

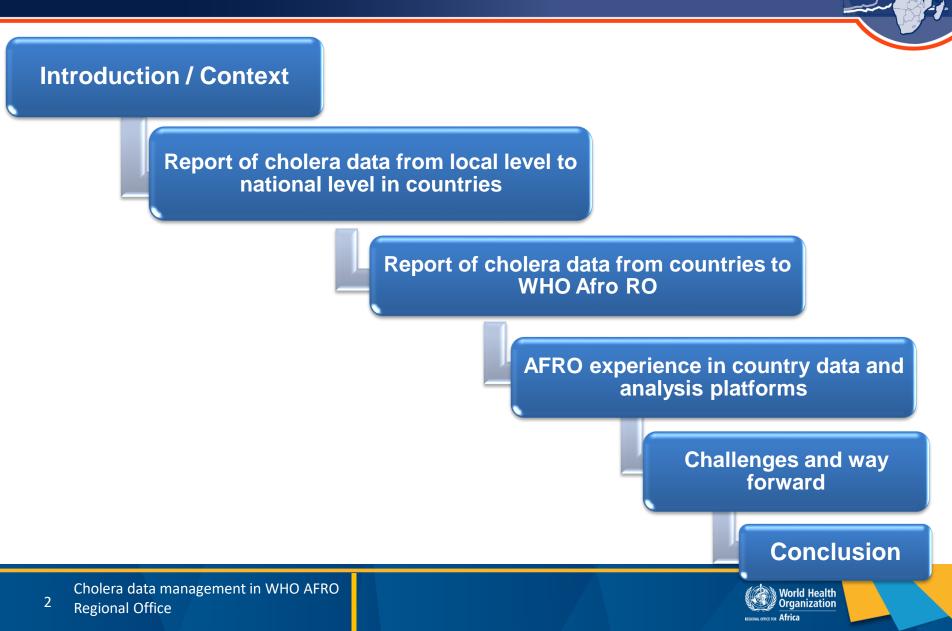
Cholera data management in WHO AFRO Regional Office

AFRO Cholera team

Dr Vincent SODJINOU WHE/IHM WHO Regional Office for Africa



Outline

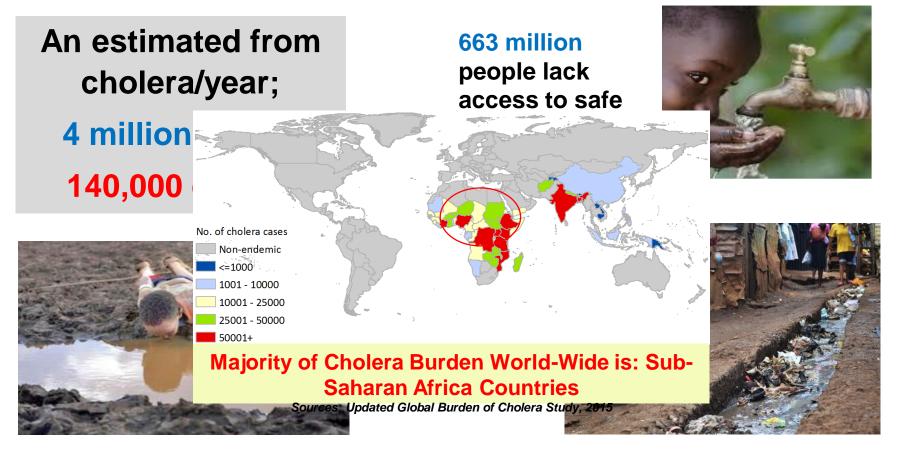


Introduction / Context



Cholera data management in WHO AFRO Regional Office

Cholera Global Snapshot

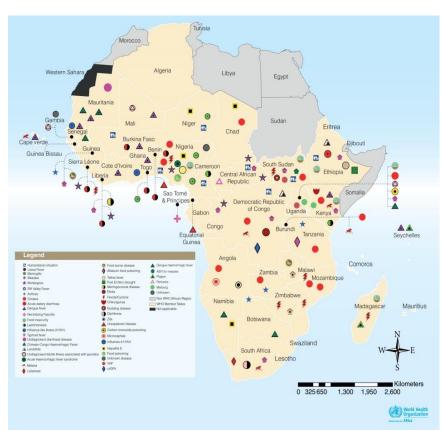


Over 2 billion drink water from faecal contaminated sources

2.4 billion people are living without improved sanitation facilities.

