

ORCHIDEE PROJECT

Scientific Committee Meeting (COSCI)

First meeting – November 27, 2024

Les travaux sont en cours de développement et susceptibles d'évoluer. Les informations présentées reflètent l'état actuel des analyses et pourraient être ajustées dans le cadre de leur maturation. / The work is ongoing and may continue to evolve. The information presented reflects the present state of analysis and may be adjusted as it progresses.

1

Introduction of new participants and members *5 mn*

2

General structure of WP2 activities *45 mn*

- 2.1 Reminder of WP2 milestones and deliverables
- 2.2 Organization and governance for scientific monitoring of the project
- 2.3 Presentation of mission letter for POC leaders
- 2.4 Presentation of indicator template

3

Monitoring of POC activities *30 mn*

- 3.1 Composition of working groups
- 3.2 Case definition for epidemiological surveillance purposes

4

Additional topics *10 mn*

- 4.1 Schedule and organization of upcoming COSCI meetings
- 4.2 Other topics

1

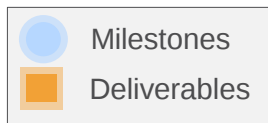
Introduction of news participants and members

2

General structure of WP2 activities

- 2.1 Reminder of WP2 milestones and deliverables
- 2.2 Organization and governance for scientific monitoring of the project
- 2.3 Presentation of mission letter for POC leaders
- 2.4 Presentation of indicator template

2.1 Reminder of WP2 milestones and deliverables



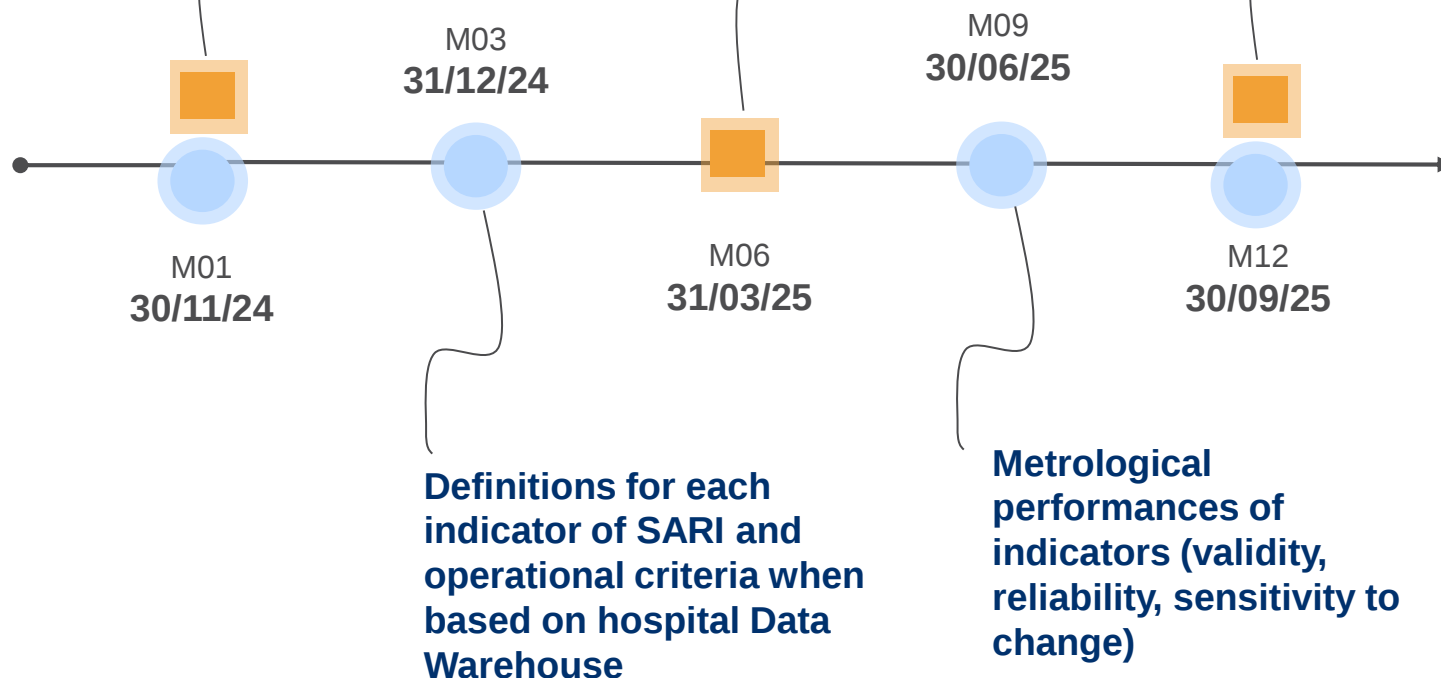
Years 2024 - 2025

Process indicators
for monitoring data
reporting to Santé
publique France
+
★ COSCI bylaws

