



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

Public Health Agency of Canada / Agence de la santé publique du Canada

**Attn:** Lana Ibrahim  
**Email:** [contracts.east-est.contrats@hc-sc.gc.ca](mailto:contracts.east-est.contrats@hc-sc.gc.ca)

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

Proposal To: **Public Health Agency of Canada**  
We hereby offer to sell to Her Majesty the King in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out thereof.

**Proposition à:**  
**Agence de la santé publique du Canada**  
Nous offrons par la présente de vendre à Sa Majesté le Roi du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexées, au(x) prix indiqué(s).

**Instructions : See Herein**  
**Instructions: Voir aux présentes**

**Issuing Office – Bureau de distribution**  
Public Health Agency of Canada / Agence de la santé publique du Canada  
200, Eglantine Driveway  
Tunney’s Pasture  
Ottawa Ontario K1A 0K9

<b>Title – Sujet</b> Canadian Acute-Care Point Prevalence Survey (CAPPS)	
<b>Solicitation No. – N° de l’invitation</b> 1000252004	<b>Date</b> August 2, 2023
<b>Solicitation Closes at – L’invitation prend fin à 12 :00 PM</b> on / le – September 7, 2023	<b>Time Zone Fuseau horaire</b> 2:00 PM Eastern Daylight Time (EDT)
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à :</b>  Name: Lana Ibrahim Email: <a href="mailto:contracts.east-est.contrats@hc-sc.gc.ca">contracts.east-est.contrats@hc-sc.gc.ca</a>	
<b>Destination – of Goods, Services, and Construction:</b> <b>Destination – des biens, services et construction :</b> See Herein – Voir ici	
<b>Delivery required - Livraison exigée</b> See Herein – Voir ici	
<b>Vendor/firm Name and address</b> <b>Raison sociale et adresse du fournisseur/de l’entrepreneur</b>           <b>Facsimile No. – N° de télécopieur :</b> <b>Telephone No. – N° de téléphone :</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/firm</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/de l’entrepreneur</b>           <b>(Type or print)/ (taper ou écrire en caractères d’imprimerie)</b>	
<hr/> <b>Signature</b>	<hr/> <b>Date</b>



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## **PART 1 - GENERAL INFORMATION**

### **1.1 Introduction**

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by Bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, the Basis of Payment, and the Security Requirements Checklist.

### **1.2 Summary**

Since 1995, the Public Health Agency of Canada (PHAC) has conducted public health surveillance on healthcare-associated infections (HAIs). This work is used to inform best-practices designed to minimize the risk of antimicrobial resistant organisms (AROs) to Canadians, specifically through the implementation of hospital-specific infection prevention and control (IPC) programs and antimicrobial stewardship programs (ASP). The work to be conducted is detailed in Annex A, Statement of Work.

The contract period will start on the date of contract award and end on March 31, 2024. The Contractor should be available to work off-site at their own facilities.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.



## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2023-06-08) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

#### Technical Difficulties of Bid Transmission

Despite anything to the contrary in (05), (06) or (08) of the Standard Instructions, where a Bidder has commenced transmission of its bid through an electronic submission method (such as facsimile or Canada Post Corporation's (CPC) Connect service, or other online service) in advance of the bid solicitation closing date and time, but due to technical difficulties, Canada was unable to receive or decode the entirety of the Bid by the deadline, Canada may nonetheless accept the entirety of the Bid received after the bid solicitation closing date and time, provided that the Bidder can demonstrate the following:

- (i) The bidder contacted Canada in advance of the bid solicitation closing date and time to attempt to resolve its technical difficulties; OR
- (ii) The electronic properties of the Bid documentation clearly indicate that all components of the Bid were prepared in advance of the bid solicitation closing date and time.

#### Completeness of the Bid

After the closing date and time of this bid solicitation, Canada will examine the Bid to determine completeness. The review for completeness will be limited to identifying whether any information submitted as part of the bid can be accessed, opened, and/or decoded. This review does not constitute an evaluation of the content, will not assess whether the Bid meets any standard or is responsive to all solicitation requirements, but will be solely limited to assessing completeness. Canada will provide the Bidder with the opportunity to submit information found to be missing or incomplete in this review within two business days of notice.

Specifically, the bid will be reviewed and deemed to be complete when the following elements have been submitted by the bidder:

1. That certifications and securities required at bid closing are included.
2. That bids are properly signed, that the bidder is properly identified.
3. Acceptance of the terms and conditions of the bid solicitation and resulting contract.
4. That all documents created prior to bid closing but due to technical difficulties Canada was unable to receive them, have been properly submitted and received by Canada.
5. All certifications, declarations and proofs created prior to bid closing but due to technical difficulties Canada was unable to receive them, have been properly submitted and received by Canada.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:



Delete: 60 days

Insert: 90 days

## 2.2 Submission of Bids

Bids must be submitted only to [contracts.east-est.contrats@hc-sc.gc.ca](mailto:contracts.east-est.contrats@hc-sc.gc.ca) by the date, time and place indicated on page 1 of the bid solicitation.

## 2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

### Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

### Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes ( ) No ( )**



If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

### **Work Force Adjustment Directive**

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** ( ) **No** ( )

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

### **2.4 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

### **2.5 Applicable Laws**



Any resulting contract must be interpreted and governed, and the relations between the parties determined by the laws in force in Ontario, Canada.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

## 2.6 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
  - Office of the Procurement Ombudsman (OPO)
  - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.



## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

3.1.1 The bid must be separated as follows:

Section I: Technical Bid: One electronic copy by email;  
Section II: Financial Bid: One electronic copy by email;  
Section III: Certifications: One electronic copy by email.

Due to the nature of the bid solicitation, bids transmitted by epost Connect service and by facsimile will not be accepted.

Prices should appear in the financial bid only. No prices must be indicated in any other section of the bid.

3.1.2 Canada requests that bidders follow the format instructions described below in the preparation of their bid:

(a) use a numbering system that corresponds to the bid solicitation.

#### **Section I: Technical Bid**

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

#### **Section II: Financial Bid**

Bidders must submit their financial bid in Canadian funds and in accordance with the pricing schedule detailed in Attachment 1 to Part 3-Pricing Schedule.

#### **Section III: Certifications**

Bidders must submit the certifications and additional information required under Part 5.





### ATTACHMENT 1 TO PART 3, PRICING SCHEDULE

The Bidder must complete this pricing schedule and include it in its financial bid once completed.

<b>Initial Contract Period: (Contract Award date to March 31<sup>st</sup>, 2024)</b>			
<b>Deliverable/Task</b>	<b>Item Description</b>	<b>Firm Price</b>	<b>Due date</b>
<b>1</b>	A report that outlines the best strategy to achieve a high degree of national representation for CAPPS data	\$_____	January 10, 2024
<b>2</b>	Hospitals Initiate and support data collection	\$_____	January 30, 2024
<b>3</b>	Hospitals Complete data collection	\$_____	On or before March 10, 2024
<b>4</b>	Hospitals Submit data to PHAC	\$_____	On or before, March 14, 2024
<b>Total Firm Price (taxes excluded)</b>		\$_____	



## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **4.1.1 Technical Evaluation**

##### **4.1.1.2. Technical Criteria**

Mandatory and point rated technical evaluation criteria are included in Attachment 1 to Part 4

#### **4.1.2 Financial Evaluation**

The evaluated price of a bid will be determined in accordance with the Pricing Schedule detailed in Attachment 1 to Part 3.

### **4.2 Basis of Selection**

#### **4.2.1 Highest Combined Rating of Technical Merit (60%) and Price (40%)**

1. To be declared responsive, a bid must:
  - a. comply with all the requirements of the bid solicitation; and
  - b. meet all mandatory criteria; and
  - c. obtain the required minimum of 18 points overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 30 points.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 60% for the technical merit and 40% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 60%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 40%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).



**Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)**

		Bidder 1	Bidder 2	Bidder 3
<b>Overall Technical Score</b>		115/135	89/135	92/135
<b>Bid Evaluated Price</b>		\$55,000.00	\$50,000.00	\$45,000.00
<b>Calculations</b>	<b>Technical Merit Score</b>	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	<b>Pricing Score</b>	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
<b>Combined Rating</b>		83.84	75.56	80.89
<b>Overall Rating</b>		1st	3rd	2nd



## ATTACHMENT 1 TO PART 4, TECHNICAL CRITERIA

The Bidder must provide the necessary documentation to support compliance with these requirements.

- a. The Bidder is advised that only listing experience without providing any supporting data to describe where and how such experience was obtained will not constitute “demonstrated” for the purpose of the evaluation.
- b. The Bidder must clearly demonstrate in the proposal how the experience was gained or knowledge was attained, supported by résumés and any necessary supporting documentation.
- c. The Bidder must provide complete details as to where, when and how (through which activities/responsibilities) the stated qualifications/experience were obtained. In order to demonstrate when experience was obtained, the bidder must indicate the duration of such experience, specifying the start and end dates (month and year at a minimum). For experience requirements where a minimum duration of time is required to be demonstrated (e.g. “*must have a minimum of eight (8) cumulative years of audit experience...*”), in the case where the timelines of two or more projects or experience overlap, the duration of time common to each project/experience will not be counted more than once.
- d. It is recommended that the Bidder include a grid in their proposals, cross-referencing statements of compliance with the supporting data and résumé evidence contained in their proposals. Note: the compliance grid, by and of itself, DOES NOT constitute demonstrated evidence. As stated in b. above, the résumés and supporting documentation will be accepted as evidence.

