

safer healthcare  
*now!*

## ***Safer Healthcare Now!***

# **Instructions for Data Entry and Submission Using Measurement Worksheets**

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# ***Safer Healthcare Now!***

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# **Section 1. General and Background Information**

## **CAMPAIGN BACKGROUND**

**Safer Healthcare Now!** is a campaign supported by and patterned after the Institute for Healthcare Improvement's (IHI's) 100K Lives campaign and designed to enlist Canadian healthcare organizations in implementing six targeted interventions in patient care. **Safer Healthcare Now!** is sponsored and supported by the Canadian Patient Safety Institute and numerous other national and provincial healthcare organizations. Each of the six original and 4 new interventions has an evidence base indicating that appropriate implementation and practice can lead to reduced mortality and morbidity. Evidence clearly indicates there is significant opportunity for improvement in implementing these strategies. For example, a review of post-AMI care in four Canadian provinces revealed that although utilization rates for beta-blockers, ACE inhibitors and statins increased over the study period, the rates were still far below optimal levels (Pilote, Beck et al., 2004). Similar results have been found in Saskatchewan (Chan, Brossart et al., 2004).

**Safer Healthcare Now!** is a highly collaborative effort among healthcare organizations across Canada. The campaign is open to all health care organizations across Canada. To date, over 300 healthcare organizations and over 1000 clinical teams from across Canada have enrolled in the campaign. The campaign mission is to improve the health services delivered to Canadians and is guided by the philosophy of minimizing cost to those who enrol with no provincial, territorial or jurisdictional barriers.

## **OBJECTIVE**

The six original and two of the new interventions, while primarily focused on the acute care sector, will draw on others who play a key role at the interface of admission, discharge, transfer of care and ongoing care in the community. Healthcare organizations are invited to participate in any or all of the six evidence-based interventions.

Objectives for the **SHN** groups are specific to each intervention group as listed below:

- **ARO/MRSA- Antibiotic resistant organisms – Methicillin Resistant Staphylococcus aureus.** Implement a series of evidence-based guidelines to prevent harm from antibiotic resistant organisms.
- **AMI - Improved care for Acute Myocardial Infarction:** Prevent deaths among patients hospitalized for acute myocardial infarction (AMI) by ensuring the reliable delivery of evidence-based care.
- **CLI - Prevention of Central Line-Associated Bloodstream Infection:** Prevent central venous catheter-related bloodstream infection (CR-BSI)

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- and deaths from CR-BSI by implementing a set of evidence-based interventions in all patients requiring a central line.
- **Falls - \*National collaborative on falls in long-term care\*** Prevent harm resulting from falls in long-term care settings.
  - **MedRec - Medication Reconciliation (Acute Care):** Prevent adverse drug events (ADEs) by implementing medication reconciliation.
  - **MedRec (Long Term Care)**. Prevent adverse drug events (ADEs) by implementing medication reconciliation in long term care (LTC) settings.
  - **RRT - Rapid Response Teams:** Prevent deaths in patients who are progressively failing outside the ICU by implementing rapid response teams.
  - **SSI - Prevention of Surgical Site Infection:** Prevent surgical site infection (SSI) and deaths from SSI by implementing a set of evidence-based interventions in all surgical patients.
  - **VAP - Prevention of Ventilator-Associated Pneumonia:** Prevent ventilator-associated pneumonia (VAP) and deaths from VAP and other complications in patients on ventilators by implementing a set of interventions known as the "VAP bundle."
  - **VTE – Prevention of Venous Thromboembolism.** Implement a series of protocols to ensure that general surgery and hip fracture surgery patients receive the appropriate thromboprophylaxis to prevent complications such as deep vein thrombosis (DVT) and pulmonary embolus.

Local teams will be supported by a variety of means including a series of educational workshops where teams and quality management staff learn about how to implement the desired changes, and through web and telephone communications. Three geographic “nodes” (Western Canada, Ontario and Atlantic Canada) as well as the Quebec Initiative have been established. In addition, Clinical Supports have been created to assist in the implementation and maintenance of specific interventions. The Canadian ICU Collaborative is supporting the three ICU-related interventions (prevention of ventilator associated pneumonia, prevention of central line infections, and deployment of rapid response teams). The Institute for Safe Medication Practices (ISMP) Canada is supporting the Medication Reconciliation intervention, and up to February 2009 the Canadian Association of Paediatric Health Centres (CAPHC) is providing specific support to medication reconciliation for paediatrics. Sunnybrook and RNAO Further information on campaign supports and structures can be found at [www.saferhealthcarenow.ca](http://www.saferhealthcarenow.ca).

Tools have been created to provide additional support to local **SHN** teams and to assist you as you progress through enrollment and the implementation of your selected interventions.

## **CAMPAIGN QUESTIONS**

The central research question is whether Canadian hospitals are able to learn and implement the changes in practice that have been shown in other settings to reduce adverse events, morbidity and mortality.

Collection of the process and outcome data will be carried out by a University of Toronto based Central Measurement Team (CMT) funded by the Canadian Patient Safety Institute (CPSI) and led by Dr. G. Ross Baker.

Data collected by the Central Measurement team will be used:

1. To facilitate the testing of evidence-based strategies for better practice, shown in other settings to reduce morbidity and mortality
2. To support the teams by providing information on their own performance relative to the interventions for which they have enrolled through the collection, analysis and reporting of organization-level, intervention-specific data.

