



## INTEGRATED DISEASE SURVEILLANCE AND RESPONSE

### Monthly Epidemiological Bulletin

June 2020

#### Highlights of the Month

- Overall proportions of reporting from all health facilities recorded 56%.
- Two maternal deaths were reported, while 52 perinatal deaths and three perinatal deaths were reported through the Community – Based Surveillance in June, 2020.
- There were three babies born with birth defects reported from the four regional hospitals in June, 2020.
- There were 15 cases of confirmed malaria seen in the outpatient departments that were reported through IDNS.
- There were zero cases of Severe Acute Malnutrition (SAM) reported through the Community – Based Surveillance
- Diarrheal cases were most prevalent in the Manzini region (n=1288) as outpatient visits.
- Routine HIV testing data suggests that the national HIV positivity rate in the reporting period was 3%.
- HIV RITA recent for the period of June 2020 was 2% with people aged between 20-24 years having a higher HIV RITA recent percent.
- A total of 812 cases of COVID-19 were reported from the four regions.

#### Key Health Messages

- Untimely reporting hinders early initiation of outbreaks investigation and action for response. As such, health care workers are encouraged to continue to submit monthly reports on time to facilitate timely data analysis and interpretation to inform policy and programming.
- Through the active surveillance system EDCU will continue to monitor trends on maternal, perinatal and neonatal deaths in both private and public health sectors where maternity services are rendered.
- Perinatal deaths are notifiable conditions in the country. However, it is worth noting that out of all the perinatal deaths sourced through active surveillance in the month of June 2020, only 37% of perinatal death cases were notified through IDNS. Health facilities are still encouraged to notify every perinatal death for policy and programming purposes.
- Health promotion remains the key intervention towards disease prevention and control and if well implemented will reduce disease outbreaks i.e. diarrheal diseases.

#### 1. Completeness and Timeliness of Reporting

**Table 1 and Fig. 1** show the completeness and timeliness of reports sent by health facilities to regional HMIS offices, stratified by facility ownership and region. As in previous months, overall completeness remains below the 85% mark, and an increase between May and June 2020 (50% to

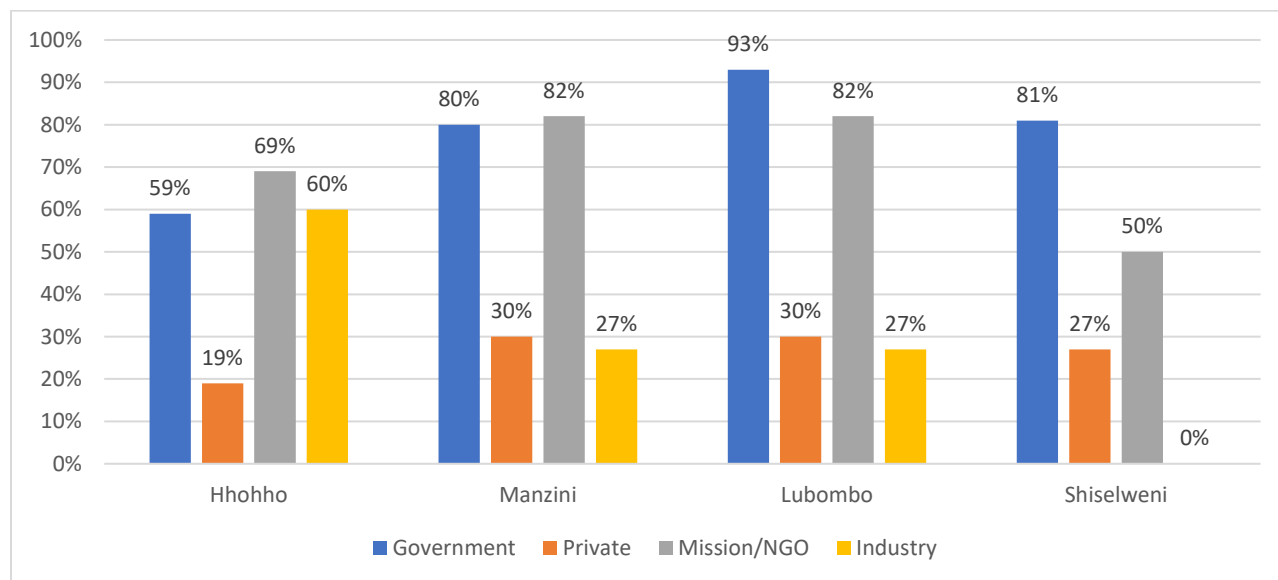




56%) was observed (**Table 1**). On average, the region with the highest number of facilities submitting their report was Lubombo (78%) followed by Manzini (55%), Hhohho (51%) and the least was Shiselweni (40%) (**Fig. 1**). Among the different facility ownerships; 78% of the facilities submitted their reports among Mission/NGO health facilities and Government health facilities. The private health facilities had the least percentage of completeness at (27%). Timeliness of reports sent was above the 85% mark on average (**Table 1**). Overall, all regions recorded 94% timely reporting: Shiselweni (100%), Lubombo (89%), Manzini (94%) and Hhohho (94%) respectively(**Table 1**).