Cholera data management in WHO AFRO Regional Office World Health Organization Africa

WHO/AFRO Events Situational Analysis



- Regional Office of Africa provides technical, financial and logistical support to 42 countries within the region.
- In 2018, AFRO received almost (3) acute public health events (PHE) every week.
 - 39/42 countries, sent 152 true/ confirmed events across.
 - 134/152; 18 (12%) were humanitarian crises, (88%) were infectious disease outbreaks:
 - Viral Haemorrhagic Diseases (n=37, 28%),
 - Cholera (n=20, 12%)
 - Measles (n=11, 8%)



2006 - 2016:

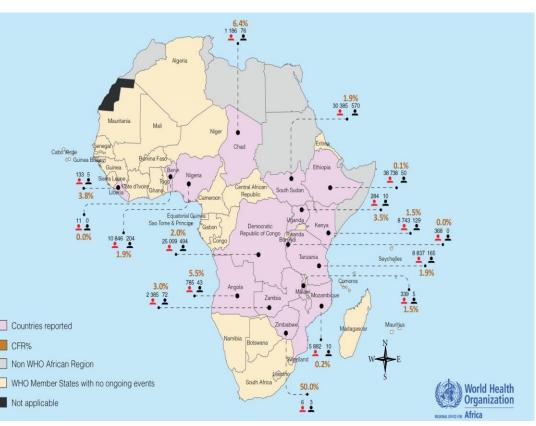
 • 752,000 cases and 17,400 deaths (CFR 2.3%) reported from 17 countries

2017:

6

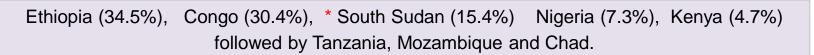
- Over 150,167 suspected cases and 3,165 deaths (CFR 2.3%) has been reported period from January – December.
- 90% of cases from 5 high burden countries: Ethiopia, DR Congo, South Sudan, Nigeria and Kenya

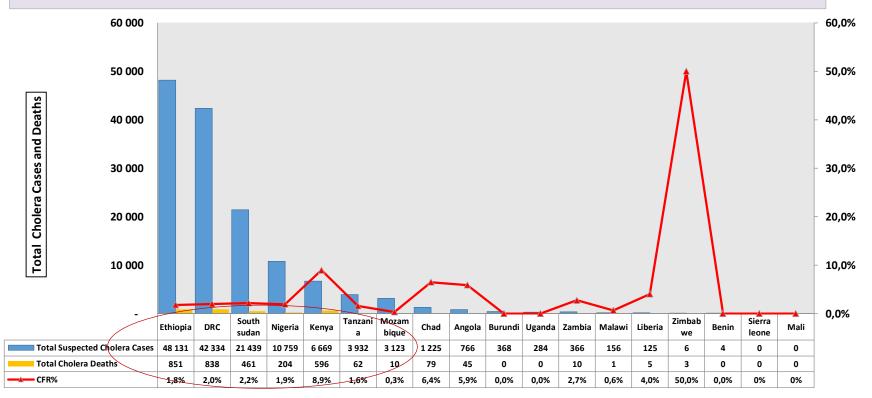
Cholera in Africa Region, 2017





Cholera Epidemiological Curves in AFRO Region, 201





South Sudan: Last reported cases was in week 46, 2017. As up to date confirmed Zero Cases

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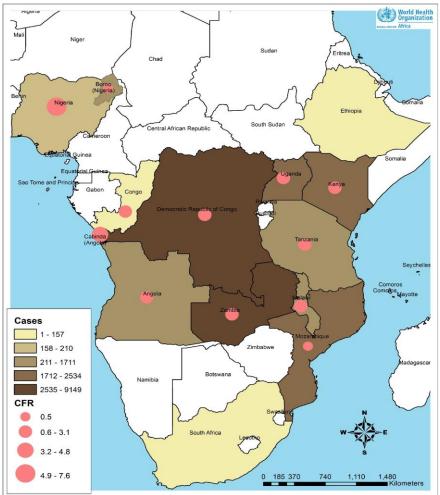