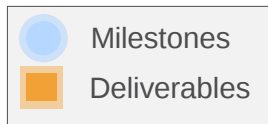
First meeting COSCI
+
Publication of the
Minutes of the First
COSCI Meeting

BLUEPRINT
SARI

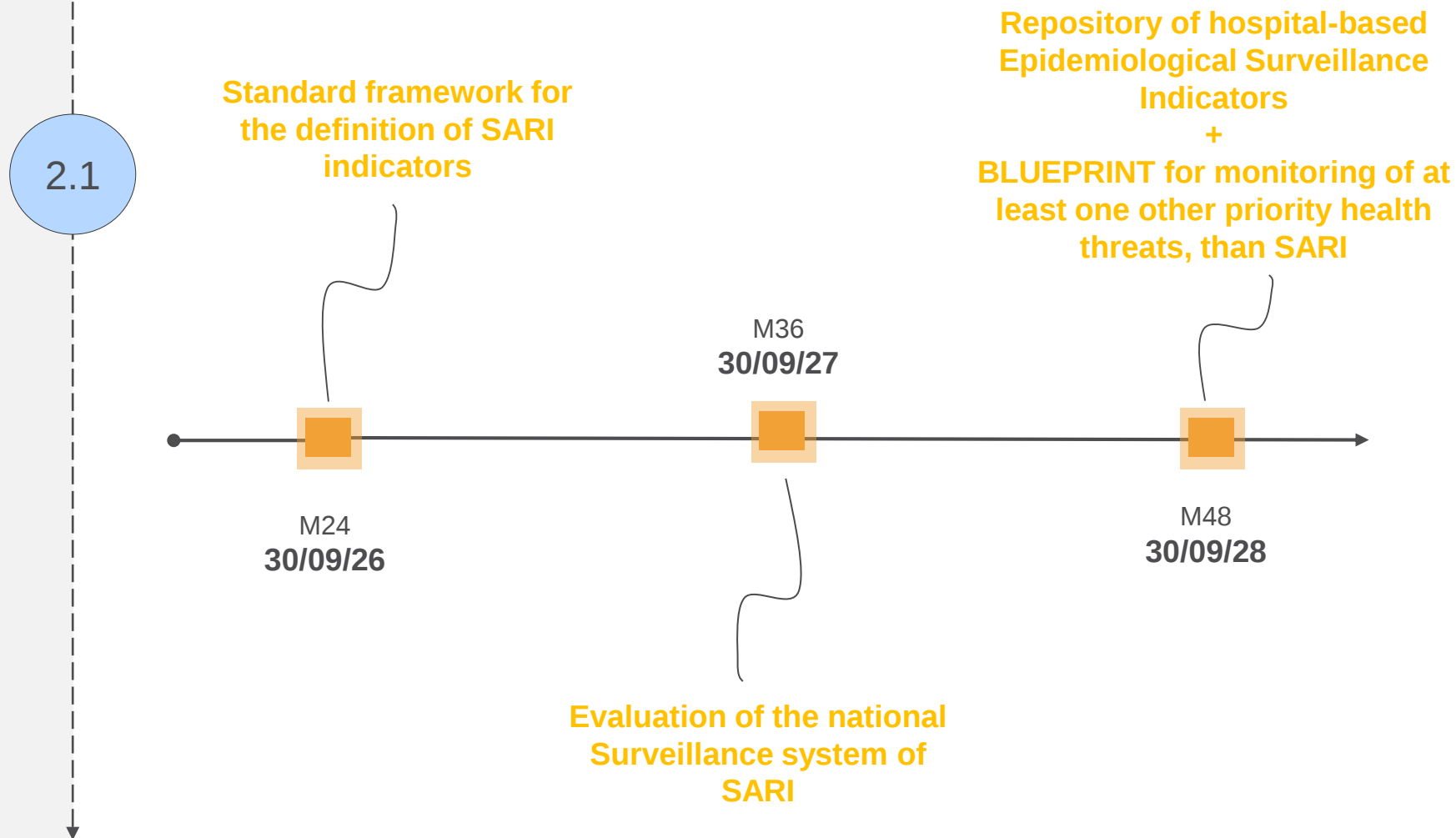
2.1



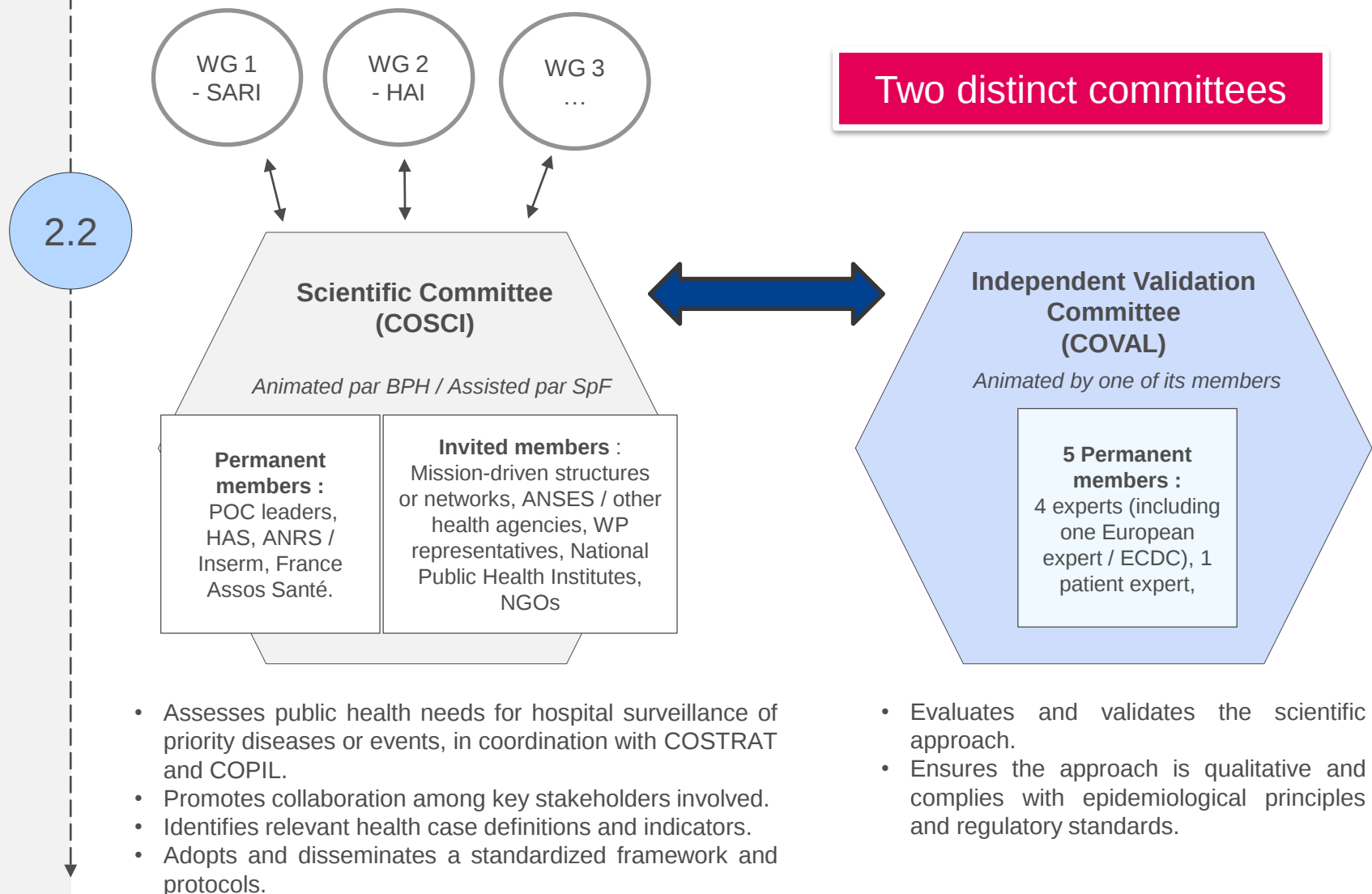
2.1 Reminder of WP2 milestones and deliverables



Years 2025 - 2028



2.2 Organization and governance for scientific monitoring of the project



2.3

Presentation of mission letter for POC leaders

2.4

Five key steps in the process

1. Define the epidemiological framework for surveillance
2. Design case definitions adapted to Orchidée needs
3. Evaluate metrological qualities
4. Standardize and scale up indicator scripts
5. Monitor and adapt indicators over time

2.4 Presentation of indicator template

Template

2.4

! DEADLINE : Thank you for providing feedback on the SARI templates / forms by **Friday, December 13.**