Region	Government	Private	Mission/NGO	Industry	All	% Timeliness
Hhohho	59%	19%	69%	60%	<b>51%</b>	<b>94%</b>
Lubombo	93%	30%	111%	78%	<b>78%</b>	<b>89%</b>
Manzini	80%	30%	82%	27%	<b>55%</b>	<b>94%</b>
Shiselweni	81%	27%	50%	0%	<b>40%</b>	<b>100%</b>
All	<b>78%</b>	<b>27%</b>	<b>78%</b>	<b>40%</b>	<b>56%</b>	<b>94%</b>

**Figure 1 : Percentage of Monthly Reports Received by Region and Facility Type, June 2020**





## 2. HIV Services

### 2.1 HIV Testing Services (HTS)

**Table 2**, presents HTS indicators stratified by age groups as observed in June, 2020. A total of 2483 individuals tested during the reporting period, representing a 75% increase compared to numbers recorded in May, 2020. Out of the number who tested, 2461 (99%) received results, of those who received results, 82 (3%) tested positive (positivity rate) and of those who tested positive, 81 (99%) were referred for HIV care. Out of the eight age-groups whose indicators are monitored, some age-groups (<1 year), (5-9 years), (10-14 years) and (20-24 years) had some of their members testing but not receiving their results. The positivity rates for the different age groups were as follows; <1 year = 0.08%, 1 – 4 years = 0%, 5 – 9 years =0.04%, 10 – 14 years = 0%, 15 – 19 years = 0.16%, 20 -24 years = 0.36 %, 25 – 49 years = 2.3% and 50+ years = 0.36%.

**Table 2: HTS Services Indicators by Age Group, June 2020**

Age Group	Number Tested	Number Received Results	Number HIV+	Number Referred for HIV Care
<1 year	17	16	2	2
1-4 years	38	38	0	0
5-9 years	26	24	1	1
10-14 years	44	41	0	0
15-19 years	318	318	4	3
20-24 years	513	497	9	9
25-49 years	1224	1224	57	57
50+ years	303	303	9	9
<b>Grand Total</b>	<b>2483</b>	<b>2461</b>	<b>82</b>	<b>81</b>

*Source: HMIS*

### 2.2 HIV Recency Surveillance

Eswatini has made commendable strides towards achieving HIV epidemic control. Over the past five years, the country has demonstrated a decline in HIV incidence. As such, identifying and characterizing the newly infected individuals has become important in order to interrupt transmission. The Ministry of Health in collaboration with ICAP through financial and technical support from US Center for Disease Control and Prevention (CDC)/President’s Emergency Plan for AIDS Relief (PEPFAR) has established Eswatini HIV-1 Recent Infection Surveillance (EHRIS) program modelled on Tracking using Recency Assay to Control the Epidemic (TRACE), a global project. The program aims to promote prompt and targeted interventions for HIV



prevention and treatment, and also serve as early warning data, should new epidemic hot spots emerge. In Eswatini, EHRIS has been introduced onto routine HIV testing service (HTS).

EHRIS implementation started on the 1<sup>st</sup> July 2019 in 38 health facilities and one community testing partner providing routine HTS in the Lubombo region. Health facilities by region are: Hhohho 32 (29%), Manzini 31 (28%), Shiselweni 26 (23%) and Lubombo 22 (20%). In the reporting period, a total of 140 mentors/managers and 301 HTS providers were trained on HIV recency infection procedures.

The testing is done using a rapid serological test-Asante HIV rapid test for recent infection (RTRI) which is run in parallel with UniGold of the national HIV testing algorithm. HIV recent infection is any infection acquired within the last 12 months, while long term infection is any infection acquired more than 12 months ago.

Data for HIV recency infection from the 1st of June 2020 to 30<sup>th</sup> June 2020 indicated that there were 527 RTRI tests done. As shown in Table 3, the Manzini region had the highest number of RTRI done at 230 (44%) while the Lubombo region had the least at 67 (13%). Of the 527 RTRI done, 37 were RTRI recent infections which show a 7% RTRI recency rate. Upon further validation with viral load, the overall HIV RITA recent was 2% (n=10). When further disaggregating recency status by region, the Hhohho region had the highest number RITA recent at 3% (n=2) while the Hhohho region had the least 1% (n=1) (Table 3). The data suggest that the most recently infected population are those aged 20-24, 8% (n=6) (Table 4). It was further noted that there was a decrease in HIV RITA recent status with increasing age. A total of 498 RTRIs (98%) were long term infections, which means they were infected more than a year ago. Worth noting is that 19 (51%) of the viral load results were pending by the end of June 2020 and are still followed for final classification of HIV recency status. (Table 4).





