Transformations of STAR for timely alerts in WHO AFRO

Dr Dick Chamla
Programme Area Manager
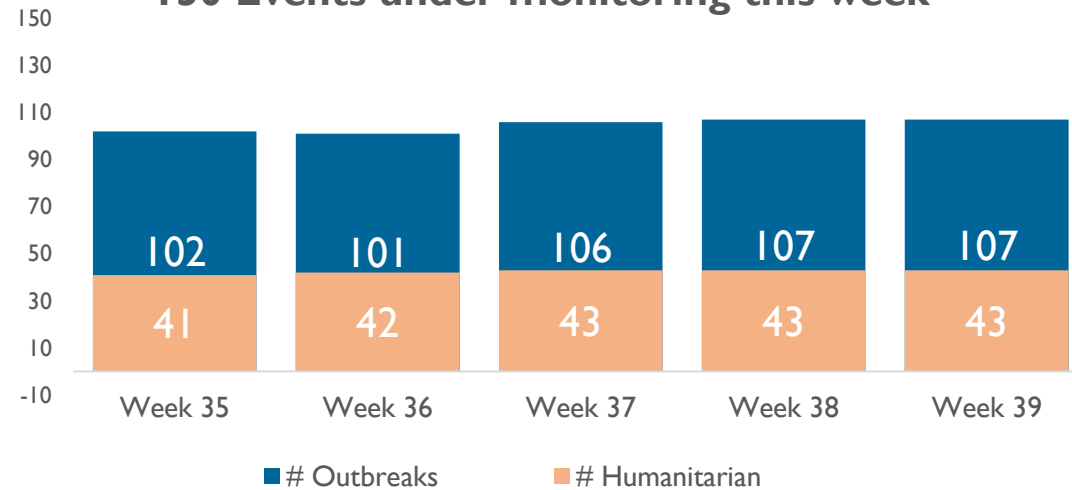**Emergency Preparedness, WHO AFRO**