Bidders should provide any required references in the Technical Proposal of their bid.

The references provided by the Bidders are subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to validate the references before award of a contract. The bid will be declared non-responsive if any references given by the Bidder are untrue, whether made knowingly or unknowingly. Failure to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

### 1.1 Mandatory Technical Criteria

The bid must meet the mandatory technical criteria specified below. The Bidder must provide the necessary documentation to support compliance with this requirement.

Bids which fail to meet the mandatory technical criteria will be declared non-responsive. Each mandatory technical criterion should be addressed separately.

Mandatory Technical Criteria			
Number	Mandatory Technical Criterion	Bidder's Response	Met / Not Met
M1	<p><b>National Organization</b> The bidder must be a national association as demonstrated on their publicly available website that represents registered hospital-based medical microbiologists and/or infectious disease physicians specializing in the fields of medical microbiology and infectious diseases.</p>		



<b>Mandatory Technical Criteria</b>			
<b>M2</b>	<b>Active members</b> The bidder must represent physicians and medical microbiologists with privileges at a minimum of 140 hospitals in Canada.  The bidder must identify and provide a list of hospitals that they partner with.		
<b>M3</b>	<b>Research Coordinator</b> The bidder must demonstrate having a research coordinator with experience conducting research on infectious diseases.		

## 1.2 Point Rated Technical Criteria

Bids which meet all the mandatory technical criteria will be evaluated and scored as specified in accordance with the evaluation criteria described below.

Bids which fail to obtain the required minimum number of points specified will be declared non-responsive. Each point rated technical criterion should be addressed separately.

Technical proposals will be assessed separately against the evaluation criteria identified below. Point rated criteria not addressed in the bid will result in a score of zero being assigned against that particular criterion. Bidders are requested to write beside each of the criteria the relevant page number(s) from your proposal which addresses the requirement identified in the criteria.

<b>Rated Technical Criteria</b>			
<b>Number</b>	<b>Corporate Rated Technical Criteria</b>	<b>Bidder's Response</b>	<b>Points Awarded</b>
<b>R1</b>	Years in Operation of the Organization  The bidders should have experience in the fields of medical microbiology and infectious diseases.  <b>1 point for each year of operation</b> up to a maximum of 15 points.		
<b>R2</b>	<b>Experience</b> The bidder should demonstrate having a research coordinator with at least five (5) years of experience conducting research on infectious diseases.  The bidder must provide 3 examples of the coordinators' research on infectious diseases that outlines length and scope of projects.  <ul style="list-style-type: none"> <li>• &lt; 5 years of relevant experience: <b>0 points</b></li> <li>• 5-10 years of relevant experience: <b>10 points</b></li> <li>• 10+ years of relevant experience: <b>15points</b></li> </ul>		
	<b>Maximum Points Available: 30 points</b>  <b>Minimum Points Required to Pass: (18 pts)</b>		<hr/> <b>30</b>



## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period. The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### **5.1 Certifications and Additional Information Required with the Bid**

#### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the [Integrity Provisions of the Standard Instructions](#), all bidders must provide with their bid, if applicable, the Integrity declaration form available on the Forms for the Integrity Regime website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### **5.2 Certifications and Information Required Precedent to Contract Award**

The required certifications and additional information below should be submitted with the bid but may be submitted afterwards. If the required certifications and additional information are not submitted with the bid, the Contracting Authority will inform the Bidder of a time frame within which they must be submitted by the Bidder. Failure to provide the required certifications and additional information within the time frame specified will render the bid non-responsive.

#### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the [Integrity Provisions of the Standard Instructions](#), all bidders must provide with their bid, if applicable, the Integrity declaration form available on the Forms for the Integrity Regime website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

#### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid List" available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid List" at the time of contract award.



## PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 6.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A".

### 6.2 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual \(https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual\)](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

#### 6.2.1 General Conditions

[2035](#) (2022-12-01), General Conditions - Higher Complexity - Services, apply to and form part of the Contract.

### 6.3 Security Requirements

There are no requirements associated with this procurement.

### 6.4 Term of Contract

#### 6.4.1 Period of the Contract

The Work is to be performed from the Date of Contract Award to March 31<sup>st</sup>, 2024.

### 6.5 Authorities

#### 6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Lana Ibrahim

Email: [contracts.east-est.contrats@hc-sc.gc.ca](mailto:contracts.east-est.contrats@hc-sc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

#### 6.5.2 Project Authority

The Project Authority for the Contract is:

(To be inserted at contract award)

Name:

Telephone:

E-mail address:

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority; however, the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.



### 6.5.3 Contractor's Representative

(To be inserted at contract award)

Name:

Title:

Organization:

Telephone:

E-mail address:

### 6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

### 6.7 Payment

#### 6.7.1 Basis of Payment – Firm Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, as specified in Annex B for a cost of \$ (To be inserted at contract award). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

#### 6.7.2 Method of Payment

SACC Manual clause [H3010C](#) (2016-01-28) - Milestone Payments- Not subject to holdback.

### 6.8 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- b. a copy of the release document and any other documents as specified in the Contract;
2. Invoices must be distributed as follows:
  - a. The original and one (1) copy must be forwarded to the following address for certification and payment. [p2p.invoices-factures@hc-sc.gc.ca](mailto:p2p.invoices-factures@hc-sc.gc.ca)
  - b. One (1) copy must be forwarded to the Project Authority identified under the section entitled "Authorities" of the Contract.

### 6.9 Certifications and Additional Information

#### 6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing





additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

#### **6.10 Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in (*insert the name of the province or territory as specified by the Bidder in its bid, if applicable*).

#### **6.11 Priority of Documents**

If there is a discrepancy between the wordings of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions [2035](#) (2022-12-01), General Conditions - Higher Complexity - Services;
- (c) Annex A, Statement of Work;
- (d) Annex B, Basis of Payment; and
- (e) the Contractor's bid dated (*To be inserted at contract award*)

#### **6.12 Insurance**

SACC Manual clause [G1005C](#) (2016-01-28) Insurance - No Specific Requirement

#### **6.13 Dispute Resolution**

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".



## ANNEX "A"

### STATEMENT OF WORK

#### 1. TITLE:

Canadian Acute-Care Point Prevalence Survey (CAPPS)

#### 2. SCOPE

##### 2.1. Introduction

Since 1995, the Public Health Agency of Canada (PHAC) has conducted public health surveillance on healthcare-associated infections (HAIs). This work is used to inform best-practices designed to minimize the risk of antimicrobial resistant organisms (AROs) to Canadians, specifically through the implementation of hospital-specific infection prevention and control (IPC) programs and antimicrobial stewardship programs (ASP).

In addition to active surveillance, the Canadian Nonsociomial Infection Surveillance Program (CNISP) collects data on healthcare-associated infections, antimicrobial resistant organisms and antimicrobial use via periodic point prevalence studies. To date, CNISP has conducted three point prevalence studies (2002, 2009 and 2017). The next point prevalence study is planned for 2024. In contrast to our partners in the Transatlantic Task Force on Antimicrobial Resistance, CNISP has yet to validate its point prevalence data. Thus, CNISP proposes as part of the 2024 point prevalence study, a pilot project that will provide the opportunity for a subset of hospitals completing the primary point prevalence study to conduct a validation study in parallel.

##### 2.2. Objectives of the Requirement

The overall objective of this work is to improve PHAC's access to HAI, antimicrobial resistance (AMR) and antimicrobial use (AMU) data through the implementation of the Canadian Acute-care hospital Point Prevalence Survey (CAPPS) from a nationally representative sample of acute-care hospitals across Canada. These data will assist PHAC in understanding the burden of HAI (including AROs) in order to inform IPC and ASP, help reduce the rates of HAI (including AMR) in hospitals, reduce healthcare costs, and improve patient care.

As the delivery of healthcare is primarily conducted by provincial and territorial governments (i.e. PHAC has no direct access to eligible hospitals), and as the definition for disease diagnoses are not harmonized between jurisdictions, PHAC requires the involvement of an intermediary. The contractor is required to be an established national organization or association with specialization in medical microbiology or infectious disease medicine to ensure national representation and data standardization.

The contractor will be required to ensure the collection of data from a minimum of 140 hospitals. PHAC will confirm the hospitals that have deposited data and will communicate the names of hospitals that require follow-up. The contractor will then follow-up with any hospital that has not send the data. The data must be able to determine:

1. The prevalence and burden of HAIs and infections caused by AROs in Canadian acute care hospitals,
2. How HAIs and AROs are impacting different patient populations (e.g. pediatric, adult, mixed,) and facility types (e.g. bed size),
3. The prevalence of AMU in Canadian acute care hospitals,
4. The prevalence of inpatients under isolation precautions in Canadian acute care hospitals,
5. Statistical benchmarks (such as prevalence estimates) necessary to support future work (e.g. calculate trends over time),



6. If the study provides valid information by completing a validation exercise with a subset of hospitals (estimated 8) who are completing the primary point prevalence study who will collect additional data for validation purposes.
7. Generate CAPPs data according to PHAC data standards and requirements on or before March 10, 2024.

### **2.3 Background and Specific Scope of the Requirement**

AMR has been identified by the Government of Canada as a departmental priority for PHAC. HAIs (including AROs) cause increased morbidity and mortality among hospital patients, and are known to impact vulnerable populations such as pediatrics and neonates. Surveillance of infectious disease, including the surveillance of HAIs, AMR, and AMU, are key elements of the core business of PHAC.

