

# Evaluation of the implementation of the strategic plan for surveillance and control of antimicrobial resistance, 2018-2022 in Senegal.

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**HIGHLIGHTS:** (i) Senegalese NAPAMR was planned and implemented according to a One Health approach ; (ii) Domestic financing was the main implementation facilitating factor compare to COVID-19 pandemic, as blocking factor ; (iii) Necessity of reinforcing the M&E framework taking into account risk mitigation

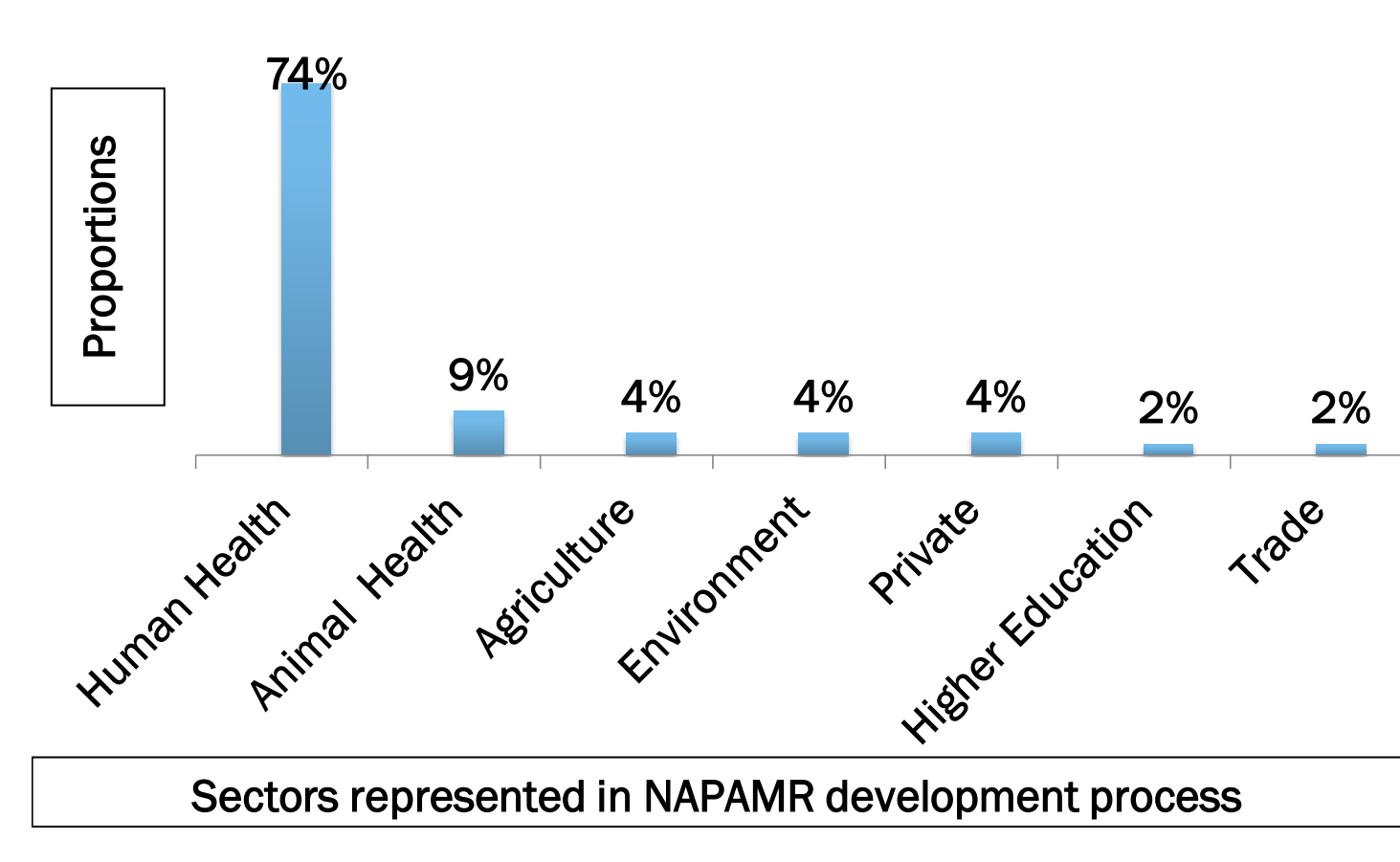
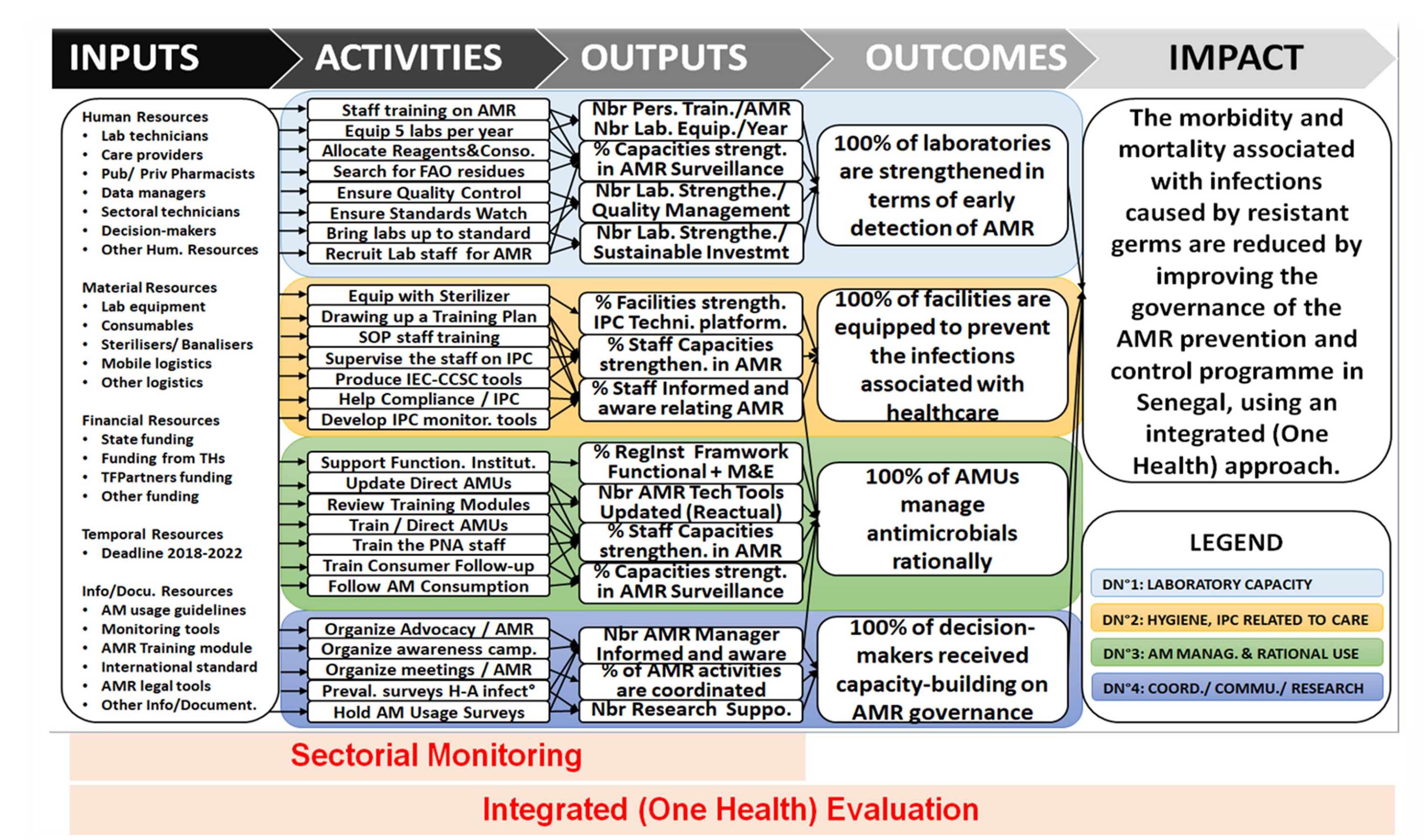