**Table 3: Distribution of HIV recency infection data for 79 health facilities and one community testing partner by region for June, 2020.**

Region	Number of RTRI done	RTRI Recent	RTRI Recent (%)	RTRI Long-term (a)	RTRI Long-term (%)	RITA Recent	RITA Recent (%)	RITA long-term (b)	Total long-term (a + b)	Total long-term (%)	Pending or missing RITA data	Pending VL
Manzini	230	14	6 %	216	94 %	5	2 %	4	220	98 %	5	36 %
Hhohho	161	10	6 %	151	94 %	2	1 %	1	152	99 %	7	70 %
Lubombo	67	7	10 %	60	90 %	2	3 %	2	62	97 %	3	43 %
Shiselweni	68	6	9 %	62	91 %	1	2 %	1	63	98 %	4	67 %
Total	527	37	7 %	490	93 %	10	2 %	8	498	98 %	19	51 %

Source: EHRIS Database

**Table 4: Distribution of HIV recency infection data for 79 health facilities and one community testing partner by age for June, 2020.**

Age groups	Number of RTRI done	RTRI Recent	RTRI Recent (%)	RTRI Long-term (a)	RTRI Long-term (%)	RITA Recent	RITA Recent (%)	RITA long-term (b)	Total long-term (a + b)	Total long-term (%)	Pending or missing RITA data	Pending VL
15-19	38	8	21 %	30	79 %	1	3 %	2	32	97%	5	63 %
20-24	89	17	19 %	72	81 %	6	8 %	1	73	92 %	10	59 %
25-29	96	7	7 %	89	93 %	1	1 %	3	92	99 %	3	43 %
30-34	100	1	1%	99	99%	0	0%	0	99	100 %	1	100 %
35-39	85	3	4 %	82	96 %	1	1 %	2	84	99 %	0	0 %
40-44	55	0	0	55	100%	0	0 %	0	55	100 %	0	0





45-49	29	1	3 %	28	97 %	1	3 %	0	28	97 %	0	0 %
50+	35	0	0 %	35	100%	0	0 %	0	35	100 %	0	0 %
Total	527	37	7 %	490	93%	10	2 %	8	498	98 %	19	51 %

**Source: EHRIS Database**





### 3. Maternal and Child Health

Perinatal deaths data reported in this section is sourced from the sentinel surveillance system while maternal deaths data is sourced from both sentinel surveillance system and Immediate Disease Notification System (IDNS). On the other hand, data on specific under 5 diseases is obtained from the Health Management Information system (HMIS). In the month of June 2020, a total of two maternal deaths were reported: Manzini region (n=2), Hhohho region (n=0), Shiselweni (n=0), and Lubombo (n=0).

A total of 52 perinatal deaths (21 macerated still births, 13 early neonatal deaths, and 18 fresh stillbirths) were reported from the 18 health facilities with maternity units; the majority of cases were observed from the Hhohho region (38%). Of all the perinatal deaths, only 19 (37%) cases were reported through IDNS, denoting under-reporting of perinatal death cases through the Immediate Disease Notification System.

**Table 5: Maternal and Perinatal Deaths, June 2020**

Region	Maternal Deaths	Perinatal Deaths
Hhohho	0	14
Lubombo	0	20
Manzini	2	11
Shiselweni	0	7
<b>Total</b>	<b>2</b>	<b>52</b>



Source: Sentinel Surveillance sites and IDNS

**Table 6: Birth Defects among newborns, June 2020**

Sentinel surveillance site	Total born with birth defect	Cause of birth defect	Death due to birth defect	Nature of perinatal status at birth
Good Shepard Hospital	1	Anencephaly	Anencephaly	FSB
R. F. M. Hospital	1	Clubbed foot	none	Alive
Mbabane. Government. Hospital	1	Cleft lip and palate	none	Alive
Hlatikhulu Government Hospital	0	none	none	none

Source: Sentinel Surveillance sites

#### 4. Diseases affecting children under fives

There were three priority diseases that were monitored among children under five years. There were 1541 diarrheal disease related outpatient visits recorded (representing 34 % decrease from last month's observations). Shiselweni region recorded the highest outpatient diarrheal visits (n = 435), followed by Lubombo (n = 400), Manzini (n=353) and Hhohho (n = 353). There were 58 cases reported on all pneumonia cases among children under five years. There were 20 malaria cases reported from the outpatient department during the reporting period as indicated in **Table 6**.

**Table 7: Outpatient Visits for Specified Diseases by Children Under 5, June, 2020.**

Region	All Diarrheal Diseases	All Pneumonia	Malaria
Hhohho	353	3	1
Lubombo	400	1	0
Manzini	353	47	1
Shiselweni	435	7	3





<b>Total</b>	<b>1541</b>	<b>58</b>	<b>5</b>
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*Source: HMIS*

### 5. Diarrheal Diseases

As depicted in **Table 7**, a total of 3859 outpatient visits for diarrheal diseases were recorded in June, 2020. A majority (83%) of diarrheal diseases were of acute watery diarrhea type while a minority (0.9%) were of diarrhea with severe dehydration. A majority (33%) of the diarrheal disease related visits were reported from the Manzini region, with the least (21%) visits reported from the Shiselweni region.