PHAC has previously identified gaps in HAI, AMR, and AMU surveillance, which have hindered a timely and effective response to the emergence and spread of these pathogens, and has limited PHAC's ability to contribute national point prevalence data to international efforts. CNISP is exploring innovative solutions for improved access to Canadian data on HAI, AMR and AMU, in order to better direct public health actions that target a reduction of these pathogens in Canada.

The United States Centers for Disease Control and Prevention released a report that concluded "that the threat of antimicrobial-resistant infections is not only still present but has gotten worse". Canadian evidence has shown an increase in infection rates of some AROs. However, due to the specific and limited nature of these data minimizes PHAC's ability to understand the true extent of the problem. International groups (e.g. TATFAR) endorse the necessity of national prevalence surveys, and despite the availability of international protocols (e.g. Point prevalence survey of healthcare-associated infections and antimicrobial use in European acute care hospitals), PHAC does not currently operate a national HAI point prevalence survey.

Given the federated nature of Canadian healthcare delivery, inconsistent disease definitions, and a requirement for national representation, PHAC requires an established national organization or association with specialization in medical microbiology or infectious disease medicine to facilitate access to appropriate data sources.

PHAC will not provide any material to the contractor that is deemed as Government of Canada Protected or Classified; the contractor will deliver to the PHAC only documents/data that are Unclassified and are not considered to be personal or identifying information.

### **2.4 Specific Scope**

The full list of data standards and requirements are included in the CAPPs protocol (Appendix "1" to Annex "A").

In summary, the contractor must ensure:

- CAPPs data are the best nationally representative sample of acute-care hospitals across Canada
- CAPPs data adhere to minimum data quality standards as described by the CAPPs protocol.

## **3.0 REQUIREMENTS**

### **3.1 Tasks, Activities, Deliverables and/or Milestones**

The Contractor must be responsible for the following:

- a) Submitting a draft report outlining their proposed methodology for recruiting hospitals for participation in CAPPs.
- b) Once the report is approved by PHAC, execute the recruitment as outlined in the report.
- c) Ensure deliverables are of sufficient level of quality as defined by the CAPPs protocol as per the (Appendix 1).



- d) The data submitted to PHAC must represent HAI, AMR and AMU information from a representative sample of Canadian acute-care hospitals that corresponds to a week day between January 30th and March 9th, 2024.
- e) The contractor is responsible for the payment of funds to participating hospitals upon confirmation of receipt of data (as per CAPPS protocol) by PHAC.
- f) The contractor is responsible for ensuring hospitals submit data to PHAC according to the timelines in section 5, the Project Schedule.

### **3.2 Specifications and Standards**

The CAPPS data must adhere to a standard definition of disease diagnosis and microbiological results, in order to ensure national standardization of results, as described in Appendix "1" to Annex "A".

Data must be non-nominal and delivered to PHAC through a data collection tool provided by PHAC.

### **3.3 Method and Source of Acceptance**

All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Project Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work and to the satisfaction of the Project Authority, the Authority will have the right to reject or require its correction at the sole expense of the Contractor before recommending payment.

### **3.4 Project Management Control Procedures**

The Technical Authority will:

- Review and accept the deliverables based on quality and integrity of the information as established, according to the CAPPS protocol.
- Follow up with the Contractor to communicate any errors or omissions.

The Project Authority will:

- Monitor the progress of the work through discussion with the Technical Authority.

In the event of a delay or other issue that affects the timelines or quality of the deliverables, the Contractor is to inform the Technical authority immediately and provide a solution or mitigation strategy.

### **3.5 Reporting Requirements**

The Contractor must contact the Technical Authority upon issues or questions arising through the course of this project.

## **4. ADDITIONAL INFORMATION**

### **4.1 Canada's Obligations**

- Provide access to staff members who will be available to answer questions by the Contractor participating in the CAPPS during regular business hours (Monday to Friday 9:00 am to 5:00 pm Eastern Time) during the period of the contract.
- Ensure the compilation, analysis, and reporting of all CAPPS data.
- Ensure the availability of training, references and supporting documentation to the Contractor, such as in-services, protocols, information updates, necessary templates and access to the SFTS for CAPPS data delivery.
- Provide the Contractor with other as-required assistance or support as deemed appropriate to enable the Contractor to proceed on schedule with the completion of assigned deliverables.



#### 4.2 Contractor's Obligations

- Unless otherwise specified, the Contractor must use its own equipment and software for the performance of this Statement of Work.
- The Contractor will adhere to the schedule and timelines outlined under Section 5.1 Schedule and Estimated Level of Effort (Work Breakdown Structure).
- The Contractor must make themselves available for communication with PHAC during regular business hours (9:00 am to 5:00 pm Eastern Time).
- The contractor is responsible for the disbursement of funds to participating hospitals upon confirmation of receipt of data (as per CAPPS protocol) by PHAC.

#### 4.3 Location of Work, Work site and Delivery Point

All work will be undertaken at the Contractor's location.

#### 4.4 Language of Work

The work may be completed in either English or French.

### 5. PROJECT SCHEDULE

#### 5.1 Schedule and Estimated Level of Effort (Work Breakdown Structure)

Deliverable	Maximum Delivery Dates
A report that outlines the best strategy to achieve a high-degree of national representation for CAPPS data	January 10, 2024
Initiate and support data collection	January 30, 2024
Complete data collection	On or before March 10, 2024
Ensure all data is submitted data to PHAC	On or before, March 14, 2024

### 6 APPLICABLE DOCUMENTS AND GLOSSARY

#### 6.1 Applicable Documents

Appendix "1" to Annex "A" CAPPS Protocol – Currently a draft protocol is attached. Contractor will receive Final 2024 protocol prior to commencement of this contract.

#### 6.2 Relevant Terms, Acronyms and Glossaries

AMU	Antimicrobial use
AMR	Antimicrobial Resistance
ARO	Antimicrobial resistant organism
AMU	Antimicrobial usage
CAPPS	Canadian Acute-care hospital Point Prevalence Survey
CCDIC	Centre for Communicable Diseases and Infection Control
CNISP	Canadian Nosocomial Infection Surveillance Program
HAI	Healthcare-associated Infection
IDPCB	Infectious Disease Prevention and Control Branch
IPC	Infection Prevention and Control
PHAC	Public Health Agency of Canada
PPS	Point Prevalence Survey
SFTS	Secure file transfer service



**Appendix 1 to Annex "A"- CAPPS Protocol**  
**Canadian Acute Care Point Prevalence Survey**  
Version 1.0, 2023

## BACKGROUND

Surveillance of healthcare-associated infections (HAIs) and antimicrobial use (AMU) are important components of comprehensive infection prevention and control (IPC) and antimicrobial stewardship programs (ASP) and have been widely accepted as a primary step toward the prevention of HAIs<sup>1</sup>. The gold standard for surveillance is prospective, active, hospital-wide surveillance. However, active surveillance is time-consuming, costly and requires significant resources. Point prevalence surveys are valuable and low-cost alternatives to active surveillance<sup>2</sup>. Although not as sensitive as the traditional prospective method, point prevalence surveys can inform IPC and ASP by providing information to understand the burden, and trends of HAIs and AMU across different points in time.

Multiple countries perform hospital point prevalence surveys to estimate the burden of HAIs. The European Centre for Disease Prevention and Control (ECDC) has performed surveys in 2011-12 and 2016-2017. The prevalence of patients in an acute care hospital with at least one HAI remained similar across the surveys (5.7% in 2011-2012<sup>3</sup> and 5.5% in 2016-2017<sup>4</sup>). The Centers for Disease Control (CDC) in the United States has performed HAI and AMU point prevalence surveys through the CDC's Emerging Infections Program. Surveys conducted in 2011 and 2015 found a decline in the prevalence of HAIs from 4.0% to 3.2% respectively<sup>5</sup>. Since 2002, the Norwegian Institute of Public Health (NIPH) has conducted two point prevalence surveys per year to monitor HAIs. The results from a 2017 survey among 61 acute care hospitals estimated that 4.7% of patients had at least one HAI<sup>6</sup>. Differences in frequency and trends in HAIs among jurisdictions highlights the importance of collecting Canadian data to direct prevention strategies.

In Canada, the Canadian Nosocomial Infection Surveillance Program (CNISP) has conducted three point prevalence surveys of HAIs and AMU. A total of 6,747 patients in 28 hospitals (2002), 8,902 patients in 39 hospitals (2009) and 9,929 patients in 47 hospitals (2017) were surveyed. The prevalence of patients with at least one HAI increased from 9.9% in 2002 to 11.3% in 2009 then declined to 7.9% in 2017<sup>7</sup>. Antimicrobial resistant organisms other than MRSA remained low, however their prevalence has increased. Antimicrobial use significantly increased from 2002 and 2009, and stabilized between 2009 and 2017<sup>8</sup>. These repeated surveys are widely utilized to benchmark HAI, ARO and AMU rates, measure changes in prevalence over time, provide information to AMR control programs, and identify new targets for surveillance. Further, they raise awareness of the burden of HAIs and AROs in Canada.

The next point prevalence survey is planned for 2024. In contrast to our partners in the Transatlantic Task Force on Antimicrobial Resistance, CNISP has yet to validate its point prevalence data. Thus, CNISP proposes a pilot project that will provide the opportunity for a subset of hospitals completing the primary point prevalence survey to conduct a validation study in parallel.



## OBJECTIVES

The objectives of the Canadian acute care point prevalence survey (CAPPS) are listed below.