Structure of the “Indicator template”

- Epidemiological definition (WP2) = steps 1 and 2
- Technical specifications (WP3) = step 4
- Metrological properties (WP2) = step 3

2.4 Presentation of indicator template

Template

Epidemiological definition (WP2)

Epidemiological definition	
Indicator name	
Justification	
Objective	
Epidemiologic specification	
Numerator / event of interest	
Denominator	
Adjustment	
Data source	
Form of result	
List of variables necessary for indicators and metrological assessment	
Output format	
Distribution process	
Ethical requirements / recommendation	

2.4 Presentation of indicator template

Template

Epidemiological definition (WP2)

2.4

Justification

- ECDC's SARI reporting protocol (v. 3.8; August 14, 2023).
- ECDC defines SARI cases as:
 - "Patient with an acute respiratory infection that requires hospitalization AND:
 - Has a history of fever or measured fever of $\geq 38\text{ C}^\circ$ AND
 - cough AND
 - with an onset within the last 10 days."
- A proxy of this definition is defined through ICD-10 codes.



TESSy - The European Surveillance
System

Severe Acute Respiratory Infections (SARI)
Reporting Protocol
Version 3.8

SARI reporting protocol

14 August 2023

2.4 Presentation of indicator template

Template

Epidemiological definition (WP2)

2.4

Objective

- To monitor in near real-time trends of hospitalized SARI cases to guide public health decisions.

Events of interest

SARI hospital admission	SARI ICU admission	SARI death
New inpatient stay with a preliminary diagnosis of SARI	SARI hospital admission that includes at least one admission to an Intensive Care Unit (ICU)	SARI hospital admission where the patient dies during the inpatient stay
Time reference: Week of hospital admission	Time reference: Week of first ICU admission	Time reference: Week of inpatient death

2.4 Presentation of indicator template

Template

Epidemiological definition (WP2)

Proxy from ICD-10 codes

- Respiratory infections: J00 to J99
 - Acute respiratory infections: J00 to J22 + U07 (COVID)
 - Acute lower respiratory infections: J9 to J22 + U07
- Benchmarking with other European countries:

Country	ICD-10 codes				
	J01-J06	J09-J22	Other J	U07	Others
Denmark		X	X	X	
Germany		X		X	
Iceland		X		X	
Netherlands (The)	X	X		X	
Norway	X	X	X	X	A, H
Portugal		X	X	X	R, I
Scotland	J4	X	X	X	

Codes used in the literature for surveillance of SARI, according to Wells J, Young JJ, Harvey C, Mutch H, McPhail D, Young N, et al. Real-time surveillance of severe acute respiratory infections in Scottish hospitals: an electronic register-based approach, 2017-2022. Public Health. dec 2022;213:5-11.

J00	Acute nasopharyngitis (common cold)	17,20
J01	Acute sinusitis	20
J02	Acute pharyngitis	17
J04*	Acute laryngitis and tracheitis	17
J06	Acute upper respiratory infections of multiple and	16,17,20

J09-J11: influenza

J12-J18: pneumonia

J20: bronchitis

J21: bronchiolitis

J22: unspecified lower RTI respiratory tract infection

U07 (except U07.13) : COVID-19

J17*	Pneumonia in diseases classified elsewhere	9,18
J18*	Pneumonia, unspecified organism	9,16-18,20
J20*	Acute bronchitis	9,18,20,23
J21*	Acute bronchiolitis	9,18,23
J22*	Unspecified acute lower respiratory infection	9,16,18,20,23
J40	Bronchitis, not specified as acute or chronic	20
B34	Viral infection of unspecified site	16
B97.4	Respiratory syncytial virus as the cause of diseases classified elsewhere	23
R05	Cough	20
U07.1*	SARS-CoV-2 confirmed	21
U07.2*	SARS-CoV-2 suspected	21
J80*	Acute respiratory distress syndrome	24

ICD-10, International Classification of Diseases, Tenth Revision.

*ICD-10 codes part of SARI surveillance in Scotland.

2.4 Presentation of indicator template

Template

Epidemiological definition (WP2)

2.4

Definitions

- Preliminary diagnosis of SARI corresponds to the first occurrence of the SARI code during the inpatient stay (diagnosis available as early as possible).
- Inpatient stay is defined as the care of a patient in one or more medical units of a geographical entity of the hospital .
- Week is defined as the epidemiological week: Monday 00:00 to Sunday 23:59; ISO 8601 norms: the first week of the year is the week with a majority (four or more) of its days in January.