## 1- BACKGROUND

Senegal had elaborated its 1<sup>st</sup> national action plan for antimicrobial resistance (2018-2022 NAPAMR) based on a **One Health approach**. Its implementation has improved **International Health Regulations' capacities** through four (04) technical domains (DN°1: Laboratories capacity building; DN°2: Hygiene, Infection prevention and control (IPC); DN°3: Antimicrobial management & rational use in healthcare; DN°4: Coordination, Communication and Research). However, this plan was not yet evaluated in 2022, making it **urgent** to analyze its implementation level using the **logical framework** below (Figure 1)

## 3- RESULTS

Quantitative survey shown that **Human, animal & environmental health** were represented at **73.9%, 8.7%** and **4.3%** respectively (Figure 2). The **regional level** was also represented at **2.2%**, while sub-regional levels missed. The **transdisciplinarity coverage** was **adequate at 45%** and **effective at 40%** as noticed in **Table I** below.



Tab I: Institutions' involvement by sector in NAPAMR.

SECTOR	Health	Livestock	Fishing	Agriculture	Environment	Trade	University	School	Army	Defence	WASH	Local Comp.	Private	Industry	Society
	COVER- AGE LEVEL	TOTAL	100	100	100	100	100	25					100	100	
INVOLVE- MENT (%)	PARTIAL						25								
	NONE						50	100	100	100	100			100	100

Fig 2: Distribution of key-stakeholders by sector.

**Overall achievement (53.6%)** can be observed on **Figure 3A**. Those specific to **lab and hygiene, IPC** were respectively **70.6%** and **69.2%**. Implementation was overall **delayed (37.3%, Figure 3B)**, specifically also and mostly for the **DN°4 (75%)**, with 38.1% re-planned activities.

## 2- METHODS

- ❖ **Study Type:** Mixed, cross-sectional, retrospective and evaluative survey
- ❖ **Study Period:** From January, The 1<sup>st</sup> 2018 to September, The 30<sup>th</sup> 2022
- ❖ **Study Data management:** It consisted of:
  - **Data collection and entry:** Document reviews (Quantitative), Group discussions (Quantitative & Qualitative) at an assess workshop using tools, including Excel<sup>®</sup> software, set-up on the said NAPAMR domains
  - **Data analysis:** NAPAMR coverage & implementation fidelity analysis (Quantitative) ; Thematic analysis for determining factors (Qualitative) using Microsoft Excel<sup>®</sup> and (Qualitative data analysis) QDA<sup>®</sup> Software
  - **Results presentation:** Tables, Graphics and Narration (as *Verbatim*)
- ❖ **Ethical Considerations:** Approved by the National Committee for Ethics