World Health Organization
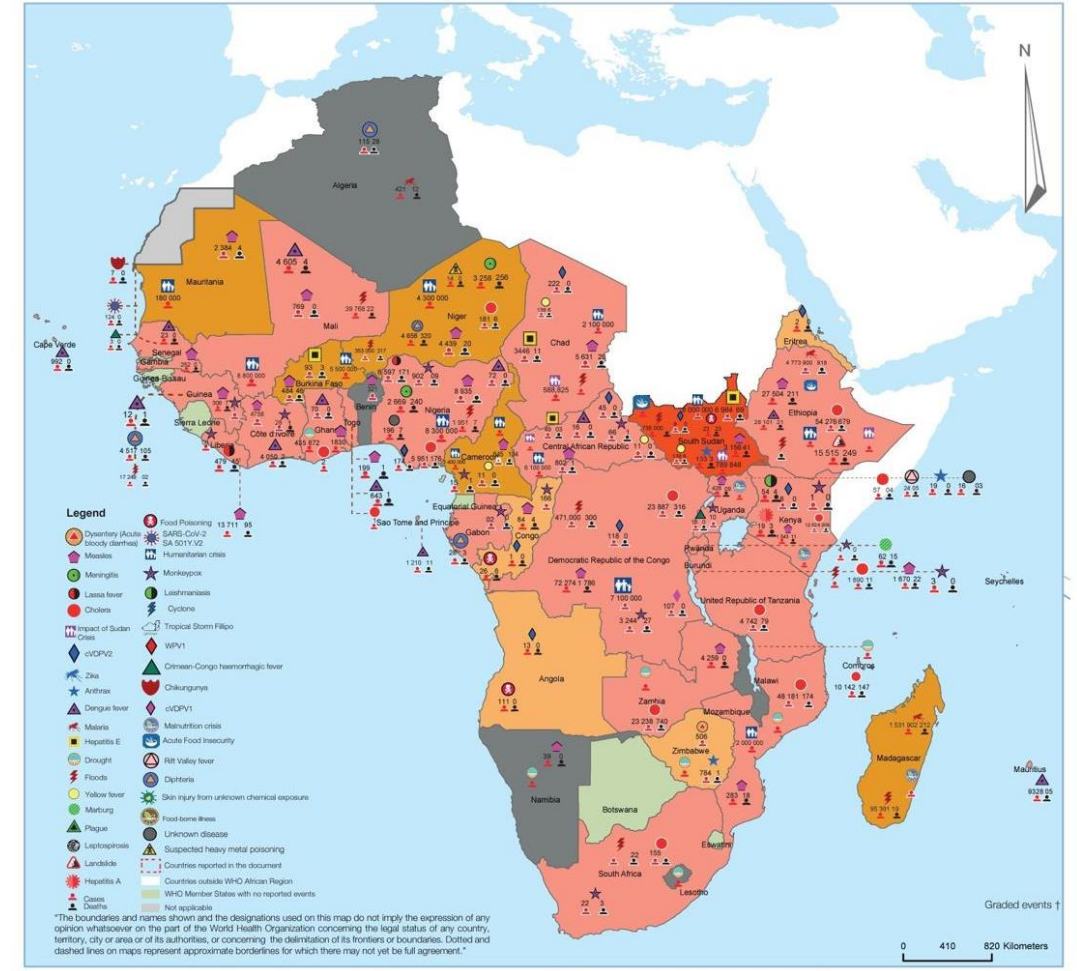African Region

EPR — Emergency Preparedness and Response

PHE events currently monitored in AFRO region

150 Events under monitoring this week