2.4 Presentation of indicator template

Template

Epidemiological definition (WP2)

2.4

Forms of results

For each event of interest :

- Number of weekly events according to the time reference (time series), globally.
- Stratification:
 - *By age group* (< 1 month; 1 to 2 months; 3 to 5 months; 6 to 11 months; 12 to 23 months; 24 months to 4 years; 5 to 14 years; 15 to 29 years; 30 to 64 years; 65 to 74 years; 75 to 79 years; ≥ 80 years; unknown);
 - *By gender*: male, female, other, unknown;
 - *By ICD-10 code categories* of preliminary SARI diagnosis;
 - *By pathogen laboratory confirmation* (Influenza, RSV, SARS-CoV-2).

2.4 Presentation of indicator template

Template

Technical specifications (WP3)

Technical specifications

technical documentation needed to move from general definition of indicator to calculating it in a reproducible way

Numerator / Event of interest	
Denominator	not applicable
Adjsutement	not applicable
Calculation method	
Output format	
Data Management	
Indicator calculation version	

2.4 Presentation of indicator template

Template

Metrological properties (WP2)

2.4

Empirical measurement

- **Study period:** Last two years (the 26th week of 2022 to the week of reporting).
- **Timeliness:** Mediane and mean time (in days) between the admission date and the availability of SARI preliminary diagnosis.

Timeliness of data availability

University Hospital of Bordeaux, S26 2021 – S26 2023

DP PMSI

Month	Mean delay	Median delay
January	31.29	21
February	27.37	21
March	25.74	21
April	26.12	24
May	31.58	24
June	31.75	26
July	38.83	34
August	40.69	32
September	29.94	26
October	28.49	25
November	27.66	26
December	27.69	25
Total	30.18	25

Preliminary diagnosis

Month	Mean delay	Median delay
January	0.58	0
February	0.58	1
March	0.53	0
April	0.56	0
May	0.44	0
June	0.38	0
July	0.53	0
August	0.57	0
September	0.48	0
October	0.39	0
November	0.31	0
December	0.73	0
Total	0.52	0

2.4 Presentation of indicator template

Template

Metrological properties (WP2)