Cholera Outbreak in the African Region, 2018: 1/3

Outbreaks of Cholera in the WHO African Region, 2018

As of 27 April 2018

- 112,730 cases, 2,345 deaths (CFR =2.1%) have been reported in 15 countries.
- More than 74%: were from six burden countries; DRC, Nigeria, Niger, Kenva. Zimbabwe and Tanzania.
- Cross-border transmission was documented in South Africa (Zimbabwe), Ghana, Niger and Cameroon (Nigeria)
- 31% (6/15) of the countries; (Ethiopia, Malawi, Mozambique, South Sudan, Uganda and Zambia) have controlled the outbreak.





Cholera Outbreaks in African Region, 2018: 2/3



Country	Total # cases	Total# death	CFR (%)	Grading	
Angola	675	16	2.3	Grade 1	
* Cameroon	1,790	51	2.8	Grade 1	
DRC	29,754	922	3.4	Grade 1	
Ethiopia (AWD)	3,248	35	1.0	Non Graded	
* Ghana	2	0	0	Non Graded	
Kenya	5,735	78	1.3	Grade 1	
Malawi	1,570	54	3.6	Non Graded	
Mozambique	910	4	0.4	Non Graded	
* Niger	3,824	78	2.0	Grade 1	
Nigeria	44,201	836	1.9	Grade 2	
* South Africa	5	0	_	Non Graded	
Tanzania	4,693	84	1.9	Grade 1	
Uganda	2,117	44	2.0	Non Graded	
Zambia	3,763			Non Graded	
** Zimbabwe	10,443			Grade 2	

Compared to 2017; a marginal reduction in number of cases and death

Based om WHO IMS;

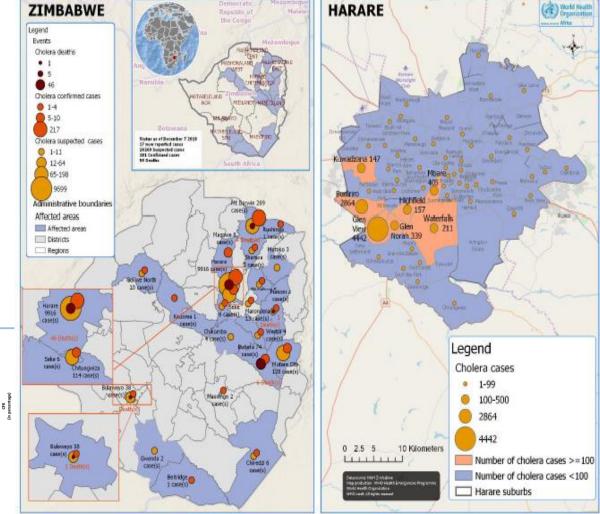
- 6 countries grade (1),
- 2 countries grade (2),
- 7 countries ungraded
- * 4 countries documented cross border transmission.
- * 2/4 (Niger and Cameroon), documented local transmission in addition to the cross borders.
- ** Zimbabwe: the largest Outbreak reported in 2018.

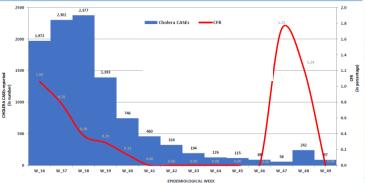




Cholera Outbreaks in African Region, 2018: 3/3

Zimbabwe: the largest Outbreak reported as of week 49, 2018 Harare City





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World Health Organization Africa

Regional Framework for the Implementation of Global Strategy for Cholera Prevention and Control, 2018-2030