Legend:
- ■ # Outbreaks
- ■ # Humanitarian

Graded Emergencies

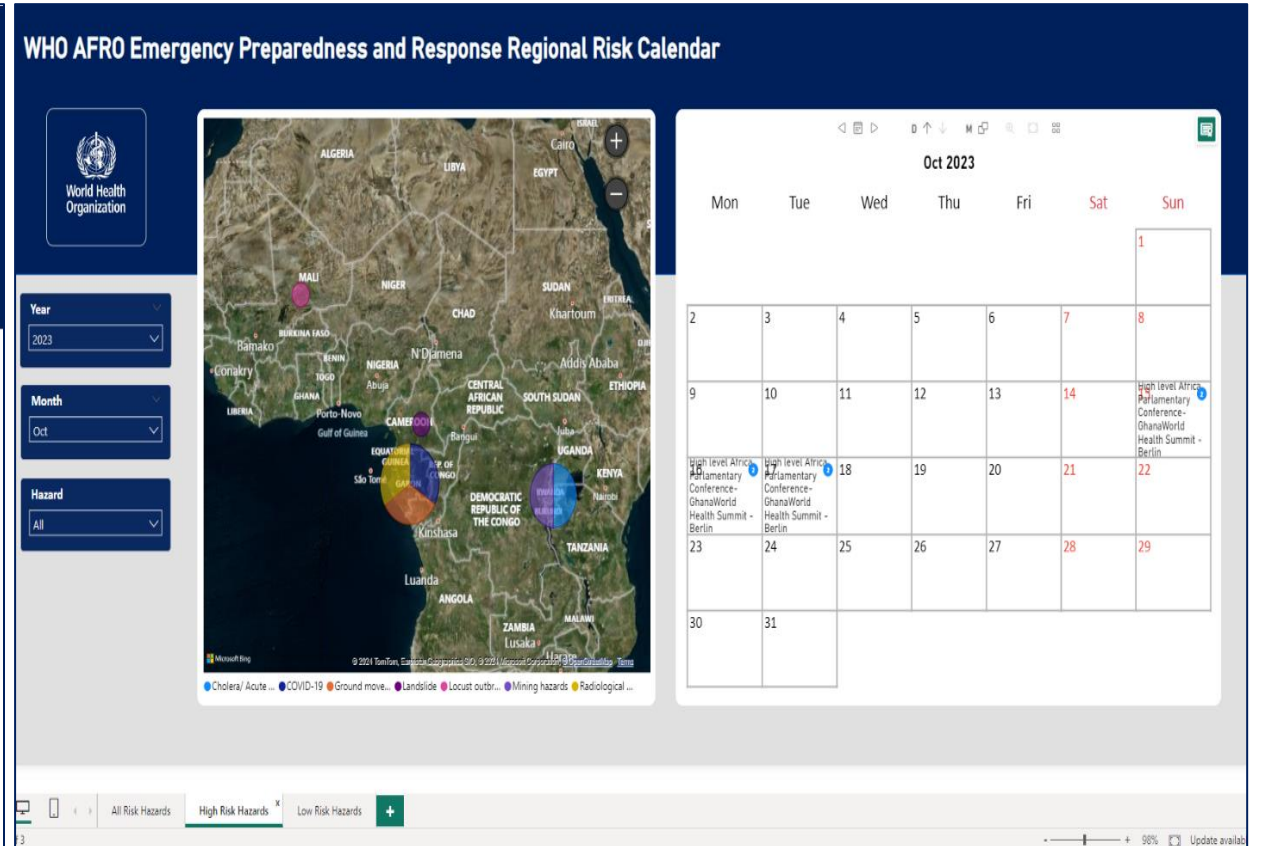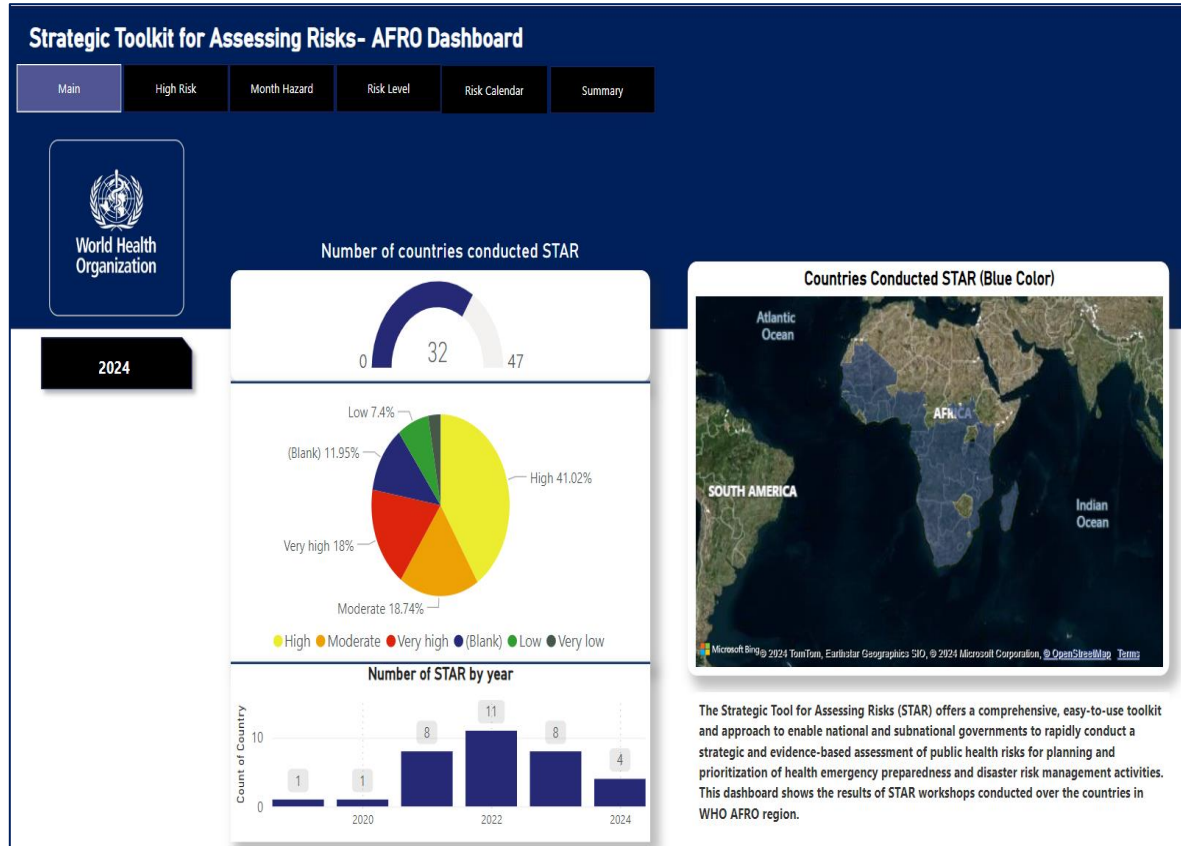| Grade	Number
G1	0
G2	2
G3	9
P1	0
P2	6
P3	1
Ungraded	71