## **METHOD**

### *Data Collection Process- Data Requirements*

Data requirements have been based on balancing the benefits to the teams and to the campaign overall in tracking progress/ improvement and the desire to minimize measurement burden on teams as much as possible. The extent of data collection varies by intervention e.g., the VAP bundle reports on two recommended measures; AMI intervention reports on ten measures. An operations manual, the “Getting Started Kit” (GSK) based on the original manual developed by IHI has been prepared for each of the **SHN** interventions and is available on-line at [www.saferhealthcarenow.ca](http://www.saferhealthcarenow.ca). Each GSK identifies the intervention-specific data requirements and contains an individual Measurement Worksheet for each component which explicitly defines the data to be collected for the measure and the related performance goal to be achieved.

An external review of the **SHN** data collection process has been conducted by an independent privacy consultant, David H. Flaherty, Ph.D. The external review concluded that the data collection process should proceed as planned, and noted that “the privacy measures adopted by the CMT have been extensive in order to ensure robust data protection and security. These measures are voluntarily in compliance with the Ontario Personal Health Information Protection Act (PHIPA), even though they are not legally required, since the data are de-identified and aggregated.” A summary of this Privacy Impact Assessment is posted on the **SHN** website .

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#### *Data Collection*

Data collection began in April, 2006 and will continue until December 2010 or beyond.

#### *Data Monitoring and Reporting Process*

Data submission will be monitored monthly by CMT in collaboration with the Safety and Improvement Advisors (SIAs) at each node (Atlantic, Ontario and Western). The Quebec Campaign: *Together, lets improve healthcare safety!* will monitor its own data and submit those for which they have approval to share with SHN

The CMT will analyze the submitted data and report back quarterly to participating healthcare organizations on their individual performance relative to the national average for each intervention. The CMT will also report to the **SHN** Nodes and National Steering Committee.

## **PURPOSE OF THIS MANUAL**

This manual has been developed to ease the burden of monthly data reporting and submission. It is a collection of step-by-step instructions for completing the **SHN** Measurement Worksheets and submitting the completed worksheets to the Central Measurement Team (CMT). Teams are asked to report the data on the MS Excel worksheets and submit them on-line.

To access the **SHN** Measurement Worksheets, visit the **SHN** website ([www.saferhealthcarenow.ca](http://www.saferhealthcarenow.ca)) and click on “Measurement” or “Target Measures” in the left navigation bar.

The manual is divided into two sections:

1. Data entry using **SHN** Measurement Worksheets in MS Excel format  
Methods of data submission (fax and online) of **SHN** Measurement Worksheets in both formats (Excel and Word).

For further information contact the SIA at your Node.

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## **Section 2. Instructions for Data Entry Using *SHN* Measurement Worksheets**

### **INTRODUCTION**

An individual Measurement Worksheets have been developed in **MS Excel** for each measure within each "***Intervention***" (see below). All Excel worksheets follow the same format for data entry although the number of data entry steps (rows of data to be entered) may vary across worksheets. Not all healthcare organizations will be implementing all interventions. Not all intervention teams will be implementing all measures within a specific intervention.

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**Report only on those intervention measures which you are implementing.**

<b>Intervention</b>	<b>Measure</b>
<b>Improved Care for AMI</b>	<ol style="list-style-type: none"> <li>1. Aspirin at arrival</li> <li>2. Aspirin at discharge</li> <li>3. Beta Blocker at discharge</li> <li>4. Timely initiation of reperfusion (Thrombolysis or PCI)</li> <li>5. ACE-I or ARB at discharge (in LVSD)</li> <li>6. Smoking cessation counseling</li> <li>7. Perfect care for AMI</li> <li>8. AMI inpatient mortality</li> <li>9. Statis prescribed at discharge</li> </ol>
<b>ARO/MRSA – Methicillin-resistant staphylococcus aureus</b>	<ol style="list-style-type: none"> <li>1. Percent availability of Hand Hygiene Products</li> <li>2. Percent appropriate hand hygiene practice</li> <li>3. Percent appropriate environmental cleaning practice using fluorescent marker</li> <li>4. Reduction in mean time to placement on contact precautions for MRSA positive</li> <li>5. Reduction in mean time from lab notifications to placement on contact precautions</li> <li>6. Active screening on admission for positive MRSA cases per 1000 admissions</li> <li>7. Incidence of HA-MRSA clinical isolates per 1000 patient days</li> </ol>
<b>Prevention of Central Line-Associated Primary Blood Stream Infection</b>	<ol style="list-style-type: none"> <li>1. CL-BS infection rate per 1000 CL days</li> <li>2. CL insertion bundle compliance</li> <li>3. CL maintenance bundle compliance</li> </ol>
<b>Falls in Long-Term Care</b>	<ol style="list-style-type: none"> <li>1. Falls rate per 1000 resident days</li> <li>2. Percentage of harmful falls</li> <li>3. Percentage of residents with completed fall risk assessment on admission</li> <li>4. Percentage of residents with completed fall risk assessment following fall or change in medical status</li> <li>5. Percentage of “At Risk” residents with Falls Prevention/protection intervention implemented</li> <li>6. Percentage of residents with restraints</li> </ol>
<b>Medication Reconciliation – Prevention of adverse drug events (ADEs) – Acute Care</b>	<ol style="list-style-type: none"> <li>1. Mean number of <u>Undocumented Intentional</u> discrepancies</li> <li>2. Mean number of <u>Unintentional</u> discrepancies</li> <li>3. Med-Reconciliation success index</li> <li>4. Med-Reconciliation at discharge</li> </ol>