**Table 8: Outpatient Visits for All ages Diarrhea by Type and Region, June, 2020**

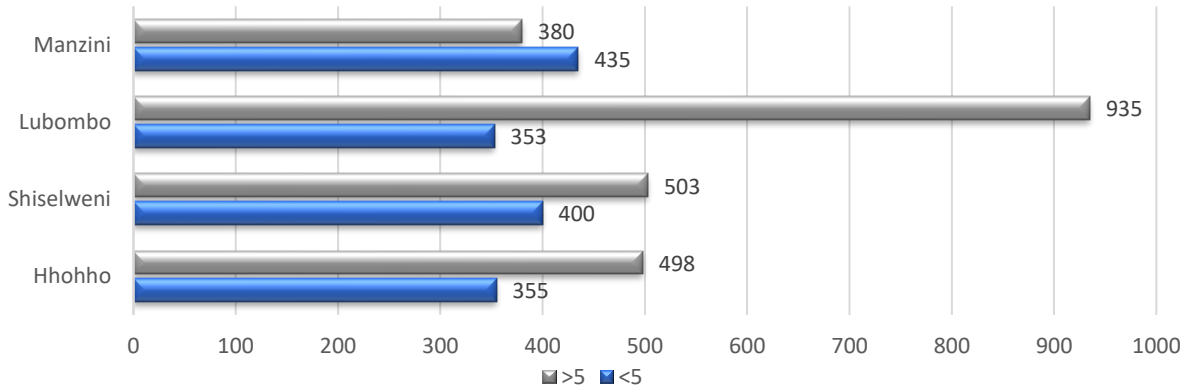
<b>Region</b>	<b>Acute Watery Diarrhea</b>	<b>Diarrhea with Blood/Dysentery</b>	<b>Diarrhea with Severe Dehydration</b>	<b>Diarrhea with Some Dehydration</b>	<b>Persistent</b>	<b>Total</b>
Hhohho	754	64	0	9	26	853
Lubombo	809	74	1	2	17	903
Manzini	942	88	35	124	99	1288
Shiselweni	688	35	0	9	83	815
<b>Total</b>	<b>3193</b>	<b>261</b>	<b>36</b>	<b>144</b>	<b>225</b>	<b>3859</b>

*Source: HMIS*

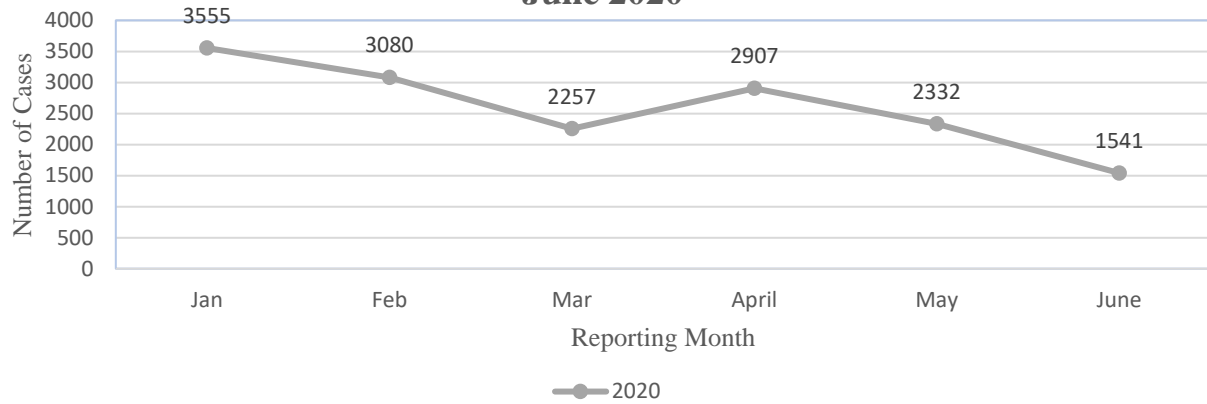
**Figure 2** shows a disaggregation of diarrheal disease-related visits by both age group and region. A majority (60%) of these visits were made by individuals above five years, even after disaggregation by region.