Transformations in Risk Assessments

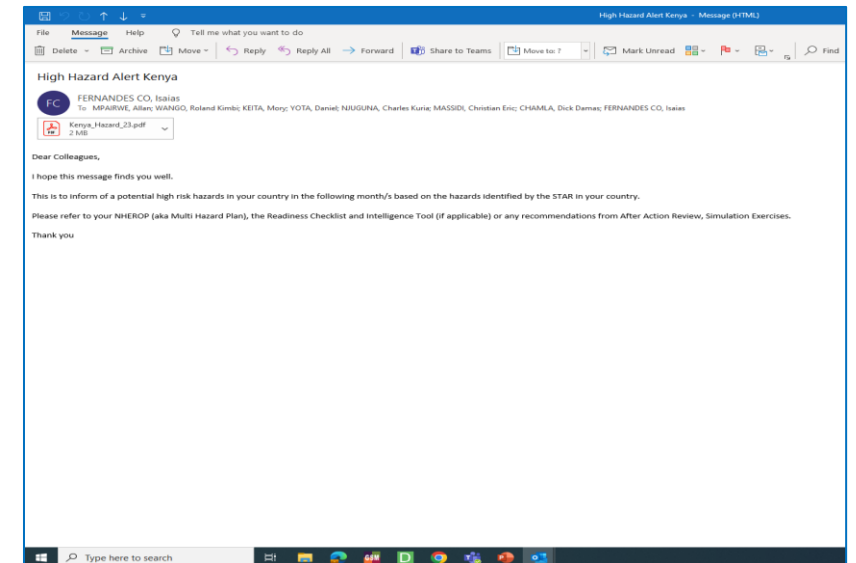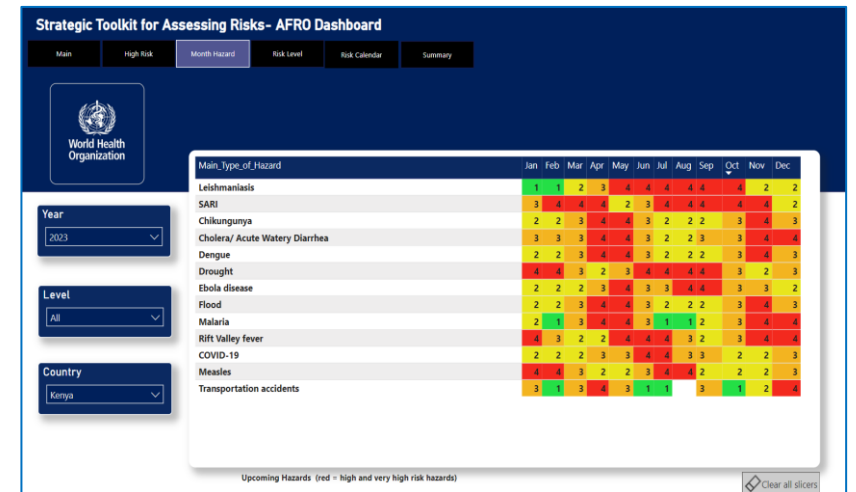## From analogs to AI-driven innovations