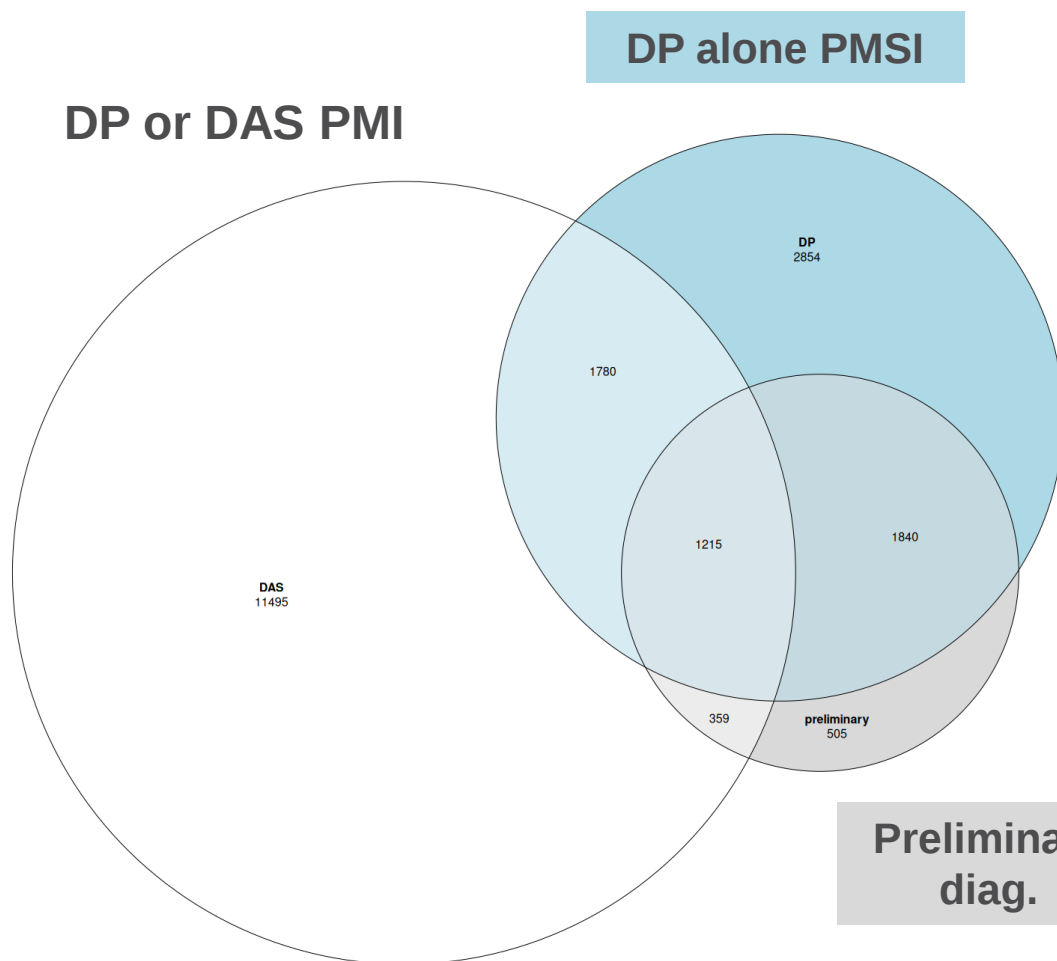
2.4

Comparison with other indicators

- **Sensitivity:** Venn diagramm comparing preliminary diagnosis with PMSI diagnosis (DP, DAS).

Euler Diagram between 3 SARI case definitions

University Hospital of Bordeaux, S26 2021 – S26 2023



Tab.: Number and percentage of sensitive case definitions captured

	n	%
DP or DAS PMSI	19543	100
DP alone PMSI	7689	40
Preliminary diagnosis	3919	20

2.4 Presentation of indicator template

Template

Metrological properties (WP2)

