According to studies completed in the United States, when Observation Units are properly used, there are numerous benefits to the health care system. Included in these benefits are: a reduction in the number of inappropriate admissions, shorter time spent in hospitals, and a higher rate of correctly diagnosing heart attacks. Yet there are those who would see Observation Units removed from hospitals, those who feel they don’t serve a useful purpose.

So MCHP, in collaboration with the Winnipeg Regional Health Authority, took a look at Observation Units (OUs) and at patients who required observation services in six Winnipeg acute care hospitals. Our main question: Is observation-level care an important component of the Winnipeg hospital system?

Our focus was on medical patients who received care (excludes surgery, obstetrics and psychiatry) at Winnipeg’s six acute care hospitals in 1998/99. Among the things we wondered: What are the characteristics of medical patients assessed as needing observation-level services on the day of admission? How do they compare to patients admitted to acute care? What hospital services did OU patients receive on their first day in an OU?

Observation Units
Some of you may be wondering just what an “Observation Unit” is. It’s a designated area within an Emergency Department (ED) of an acute care hospital where patients are assessed to determine if they need to be admitted to hospital. This may take up to twenty-four hours, at which time a decision is reached whether to send a patient home or admit him/her to hospital.

Put another way, when we speak of observation-level care and Observation Units, what we’re really talking about is short-term care, assessment and reassessment. The objective is to determine whether admission to a medical ward is warranted.

There are several medical conditions that are suited for assessment and/or treatment in an Observation Unit (Fig. 1). For example, conditions that require a diagnostic evaluation: A dizzy spell—is it signalling a stroke? Is a “stomach ache” appendicitis? How serious is this head injury?

There are also conditions for which short-term treatment may be sufficient, such as: dehydration, vomiting and/or diarrhea, allergic reactions, congestive heart failure, or swallowing a toxic substance. Some psychosocial situations can also be effectively treated in the OU, like depression with suicidal tendencies or geriatric patients with no one at home to help them.

There are two other important factors in determining whether OU treatment is suitable: how sick you are and what kinds of treatments you are going to need. Simply put, a severely ill patient may need a level of treatment beyond what an OU was meant to provide, and therefore should be admitted to an acute care ward.
A few important things to understand about this study

Only patients who were actually admitted were part of this study. Any patient who was in the Emergency Department or Observation Unit of a hospital, but was never admitted, was not included. It is important to note that when we say *admitted* it doesn’t mean the patient was given a bed on a medical ward. It means that the required paperwork was completed to *admit* the patients. They may have stayed and been treated in the OU after admission.

That being said, some patients whom we assessed as requiring observation were admitted directly to an acute care ward (despite only needing observation). But the point is that when we’re talking about patients who required observation, we’re not just talking about patients in an Observation Unit.

And the way the study worked, if a patient spent some time in an Observation Unit prior to being admitted, then those days were examined too. So if Mrs. X was admitted on April 3, but the chart showed that she had been in the OU since April 1, then April 1 and 2 were included when looking at her stay in hospital.

Our first step was to assess the appropriateness of being admitted to hospital and the level of care patients received once admitted. As our “assessment tool” we used something designed specifically for this purpose: InterQual’s 1999 Acute Care and Subacute Care Clinical Decision Support Criteria. (Subacute, for those unfamiliar with the term, refers to patients whose conditions are not acute, but who are at risk of suddenly becoming worse.)

These criteria were thoroughly reviewed by physician and nursing members of the WRHA Working Group (established for an earlier study), as well as by three outside physicians, to ensure they were suitable in the Winnipeg practice setting. Working Group members—specifically representatives of WRHA’s medicine program, personal care home (nursing home) program, and home care program—also developed a set of Alternate Level of Care Criteria. That is, if the patients didn’t need acute care, what other care would have been more appropriate given their condition?
For our study, three people—whom we call *abstractors*—studied a sample of medical records at each of the six Winnipeg acute care hospitals. Abstractors reviewed the day of admission to hospital and all subsequent days of stay, until a patient was no longer assessed as needing the services of an observation or acute care setting. People who remained in hospital but needed neither observation nor acute care were identified as requiring an “alternative level” of care.