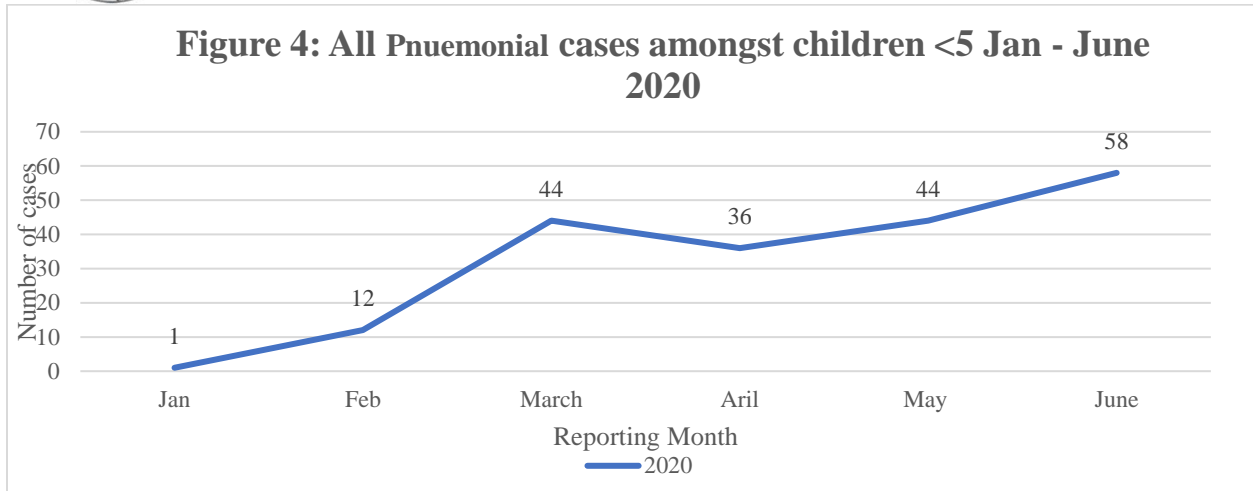


**Figure 2: Outpatient diarrhea by Age group and region**



**Figure 3: All diarrheal cases among children under 5 years Jan - June 2020**





### 6. Malnutrition cases and outcomes

Compared to the previous month (May, 2020), there was no difference in the number of malnutrition cases (SAM & MAM) reported in June 2020 (17 & 17) in the four regional hospitals as sentinel sites. Of the total number of malnutrition cases, 59% (10) were cured during the reporting month (June 2020). Only 24% (4 out of 17) of the total number of malnutrition cases (SAM & MAM) were reported as deaths in the same reporting month (June 2020) (**Table 9**).

**Table 9: Total number of malnutrition cases and outcomes among children under five years during June 2020**

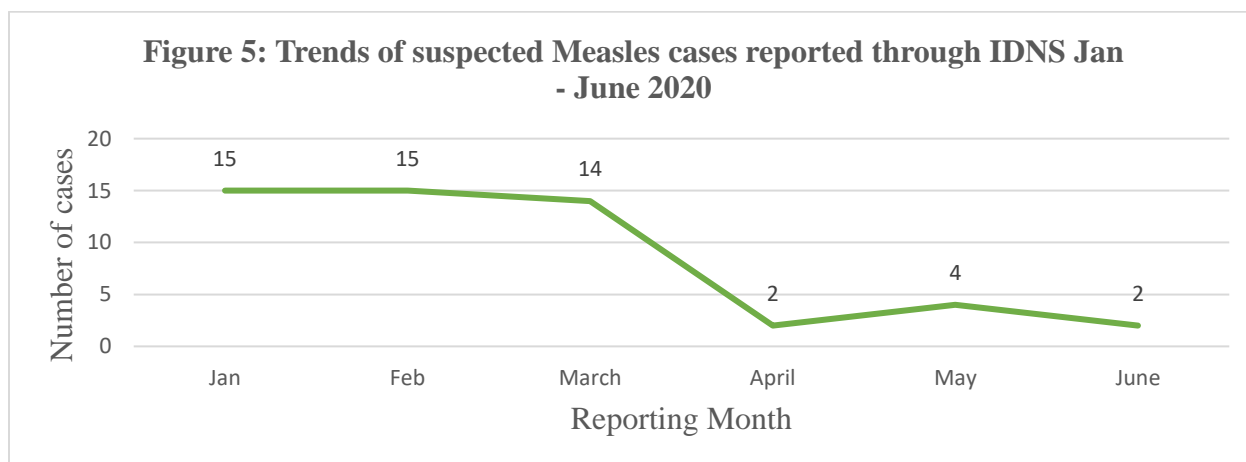


Health Facility	SAM	MAM	CURED	DECEASED
Good Shepard Hospital	4	3	6	1
Mbabane Government Hospital	1	0	0	1
Hlatikulu Government Hospital	5	2	4	1
R. F. M. Hospital	1	1	0	1
<b>Total</b>	<b>11</b>	<b>6</b>	<b>10</b>	<b>4</b>

Source: Sentinel surveillance sites

## 7. Vaccine Preventable Diseases

Of the vaccine preventable diseases reportable through IDNS, 2 cases of suspected measles were reported in the month of June 2020 (**Table 12**). There was a 50% decrease in the cases observed in June 2020, compared to the cases observed in the previous month, May 2020 (**Figure 5**). All other suspected measles cases were confirmed negative by the Laboratory.