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<b>Medication Reconciliation – Prevention of adverse drug events (ADEs) – Long-term Care</b>	<ol style="list-style-type: none"><li>1. Mean number of Undocumented Intentional discrepancies in LTC</li><li>2. Mean number of Unintentional Discrepancies in LTC</li><li>3. Percentage of LTC residents reconciled at admission</li></ol>
<b>Rapid Response Teams</b>	<ol style="list-style-type: none"><li>1. Codes per 1000 discharges</li><li>2. Percent of codes outside of ICU</li><li>3. Utilization of Rapid Response Team</li></ol>
<b>SSI - Surgical Site Infection</b>	<ol style="list-style-type: none"><li>1. Percent of surgical patients with timely prophylactic antibiotics</li><li>2. Percent of surgical patients with appropriate prophylactic antibiotic discontinuation</li><li>3. Percent of clean surgical patients with surgical infections</li><li>4. Percent of clean surgical patients with appropriate hair removal</li><li>5. Percent of major cardiac surgical patients with controlled post operative glucose</li><li>6. Percent of colorectal or open abdominal surgical patients with normothermia in PACU</li><li>7. Percentage of surgical patients with appropriate selection of prophylactic antibiotic (<i>Optional measure</i>)</li></ol>
<b>VAP - Prevent Ventilator-Associated Pneumonia</b>	<ol style="list-style-type: none"><li>1. VAP rate in ICU per 1000 ventilator days</li><li>2. VAP Bundle compliance</li></ol>
<b>VTE – Prevention of Venous thromboembolism</b>	<ol style="list-style-type: none"><li>1. Percent of patients receiving appropriate venous thromboembolism prophylaxis</li><li>2. Type of thromboprophylaxis delivered</li><li>3. Reasons that recommended thromboprophylaxis was not used</li></ol>

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## Data Entry & Submission using Measurement Worksheets

### GENERAL TOUR OF THE EXCEL MEASUREMENT WORKSHEET

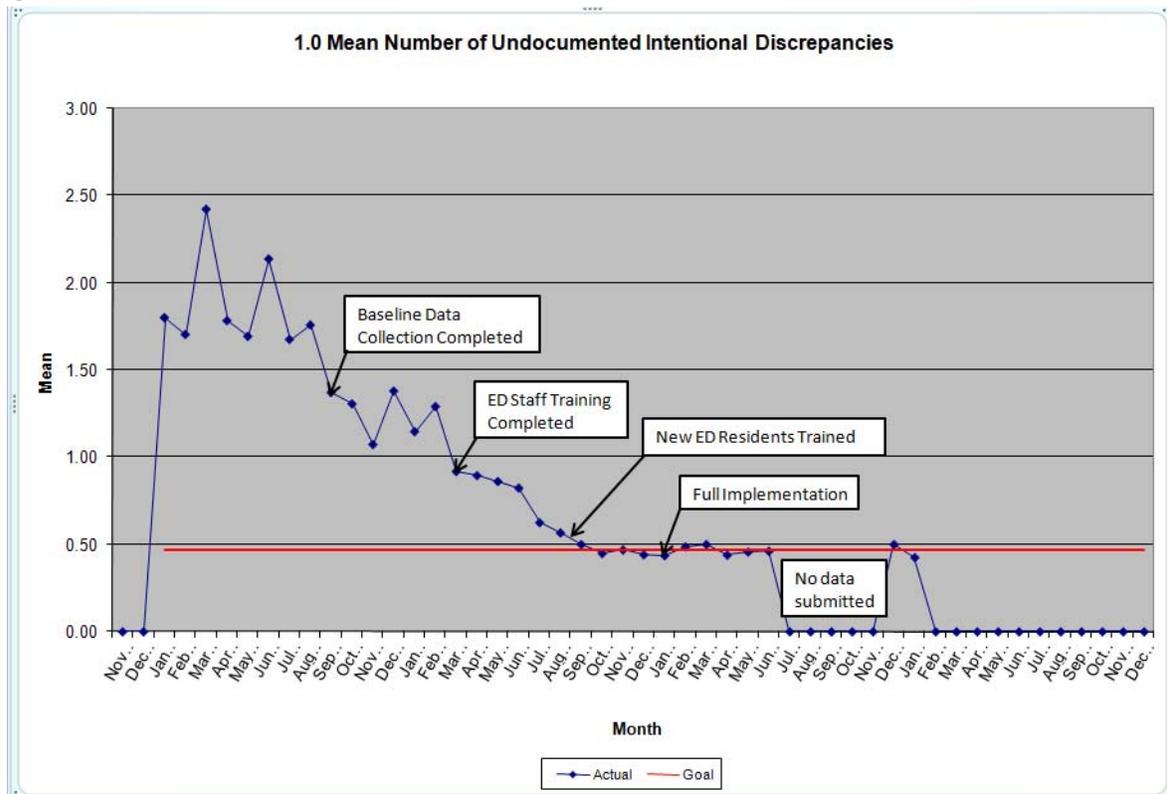
2005												2006					2007						
Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1.1 What is the total number of patients in this month's patient sample?																							
1.2 Add the total number of Type 2 - BPMH Discrepancies recorded for the patients in #1.1 from the Individual BPMH Record and Audit Tools. An individual BPMH Record and Audit Tool should be completed for each patient.																							
1.3 Divide #1.2 by #1.1.																							
GOAL:																							
*The goal for this measure is to decrease the rate of undocumented intentional discrepancies by 75% in one year. Using your baseline rate, calculate the target rate of undocumented intentional discrepancies in each of the monthly cells in row 23 above.																							
Comments																							