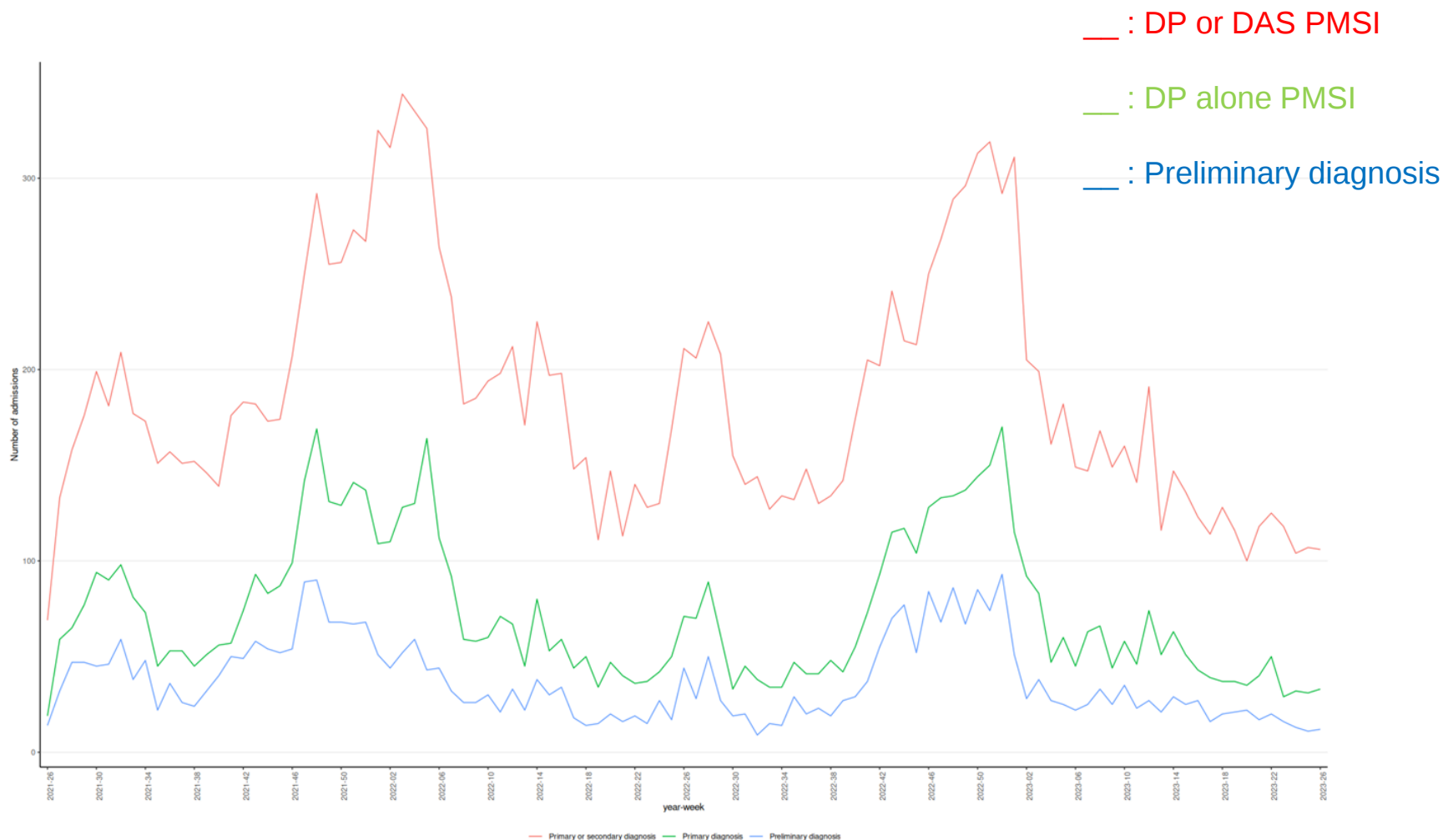
2.4

Comparison with other indicators

- **Trends:** Time series comparing preliminary SARI diagnosis with
 - Internal data from PMSI (DP alone; DP and/or DAS) ICD-10 codes of SARI;
 - External data source from Oscour® of your hospital (number of hospitalization with SARI following emergency department).

SARI incidence by case definition

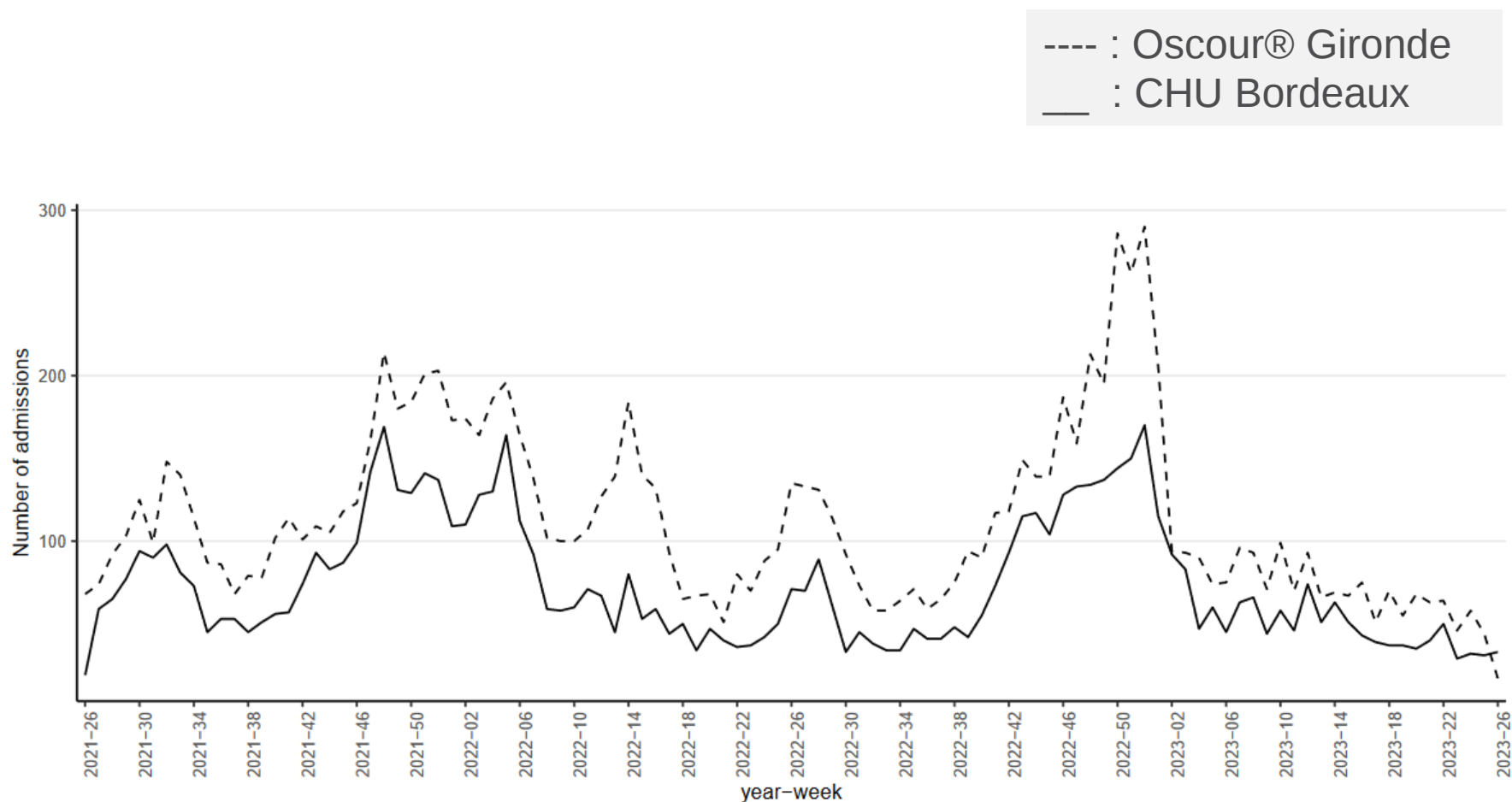
University Hospital of Bordeaux, S26 2021 – S26 2023