1. To estimate the prevalence and burden of HAIs and infections caused by antimicrobial resistant organisms (AROs) in Canadian acute care hospitals.
2. To describe HAIs and AROs by patient populations, facility types, geographic region, and their microbiology.
3. To estimate the prevalence of and describe antimicrobial use (AMU) in Canadian acute care hospitals.
4. To estimate the prevalence of inpatients under isolation precautions in Canadian acute care hospitals.
5. To describe HAIs, AMU and ARO trends over time (i.e., across prevalence surveys), including the impact of COVID-19 on these trends.
6. To pilot a validation study in a subset of hospitals (n=8) completing the primary point prevalence survey.

## METHODS

Survey methodology for the 2002, 2009 and 2017 surveys are described in Appendix 1.

### Hospital Eligibility

All Canadian acute care hospitals are eligible to participate.

### Ward Eligibility

All patient units and wards will be surveyed except for the following units:

1. Long-term care and awaiting placement wards
2. Mental health wards
3. Rehabilitation wards
4. Maternity wards and well-baby nurseries (Level 1 nurseries)
5. Day surgery and over-night surgery wards

Long-term care patients, awaiting placement patients, mental health, rehabilitation patients, maternity patients and day surgery/over-night surgery patients will be included in the study if they are physically





located on one of the wards to be surveyed (i.e., the patient is occupying a bed on the ward or unit). If these patients are located in a separate building or a separate wing of the facility, they will be excluded. Infants in Level 2 and Level 3 Neonatal Units will be surveyed.

## Patient Eligibility

All patients who have been admitted to a Canadian acute care hospital for 48 hours or more are eligible to be included in the point prevalence survey, including patients admitted in the Emergency room if they have been there for more than 48 hours. Patients who have been admitted to hospital for less than 48 hours will be included in the survey if they were previously admitted to the survey hospital within the last month.

## Data collection – Hospital level

The following hospital level data will be collected from all hospitals participating in the survey: survey date, number of admissions, number of patients surveyed, number of inpatient beds, number of ICU beds, hospital type (pediatric, adult, mixed), hospital services provided, teaching hospital status and general internal medicine occupancy. Hospital level data are provided once to participate in the survey.

## Data collection – Patient level

Patients will be identified at each hospital by the hospital census at 8a.m. on any weekday occurring between Monday, February 19<sup>th</sup> and Friday, March 15<sup>th</sup>, 2024<sup>1</sup>. The survey is not to be conducted on weekends. Hospitals may choose to conduct the survey on different wards on different days during the survey period. Patients admitted after the predetermined start time on that day will not be included in the survey. Patients cannot be enrolled more than once during the surveillance period. Data collection will start 24 hours after the census (the day after) to allow sufficient time to complete medical/nursing entries in the patient's hospital chart. Patients will be surveyed over a full 24-hour period starting at 8a.m. on the census day and ending at the same time on the following day<sup>1</sup>.

There are two options for patient level data collection: a short form which includes data that all participating hospitals must complete and a long form for hospitals which are able to provide additional data. Please refer to the patient level forms for details. (Appendix 4).

## Definitions

### Healthcare-associated infection (HAI)

A healthcare-associated infection is defined as:

A patient who is symptomatic or receiving antimicrobial therapy for the treatment of a HAI on the survey day

#### AND

The onset of symptoms was on Day 3 or later (day of admission = Day 1) of the current admission or the patient presents with an infection but has been readmitted fewer than 48 hours after a previous discharge from the survey hospital. For viral respiratory infections, symptom onset must be Day 4 or later to be considered an HAI.

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<sup>1</sup> For example, site selects Wednesday, February 21<sup>st</sup>, 2024 as their survey day, they would therefore identify the patients by the hospital census at 8:00 AM on Wednesday, February 21<sup>st</sup> and would begin data collection a full 24-hours after the census (February 22). The patients would be surveyed from 8:00 AM Wednesday, February 21<sup>st</sup> until 8:00 AM Thursday, February 22<sup>nd</sup>.





Days of admission				
Calendar day	1	2	3	4
Time (hours)	0	24	48	72

**Antimicrobial Use (AMU)**

Antimicrobials includes systemic antibiotics, antivirals and antifungals. Topical antimicrobials are not to be included. Surgical prophylaxis should be registered if given the day before the survey (i.e., in the 24 hours prior to 8 a.m. on the day of the survey). For all antimicrobial use (e.g., treatment, medical prophylaxis), any given or planned (including intermittent treatments, e.g., alternate day) administration of antimicrobials should be registered at the time of the survey only. If the antimicrobial agent given for treatment or medical prophylaxis was changed on the day of the survey, only record the last antimicrobial agent at the time of the survey.

**Data submission**

Data will be submitted electronically through a secure online web-based platform, Lime survey. Hospitals also have the option of submitting data electronically to CNISP at [cnisp-pcsin@phac-aspc.gc.ca](mailto:cnisp-pcsin@phac-aspc.gc.ca). If doing so, please contact CNISP to request an excel template to ensure formatting is compatible with Lime survey.

**Training of surveyors**

Training material for the personnel collecting the data are made available by CNISP. Webinars to review the point prevalence survey methodology as well as case studies will be coordinated and provided by CNISP.

**Data validation**

Blinded, repeated data collection for a sample of patients at selected hospitals. Among hospitals that indicate they are interested in the pilot validation study; one will be randomly selected from each of the tiers below and invited to participate in the pilot validation. Thus, indicating “Yes” that a hospital is interested in participating does not guarantee participation in the pilot validation study.

1. ≤100 beds, short-form
2. ≤100 beds, long-form
3. 101-300 beds, short-form
4. 101-300 beds, long-form
5. 301-499 beds, short-form
6. 301-499 beds, long-form
7. ≥500 beds, short-form
8. ≥500 beds, long-form

Expectations for the pilot validation study are as follows:

- Conduct validation on the same day or within one week of the primary point prevalence study day



- Blinded data collection (i.e. validation team member(s) cannot look at primary point prevalence study forms)
- Validation study data collectors cannot be part of the primary point prevalence study data collection team
- Records for the same patients present at 8:00 am on the primary point prevalence study day need to be re-examined for the pilot validation study day (with or without HAI/antimicrobial).

## Data analysis

Epidemiologists at the Public Health Agency of Canada will clean, validate, and analyse the data.

## Ethics

This surveillance project is observational and does not involve any alteration in patient care. Surveillance for HAI is a routine component of quality assurance and patient care in Canadian health care institutions and therefore informed consent will not be required. Review Ethics Board (REB) approval was not required by PHAC. However, individual hospitals may seek Institutional REB approval according to local hospital policy. A unique identifier linked to patient name will only identify patients at the hospital site and will not be transmitted to PHAC. All data will be strictly confidential.

## REFERENCES

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## Appendix 1 – Summary of point prevalence survey methodology

	CNISP 2007	CNISP 2009	CNISP 2017
<b>Timing</b>			
<b>Survey period</b>	February	February	February
<b>Hospitals</b>			
<b>Eligibility</b>	Tertiary acute care adult, pediatric and mixed hospitals	Tertiary acute care adult, pediatric and mixed hospitals	Tertiary acute care adult, pediatric and mixed hospitals
<b>Exclusions</b>	Non-acute care facilities	Non-acute care facilities	Non-acute care facilities
<b>Sample</b>	28/33 CNISP hospitals (84.8% response rate); 6,747 patients	39/55 CNISP hospitals (71.0% response rate); 8,902 patients	47/66 CNISP hospitals (71.2% response rate); 9,929 patients
<b>Patients</b>			
<b>Eligibility</b>	Patients included in hospital census on the morning of the survey who were admitted for ≥48 hours, and patients in hospital <48 hours who were admitted to the survey hospital in the month before the survey.	Patients included in hospital census on the morning of the survey who were admitted for ≥48 hours, and patients in hospital <48 hours who were admitted to the survey hospital in the month before the survey.	Patients included in hospital census on the morning of the survey who were admitted for ≥48 hours, and patients in hospital <48 hours who were admitted to the survey hospital in the month before the survey.
<b>Exclusions</b>	Long term care patients, awaiting placement patients, psychiatric, rehabilitation patients, maternity patients and day surgery/over-night surgery patients unless they are physically located on one of the wards to be surveyed	Day surgery, outpatients, emergency department, long-term care, maternity, well baby, mental health, rehabilitation units  Patients admitted in the ED were included if they were there for more than 48 hours	Day surgery, outpatients, emergency department, long-term care, maternity, well baby, mental health, rehabilitation units  Patients admitted in the ED were included if they were there for more than 48 hours
<b>Sample</b>	All eligible patients in participating hospitals	All eligible patients in participating hospitals	All eligible patients in participating hospitals
<b>Data</b>			
<b>Types of data collected</b>	Healthcare-associated infections, antimicrobial use, IPC characteristics	Healthcare-associated infections, antimicrobial use, IPC characteristics	Healthcare-associated infections, antimicrobial use, isolation status
<b>Demographics</b>	DOB/Age, Sex, DOA, ward	DOB/Age, Sex, DOA, ward	DOB/Age, Sex, DOA, ward
<b>AMU</b>	Receiving systemic therapy with and antibacterial, antifungal, antituberculous or antiviral agents (yes/no); antibiotic code	Receiving systemic therapy with any antimicrobial agent (yes/no); antimicrobial code	Receiving systemic therapy with any antimicrobial agent (yes/no); antimicrobial code; antiviral to treat respiratory infection
<b>Isolation</b>	Iso (yes/no); type (droplet, contact, airborne); iso reason	Iso (yes/no); type (droplet, contact, airborne); room type (single, multi bed); iso reason	Iso (yes/no); type (droplet, contact, airborne); room type (single, multi bed); iso reason
<b>Device utilization</b>	Presence of: endotracheal tube with or without mech vent; urinary catheter; central venous catheter		
<b>HAI</b>	<b>Pneumonia</b> – onset date, VAP/non-VAP; organism	<b>Pneumonia</b> – specimen or onset date, VAP/non-VAP; organism	<b>Pneumonia</b> – VAP/non-VAP; 2° BSI; organism
	<b>UTI</b> – culture date; organism	<b>UTI</b> – culture date; organism	<b>UTI</b> – CAUTI/non-CAUTI; 2° BSI; organism
	<b>SSI</b> – onset or culture date; type SSI; surgery class; organism	<b>SSI</b> – specimen date; implant; organism	<b>SSI</b> – specimen date; implant; surgery date; 2° BSI; organism