When you open the Measurement Worksheet / Workbook look to the bottom of the screen. You will notice three labelled tabs which represent different worksheets for the data collection tool including: Chart, Data Entry Sheet, and Submitted By. Each worksheet has a specific role in the data submission process and should be completed every time data is submitted. The three worksheets are described in detail in the following pages.

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#### CHART



On the **Chart** worksheet the monthly results you enter on the Data Entry worksheet are automatically captured in a line graph called a **Run Chart**. Monthly data points are recorded along the horizontal ('X') axis and the mean, percentage or raw count along the vertical ('Y') axis. In the example displayed each point on the line graph represents the "mean number of undocumented intentional discrepancies in each monthly Med Rec sample. The red line traversing the graph represents the calculated or recommended goal for the intervention measure. **Note** the line graph returns to baseline until the next month of data is entered (see July through November 2008 above).

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#### DATA ENTRY SHEET

All **Data Entry Sheet** worksheets have the same **five** sections regardless of the measure including: intervention title, data collection details, denominator, numerator, and final calculation.<sup>1</sup> **Teams must complete all items outlined in red.**

#### INTERVENTION TITLE

Intervention,  
definition & goal

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	<b>1.0 Mean Number of Undocumented Intentional Discrepancies - Measurement Worksheet</b>																			
2	Prevention of Adverse Drug Events Through Medication Reconciliation																			
3	Intervention	Prevention of Adverse Drug Events (Medication Reconciliation)																		
4	Definition	An undocumented intentional discrepancy has occurred when the physician has made an intentional choice to add, change or stop a medication however this choice was not clearly documented in the patient chart.																		
5	Goal	Decrease the rate of undocumented intentional discrepancies by 75% in one year																		
6	Data Collection Details																			
7	Hospital Name												Team #							
8	Health Region												Point of Transfer							
9	Patient Sample	Describe the source of the patient sample e.g., Patients admitted through ED > 75 yo; Patients admitted through ED with >4 pre-admit meds etc.																		
10																				

**Definition:** The **Intervention Title** section includes the s intervention, definition, and goal. The “intervention” listed on the Data Entry Sheet corresponds with the name of the intervention (MedRec) of which this particular “measure” (Undocumented Intentional Discrepancies) is one . The “definition” describes or defines the intervention measure for the selected worksheet. The “goal” is the recommended target for this measure and is based on evidence from the healthcare literature.

#### DATA COLLECTION DETAILS

Healthcare Organization & Health Region  
name and description of patient sample

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	<b>1.0 Mean Number of Undocumented Intentional Discrepancies - Measurement Worksheet</b>																			
2	Prevention of Adverse Drug Events Through Medication Reconciliation																			
3	Intervention	Prevention of Adverse Drug Events (Medication Reconciliation)																		
4	Definition	An undocumented intentional discrepancy has occurred when the physician has made an intentional choice to add, change or stop a medication however this choice was not clearly documented in the patient chart.																		
5	Goal	Decrease the rate of undocumented intentional discrepancies by 75% in one year																		
6	Data Collection Details																			
7	Hospital Name												Team #							
8	Health Region												Point of Transfer							
9	Patient Sample	Describe the source of the patient sample e.g., Patients admitted through ED > 75 yo; Patients admitted through ED with >4 pre-admit meds etc.																		
10																				

**Definition:** **Data Collection Details** on the Data Entry Sheet **are outlined in red, and must be completed the first time you use this spreadsheet.** The information includes the Hospital Name, Health Region and

<sup>1</sup> Three worksheets – CL insertion bundle compliance, CL maintenance bundle compliance, and VAP bundle compliance - contain an additional section called Implementation of Bundle Components.

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Patient Sample (Team # if applicable and Transfer point (Med Rec only)).

**HOSPITAL NAME** Enter the name of the hospital or healthcare organization where the intervention is being implemented and the data collected.

- **Note:** It is **important** to **use the same name every time you or any other team from your organization submits data**, whether for the VAP intervention, the AMI intervention, etc. For example, if entered as Essex General Hospital on the first VAP worksheet it should **always** be entered as Essex General Hospital on all worksheets for VAP, AMI, etc., and not EGH for VAP 2 or Essex GH for AMI etc. **Tip:** Select the worksheet template(s) which corresponds with the intervention measures for which you wish to submit data. Enter the name of the hospital or healthcare organization in the space provided and all other fields within the “Data Collection Details” section that do not change from month to month i.e. hospital name, and health region. **Save on your hard drive as a worksheet template** e.g. c:/MedRec\_1\_GeneralHospital.xls and each month use the template for your report saving it as a new file designating the date of the last data contained on the worksheet i.e. c:/MedRec\_1\_GeneralHospital\_0901.xls.