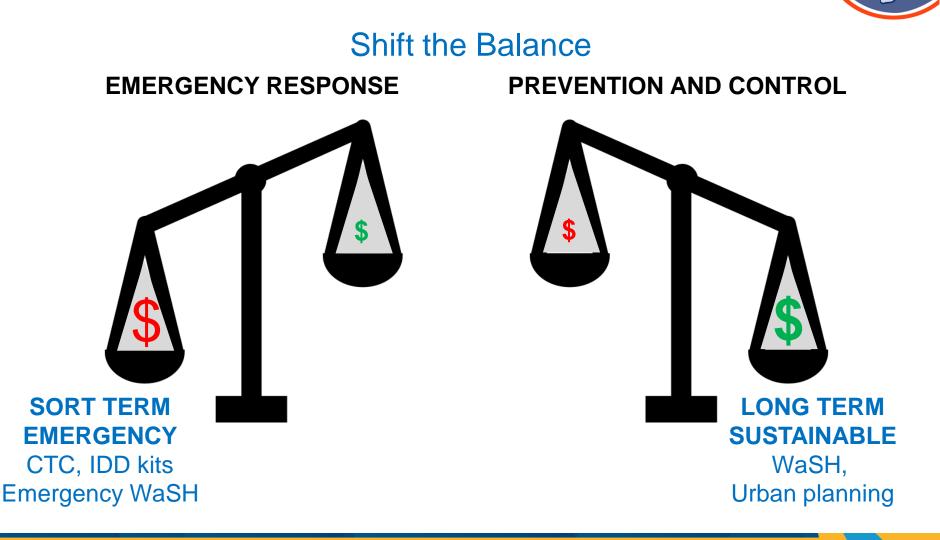
- Lunched and presented during the 68th session of the Regional Committee of the World Health Organization (WHO), in Senegal on August 2018.
- The meeting attending by representatives from 47 African States, Ministers and Senior National Officials.
- Represented countries Agreed to take evidence-based actions to tackle outbreaks, including; enhancing epidemiological and laboratory surveillance, improving access to timely treatment, strengthening cross-border surveillance, promoting community engagement and increasing the use of the oral cholera vaccine.
- <u>http://apps.who.int/iris/handle/10665/275121</u>

World Health Organization	AFR/RC68/7 12 June 2018
READING OF THE FOR Africa	
REGIONAL COMMITTEE FOR AFRICA	ORIGINAL: ENGLISH
<u>Sixty-eighth session</u> Dakar, Republic of Senegal, 27–31 August 2018	
Provisional agenda item 10	
REGIONAL FRAMEWORK FOR THE IMPLEMENT FOR CHOLERA PREVENTION AND	
Report of the Secretar	iat
EXECUTIVE SUMN	IARY
 Cholers is an acute distributed infaction caused by ingestion of foo choleros. It has a short incubation period of two hours to five days. Th servers in 20% of cause. It affects both children and adults. In severe case within hours, if left untreasted. 	e infection is often mild or without symptoms but
2. Cholars mostly affects poor communities with low socioeconomic residing in overcowded areas with limited asfe water and samitton set 2017 WHO-UNCEF joint namel report on water and samitton (based people lack access to asfe drinking-unter and over 2 killion people contamination. In addition, displacements due to condicits, natural div forourbhic conditions for cholars outbreaks in many settings across the g	vices, including unplanned mass urbanization. The on 2015 data) indicates that globally, 663 million ple drink water from sources that have facal satters and extreme climatic changes are creating
3. Due to the shows risk factors, choiers has remained a major public i choiers cases and over 140 000 deaths are reported ammuly. In 2017 s deaths, representing a case finality runk (CFR) of 2.5%, ware reported fi 90% of these cases ware from uix high-furdies countries. This raises of choiers hundes, including large-vacable outwards in this crites.	alone, over 150 000 cholera cases, including 3000 om 17 countries in the African Region. More than
4. Cholgen is a recurrent outfireak with clear teasonality in most ender reflects weaknesses in water and samitoin infrastructure and service unveillance and health area systems. In addition, instificiant policie prolonged recurrent policies (Mare than 50% of affacted countries (Samiton and Hygiasa (WASSF) tragen.	s, high-risk hygiene and social practices, gaps in al and financial commitments are contributing to
 Due to the high and increasing cholers burden and numerous chall (GTFCC) developed a global roadmap to end cholers by 2030. This milestones will guide the Mamber States to implement the global strategy 	s Regional Implementation Framework with key
6. The Franswork propose concrete actions which include, among surveillance, mapping choice hotpot, improving access to timely tee mappearum, increasing investments in clean actes and samitoine for research. These will require increased political and financial commit evaluation dimplementation.	stment, strengthening partnerships and community the most vulnerable communities, and promoting
	s proposed in this Framework.