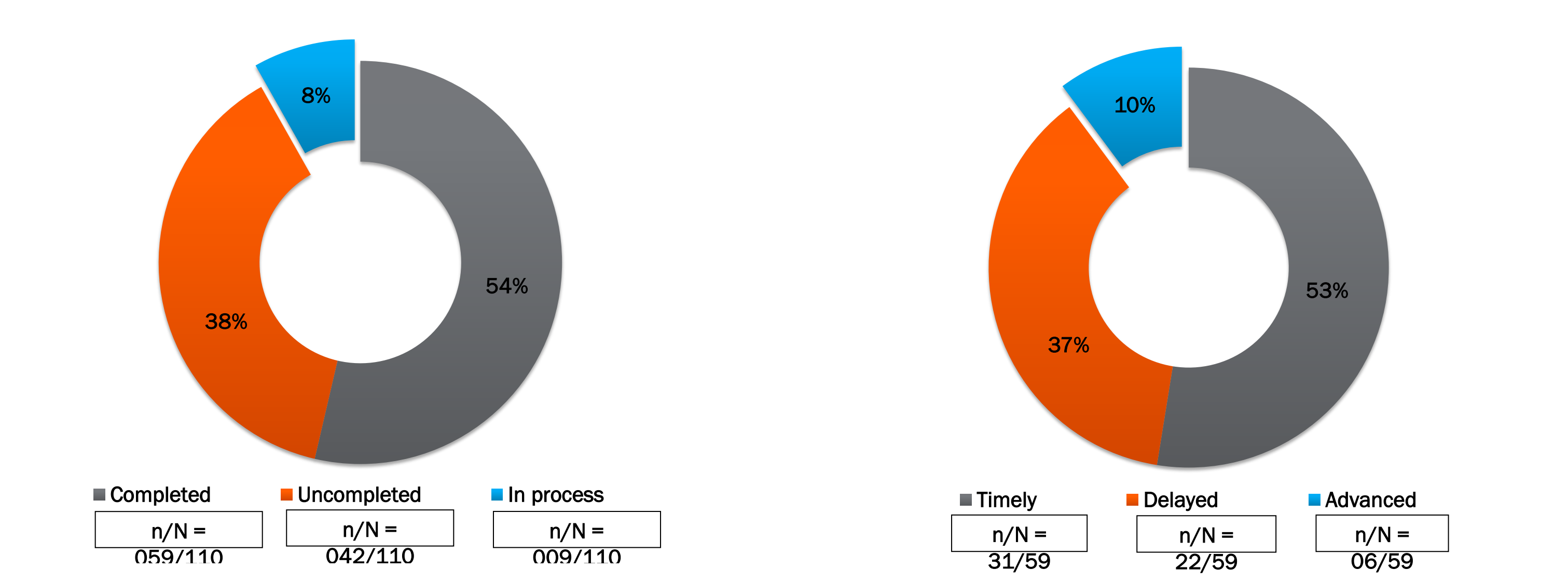


Fig 3: The NAPAMR activities implementation achievement rate: Overall (Left-3A) - Timely (Right-3B).

## 4- CONCLUSION

The NAPAMR moderately implemented, needed more fund and M&E.

**Temporal analysis** has shown an **overall decreasing five-year trend (Figure 4A)**, with annual transition (**23% in Q4 2020**) achievements increase, especially for **DN°2 (54%)** versus **DN°4 (14%, Figure 4B)**.

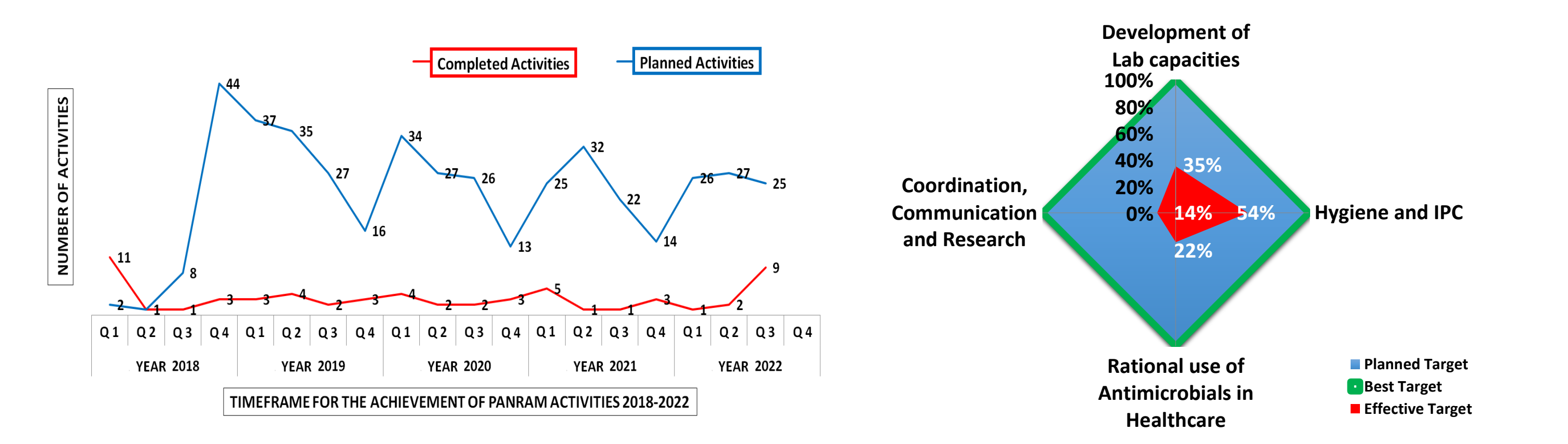


Fig 4: Senegalese 1<sup>st</sup> NAPAMR implementation fidelity analysis by time (Left-4A) & Targets (Right-4B).

**Qualitative survey** highlighted the main implementing factors (M&E funding, training, integration and COVID-19 as a blocking factor).

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