**HEALTH REGION** Enter the name of the provincial health region or LHIN number in which your hospital or healthcare organization is located.

- **Data Entry:** Enter “NA” (not applicable) if your hospital or healthcare organization is not associated with a health region; otherwise enter the name of the health region in the space provided.
- .
- **Tip:** Enter the name of the Health Region and save on the worksheet template as described above in *Hospital Name*.

**PATIENT SAMPLE** Enter a brief description of the source of the patient sample for example, AMI patients admitted through Emergency Department.

- **Note:** It is important to use a consistent description for the same type of patient sample across all measurement worksheets for a particular intervention. For example, the description of your sample in the VAP rate measure should be the same as that in the VAP bundle compliance measure.
- **Note:** All data entered on the Data Entry Sheet of an individual measurement workbook must be for the same patient sample; if the organization decides to apply the intervention to a different patient sample a **new workbook must be started**. For example, in SSI if you start with a sample of CABG

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patients and then decide to also collect data for Hysterectomy patients you must start a new workbook for the second sample population.

#### IMPLEMENTATION STAGE & COLLECTION METHOD

Implementation Stage and Collection Method		2006														
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
14 Calculation of Denominator		Audit Tool for each patient in the monthly sample(s). Using the information recorded														
15 Complete a SHN Individual Medical Reconciliation		Audit Tool for each patient in the monthly sample(s). Using the information recorded														
16	Implementation Stage		Baseline	Early	Early	Early	Early									
17	Collection Method		Concurrent													
18	1.1 What is the total number of patients in this month's patient sample?		25	27	19	23	26	22	40	33	35	36	41	29		
19 Calculation of Numerator																

#### IMPLEMENTATION STAGE

Click on the box below the year and month for which you wish to enter data and select from the options that appear (Baseline, Early or Full) the most appropriate implementation stage for this patient sample and QI process.

- **Note: Baseline Stage** - Pre-intervention. Data collected for Baseline should be collected prior to implementing small tests of change and reflect the current process.
- **Note: Early (Partial) Implementation Stage (Working to goal)** - The team has set a clear aim(s) for this intervention (i.e. AMI, ARO/MRSA, CLI, Falls, MedRec, RRT, SSI, VAP or VTE), identified which measures will indicate if the changes will lead to improvement, and started to implement small tests of change (PDSA) to identify and refine processes, procedures and practices which will lead to improvement and achieving the aim. When the team has reached goal and held their gains for three consecutive data points they are ready to move to Full Implementation (At Goal).
- **Note: Full Implementation Stage (At Goal)** - The processes, procedures and practices are finalized and have lead to significant improvement. These practices on the selected unit are being consistently applied and monitored, showing a sustained performance at or close to goal. The team has achieved their aim(s) and is ready to spread to other areas.

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**COLLECTION METHOD** Click on the box below the year and month for which you wish to enter data and select from the options that appear (Baseline, Early or Full) the most appropriate collection method for this patient sample and QI process i.e. Concurrent or Retrospective.

### DENOMINATOR, NUMERATOR, FINAL CALCULATION

		05	2006												
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
14	<b>Calculation of Denominator</b>														
15	Complete a SHN Individual Medication Reconciliation <b>Audit Tool</b> for each patient in the monthly sample(s). Using the information recorded														
16	<b>Implementation Stage</b>		Baseline	Early	Early	Early	Early								
17	<b>Collection Method</b>		Concurrent												
18	<b>1.1</b> What is the total number of patients in this month's patient sample?	25	27	19	23	26	22	40	33	35	36	41	29		
19	<b>Calculation of Numerator</b>														
20	<b>1.2</b> Add the total number of <b>Type 2 – BPMH Discrepancies</b> recorded for the patients in <b>#1.1</b> from the <b>Individual BPMH Record and Audit Tools</b> . An individual BPMH Record and Audit Tool should be completed for each patient.	45	46	46	41	44	47	67	58	48	47	44	40		
21	<b>Final Calculation</b>														
22	<b>1.3</b> Divide #1.2 by #1.1.	####	1.80	1.70	2.42	1.78	1.69	2.14	1.68	1.76	1.37	1.31	1.07	1.38	
23	<b>GOAL*:</b>	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	
24	<i>*The goal for this measure is to decrease the percentage of undocumented intentional discrepancies by 75% in one year. Using your baseline goal rate in each of the monthly cells above.</i>														
25	<b>Comments</b>														

The data displayed in the sections of the **Data Entry Sheet** above represents all data collected to month to month for the intervention measure. The first column corresponds with the numbered steps in the calculation of the denominator (numerator or final calculation). The remaining columns are individually labelled by year and month and contain the data entered month-over-month. The data entered into these cells automatically populate the Run Chart.