	<b>CNISP 2007</b>	<b>CNISP 2009</b>	<b>CNISP 2017</b>
	CDI – specimen date	CDI – specimen date	CDI – specimen date; 2° BSI
	HA-BSI – culture date; type (1°, 1° – intravascular; 2°); organism	HA-BSI – culture date; type (1°, 1° – CVC-BSI; 2°); organism	HA-BSI – specimen date; type (1°, CLABSI, other); organism
	NEC (neonates only) – onset date	NEC (neonates only) – onset date	
	VRI (peds only) – onset date	VRI – onset date; organism	VRI – specimen date; organism
	Gastro (peds only) – onset date	Gastro (peds only) – onset date; organism	Gastro – specimen date; organism
<b>AROs</b>	MRSA, MSSA, VRE, ESBLs	MRSA, MSSA, VRE, ESBLs	MRSA, MSSA, CPE, CPA, VRE, ESBLs
<b>Device associated infections</b>			VAP, SSI associated with prosthetic implant, CAUTI, CLABS
<b>Antimicrobials/ Organisms</b>		Appendix/Guide for Codes	Appendix/Guide for Codes
<b>Data collectors</b>	Hospital infection prevention personnel	Hospital infection prevention personnel	Hospital infection prevention personnel
<b>Data submission</b>	Completed standardized forms	Completed standardized forms or spreadsheets submitted electronically	Completed standardized forms or spreadsheets submitted electronically
<b>HAIs counted</b>	Infections with symptoms present or for which patient is receiving antimicrobial treatment on the survey date	Infections with symptoms present or for which patient is receiving antimicrobial or other treatment on the survey date	Infections with symptoms present or for which patient is receiving antimicrobial treatment on the survey date
<b>HAI definitions used</b>	CNISP definitions, modified U.S. CDC NHSN definitions	CNISP definitions, modified U.S. CDC NHSN definitions	CNISP definitions, modified U.S. CDC NHSN definitions (2017 version)
<b>HAI types included</b>	7 HAI types	7 HAI types	7 HAI types
<b>Secondary BSI</b>	Not counted separately from the primary HAI	Counted separately from the primary HAI	Counted separately from the primary HAI
<b>HAIs attributed to other hospitals</b>	Not included	Not included	Not included
<b>Publications</b>	Point prevalence survey for healthcare-associated infections within Canadian acute care hospitals – Journal Hospital Infection, 2007  A point prevalence survey of healthcare-associated infections in pediatric populations in major Canadian acute care hospitals – AJIC, 2007	Assessing the magnitude and trends in hospital acquired infections in Canadian hospitals through sequential point prevalence surveys – ARIC, 2016  Prevalence of antimicrobial use in a network of Canadian hospitals in 2002 and 2009 – Can J Infect Dis Med Microbiol, 2015  A point prevalence survey of health care-associated infections in Canadian pediatric populations – AJIC, 2012	Trends in health care-associated infections in acute care hospitals in Canada: an analysis of repeated point prevalence surveys – CMAJ, 2019  Antimicrobial use in Canadian acute-care hospitals: Findings from three national point-prevalence surveys between 2002 and 2017 – ICHE, 2022

## Appendix 2a – Hospital level form (CNISP hospitals)

1. Is this facility currently a CNISP participating hospital?  Yes  No
2. Which PPS protocol is this facility completing?  Long patient forms  
 Short patient forms
3. CHEC number \_\_\_\_\_
4. Total number of admitted patients on the census<sup>2</sup>: \_\_\_\_\_
5. Total number of patients to be surveyed<sup>3</sup>: \_\_\_\_\_
6. Date of survey: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
DD MMM YYYY
7. Total number of **inpatient beds** for this healthcare facility on the day of the survey? \_\_\_\_\_
8. Total number of **adult ICU beds** for this healthcare facility on the day of the survey? \_\_\_\_\_  Not applicable
9. Total number of **CCU<sup>4</sup> beds** for this healthcare facility on the day of the survey? \_\_\_\_\_  Not applicable
10. Total number of **PICU beds** for this healthcare facility on the day of the survey? \_\_\_\_\_  Not applicable
11. Total number of **NICU beds** for this healthcare facility on the day of the survey? \_\_\_\_\_  Not applicable
12. GIM occupancy  
On the day of the survey, total number of funded beds: \_\_\_\_\_  
  
On the day of the survey, total number of staffed beds: \_\_\_\_\_  
On the day of the survey, total number of occupied beds: \_\_\_\_\_

<sup>2</sup> Excluding: (1) Long-term care and awaiting placement wards, (2) Mental health wards, (3) Rehabilitation wards, (4) Maternity wards and well-baby nurseries, and (5) Day surgery and over-night surgery wards.

<sup>3</sup> Eligible patients admitted for ≥ 48 hours or readmitted with a previous hospitalization within the last month.

<sup>4</sup> Cardiac care unit (CCU)

## Appendix 2b – Hospital level form (non-CNISP hospitals)

1. Is this facility currently a CNISP participating hospital?  Yes  No
2. Which PPS protocol is this facility completing?  Long patient forms  
 Short patient forms
3. Hospital code \_\_\_\_\_
4. Total number of admitted patients on the census<sup>5</sup>: \_\_\_\_\_
5. Total number of patients to be surveyed<sup>6</sup>: \_\_\_\_\_
6. Date of survey: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
DD    MMM    YYYY
7. Total number of **inpatient beds** for this healthcare facility on the day of the survey? \_\_\_\_\_
8. If this facility a teaching hospital<sup>7</sup>?  Yes  No
9. Hospital type  Adult  Mixed  Pediatric
10. Which of the following services does your hospital provide? (check all that apply)
 

<input type="checkbox"/> Medical	<input type="checkbox"/> Surgical
<input type="checkbox"/> Obstetrics	<input type="checkbox"/> Gynecology
<input type="checkbox"/> Cardiac surgery	<input type="checkbox"/> Neurosurgery
<input type="checkbox"/> Dialysis	<input type="checkbox"/> Long term care or alternate level of care
<input type="checkbox"/> Rehabilitation	<input type="checkbox"/> Solid organ transplant
<input type="checkbox"/> Bone marrow transplant	<input type="checkbox"/> Hematology
<input type="checkbox"/> Burn unit	<input type="checkbox"/> Oncology
<input type="checkbox"/> Emergency	<input type="checkbox"/> Palliative care
<input type="checkbox"/> Trauma Centre	<input type="checkbox"/> ICU
<input type="checkbox"/> Pediatrics	<input type="checkbox"/> Other, specify
<input type="checkbox"/> CCU	<input type="checkbox"/> CV Surgery

If ICU, select all that apply

<sup>5</sup> Excluding: (1) Long-term care and awaiting placement wards, (2) Mental health wards, (3) Rehabilitation wards, (4) Maternity wards and well-baby nurseries, and (5) Day surgery and over-night surgery wards.

<sup>6</sup> Eligible patients admitted for ≥ 48 hours or readmitted with a previous hospitalization within the last month.

<sup>7</sup> Teaching hospitals are defined as institutions closely associated with a medical school and serving as a year round clinical education site for medical students AND interns AND residents. Hospitals are not considered teaching hospitals if the hospital only receives elective students or elective residents, or if the hospital trains only family practice residents or nursing residents.

If yes, # beds on the survey  
day: \_\_\_\_\_

- General (mixed) ICU                       Neuro

If yes, # beds on the survey  
day: \_\_\_\_\_

- NICU     PICU

If yes, # beds: \_\_\_\_\_                      If yes, # beds: \_\_\_\_\_

- Other ICU, specify

11. GIM occupancy  
On the day of the survey, total  
number of funded beds:

On the day of the survey, total  
number of staffed beds:

On the day of the survey, total  
number of occupied beds:

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## Appendix 3 – Patient level form

1. Patient identifier: \_\_\_\_\_ - \_\_\_\_\_  
Hospital code/CHEC site Patient unique identifier

### **PART 1. PATIENT DEMOGRAPHIC INFORMATION (mandatory questions for long and short form)**

2. Age Enter age. **Specify :** Years, months or days
3. Sex:  Male  
 Female
4. Date of admission<sup>8</sup>: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
DD MMM YYYY
5. Please select the ward the patient was on at 8am on the day of the survey (*check only ONE*):
- |   |   |
|---|---|
| <input type="checkbox"/> Medicine                               | <input type="checkbox"/> Hematology/Oncology/Bone Marrow Transplant |
| <input type="checkbox"/> Pediatrics                             | <input type="checkbox"/> Surgery including Gynecology               |
| <input type="checkbox"/> Adult Intensive Care Unit (ICU)        | <input type="checkbox"/> Solid Organ Transplant                     |
| <input type="checkbox"/> Pediatric ICU                          | <input type="checkbox"/> Trauma/Burn                                |
| <input type="checkbox"/> Neonatal ICU                           | <input type="checkbox"/> Mixed Medical/Surgical                     |
| <input type="checkbox"/> Obstetrics                             | <input type="checkbox"/> Coronary Care (not ICU)                    |
| <input type="checkbox"/> ER (admitted, awaiting inpatient bed)  | <input type="checkbox"/> Step down Unit                             |
| <input type="checkbox"/> Other ( <i>please specify</i> ): _____ |   |

### **PART 2. OUTBREAK STATUS (additional questions - only to be completed for long form??)**

- 6a. Is this unit on outbreak?  Yes  No (skip to Q7)  
 Unknown

<sup>8</sup> The date of admission for an ER patient is the date on which the decision to admit was made rather than the date they were moved to the ward. For example, a patient has been in the ER for more than 48 hours and is admitted on Wednesday, February 21<sup>st</sup>, 2024. They are moved to the ward on Friday, February 23<sup>rd</sup>, 2024. The date of admission would be Wednesday, February 21<sup>st</sup>, 2024.