Roughly 150 records were randomly selected for study from each of the six acute care hospitals, for a total of 907 records. Here is what we found for 1998/99.

**What we found**
- Almost 20% of medical patients in Winnipeg acute care hospitals were assessed as needing observation on the day of admission (Fig. 2).
- 50% of patients admitted for observation were aged 75 and older (Fig. 3).
- At the Health Sciences Centre, St. Boniface and Seven Oaks hospitals, roughly 10% of adult medical patients were assessed as needing observation-level care on the day of admission. This is in sharp contrast to the 21-33% at the Concordia, Grace and Victoria hospitals.
- 80% of observation patients received their care in the OU or Emergency Department.
- About 20% of observation patients received care in an acute care ward.
- On the day of admission, 43% of medical patients assessed as needing acute care services, received those services in the OU or Emergency Department.

**What’s it all mean?**
It seems clear that observation-level care—along with Observation Units—has an important role to play in Winnipeg’s hospital system. Almost one in five medical patients admitted to Winnipeg’s acute care hospitals were assessed in our study as requiring observation-level services. And since half of these patients were over 75, this level of care seems especially important for seniors.

**3. Age of Patients by Level of Care on Admission**
The fact is, if anything, we may be understating the importance of observation-level care. It appears many observation patients are treated without ever being formally admitted. Therefore, no record of their hospitalization makes its way to a hospital administrative file. Which means many such observation patients weren’t included in our study. So the proportion of Winnipeg patients for whom observation-level services would be ideally suited is more than likely higher than this study suggests.

Which leads us to one of the recommendations to come out of this report—uniform recording practices. Winnipeg’s acute care hospitals should create abstracts for all patients who receive hospital services.

And what do we make of the fact that at HSC, St. B. and Seven Oaks hospitals, about 23% fewer admissions were assessed as needing observation than at the Concordia, Grace and Victoria hospitals? At a glance, you might conclude that the first group of hospitals gets more seriously ill patients than does the second group. However, it is far more likely that this difference is a reflection of differing data recording practices between hospitals.

Support for this likelihood was found in discussions with Emergency Department staff. While it is supposed to be common practice to admit any patient who has stayed over 24 hours, they don’t at HSC, St. B and Seven Oaks. They’ll watch patients longer before filling in the forms. Abstractors found that the arrival day for some patients at these hospitals preceded the official admission day by more than 24 hours. In fact, in our discussions with ED personnel, we learned that some patients who require observation at these hospitals may receive hospital services for two or more days without ever receiving an admission order.

It follows then that observation patients who do get admitted to HSC, St. B and Seven Oaks tend to be proportionately sicker than the observation patients admitted at Concordia, Victoria and Grace hospitals. This helps explain why only 14% of these patients in the first group of hospitals had lengths of stay of less than 4 days, while at the second group of hospitals, 60% had stays of less than 4 days.

Observation Units are ideally suited to providing observation-level care—that’s what they were designed for. But often, they are also being used to deliver acute care. About 43% of patients who were assessed as needing acute care when they first came to hospital, received those services, not in an acute care ward, but in an Observation Unit or Emergency Department. Conversely, about one in five observation patients received observation-level care in acute care wards instead of in an OU.

All of which means that Winnipeg emergency personnel, in addition to providing emergency and observation-level services, also had to provide acute care services to medical patients in 1998/99. The presence of these patients awaiting placement on acute care wards placed excess demand on ED staff. It may also have contributed to Emergency Department overcrowding.

Why observation patients are in acute care while acute care patients are in OUs is beyond the scope of this study. Many factors may explain why this happens; for example, different acute care wards experiencing intervals of short-staffing, or OUs that have a small number of beds. We do recommend that the WRHA continue its efforts to implement measures to speed up the efficient transfer or discharge of non-acute patients from acute care medical units. (About 42% of the days spent by medical patients on acute care wards after the day of admission were non-acute and required some alternate level of care, such as home care.) This will facilitate the transfer of acute patients out of the Emergency Department into an acute bed.

Observation services are important to Winnipeg hospitals. As it stands, Observation Units and their personnel are performing beyond their designed intent. No doubt, there will still be some who argue against their place in Winnipeg’s hospital system. But the findings of this report make it difficult to understand why.