### FINAL CALCULATION

This section contains two rows. The first row contains the formula and final calculation for the measure. The cells in this row are automatically populated from the data entered in the numerator and denominator. The second row contains the goal for that measure. This information is used to generate the goal line in the run chart (see Chart tab). For the majority of measures, the goal is predetermined and constant (i.e. the same for all hospitals and other healthcare

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organizations). However, **for a number of measures the goal must be calculated by each organization, based on their baseline rate, percentage or score or other information. Instructions for calculating the goal are found in the row below the goal.**

For example, the goal for the VAP rate measure is to reduce VAP rate by 50% in one year. In order to determine the goal rate, organizations first need to know what their starting point or baseline VAP rate is. Because the baseline VAP rate is going to vary from one organization to the next, each organization has to calculate this individually. For many healthcare organizations, this baseline will be determined from the first month or first few months of data collection, during the pre-implementation stage. It is up to each organization, however, to decide on its baseline.

## STEP-BY-STEP INSTRUCTIONS FOR ENTERING MONTHLY DATA INTO THE SHN MEASUREMENT WORKSHEETS - DATA ENTRY SHEET

The first step for data entry is to select the appropriate worksheet for data entry. All worksheets are available on the SHN website under the individual Target Interventions. **Note: be sure to save the worksheet to your hard-drive before entering data or it will not be saved.** Enter the one-time demographic / identifying information on the Data Entry Sheet of each worksheet for which you have data to report. **The cells you need to complete are those outlined in red.**

**YEAR & MONTH** On the DATE ENTRY SHEET, select the column that represents the **year** and appropriate **month** for which you have data to enter. Indicate the **Implementation Stage** and **Collection Method** as described above for the specific month. This may vary month-over-month.

### DENOMINATOR

		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
13									
14	Calculation of Denominator								
15	Complete a SHN Individual Medication Concurrence Audit Tool for each patient in the monthly sample								
16	Implementation Stage		Baseline						
17	Collection Method		Concurrent						
18	1.1 What is the total number of patients in this month's patient sample?		25	27	19	23	26	22	40

Calculation of Denominator

**Definition:** **Denominator** is the section within which the inclusion and exclusion criteria for the denominator or sample population are recorded. The criteria for each intervention measure differ to a certain extent. However the format of this section of the worksheet is standardized across all interventions and measures. The first measurement recorded is the base sample population followed by individual counts for a number of specific exclusions e.g. Age less than 18 years old. After each exclusion a mathematical calculation (subtraction) is automatically performed for you, resulting in a revised sample population. Continue performing the steps outlined in each row of the Denominator section to the end at which point the Denominator for the month's sample will be calculated.

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**NUMERATOR**

		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
13									
14	<b>Calculation of Denominator</b>								
15	Complete a SHN <b>Individual Medication Reconciliation Audit Tool</b> for each patient in the monthly sample								
16	<b>Implementation Stage</b>		Baseline						
17	<b>Collection Method</b>		Concurrent						
18	1.1 What is the total number of month's patient sample?		25	27	19	23	26	22	40
19	<b>Calculation of Numerator</b>								
20	1.2 Add the total number of <b>Type 2 – BPMH Discrepancies</b> recorded for the patients in #1.1 from the <b>Individual BPMH Record and Audit Tools</b> . <i>An individual BPMH Record and Audit Tool should be completed for each patient.</i>		45	46	46	41	44	47	67
21	<b>Final Calculation</b>								

**Calculation of Numerator**

**Definition:** The **Numerator** is the section within which all components to be included in the numerator are recorded. The numerator criteria for each intervention measure differ to a certain extent. However the format of this section of the worksheet is standardized across all interventions and measures. The numerator may be one component or calculated as a sum of a number of components.

## Safer Healthcare Now!

### Data Entry & Submission using Measurement Worksheets

#### FINAL CALCULATION & COMMENTS

		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
13									
14	<b>Calculation of Denominator</b>								
15	Complete a SHN Individual Medication Reconciliation <b>Audit Tool</b> for each patient in the monthly sample								
16	<b>Implementation Stage</b>		Baseline						
17	<b>Collection Method</b>		Concurrent						
18	<b>1.1</b> What is the total number of patients in this month's patient sample?		25	27	19	23	26	22	40
19	<b>Calculation of Numerator</b>								
20	<b>1.2</b> Add the total number of <b>Type 2 – BPMH Discrepancies</b> recorded for the patients in <b>#1.1</b> from the <b>Individual BPMH Record and Audit Tools</b> . <i>and Audit Tool should be completed for each patient.</i>		45	46	46	41	44	47	67
21	<b>Final Calculation</b>								
22	<b>1.3</b> Divide #1.2 by #1.1.	####	1.80	1.70	2.42	1.78	1.69	2.14	1.68
23	<b>GOAL*:</b>		0.47	0.47	0.47	0.47	0.47	0.47	0.47
24	<i>*The goal for this measure is to decrease the percentage of undocumented intentional discrepancies by your goal rate in each of the monthly cycles 23 above.</i>								
25	<b>Comments</b>								

**Definition:** The **Final Calculation** is the section within which the outcome result for the specific intervention measure is calculated. The calculation involves dividing the final numerator by the final denominator, and is automatically calculated for you. This is the value displayed on the Run Chart to monitor performance over time.

#### COMMENTS

Please enter in this space any information that will help us to clearly identify your data. For example, if your healthcare organization is participating in Medication Reconciliation and is implementing it in a number of service areas, each area should submit data individually. Specify the service area (e.g. paediatric) or if you have pooled data (e.g. Hip and Knee) for which the data is being submitted to facilitate the interpretation of the results.