6b. Please specify the causative pathogen(s) of the outbreak

**PART 3. INVASIVE DEVICES (additional questions - only to be completed for long form??)**

7. Does the patient currently have an invasive device present at 8am on the day of the survey?
- Yes     No (skip to Q8)
  - Unknown
  - Indwelling urinary catheter
  - Peripheral vascular catheter
  - Central vascular catheter
  - Inserted tubes and drains
  - Invasive respiratory endotracheal intubation
  - Other

**PART 4. ADDITIONAL PRECAUTIONS (mandatory questions for long and short form)**

8. Is patient currently on isolation (additional) precautions?     Yes     No (skip to Q9)
- If yes, type of isolation (*check all that apply*)
- Droplet     Droplet with N95 use
  - Contact     Airborne
- Type of Isolation room:
- Single room     Multi bed room with or without bed block
  - Multi bed room as part of a COHORT

Indicate the reason for the Additional Precautions (*check all that apply*):

- 9.
- MRSA     Chickenpox/Disseminated Herpes Zoster
  - VRE     Extended spectrum beta-lactamase (ESBL) producing organism
  - Clostridioides difficile* infection     Bacterial Meningitis
  - Tuberculosis     Invasive Group A Streptococcus

- Viral respiratory infections (not COVID-19)
- Carbapenemase Producing Organism
- COVID-19
- Other (*please specify*): \_\_\_\_\_
- Viral gastroenteritis
- Other multi-drug resistant gram-negative rods
- Candida auris*

**PART 5. ANTIMICROBIAL USE – see AMU document, will append once final**

**PART 6. HEALTHCARE-ASSOCIATED INFECTIONS (*mandatory questions for long and short form*)**

10. Does the patient have one or more of the following HAI **OR** are they presently being treated with antimicrobial agents for one or more of these ?
- Yes
  - No (*if “No,” then survey ends here*)

*(Refer to Appendix 6 for definitions)*

**If yes, what type? (*please check all that apply*)**

**Healthcare-associated Pneumonia**

- Type of Pneumonia:
- Ventilator associated
  - Non Ventilator associated

Indicate organism(s)

\_\_\_\_\_

No organism identified

**Healthcare-associated Urinary Tract Infection**

- Type of urinary tract infection:
- Catheter-Associated Urinary Tract Infection (CAUTI)
  - Non-Catheter-Associated Urinary Tract Infection (non-CAUTI)

Indicate organism(s)

\_\_\_\_\_

No organism identified

**Surgical Site Infection**

SSI severity:

- Superficial incisional
- Complex (deep incisional/organ/space)

Is this a prosthetic implant related SSI (excluding sternal wires)?

- Yes
- No
- Abdominal aortic aneurysm repair

Limb amputation

Appendix surgery

Shunt for dialysis

Bile duct, liver or pancreatic surgery

Carotid endarterectomy

Gallbladder surgery

Colon surgery

Cesarean section

Gastric surgery THOR Thoracic surgery

Abdominal hysterectomy

Kidney transplant

Laminectomy

Liver transplant

Neck surgery

Kidney surgery

Ovarian surgery

Prostate surgery

Type of surgery/surgeries resulting in this SSI:

- Rectal surgery
- Small bowel surgery
- Spleen surgery
- Thyroid and/or parathyroid surgery
- Vaginal hysterectomy
- Exploratory laparotomy
- Breast surgery
- Cardiac surgery
- Coronary artery bypass graft with both chest and donor site incisions
- Coronary artery bypass graft with chest incision only
- Craniotomy
- Spinal fusion
- Open reduction of fracture
- Herniorrhaphy
- Hip prosthesis
- Knee prosthesis
- Pacemaker surgery
- Peripheral vascular bypass surgery
- Ventricular shunt
- Other, please specify

Indicate organism(s)

\_\_\_\_\_

- No organism identified
- Healthcare-associated *Clostridioides difficile* Infection**
- Healthcare-associated Blood Stream Infection**
  - Type:
    - Primary
    - CLABSI
    - Source unknown
    - Other, specify: \_\_\_\_\_

Indicate organism(s)

\_\_\_\_\_

- Healthcare-associated viral respiratory infection**

Indicate organism(s)

\_\_\_\_\_

- Healthcare-associated viral gastroenteritis**

Indicate organism(s)

\_\_\_\_\_

## Appendix 4 – Antimicrobial agents

Amikacin	Cefuroxime	Moxifloxacin
Amoxicillin	Ciprofloxacin	Nitrofuratoin
Amoxicillin/Clavulanate	Clarithromycin	Norfloxacin
Amphotericin B	Clindamycin	Oseltamivir
Ampicillin	Cloxacillin	Other antituberculous medications
Anidulafungin	Colistin	Other antiviral medications
Azithromycin	Daptomycin	Others (specify)
Aztreonam	Doxycycline	Penicillin G
Caspofungin	Ertapenem	Penicillin V
Cefadroxil	Erythromycin	Piperacillin
Cefalexin	Ethambutol	Piperacillin Tazobactam
Cefalotin	Fluconazole	Posaconazole
Cefazolin	Gentamicin	Pyrazinamide
Cefepime	Imipenem	Rifampicin
Cefixime	Isoniazid	Sulfamethoxazole/Trimethoprim
Cefotaxime	Itraconazole	Tetracycline
Cefoxitin	Levofloxacin	Tigecycline
Ceftazidime	Linezolid	Tobramycin
Ceftazidime/Avibactam	Meropenem	Vancomycin
Ceftolazane/Tazobactam	Metronidazole	Voriconazole
Ceftriaxone	Micafungin	

## Appendix 5 – Microorganisms

Acinetobacter baumannii	Klebsiella pneumoniae
Acinetobacter spp., or not specified	Klebsiella spp., other or not specified
Acintomyces	Legionella spp.
Adenovirus	Listeria monocytogenes
Aeromonas spp.	M. catarrhalis
Aspergillus spp.	Morganella spp.
Bacteroides fragilis	Mycobacterium Tuberculosis complex
Beta haemolytic Streptococci, group A	Mycoplasma pneumoniae
Beta hemolytic Streptococci, group B	Neisseria gonorrhoeae
Beta hemolytic Streptococci, other	Neisseria meningitidis
Bocavirus	Norovirus
Burkholderia cepacia	Other bacteria Mycobacterium, atypical
Burkholderia mallei	Other coagulase-negative staphylococci (CNS)
Burkholderia pseudomallei	Other Enterobacterales
Campylobacter sp.	Parainfluenza
Candida species, other or not specified	Peptostreptococcus spp.
Candida auris	Proteus mirabilis
Chlamydia spp.	Proteus spp., other or not specified
Citrobacter freundii	Proteus vulgaris
Citrobacter spp., other or not specified	Providencia spp., other or not specified
Clostridium difficile	Pseudomonas aeruginosa
Clostridium spp., other or not specified	Pseudomonadaceae family, other or not specified
Corynebacterium species	Respiratory Syncytial Virus
E. coli	Rhinovirus
Enterobacter cloacae	Rotavirus
Enterobacter spp., other or not specified	Salmonella enteritidis
Enterococcus faecalis	Salmonella spp., or other not specified
Enterococcus faecium	Salmonella typhi or paratyphi
Enterococcus spp., other or not specified	Salmonella typhimurium
Enterovirus	Serratia marcescens
Enterovirus/Rhinovirus	Serratia spp., other or not specified
H. influenzae	Shigella spp.
Helicobacter pylori	Staphylococcus aureus
Herpes Simplex Virus	Staphylococcus epidermidis
Human Coronavirus (not SARS-CoV-2)	Staphylococcus haemolyticus
SARS-CoV-2	Stenotrophomonas maltophilia
Human Metapneumovirus	Streptococcus pneumoniae
Influenza A	Streptococcus spp., other or not specified
Influenza B	Varicella Zoster Virus
Klebsiella aerogenes	Viridans group Streptococci
Klebsiella oxytoca	Yersinia spp.
	Other, not specified above