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Regional Implementation Framework for Cholera Prevention and Control, 2018-2030





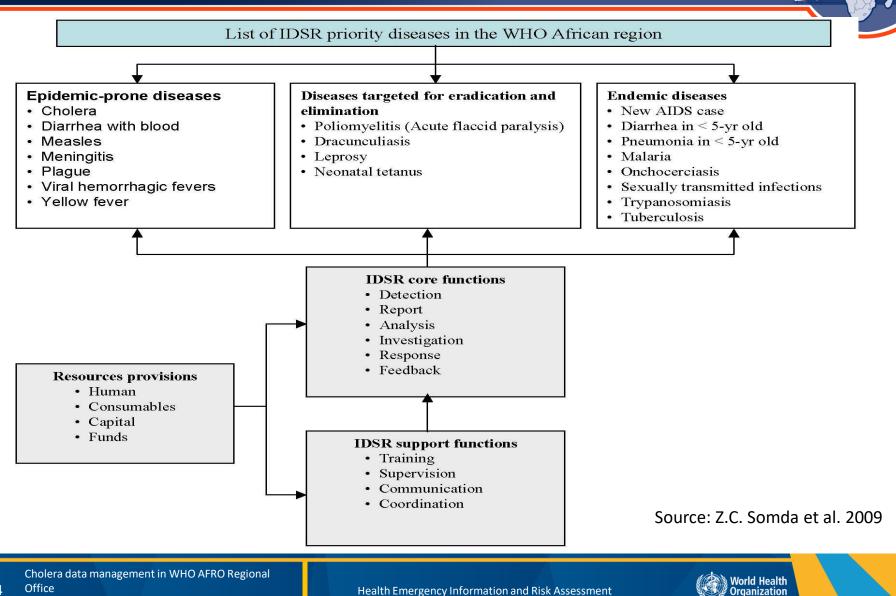


Report of cholera at national level



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Guiding strategy (IDSR)



Health Emergency Information and Risk Assessment

REGIONAL OFFICE FOR Africa

Guiding strategy (IDSR)

- IDSR is the guiding strategy for cholera detection and notification in WHO African Region
- Strategy adopted by a 40 Member States
- IDSR is the main strategy used in routine
- IDSR is completed during outbreaks by other strategies namely EWARS, EWARN
- Data are being managed through different forms including DHIS2, Excel sheet

Cholera data management in WHO AFRO Regional Office



Reporting at Country Level

- Each country has a scheduled reporting flows and formats,
- Paper-based reporting is still on in some parts of countries where access to electronic reporting is impossible → delay in reporting,
- Electronic surveillance is a growing available way of notification in many countries,
- DHIS2 is also a growing data entry and notification mechanism that allows local levels to record data directly in the platform with a validation process required → can improve completeness and timeliness,
- There are various data formats in countries: Excel sheet, Access.



Reporting at country level

- Data are compiled by levels (districts, regions,) prior to sharing with national level
- Final compilation is performed by national health surveillance teams before sharing with Afro
- National IDSR compiled data are shared with Afro normally on weekly basis





AFRO experience in country on cholera data and analysis platforms



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Time and format of data sharing to Afro

- IDSR routine data are shared with Afro **normally** on weekly basis. These data are suspected cholera cases
- When outbreaks are confirmed, data are shared normally on daily and/ or weekly basis
 - Data shared include confirmed cases and suspected cases, in addition to the laboratory data.
- A large proportion of countries shared data on Excel format (line-list)