## Safer Healthcare Now!

### Data Entry & Submission using Measurement Worksheets

#### SUBMITTED BY

The Submitted By tab is the 3rd worksheet to be completed and is extremely important. The SHN Central Measurement Team reviews every worksheet submitted to SHN. If we identify any issues we will need to contact the data submitter to clarify the data.

	A	B	C	D	E	F
1	Data Year	Data Month	Completed By	Email	Phone Number	Date of Submission (dd/mm/yyyy)
2	2005	Nov				
3		Dec				
4	2006	Jan	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Feb.01.06
5		Feb	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Mar.01.06
6		Mar	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Apr.07.06
7		Apr	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	May.04.06
8		May	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	May.31.06
9		Jun	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Jul.01.06
10		Jul	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Aug.18.06
11		Aug	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Aug.31.06
12		Sept	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Oct.05.06
13		Oct	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Nov.01.06
14		Nov	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Dec.12.06
15		Dec	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Feb.01.07
16	2007	Jan	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Feb.01.07
17		Feb	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Mar.01.07
18		Mar	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Apr.05.07
19		Apr	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	May.08.07
20		May	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Jun.02.07
21		Jun	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Jul.03.07
22		Jul	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Aug.31.07
23		Aug	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Aug.31.07
24		Sept	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Oct.03.07
25		Oct	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Nov.03.07
26		Nov	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Dec.02.07
27		Dec	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Jan.06.08
28	2008	Jan	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Feb.07.08
29		Feb	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Mar.01.08
30		Mar	Virginia Flintoft	virginia.flintof@utoronto.c	416-946-8350	Apr.05.08

Submitted By tab

## ***Safer Healthcare Now!***

### Data Entry & Submission using Measurement Worksheets

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- COMPLETED BY... NAME      Enter the name of the person who entered the data on the worksheet for each month.
- **Note:** The person entering the data may change from month to month therefore this field should not be saved on the worksheet template unless the team has delegated this responsibility to one individual.
- E-MAIL ADDRESS      Enter the e-mail address of the person who entered the data on the worksheet for each month.
- **Note:** The person entering the data and their corresponding e-mail address may change from month to month therefore this field should not be saved on the worksheet template unless the team has delegated this responsibility to one individual.
- PHONE NUMBER      Enter the phone number of the person who entered the data on the worksheet for each month.
- **Note:** The person entering the data and their corresponding phone number may change from month to month therefore this field should not be saved on the worksheet template unless the team has delegated this responsibility to one individual.
- DATE OF SUBMISSION      Enter the date on which the measurement worksheet was submitted to the CMT either by fax or web-transfer
- **Data Entry:** Use the format of (DD-MMM-YYYY) for all date fields.
  - **Note:** The person entering the data may change from month to month therefore this field should not be saved on the worksheet template unless the team has delegated this responsibility to one individual.

# ***Safer Healthcare Now!***

## **Section 3. Instructions for Data Submission of *SHN* Measurement Worksheets**

## ***Safer Healthcare Now!***

### Data Entry & Submission using Measurement Worksheets

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## **INTRODUCTION**

All Measurement Worksheets may be submitted to **SHN's** Central Measurement Team (CMT) by on-line web-transfer. If you select the latter you may submit the worksheets from any of the Communities of Practice (CoP). You do not have to be in the CoP which corresponds with the intervention worksheets which you wish to submit. For example, if you enter the VAP CoP you may submit your completed measurement worksheets for VAP, SSI, AMI, Med Rec, CL-BSI and/or RRT from the VAP CoP.

## **BEFORE YOU SUBMIT YOUR DATA**

**Before you submit your data, your CEO must sign and return the *SHN* data sharing agreement to the Central Measurement Team.** It is each **SHN** team's responsibility to ensure that this has been completed before submitting data. Data received from hospitals or other healthcare organizations will not be included in the database for analysis unless and until a signed data sharing agreement is received from that organization.

## **ON-LINE DATA TRANSMISSION**

### **INTRODUCTION**

The ***Safer Healthcare Now!*** Data Submission website allows teams to electronically submit completed measurement worksheets in both MS Word and Excel format to the Central Measurement Team (CMT) at the University of Toronto. This is the preferred process for data submission because it is secure and fast.

### **Getting Started**

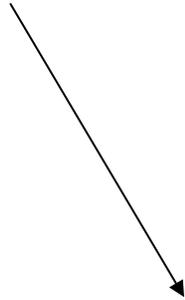
- You will need a computer with an Internet connection to access the site and upload your files.
- You will need to save your completed measurement worksheets on the computer.

## **ACCESSING THE DATA SUBMISSION WEBSITE**

# Safer Healthcare Now!

## Data Entry & Submission using Measurement Worksheets

### SHN Data Submission – Home



The screenshot displays the 'Safer Healthcare Now! Online Communities - Quality Improvement and Measurement' website. The main navigation bar includes 'Home - What's New', 'Welcome', 'What's New', 'Explorer', 'Administration', 'Highlight', and 'Help'. The left sidebar contains links for Explorer, Search, Discussions, Files, Calendar, Chat, Discussion Archives, Note Board, Polls, Members, Invite, Links, and various organizational links like 'Safer Healthcare Now! - Home', 'Canadian Patient Safety Institute - Home', 'CAPHC - Home', 'ISMP Canada - Home', 'Institute for Healthcare Improvement - Home', 'SHN Data Submission - Home', 'Feedback', 'Preferences', and 'Administration'. The main content area is divided into three sections: 'Highlights' with links to newsletters and guides; 'Discussions' with a list of topics such as 'Questions about getting started in Med Rec' and 'Medication Reconciliation in Home Care'; and 'Files' with documents like 'Thrombotic Protocol', 'TKN Protocol', 'AMI Protocol Checklist', and 'Sample SSI Collection Tool'. The right sidebar features a search box, a 'Note Board' with a post by 'choffman', and a 'Polls' section. The browser's status bar at the bottom shows the URL and system tray icons.