## Appendix 6 – Healthcare-associated infection definitions

### Pneumonia

Imaging test evidence	Signs and symptoms
<p>Two or more serial chest imaging test results with at least one of the following:</p> <p>New and persistent or Progressive and persistent</p> <ul style="list-style-type: none"> <li>• Infiltrate</li> <li>• Consolidation</li> <li>• Cavitation</li> <li>• Pneumatocoles, in infants <math>\leq 1</math> year old</li> </ul> <p>Note: In patients without underlying pulmonary or cardiac disease (for example: respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive imaging test result is acceptable.</p>	<p>For ANY PATIENT, at least one of the following:</p> <ul style="list-style-type: none"> <li>• Fever (<math>&gt; 38.0^{\circ}\text{C}</math> or <math>&gt; 100.4^{\circ}\text{F}</math>)</li> <li>• Leukopenia (<math>\leq 4000</math> WBC/<math>\text{mm}^3</math>) or leukocytosis (<math>\geq 12,000</math> WBC/<math>\text{mm}^3</math>)</li> <li>• For adults <math>\geq 70</math> years old, altered mental status with no other recognized cause</li> </ul> <p>And at least two of the following:</p> <ul style="list-style-type: none"> <li>• New onset of purulent sputum or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements</li> <li>• New onset or worsening cough, or dyspnea, or tachypnea</li> <li>• Rales or bronchial breath sounds</li> <li>• Worsening gas exchange (for example: <math>\text{O}_2</math> desaturations (for example: <math>\text{PaO}_2/\text{FiO}_2 \leq 240</math>), increased oxygen requirements, or increased ventilator demand)</li> </ul> <hr/> <p>ALTERNATE CRITERIA, for infants <math>\leq 1</math> year old:</p> <p>Worsening gas exchange (for example: <math>\text{O}_2</math> desaturations [for example pulse oximetry <math>&lt; 94\%</math>], increased oxygen requirements, or increased ventilator demand)</p> <p>And at least three of the following:</p> <ul style="list-style-type: none"> <li>• Temperature instability</li> <li>• Leukopenia (<math>\leq 4000</math> WBC/<math>\text{mm}^3</math>) or leukocytosis (<math>\geq 15,000</math> WBC/<math>\text{mm}^3</math>) and left shift (<math>\geq 10\%</math> band forms)</li> <li>• New onset of purulent sputum or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements</li> <li>• Apnea, tachypnea, nasal flaring with retraction of chest wall, or nasal flaring with grunting</li> <li>• Wheezing, rales, or rhonchi</li> <li>• Cough</li> <li>• Bradycardia (<math>&lt; 100</math> beats/min) or tachycardia (<math>&gt; 170</math> beats/min)</li> </ul> <hr/> <p>ALTERNATE CRITERIA, for child <math>&gt; 1</math> year old or <math>\leq 12</math> years old, at least three of the following:</p> <ul style="list-style-type: none"> <li>• Fever (<math>&gt; 38.0^{\circ}\text{C}</math> or <math>&gt; 100.4^{\circ}\text{F}</math>) or hypothermia (<math>&lt; 36.0^{\circ}\text{C}</math> or <math>&lt; 96.8^{\circ}\text{F}</math>)</li> <li>• Leukopenia (<math>\leq 4000</math> WBC/<math>\text{mm}^3</math>) or leukocytosis (<math>\geq 15,000</math> WBC/<math>\text{mm}^3</math>)</li> </ul>

	<ul style="list-style-type: none"> <li>• New onset of purulent sputum or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, or dyspnea, or apnea, or tachypnea</li> <li>• Rales or bronchial breath sounds</li> <li>• Worsening gas exchange (for example: O2 desaturations [for example pulse oximetry &lt; 94%], increased oxygen requirements, or increased ventilator demand)</li> </ul>
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Source: NHSN definition [Surveillance Definitions \(cdc.gov\)](https://www.cdc.gov/nhsn/surveillance/definitions)

**Ventilator-associated pneumonia (VAP)**

A pneumonia where the patient is on mechanical ventilation for > 2 consecutive calendar days on the date of event, with day of ventilator placement being Day 1,\*

AND

the ventilator was in place on the date of event or the day before.

\*If the ventilator was in place prior to inpatient admission, the ventilator day count begins with the admission date to the first inpatient location.

If a break in mechanical ventilation occurs for at least one full calendar day, ventilator day count for ventilator association starts anew upon reintubation and/or re-initiation of mechanical ventilation.

Source: NHSN definition [Surveillance Definitions \(cdc.gov\)](https://www.cdc.gov/nhsn/surveillance/definitions)

**Urinary tract infection (UTI)**

	<p>Symptomatic UTI (SUTI)</p> <p>Must meet at least <u>one</u> of the following criteria:</p>
<p>Catheter-associated Urinary Tract Infection (CAUTI) in any age patient</p>	<p>Patient must meet 1, 2, and 3 below:</p> <p>1. Patient had an indwelling urinary catheter that had been in place for more than 2 consecutive days in an inpatient location on the date of event (with Day 1= day of device placement) AND was either:</p> <ul style="list-style-type: none"> <li>• Present for any portion of the calendar day on the date of event,</li> </ul> <p>OR</p>

	<ul style="list-style-type: none"> <li>• Removed the day before the date of event</li> </ul> <p>2. Patient has at least <u>one</u> of the following signs or symptoms:</p> <ul style="list-style-type: none"> <li>• fever (&gt;38.0°C)</li> <li>• suprapubic tenderness</li> <li>• costovertebral angle pain or tenderness</li> <li>• urinary urgency^</li> <li>• urinary frequency^</li> <li>• dysuria^</li> </ul> <p>3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of <math>\geq 10^5</math> CFU/ml (See Comments). All elements of the SUTI criterion must occur during the IWP (See IWP Definition Chapter 2 Identifying HAIs in NHSN).</p> <p>^ These symptoms cannot be used when catheter is in place. An IUC in place could cause patient complaints of “frequency” “urgency” or “dysuria”.</p> <p>Note: • Fever is a non-specific symptom of infection and cannot be excluded from UTI determination because it is clinically deemed due to another recognized cause.</p>
<p>Non-Catheter-associated Urinary Tract Infection (Non-CAUTI) in any age patient</p>	<p>Patient must meet 1, 2, and 3 below:</p> <p>1. One of the following is true:</p> <ul style="list-style-type: none"> <li>• Patient has/had an indwelling urinary catheter, but it has/had not been in place for more than two consecutive days in an inpatient location on the date of event</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• Patient did not have an indwelling urinary catheter in place on the date of event nor the day before the date of event</li> </ul> <p>2. Patient has at least one of the following signs or symptoms:</p> <ul style="list-style-type: none"> <li>• fever (&gt;38°C)</li> </ul>

	<ul style="list-style-type: none"> <li>• suprapubic tenderness*</li> <li>• costovertebral angle pain or tenderness*</li> <li>• urinary frequency ^</li> <li>• urinary urgency ^</li> <li>• dysuria ^</li> </ul> <p>3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of <math>\geq 10^5</math> CFU/ml. (See Comments) All elements of the SUTI criterion must occur during the IWP (See IWP Definition Chapter 2 Identifying HAIs in NHSN).</p> <p>*With no other recognized cause (see Comments)</p> <p>^These symptoms cannot be used when IUC is in place. An IUC in place could cause patient complaints of “frequency” “urgency” or “dysuria”.</p> <p>Note: • Fever is a non-specific symptom of infection and cannot be excluded from UTI determination because it is clinically deemed due to another recognized cause.</p>
<p>CAUTI or Non-CAUTI in patients 1 year of age or less</p>	<p>Patient must meet 1, 2, and 3 below:</p> <ol style="list-style-type: none"> <li>1. Patient is <math>\leq 1</math> year of age (with<math>\ddagger</math> or without an indwelling urinary catheter)</li> <li>2. Patient has at least one of the following signs or symptoms: <ul style="list-style-type: none"> <li>• fever (<math>&gt;38.0^\circ\text{C}</math>)</li> <li>• hypothermia (<math>36.0^\circ\text{C}</math>)</li> <li>• apnea*</li> <li>• bradycardia*</li> <li>• lethargy*</li> <li>• vomiting*</li> <li>• suprapubic tenderness*</li> </ul> </li> <li>3. Patient has a urine culture with no more than two species of organisms identified, at least one of which is a bacterium of <math>\geq 10^5</math> CFU/ml. (See Comments)</li> </ol>

	<p>‡ If patient had an IUC in place for more than two consecutive days in an inpatient location and the IUC was in place on the date of event or the previous day the CAUTI criterion is met. If no such IUC was in place, UTI (non-catheter associated) criterion is met.</p> <p>*With no other recognized cause (See Comments)</p> <p>Note: Fever and hypothermia are non-specific symptoms of infection and cannot be excluded from UTI determination because they are clinically deemed due to another recognized cause.</p>
	Source: NHSN definition <a href="https://www.cdc.gov/nhsn/surveillance/definitions">Surveillance Definitions (cdc.gov)</a>

## **Surgical Site Infection (SSI)**

### **Superficial incisional infection**

Must meet the following criteria:

Date of event occurs within 30 days after any operative procedure (where day 1 = the procedure date)

**AND**

involves only skin and subcutaneous tissue of the incision

**AND**

patient has at least ***one*** of the following:

- a. purulent drainage from the superficial incision.
- b. organism(s) identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).
- c. superficial incision that is deliberately opened by a surgeon, physician or physician designee and culture or non-culture based testing of the superficial incision or subcutaneous tissue is not performed

**AND**

patient has at least ***one*** of the following signs or symptoms: localized pain or tenderness; localized swelling; erythema; or heat.

- d. diagnosis of a superficial incisional SSI by a physician or physician designee.