Status on IDSR data sharing from week 1 to week 14 of 2019

					_									
Countries		2			Ep 5	Iden 6	7	gical 8	9		11			14
Central Africa	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Angola														
Burundi							_							
Cameroun						_								
Central African Republic														
Chad			_								_			_
Congo														
Democratic Republic of Congo														
Equatorial Guinea														
Gabon														
Sao Tome & Principe														
West Africa									_					
Algeria														
Benin														
Burkina Faso														
Cabo verde														
Côte d'Ivoire														
Gambia														
Ghana														
Guinee														
Guinee Bissau														
Liberia														
Mali														
Mauritania														
Niger														
Nigeria														
Senegal														
Sierra Leone														
Togo														
Eastern and Southern Africa														
Botswana														
Comoros														
Eritrea														
Ethiopia														
Kenya														
Lesotho														
Madagascar	_													
Malawi														
Mauritius														
Mozambique														
Namibia														
Rwanda														
Seychelles														
South Africa														
South Sudan														
Swaziland														
Tanzania														
Uganda														
Zambia														
Zimbabwe														

Cholera data management in WHO AFRO Regional Office



Use of cholera data in Afro

- Afro has developed a cholera toolkit to support data collection and analysis during outbreaks,
- This follows issues encountered during the events follow-up by Afro,
- The toolkit is shared to countries during outbreaks and trainings were performed for their use,
- The tool include one sheet for line-list inputing and 5 sheets for automated analysis (LLA-Age-Sex-Dist Analysis, LLA-Place-District Analysis, LLA-Time-Daily Analysis, LLA-Time-Week Analysis and Analysis PivotTables Analysis.

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		CHOL	ERA		coles model model	
	1		<mark>چ-</mark>		World Health Organization Africa	
	2 1	ntroduction	Configuration	Entrée de données su	L'analyse des donné	Utilitaires
Spettif. Cet outil a été développé par l'OMS APRO pour aider les personnes sur le terrain dans la collecte, la notification, l'analyse et l'interprétation des données lors d'une épidémie de cholérs. Cette information est assentialle pour surveiller Pécidosion et cholur les toterventions appropriées.		introduction	Chiffres de population	Entrée de données de liste de lignes	L'analyse des données	Actualiser les données
emble Cen outil constate en un certain nombre de feuilles lides, expliquées plus en détail cidessous. Tous les efferts donnet între faits pour obtenir des donnets désagrégées, les variables recommandées à collecter ser unit la de la figner, margin calleuci provuent des donnets désagrégée		Import LineList	Paramètres de liste	Formulaire de saisie de	Tables pivotantes	Ligne d'exportation
Le panneau de navigation contient des raccourcis vers toutes les feuilles de l'outit, y compris la sable des données et la visualisation des données. La première feuille qui doit être complétée aut les côffres de la population. Les zones affectées doivent être répertorées dans cette feuille qui permet la population des menus déroulants de localisation et le culoit unternistique des navieus et dés à partir des chirtées de complétées sitis;	3	onfiguration de l'épie	déroulante	données	Tables protraites	
Ceci diversiti firsi complete din utilizzani la discrittaria da la sista di superi di provinci di provinci di provinci di superi di cul diporta manei 1446. L'informati ma di cul di provinci di superi di cul di provinci di superi di cul di provinci di provinc	6	Début de l'épidémi Champ optionnel	ie 03-Mar-17	Pays Champ facultatif 2	Cameroun Champ facultatif 2	
Les données peuvent être saisse de deux manières d'intérnites en utilisant un formulaire pour chaque cas indécideul (formulaire de saisle de données) ou directement dans la faite de lagnet saislise de données de listers de Barrel, accessibles via la complets du pannau de narigation.	10 Pr	ofil de l'utilisateur				
Pour visualise vos données selon l'houra, le lieu et la personne, clique sur la faulte d'analyse des données e cliques sur la boutons spécifiques de cette faulte. Une fois les données asiles, l'houra sur d'analyse des des l'analyses des terte à jour. Ceux-é pouvent ensuite être confest e collés de cette faulte. Une fois les données asiles, l'analyses de terte à jour.	12	Nom comple	et	Numéro de téléphone		
undes vorte Strep, Veullar mettre à jour les titres des graphiques en rapport avec votre épidérie. Une série de tableaux affichant te données et d'apontée en diquant sur le attein: lien Tables de données dans la feuille Analyse des données. Les panneaux sur le côté gauche geuvent être utilisés pour visualiser les données par d'ifferents champs. Par exemple, pour visualiser vos données salon un district particulier, clique aux le district qui con liens aux afficiant te la panneau xur le côté gauche de l'Eran. Pour afficier	13	Adresse e-ma	ait	Organisation		
toute la région, effacez tout filtre appliqué en cliquant sur le bouton du filtre dans le coin droit du panneau. Si vous souhaites voir plus d'une option, maintennez le opplez : Veuille contacter afroncultreal (Whohn is vous avec des commentaties à commentaties sont les bonnerenus.	16 Pro	éférences				
ement Cap produkt est en cours de développement, donc ne circuler pas au delà de ceux auxquels II a été envoyé à l'origine et de ceux qui travaillent sur l'épitièrrie actuelle. Merci de votre compréhension.	18	Écran d'ajustemer automatiqu				
SUIVANT >>	20					