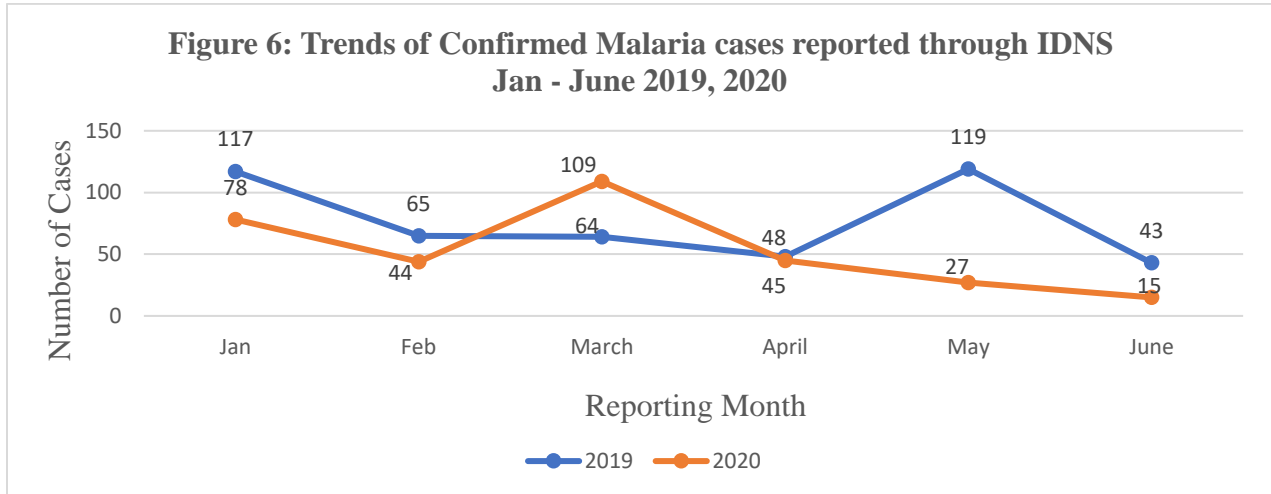


## 8. Malaria

Compared to the previous month (May 2020), there was a decrease of 44% in the number of cases reported in June 2020 (from 27 to 15) through IDNS. There was also a 64% decrease in the number



of reported cases during May 2019 to June 2019 (119 to 43). Cases observed during the reporting period (June, 2020) were distributed as follows; Lubombo (n = 7), Hhohho (n = 7), Manzini (n = 1), and Shiselweni (n = 0) (**Table 12**).



### 9. Community – based Surveillance: four regional constituencies

In the month of June 2020, Community – based surveillance (CBS) was implemented in four regional constituencies selected as pilot sites. Mhlangatane constituency (Hhohho region), Mangcongco constituency (Manzini region) and Shiselweni II constituency (Shiselweni region). There are 15 notifiable conditions under surveillance at all levels, as such, notification of these conditions was also tracked through the CBS to be notified weekly through Rural Health Motivators (RHMs). Data shown was reported by RHMs to the nearest health facility in the selected constituencies for CBS piloting.



**Table 10:** Weekly report on all cases seen among children under five years reported in June 2020 from the four regional constituencies.

Disease	Cases ≤ 5 years			
	Mpolonjeni LUBOMBO	Mangcongco MANZINI	Shiselweni II SHISELWENI	Mhlangatane HHOHHO
Acute Flaccid Paralysis	0	0	0	0
Adverse event following immunization	0	0	0	0
Suspected Measles	0	0	0	0
Suspected Cholera	0	0	0	0
Neonatal Tetanus	0	0	0	0
Severe Acute Malnutrition	0	0	0	0
Acute Watery Diarrhea	0	0	0	0
Diarrhea with blood/Dysentery	0	0	0	2
Influenza like illnesses	0	0	0	0
Meningococcal Meningitis	0	0	0	0
Confirmed Malaria	0	0	0	0
Suspected Rabies	0	0	0	0
Suspected Yellow fever	0	0	0	0
Perinatal Deaths:				
-Fresh still birth				
-Macerated still birth				
-Early Neonatal Death				
-Late Neonatal Death				
Maternal Death				
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

Cases observed during the reporting period (June, 2020) were distributed as follows; Mpolonjeni (n = 0), Mhlangatane (n =2), Mangcongco (n =0), and Shiselweni II (n =0) (**Table 10**). Overall, Mhlangatane reported the highest (100%) number of cases among the under-fives.



**Table 11:** Weekly report on all death cases among children under five years reported in June 2020 from the four regional constituencies.

Disease	Deaths ≤ 5 years			
	Mpolonjeni LUBOMBO	Mangcongco MANZINI	Shiselweni II SHISELWENI	Mhlangatane HHOHHO
Acute Flaccid Paralysis	0	0	0	0
Adverse event following immunization	0	0	0	0
Suspected Measles	0	0	0	0
Suspected Cholera	0	0	0	0
Neonatal Tetanus	0	0	0	0
Severe Acute Malnutrition	0	0	0	0
Acute Watery Diarrhea	0	0	0	0
Diarrhea with blood/Dysentery	0	0	0	0
Influenza like illnesses	0	0	0	0
Meningococcal Meningitis	0	0	0	0
Confirmed Malaria	0	0	0	0
Suspected Rabies	0	0	0	0
Suspected Yellow fever	0	0	0	0
Perinatal Deaths				
-Fresh still birth	0	0	0	2
-Macerated still birth	0	0	0	1
-Early Neonatal Death	0	0	0	0
-Late Neonatal Death	0	0	0	0
Maternal Death				
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>

There were three death cases reported from Mhlangatane during the reporting month of June 2020 (Table 11).