### **Deep incisional SSI**

Must meet the following criteria:

The **date of event occurs within 30 or 90 days after the operative procedure** (where day 1 = the procedure date) **according to the list in Table 1.**

**AND**

involves deep soft tissues of the incision (for example, fascial and muscle layers)

**AND**

patient has at least one of the following:

- a. purulent drainage from the deep incision.
- b. deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, physician or physician designee

**AND**

organism(s) identified from the deep soft tissues of the incision by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)) or culture or non-culture based microbiologic testing method is not performed. A culture or non-culture based test from the deep soft tissues of the incision that has a negative finding does not meet this criterion.

**AND**

patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness.

- c. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.

#### **Organ/Space SSI**

Must meet the following criteria

The **date of event occurs within 30 or 90 days after the operative procedure** (where day 1 = the procedure date) **according to the list in Table 1.**

**AND**

involves any part of the body deeper than the fascial/muscle layers that is opened or manipulated during the operative procedure

**AND**

patient has at least one of the following:

- a. purulent drainage from a drain that is placed into the organ/space (for example, closed suction drainage system, open drain, T-tube drain, CT-guided drainage).
- b. organism(s) identified from fluid or tissue in the organ/space by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).
- c. an abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test evidence suggestive of infection.

**AND**

meets at least one criterion for a specific organ/space infection site listed in Table 2.

Source: NHSN definition [Surveillance Definitions \(cdc.gov\)](https://www.cdc.gov/nhsn/surgical-site-infection/)

**Table 1. Surveillance periods for SSI following operative procedures**

Operative procedures	
30-day Surveillance	
Abdominal aortic aneurysm repair	Laminectomy
Limb amputation	Liver transplant
Appendix surgery	Neck surgery
Shunt for dialysis	Kidney surgery
Bile duct, liver or pancreatic surgery	Ovarian surgery
Carotid endarterectomy	Prostate surgery
Gallbladder surgery	Rectal surgery
Colon surgery	Small bowel surgery
Cesarean section	Spleen surgery
Gastric surgery THOR Thoracic surgery	Thyroid and/or parathyroid surgery
Abdominal hysterectomy	Vaginal hysterectomy
Kidney transplant	Exploratory laparotomy
90-day Surveillance	
Breast surgery	Open reduction of fracture
Cardiac surgery	Herniorrhaphy
Coronary artery bypass graft with both chest and donor site incisions	Hip prosthesis
Coronary artery bypass graft with chest incision only	Knee prosthesis
Craniotomy	Pacemaker surgery
Spinal fusion	Peripheral vascular bypass surgery
	Ventricular shunt

**Table 2. Specific Sites of Organ/Space SSI**

Specific site
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Osteomyelitis s	Mediastinitis
Breast abscess or mastitis	Meningitis or ventriculitis
Myocarditis or pericarditis	Oral cavity infection (mouth, tongue, gums)
Disc space infection	Deep pelvic tissue infection or other infection of the male or female reproductive tract
Ear, mastoid infection	Periprosthetic joint infection
Endometritis	Spinal abscess/infection
Endocarditis	Sinusitis
Gastrointestinal (GI) tract infection	GIT Gastrointestinal (GI) tract
Intraabdominal infection, not specified elsewhere	Urinary System Infection
Intracranial infection VASC	Arterial or venous infection
Joint or bursa infection	Vaginal cuff infection
Other infection of the lower respiratory tract	

### ***Clostridioides difficile* Infection (CDI)**

**Criterion 1:** has diarrhea\* or fever, abdominal pain and/or ileus AND a laboratory confirmation of a positive toxin assay or positive polymerase chain reaction (PCR) for *C. difficile* toxin gene(s) (without reasonable evidence of another cause of diarrhea).

OR

**Criterion 2:** has a diagnosis of pseudomembranes on sigmoidoscopy or colonoscopy (or after colectomy) or histological/ pathological diagnosis of CDI.

OR

**Criterion 3:** is diagnosed with toxic megacolon (in adult patients only).

#### **Exclusions**

- Any patients under 1 year of age.
- Any pediatric patients (aged 1 year to less than 18 years) with alternate cause of diarrhea found (i.e. rotavirus, norovirus, enema or medication etc.) are excluded even if *C. difficile* diagnostic test result is positive.

\*Diarrhea is defined as one of the following:

- ✓ 6 or more watery/unformed stools in a 36-hour period
- ✓ 3 or more watery/ unformed stools in a 24-hour period and this is new or unusual for the patient (in adult patients only)

Source: CNISP 2023 definition

## Bloodstream Infection (BSI)

The BSI is NOT related to an infection at another site (not a secondary BSI according to National Healthcare Safety Network (NHSN) definitions – please refer to [Chapter 2](#) and [Chapter 4-Appendix B](#)) and it meets one of the following criteria:

**Criterion 1:** Recognized pathogen cultured from at least one blood culture, unrelated to infection at another site (not a secondary BSI according to NHSN definitions).

**OR**

**Criterion 2:** At least one of: fever ( $>38^{\circ}\text{C}$  core), chills, hypotension ; if aged  $< 1$  year: fever ( $>38^{\circ}\text{C}$  core), hypothermia ( $<36^{\circ}\text{C}$  core), apnea, or bradycardia AND common skin contaminant cultured from  $\geq 2$  blood cultures drawn on separate occasions, or at different sites, unrelated to infection at another site (not a secondary BSI according to NHSN definitions).

Criterion elements must be met within a seven-day time period which includes three days before and three days after the collection date of the first positive blood culture.

Diphtheroids (*Corynebacterium* spp. not *C. diphtheria*), *Bacillus* spp (not *B. anthracis*), *Propionibacterium* spp., coagulase-negative staphylococci, (including *S. epidermidis*) viridans group streptococci, *Aerococcus* spp., *Micrococcus* spp and *Rhodococcus* spp

Different sites may include peripheral veins, CVCs, or separate lumens of a multilumen catheter. Different times include 2 blood cultures collected on the same or consecutive calendar days via separate venipunctures or catheter entries. The collection date of the first positive blood culture is the date used to identify the date of positive culture. Two positive blood culture bottles filled at the same venipuncture or catheter entry constitute only one positive blood culture.

Source: CNISP 2023 definition

## Central line-associated bloodstream infection

A CLABSI must meet one of the following criteria:

**Criterion 1:** A laboratory-confirmed bloodstream infection (LCBSI) where a central line catheter (CL) or umbilical catheter (UC) was in place for >2 calendar days on the date of the positive blood culture, with day of device placement being Day 1.

OR

**Criterion 2:** A LCBSI where CL or UC was in place >2 calendar days and then removed on the day or one day before positive blood culture drawn.

CL = venous access device that terminates at or close to the heart or in one of the great vessels. The CDC/NHSN defines great vessels as: aorta, pulmonary artery, inferior and/or superior vena cava, brachiocephalic, internal jugular, subclavian, external iliac, common iliac, femoral veins, and umbilical artery and vein.

CLs include non-tunnelled (standard) CL, coated or not, peripherally inserted CL (PICC), tunnelled devices (e.g. Broviac, Hickman), tunnelled haemodialysis line, intra-cardiac catheters such as intra-atrial & ventricular lines, dual function lines such as temperature/venous catheters e.g. Cool line catheters, Quattro catheters, introducers etc.), pulmonary artery catheters, umbilical artery and vein catheters and implanted catheters (including ports).

Other arterial catheters are NOT included. AV fistulas and or grafts, pacemaker leads and other non-infusion devices (ECMO, IABP and VAD) inserted into central blood vessels or the heart are NOT included

**Source:** CNISP 2023 definition

## **VIRAL RESPIRATORY INFECTION (VRI)**

Positive viral culture by PCR (polymerase chain reaction), DFA (direct fluorescent antigen) or EIA (enzyme immunoassay) for a viral respiratory tract pathogen.

**AND**

At least one of the following signs or symptoms:

fever (> 38 °Celsius) or single temperature >1.1°Celsius over baseline from any site (oral, rectal, tympanic, axillary), rhinitis, nasal congestion, pharyngitis, sneezing, cough, wheeze, stridor, apnea, dyspnea, laboured breathing, increased respiratory secretions, change in characteristics of chronic secretions, decreased air entry on auscultation, rales, rhonchi, decreased oxygen saturation, need for

increased FiO<sub>2</sub>, increased ventilator support, increased suctioning or new abnormality on chest radiograph.

Symptoms do not have to be present for COVID-19 patients, however COVID-19 patients with an elevated CT value (30+) indicating low viral load AND no recent symptoms (last 14 days) should be excluded.

**AND**

No other evident cause for the abnormality.

**Source:** CNISP 2023 definition

## VIRAL GASTROENTERITIS

Gastroenteritis must meet at least one of the following criteria:

1. Patient has an acute onset of diarrhea (liquid stools for > 12 hours) and no likely noninfectious cause

(for example, diagnostic tests, therapeutic regimen other than antimicrobial agents, acute exacerbation of a chronic condition, or psychological stress information).

2. Patient has at least **two** of the following signs or symptoms: nausea\*, vomiting\*, abdominal pain\*, fever (>38.0°C), or headache\*

**And at least one of the following:**

a. an enteric pathogen is identified from stool or rectal swab by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment, for example, not Active Surveillance Culture/Testing (ASC/AST).

b. an enteric pathogen is detected by microscopy on stool

c. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for organism.

\* With no other recognized cause

Source: NHSN definition [Surveillance Definitions \(cdc.gov\)](https://www.cdc.gov/nhsn/definitions)

**ANNEX "B"**

**BASIS OF PAYMENT**

(To be inserted at contract award).