1. Transforming Strategic Toolkit for Assessing Risks (STAR) into Interactive STAR dashboard and Regional Risk Calendar

2. AI-driven automated hazard alerts

3. AI-driven predictive modeling of PHE cases and deaths

World Health
Organization
REGIONAL OFFICE FOR Africa

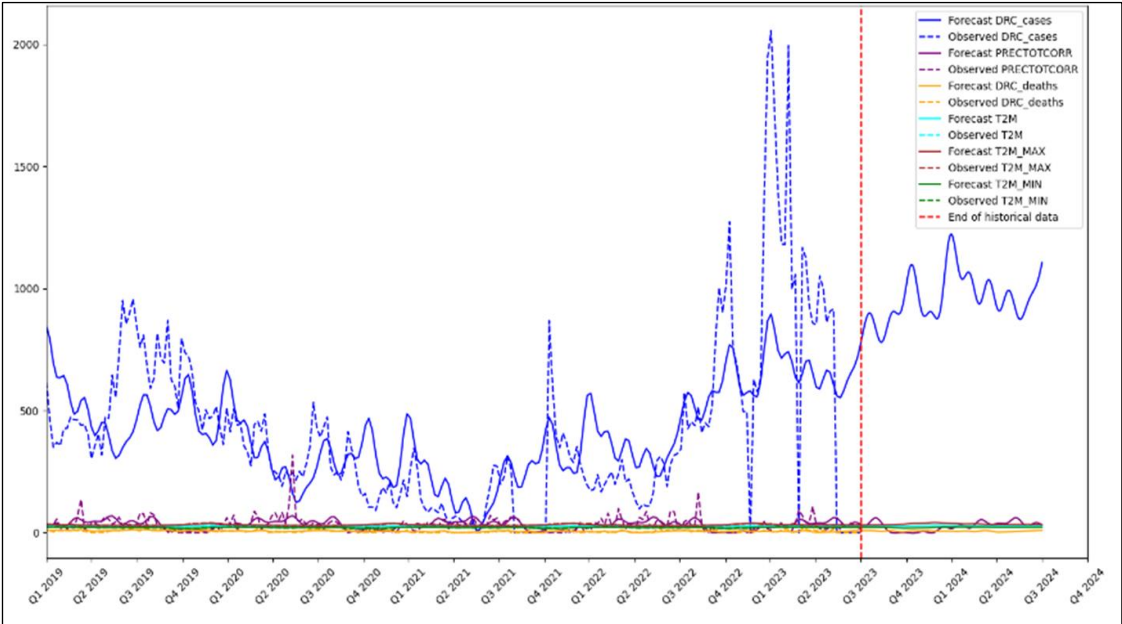# STAR dashboard and Regional Risk Calendar

Automated hazards alerts

- Triggered and sent to AFRO member states

- In three languages 2 months in advance

- E-mail with attachments

- Information on actions required

AI-driven Predictive Modeling

Actual vs Forecasted trends incorporating weather data

Predictive model accuracy using DRC cholera data

Variable	MSE	RMSE	MAE	Accuracy
DRC cases	253161.03	503.15	510.60	
DRC deaths	61.12	7.82	5.71	
PRECTOTCORR	459.60	21.44	17.48	18.9%
T2M	2.02	1.42	1.27	95.13%
T2M_MAX	6.00	2.45	2.40	92.73%
T2M_MIN	0.75	0.87	0.98	95.14%
rfe	485.57	22.04	14.30	91.3%

Next steps

1 Harvard collaborations

2 Mobile App

3 Linkages with Readiness Intelligence Tool, hotspots analysis

[Final Version of EMP video on Risk Calendar and prediction](#)

THANK YOU
MERCI A TOUS

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