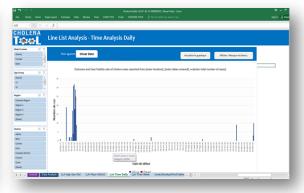


Use of cholera data in Afro

LLA-Place-District Analysis



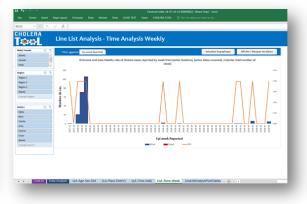
LLA-Time-Daily Analysis



LLA-Age-Sex-Dist Analysis



LLA-Time-Week Analysis



Analysis PivotTables Analysis





Afro has developed a cholera dashboard with as objective to:

- Provide full range of cholera related information through production of visualized dashboard to support monitoring of responses.
- Support Member State in having prompt, well-functioning and integrated data-sharing platform for timely and ongoing data analysis and interpretation.
- Facilitate timely collection and adequate cholera related data during outbreaks, through using standardized and simplified data collection tool.



Cholera data warehouse and dashboard

Deliverables :

- An online portal hosting a set of dashboards for analysing various cholera data will be developed and disseminated to Member States,
- An electronic archive of cholera data submissions will be established for archiving of current and available historical cholera data submissions from member states.



Cholera data warehouse and dashboard

Work flow Diagram

 The architecture of cholera portal is a representation real time information flow from the WHO Country Offices (WCOs) to the Regional level in an electronic form as given in the overview diagram No.2 below.

Data Sharing Mechanism

- WCOs within Afro region shall be responsible to share Cholera outbreaks and programme data (surveillance, laboratory, OCV and WASH) using agreed template on regular basis.
- Data shall be received and collected through emails.

Cholera dashboard concept note



Cholera data warehouse and dashboard





Challenges

- Low timeliness and completeness
 - Only 10 countries reported consistently IDSR data from week 1 to week
 14
 - 28 countries don't report IDSR data since week 1
- Insufficient quality of data
- Delay in outbreak detection
- EWARS or other ad'hoc mechanisms data not shared to Afro
 - Are these information included in IDSR data (Excel Sheet, DHIS2) /
- IDSR data do not include outbreaks data in many countries
- Insufficient capacity of national experts on IDSR especially at operational level

These challenges can plague the monitoring of the elimination process





Way forward

- Finalize and implement the cholera data warehouse and dashboard strategy,
- Advocate towards countries for the regular sharing of IDSR data including cholera data,
- Find mechanism to integrate different data collection tools to avoid duplication and/or data missing,

- Develop insights on ways to include outbreaks data in IDSR notification,
- Support countries to develop specific data management and monitoring strategies in their elimination plan,
- Strengthen capacity of national experts on IDSR and cholera surveillance.



Conclusion

- Cholera elimination framework need a strong monitoring process and then a reactive, sensitive and effective surveillance system
- Revitalization of the IDSR strategy will be key in Afro with a functioning rumors / alerts detection mechanisms and regular information sharing in line with IDSR / IHR requirements



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- M. Christian Massidi, Data manager Hub Dakar
- WHE Afro team





THANK YOU

Cholera data management in WHO AFRO Regional Office

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