**Table 12:** Weekly report on all cases reported among adults above 5 years in June 2020 from the four regional constituencies

Disease	Cases >5 years			
	Mpolonjeni LUBOMBO	Mangcongco MANZINI	Shiselweni II SHISELWENI	Mhlangatane HHOHHO
Acute Flaccid Paralysis	0	0	0	0
Adverse event following immunization	0	0	0	0
Suspected Measles	0	0	0	0
Suspected Cholera	0	0	0	0
Neonatal Tetanus	0	0	0	0
Severe Acute Malnutrition	0	0	0	0
Acute Watery diarrhea	0	0	0	0
Diarrhea with blood/Dysentery	0	0	0	1
Influenza like illnesses	0	0	2	0
Meningococcal Meningitis	0	0	0	0
Confirmed Malaria	0	0	0	0
Suspected Rabies	0	0	0	0
Suspected Yellow fever	0	0	0	0
Perinatal Deaths				
-Fresh still birth				
-Macerated still birth				
-Early Neonatal Death				
-Late Neonatal Death				
Maternal Death				
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>

A total of three (3) cases were reported among those that were above 5 years in June 2020. A majority of the cases (66.7%, n=2) were of Influenza like illnesses and the least (33%, n=1) cases were of diarrhea with blood/dysentery reported from Mpolonjeni. There were zero cases reported from Mhlangatane and Mangcongco constituencies (**Table 12**)





**Table 13:** Weekly report on all death cases among adults above five years reported in June, 2020 from the four regional constituencies.

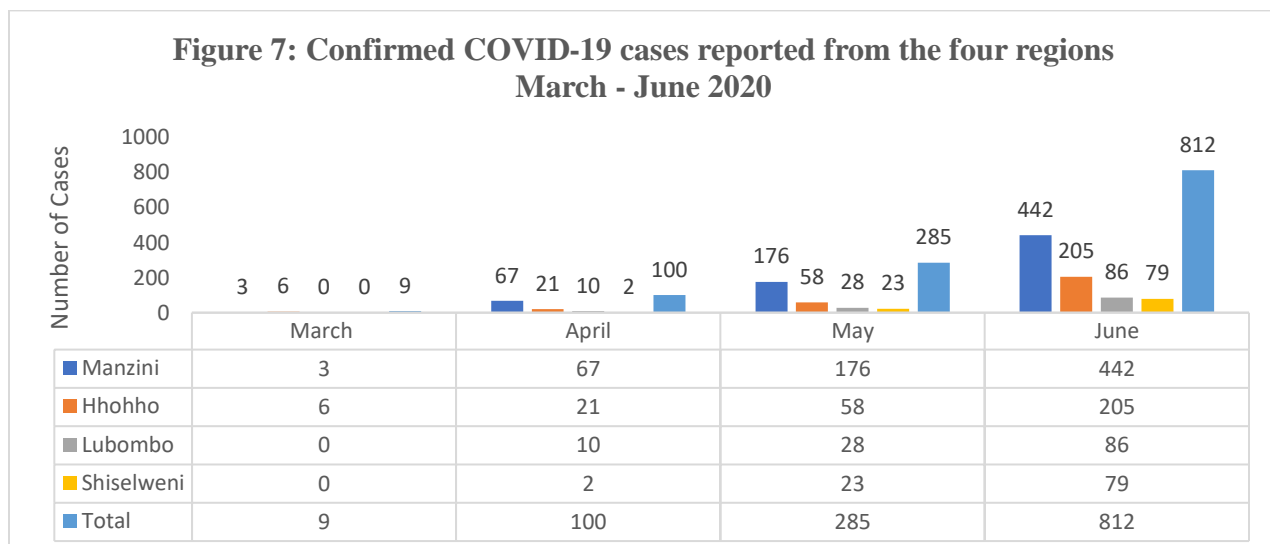
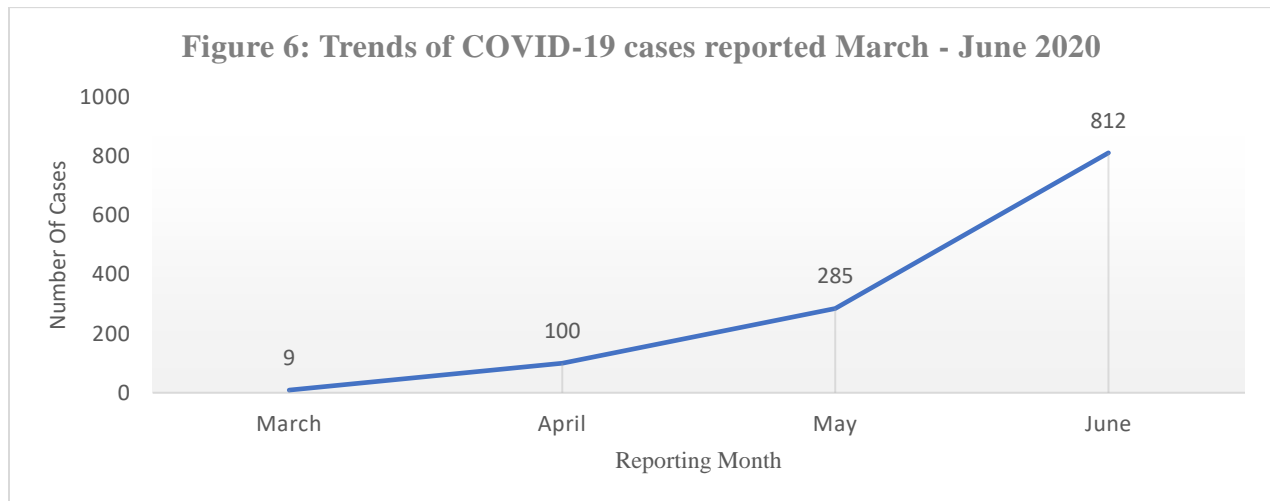
Disease	Deaths ≥ 5 years			
	Mpolonjeni LUBOMBO	Mangcongco MANZINI	Shiselweni II SHISELWENI	Mhlangatane HHOHHO
Acute Flaccid Paralysis	0	0	0	0
Adverse event following immunization	0	0	0	0
Suspected Measles	0	0	0	0
Suspected Cholera	0	0	0	0
Neonatal Tetanus	0	0	0	0
Severe Acute Malnutrition	0	0	0	0
Acute Watery Diarrhea	0	0	0	0
Diarrhea with blood/Dysentery	0	0	0	0
Influenza like illnesses	0	0	0	0
Meningococcal Meningitis	0	0	0	0
Confirmed Malaria	0	0	0	0
Suspected Rabies	0	0	0	0
Suspected Yellow fever	0	0	0	0
Perinatal Deaths				
-Fresh still birth				
-Macerated still birth				
-Early Neonatal Death				
-Late Neonatal Death				
Maternal Death	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