Number of admissions with an ARI Primary or Secondary Diagnosis, Primary Diagnosis or Preliminary diagnosis during the stay by week of admission according to the Bordeaux CDW

SARI incidence

DP PMSI University Hospital of Bordeaux vs Oscour® data Gironde,
S26 2021 – S26 2023



2.4 Presentation of indicator template

Template

Metrological properties (WP2)

2.4

Next steps

- Contact and integration of other HDW into SARI WG.
- Meeting of the SARI POC working group, including representatives from the hospitals contributing to “Wave 1” of implementation.
- Iteration with WP3.
- December 12, 2024: Consultation with experts (CNR).
- December 19, 2024: COTECH meeting.

3

Monitoring of POC activities

- 3.1 Composition of working groups
- 3.2 Case definition for epidemiological surveillance purposes

3.1 Composition of working groups

POC SARI

3.1

Steps	Leaders / composition	Status by November 26, 2024
Co-leaders DWH (informatics and epidemiology)	University Hospital of Bordeaux (informatics), Bordeaux Population Health (epidemiology)	☒
Representatives Santé publique France (national and regional)		☒
Mission-driven institutions	National Reference Center, other agencies, learned societies, etc.	To be determined
Contributors DWH	AP-HP, GCS HUGO, University Hospital of Rouen, PAiSAGE	Names to be completed
Experts		To be determined

3.1 Composition of working groups

POC Healthcare associated infections

3.1

Steps	Leaders / composition	Status by November 26, 2024
Co-leaders DWH (informatics and epidemiology)	GCS HUGO (informatics), University Hospital of Nice (epidemiology)	☒
Representatives Santé publique France (national and regional)		Names to be completed (regional)
Mission-driven institutions	CPias Île-de-France and mission SPICMI	☒
Contributors DWH	AP-HP, University Hospital of Nice	Names to be completed
Experts		To be determined

3.1 Composition of working groups

POC Severe bacterial infections

3.1

Steps	Leaders / composition	Status by November 26, 2024
Co-leaders DWH (informatics and epidemiology)	University Hospital of Rouen (informatics)	Names to be completed (epidemiology)
Representatives Santé publique France (national and regional)		☑
Mission-driven institutions	National Reference Center, other agencies, learned societies, etc.	To be determined
Contributors DWH	AP-HP	Names to be completed
Experts		To be determined

3.1 Composition of working groups

POC Arboviroses and VB diseases

3.1

Steps	Leaders / composition	Status by November 26, 2024
Co-leaders DWH (informatics and epidemiology)	University Hospital of Martinique (informatics), University Hospital of Tours (epidemiology)	☒
Representatives Santé publique France (national and regional)		☒
Mission-driven institutions	National Reference Centers, other agencies, learned societies, etc.	Names to be completed
Contributors DWH	AP-HP	Names to be completed
Experts		To be determined

3.1 Composition of working groups

POC Antimicrobial resistance

3.1

Steps	Leaders / composition	Status by November 26, 2024
Co-leaders DWH (informatics and epidemiology)	University Hospital of Rouen	Names to be completed (epidemiology)
Representatives Santé publique France (national and regional)		Names to be completed (regional)
Mission-driven institutions	CPias Nouvelle-Aquitaine and mission SPARES	To be determined
Contributors DWH	AP-HP	Names to be completed
Experts		To be determined

Expression of POC leaders by Working Groups

1. Thematic Working Group - SARI
2. Thematic Working Group - Healthcare associated infections
3. Thematic Working Group - Severe bacterial infections
4. Thematic Working Group - Arboviroses and VB diseases
5. Thematic Working Group - Antimicrobial resistance

4

Additional topics

- 4.1 Schedule and organization of upcoming COSCI meetings
- 4.2 Other topics

4.1 Schedule and organization of upcoming COSCI meetings

4.1

COSCI meetings: Once per month.

COVAL meetings: Once per quarter.

4.2 Other topics

4.2