, a patient's medication information is often fragmented (like pieces of a puzzle) across health care professionals, facilities and services used by a patient.

Let's consider the example of an elderly lady - Ms. MacDonald. Ms. MacDonald is formerly from St. Peters, Cape Breton but now lives in a long term care facility in Sydney. Within Cape Breton itself, Ms. MacDonald's medication information is fragmented across at least two pharmacies, the long-term facility, her family doctor and nurse practitioner's office and her optometrist's office. Pieces of information about Ms. MacDonald's medications and prescriptions can also be found in other areas of the province: for example, in a hospital and a follow-up clinic in Halifax; in a specialist's office in Kentville and in the emergency department at the Yarmouth hospital.
### Impact of fragmentation

Duration: 00:00:43  
Advance mode: Auto

<table>
<thead>
<tr>
<th>Notes:</th>
</tr>
</thead>
</table>
| Because of this fragmentation, it is not always feasible for various health care professionals to share pertinent medication information about their mutual patient so they often rely on information provided by the patient. As a result, health care professionals may have incomplete and/or inaccurate information.  

This can lead to unsafe drug interactions, avoidable allergic reactions, adverse drug reactions or duplicate drug therapy for the patient.  

In addition, health care professionals may not have complete or reliable information required to monitor patient compliance and adherence with their drug therapy. |
The Drug Information System is intended to address the issues of fragmented medication information and bring the pieces of the puzzle together in one comprehensive medication profile for each patient. Patient medication profiles will include information about:

- prescription orders
- dispenses
- other medications (such as OTCs or natural health products)
- pharmacy professional services (such as medication reviews, diabetic education)
- drug allergies/intolerances
- adverse reactions
- medical conditions
- patient observations (e.g. height, weight, blood pressure and glucose levels)
- immunization records
- patient notes.
**Slide 11**

**Other Functions of the DIS**

Duration: 00:01:34  
Advance mode: Auto

**Notes:**  
In addition to providing comprehensive medication profiles for patients, the Drug Information System also provides other functions related to safe and appropriate drug therapy. These other functions are:
- Interaction and contraindication checking using all the information in the profile at the time of prescribing, dispensing or upon request by an authorized user. The Drug Information System will only send DURs when the interaction involves a prescription dispense that is not in your local pharmacy system.
- Access to drug information reference material such as drug monographs.
- Electronic exchange of medication information.
- Electronic prescribing (e-Prescriptions).

**Slide 12**

**Benefits**

Duration: 00:00:57  
Advance mode: Auto

**Notes:**  
It is expected that through the use of the Drug Information System, there will be a reduction in the incidence and severity of medication-related events. Comprehensive medication profiles will provide information about all prescriptions dispensed by community pharmacies and therefore lead to more thorough assessments of contraindications, duplicate drug therapies, drug allergies and adverse drug reactions. The ability to e-prescribe will lessen the potential for errors associated with misunderstanding written and verbal prescription orders. Health care efficiencies will be improved by providing health care professionals with quick...
The overall benefit of the Drug Information System will be enabling safe and appropriate drug therapy for patients.

### Notes:

There is some medication information that will not be automatically collected in the Drug Information System. This includes:

- in-patient medications (i.e. medications received during a hospital stay)
- prescriptions for long term care facilities not serviced by a community pharmacy (hospital dispensed);
- medical supplies / devices provided by stand-alone Home Health Care retailers;
- prescriptions dispensed by Canadian Forces base pharmacies (e.g. CFB Halifax); and
- prescriptions dispensed to correctional centres / penitentiaries not serviced by a community pharmacy (hospital dispensed).
In addition, the following types of medications are not automatically collected in the Drug Information System:

- over the Counter medications
- devices not dispensed by community pharmacy,
- natural health products,
- drug samples
- prescriptions dispensed by out-of-province pharmacies.

Prescriptions dispensed through hospital pharmacies to out-patients or through hospital-based clinics including

- special access drugs
- drugs used in clinical studies and
- drugs funded through Nova Scotia's Exception Drug Funding Programs such as drugs used to treat or manage multiple sclerosis, organ transplantation, HIV, renal failure, etc.
Notes:

To help create a comprehensive medication profile for your patients, medication information that is not automatically collected can be entered into the Drug Information System.

If you know that a patient is taking any over the counter medications, natural health products, drug samples, or prescriptions dispensed by an out-of-province pharmacy or hospital clinic, it is important to document them on their medication profile in 'Other Medications' section. Over the counter devices can also be included in the Drug Information System in the 'Patient Note' section of the patient's profile.

More information about "other medications" and 'patient notes' is provided in Module 4.