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### Data Entry & Submission using Measurement Worksheets

You can access the Data Submission site from the **SHN** Communities of Practice. A quick link (**SHN Data Submission – Home**) has been added to the menus (left side of screen) on all of the Communities of Practice (CoP).

**Hint:** After you have entered the **SHN** Data Submission website, create a bookmark (using the “Favourites” tab at the top of the browser page) so you can easily return to the site.

To begin the data submission process, **click** on the “Submit Data” button which will open the data submission web page (below).

Following the link on the Community of Practice site will bring you to the **SHN** Data Submission website. Follow the instructions on the screen available in both English and French.

The screenshot shows a web browser window displaying the SHN Data Submission page. The page is bilingual, with English and French text. The main heading is "Data Submission / Soumission de données". Below the heading, there are instructions for users to upload measurement worksheets. The instructions are numbered 1 through 3. To the right of the instructions, there are contact details for various nodes (Western, Ontario, Atlantic) and a "QUESTIONS?" section. The browser's address bar shows the URL "https://shn.med.utoronto.ca/index.aspx".

**1. Select your File (click Browse to access a file stored on your computer)** - Arrow points to the "Browse" button.

**2. Add notes (move your cursor into the box and type.)** - Arrow points to the text input box.

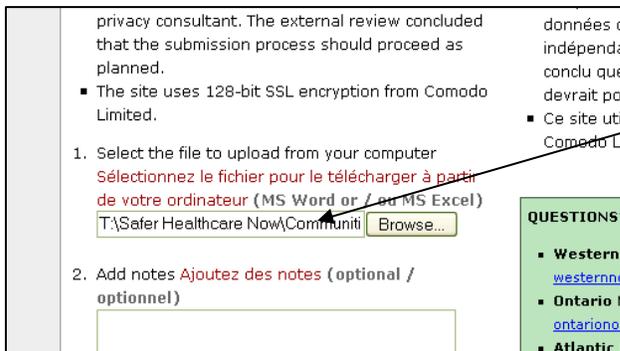
**3. Click the button to upload – your file will be transferred to U of T server.** - Arrow points to the "Upload / Téléchargement" button.

## Safer Healthcare Now!

### Data Entry & Submission using Measurement Worksheets

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#### SUBMITTING YOUR DATA



The name of your file should appear here

#### 1. SELECT FILE TO UPLOAD FROM YOUR COMPUTER

The first step in the data submission process requires you to identify the file you wish to transfer to the CMT web server. **Data Entry:** Click on the “**Browse**” button. This will bring you to the file structure on your own computer. Navigate through the folders until you find the file you wish to transfer (i.e. c:/AMI Aspirin at Arrival March 06.xls). Click the name of the file (it will appear highlighted) and click the “Open” button. The “File Upload” window will close. The name of your file will appear in the box beside the “Browse” button.

#### 2. ADD NOTES

The second step in the data submission process is to enter in the space provided a description of the data being transferred.

**Data Entry:** Move your cursor into the text box and begin typing your notes. Include:

- The exact name of the file you are transferring (i.e. AMI Aspirin at Arrival March 06.xls)
- The name of the intervention and measurement worksheet (i.e. AMI – Aspirin on Admission)
- The name and location of your organization (i.e. East General Hospital, Vulcan, Alberta)

#### 3. SUBMIT YOUR DATA

The final step in the data submission process is to transfer your data file to the CMT server at the University of Toronto.

**Data Entry:** Click the “**Upload**” button. The file you selected will be securely transferred to the CMT server at the University of Toronto. When the transfer is complete you will see a message:

## **Safer Healthcare Now!**

### Data Entry & Submission using Measurement Worksheets

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Repeat the process to submit additional files.

When the file is received on the CMT server, an email will be automatically sent to the Central Measurement Team to let them know that a new file has arrived. The CMT will move the file for storage to their main database.

### **QUESTIONS OR PROBLEMS?**

Contact your node:

- Western Node: **403.355.4418**  
[westernnode@saferhealthcarenow.ca](mailto:westernnode@saferhealthcarenow.ca)
- Ontario Node: **416.351.3704**  
[ontarionode@saferhealthcarenow.ca](mailto:ontarionode@saferhealthcarenow.ca)
- Atlantic Node: **902.670.4887**  
[atlanticnode@saferhealthcarenow.ca](mailto:atlanticnode@saferhealthcarenow.ca)

Visit [www.saferhealthcarenow.ca](http://www.saferhealthcarenow.ca) and the [Quality Improvement and Measurement Community of Practice](#) for information on the measurement process, methods and timelines for submitting data, and the **SHN** campaign.