There were zero deaths reported from in all the four regional constituencies (Table 13)



## 10. Confirmed COVID-19 cases from the Four Regions

On the 11<sup>th</sup> of March 2020, the World Health Organization (WHO) declared COVID-19 outbreak a global pandemic. On the 17<sup>th</sup> of March 2020, His Majesty King Mswati III declared the COVID-19 outbreak a Public Health Emergency in the Kingdom of Eswatini. The Ministry of health (MOH) recognized the importance of reliable high quality information and the need to track the burden of the disease. During the reporting month of June 2020, a total of 812 confirmed cases of COVID-19 were reported from the four regions, **figure 6**. Manzini had the highest number of cases, 54% (n=442), followed by Hhohho 25% (n=205), Lubombo 11% (n=86) and Shiselweni with the least number of cases 10% (n=79). **Figure 7** shows the number of confirmed COVID-19 cases reported from the four regions.





## Summary of Reported Conditions

**Table 14: Summary by Condition Reported to IDNS, June 2020**

Condition	Regions				Total
	Hhohho	Lubombo	Manzini	Shiselweni	
Acute Flaccid Paralysis	0	0	0	1	1
Malaria (confirmed)	7	7	1	0	15
Maternal Death	0	0	2	0	2
Neonatal Tetanus	0	0	0	0	0
Perinatal Death	7	1	5	6	19
Suspected Cholera	2	0	0	0	2
Suspected H1N1	0	0	0	0	0
Suspected Human Rabies	0	0	0	0	0
Suspected Measles	0	0	0	2	2
Suspected Meningococcal Meningitis	0	0	0	0	0
Suspected Severe Food Poisoning	0	0	0	0	0
Suspected Typhoid Fever	0	0	0	0	0
Viral Hemorrhagic fever	0	0	0	0	0

*Source: IDNS*

**Table 15: Summary of Outpatient Office Visits for Select Priority Diseases (HMIS)**

Select Epidemic-Prone Diseases	Hhohho	Lubombo	Manzini	Shiselweni	Total
Suspected Cholera	0	0	0	0	0
Diarrhea With Blood/Dysentery	27	34	60	8	129
Diarrhea with dehydration in children under 5	1	0	53	0	54
Plague	0	0	0	0	0
Rabies	1	1	0	1	3
Severe Pneumonia in children less than 5	0	1	15	0	16
Suspected Measles	0	0	0	0	0
Typhoid Fever	0	0	0	0	0
Viral Hemorrhagic Fever	0	0	0	0	0
Yellow Fever	0	0	0	0	0
<b>Select Diseases of Public Health Concern</b>					



Diabetes Mellitus	590	508	684	315	2097
Epilepsy	37	56	337	63	493
Genital Ulcer	69	67	201	60	397
Hypertension	1790	1728	2180	1036	6734
Injury	527	268	1113	156	2064
Mental Disorders	29	53	163	4	249
Suspected Pulmonary Tuberculosis	3	41	42	12	98
Urethral Discharge	206	176	337	139	858
Vaginal Discharge	335	193	511	206	1245
<b>Diseases Earmarked for Elimination for Eradication</b>					
Neonatal tetanus	0	0	0	0	0

*Please Note that data quality issues have been identified and being worked on, therefore data in this bulletin needs to be interpreted with caution!*