More information on the Other Medications functionality will be covered in Module 4.
Notes:
The Drug Information System can be accessed in various health care delivery locations. The key health care locations to utilize the Drug Information System include:

- Community pharmacies
- Prescriber practice offices, clinics and community health centres; and
- Acute and tertiary care facilities including emergency department, admissions, discharge planning, pharmacy, clinics and laboratory departments.
Location information for Nova Scotia community pharmacies, hospitals and long term care facilities will be maintained within the Drug Information System in a Location Index. Pharmacy software will allow users to search the Location Index and retrieve up-to-date location information.
### Slide 17

**Authorized Users**

Duration: 00:00:47

Advance mode: Auto

*Notes:*
The Drug Information System will be utilized by the following health care professionals who are referred to as “authorized users”:
- **Prescribers**: physicians, pharmacists, dentists, nurse practitioners, optometrists, midwives and dental hygienists;
- **Dispensers**: pharmacists, certified dispensers, pharmacy technicians, pharmacy assistants, and a dispensing physician; and
- Other health care professionals who will be confirmed in Stream 2 and Stream 3 - that may include health care professionals in areas such as Public Health, Mental Health and Addictions Services, Home Care, Cancer Care just to name a few.

### Slide 18

**Collaborative Process**

Duration: 00:02:28

Advance mode: Auto

*Notes:*
The development of the Drug Information System in Nova Scotia has been a collaborative process involving the Department of Health and Wellness (DHW), the healthcare professionals being impacted by the Drug Information System, and the Pharmacy POS software vendors.

From a pharmacy perspective, there has been and still is active involvement from the pharmacy domain. Two pharmacists and two pharmacy technicians have been working on the project on a full time basis and provide content and practical application expertise. The project Senior Leadership Team includes a
representative from the Nova Scotia College of Pharmacists (NSCP) and from the Pharmacy Association of Nova Scotia (PANS).

Furthermore, a Pharmacy Advisory Group (PAG) was established in June 2011 and generally meets on a monthly basis. This group has representation from the Nova Scotia College of Pharmacists (NSCP), Pharmacy Association of Nova Scotia, Canadian Association of Chain Drug Stores (CACDS), banners/chains/corporations, and the four software vendors that service pharmacies in Nova Scotia. This group was created to communicate updates on the Drug Information System’s progress and to share and gather input for key decisions.

**Notes:**

When a pharmacy connects to the Drug Information System, it will no longer be required to use the separate adjudication process to send prescriptions for monitored drugs to the Prescription Monitoring Program. Instead, when a pharmacy sends a prescription for a monitored drug to the Drug Information System, the Drug Information System will send all the double-doctoring and other PMP warnings to the pharmacy in real time.

The Drug Information System sends a record of all monitored drug dispenses, office supplies and refusals to fill to the Prescription Monitoring Program. The Prescription Monitoring Program then posts this information in the PMP eAccess portal.
Notes:
The following are things to keep in mind about the Prescription Monitoring Program once you are connected to the Drug Information System:

Until all community pharmacies are connected to the Drug Information System it is possible that not all monitored prescriptions will exist in a patient's medication profile. However, by checking the PMP's eAccess portal, you will be able to view all dispenses for monitored drugs for your patients.

The PMP specific information on duplicate prescription pads, such as the pad number and unique PMP prescriber number, do not need to be entered by dispensary staff in a pharmacy connected to the Drug Information System.

Prescriptions for benzodiazepines will be included in the prescriptions transmitted from the Drug Information System to the PMP, but prescribers will not be required to use duplicate pads for benzodiazepine prescriptions. Because the capture of benzodiazepine prescriptions will occur gradually as pharmacies are connected to the Drug Information System, the PMP will only begin to monitor these drugs after a sufficient quantity of data exists in the PMP database. After the last pharmacy in Nova Scotia connects to the Drug Information System, you will be notified by the PMP when the duplicate pads will be eliminated.
### Summary

- **Duration:** 00:01:24
- **Advance mode:** Auto

**Notes:**

In this module, you learned that the Drug Information System is part of the larger electronic health record system in Nova Scotia (SHARE).

You also learned that once fully implemented, the Drug Information System will contribute to improved patient care by: providing access to comprehensive patient medication profiles; providing interaction and contraindication checking; facilitating electronic exchange of medication information; and enabling e-prescribing. In addition, you learned what type of information is included in a patient's Drug Information System profile and what information is not automatically collected but could be added.

You know now that the Drug Information System will be accessible to a number of health care professionals (authorized users) in various health care delivery locations depending on the stream of implementation.

You are also aware of how pharmacy professionals were involved in the development of the Drug Information System and how the system integrates with the Prescription...
Module 2 in this series provides important information you should know about privacy and confidentiality of patient information and the impact of the Personal Health Information Act (PHIA) on patient consent and the Drug Information System.