Dietetic Unit

Annual Report 2020

Aim:
The main aim of the dietetic unit is to promote good nutrition in healthy as well as sick people.

Staff strength:

- Dietitian 2

1. Diet cook supervisor 1
2. Intern dietitians 4

Activities/services: The unit provides both preventive and curative services.

1. **Preventive:** This service includes education of the general public on health, good nutrition, food hygiene and disease prevention through talks, workshops and the media.
2. **Curative**: This service involves the dietary management of acute or chronic dietary-related diseases (e.g. PEM etc.) to prevent complications and decrease the risk of death. Cases include in- patients as well as out-patients referred by a physician.
3. **Other**:

- Training of other health professionals in the management of severely malnourished children.
- Providing orientation on the management of severely malnourished children for medical, dietetic, nutrition and nursing students.

Achievement:

Table I. Male/Female Distribution of Cases

Indicators	**Female**	**Male**	**Total**
January	18	15	33 (7.5%)
February	25	22	47 (10.7%)
March	19	28	47 (10.7%)
April	11	8	19 (4.3%)
May	20	22	42 (9.5%)
June	20	24	44 (10.0%)
July	23	12	35 (7.9%)
August	10	24	34 (7.7%)
September	15	20	35 (7.9%)
October	16	14	30 (6.8%)
November	21	16	37 (8.4%)
December	21	17	38 (8.6%)
Total	219 (49.7%)	**222 (50.3%)**	441 (100)

Total number of patients managed for the period - 441

Total number of outpatients- 84 (19.0%)

Total number of inpatients- **357 (81.0%)**

The number of male patients seen this year were a little more (50.3%) than females (49.7%). February and March recorded the highest number of cases with April having the least, largely due to nationwide lockdown as a result of COVID-19 outbreak.

Table II. Distribution by Age of Cases

Age (month)	**Non oedematous SAM**	**Oedematous SAM**	**MAM**	**Underweight**	**Overweight**	**Poor Feeding**	**Other**	**Total**
0-5	30	5	1	69	2	17	4	**128 (29.0%)**
6-11	69	10	12	2	1	8	0	102 (23.1%)
12-23	79	12	12	7	2	1	3	116 (26.3%)
24-35	14	7	8	2	1	2	4	38 (8.6%)
36-47	3	0	0	3	0	0	3	9 (2.0%)
48-59	2	0	1	1	0	1	3	8 (1.8%)
>59	5	2	0	2	13	0	18	40 (9.0%)
Total	**202 (45.8%)**	36 (8.2%)	34 (7.7%)	86 (19.5%)	19 (4.3%)	29 (6.6%)	35 (7.9%)	441

More under nourished children (4.3%) were treated compared to over nourished (4.3%) ones. A lot of the under nourished children (45.8%) seen were severely wasted with 80.2 % of them being within the 6-35months age category. It is worth noting that 23.4% of the infants 0-5 months were also severely wasted and more than half (53.9%) of them were underweight.

These alarming statistics could be associated but not limited to; poor socio-economic status of caregivers, attitudes and perceptions of caregivers as well as nutrition knowledge deficit of both caregivers and health workers at the child welfare clinics. Other contributing factors could be poor lactation, usually caused by mixed feeding, less frequent breastfeeding and improper positioning and attachment during breastfeeding This is worth reporting on in order intensify the campaign on exclusive breastfeeding and age appropriate complementary feeding practices.

Although few overweight compared to undernourished children were managed during the period under review, it was noticed that the number had gone up compared to the previous year and majority (68.4%) of them were older than 59 months. This age-group represents the primary school age where snacking on refined and processed foods was common coupled with physical inactivity and a lot of screen time.

Children with other diet related conditions other than malnutrition were the third highest (7.9%) cases to be seen

These other conditions included; Nephrotic/Nephritic Syndrome, intolerances and sensitivities, burns and diabetes.

Table III. Conditions Managed for the Period

Condition	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Non-Edematous SAM	20	22	28	8	20	19	16	12	11	16	16	14	202 (45.8%)
Oedematous SAM	3	3	1	2	4	1	2	6	2	1	4	7	36 (8.2%)
Moderate acute malnutrition (MAM)	6	4	5	0	1	2	4	1	4	1	3	3	34 (7.7%)
Underweight	3	7	6	7	11	16	3	7	9	6	8	3	86 (19.5%)
Overweight	1	3	2	0	0	2	2	3	2	2	1	1	19 (4.3%)
Poor feeding	0	3	4	2	4	2	1	2	1	1	4	5	29 (6.6%)
Other	0	5	1	0	2	2	7	3	6	3	1	5	35 (7.9%)
Total	33	47	47	19	42	44	35	34	35	30	37	38	441

Non-oedematous SAM (45.8%) was the most prevalent condition seen, followed by underweight (19.5%) throughout the year with overweight being the least (4.3%).

Table IV. Outcome of Admitted Cases (in-patient) for the Period

Cases	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No. at the beginning of the month	6	4	12	5	5	9	6	5	6	7	8	7	
Total no. admitted cases	27	33	40	17	38	37	29	27	25	27	29	287	357
No. treated & discharged	26	24	43	13	33	36	28	19	21	23	21	24	311
No. absconded	1	0	1	1	1	1	1	1	1	0	1	0	9
No. died	2	1	2	3	0	2	1	5	2	3	8	2	31
Referred out	0	0	1	0	0	1	0	1	0	0	0	0	3
No. still on admission	4	12	5	5	9	6	5	6	7	8	7	9	

A total number of 357 cases were admitted. March had the highest (40) admissions with a minimum of 17 admissions recorded in April. From the number of admitted cases, 87.1% were treated and discharged, and about 8.7% died.

Feeding

Feeds given to the children include Ready to use therapeutic food (RUTF) e.g. Plumpy- nut and milk feeds, formulae 75 and 100. Other feeds like hypoallergenic formula, soy-based foods, pediaSure, high energy food (infatrini) and other diet foods are given to patients with special needs.

Table V. Therapeutic Feeds and Supplies for the year (Jan-Dec) 2020
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Type of product	Quantity at the beginning of the period	Quantity Received for the period	Amount consumed	Balance at the end of the period
F-75	161 sachets	24 cans	4 cans	20 cans
F-100	85 sachets	24 cans	5 cans	19 cans
RUTF*	0	720 sachets	700 sachets	20 sachets
ReSoMal**	0	0	0	0
Full cream milk powder (miksi/ cowbell) 355g sachet)	9 cartons	35 cartons	38 cartons	6 cartons
Sugar (50kg) bag	1 (50kg) bag	4 bags	5 bags	0 bag
Vegetable oil	13 gallons	11 gallons	14 gallons	10 gallons
CMV**	23 cans	0	19 cans	4 cans

*** Ready to Use Therapeutic Food (e.g. plumpy nut, BP 100)**

****Rehydration solution for malnutrition**

***** Combined Mineral and Vitamin Mix**

The therapeutic feeds F75, F 100 as well as ReSoMal are being locally prepared by the diet cook supervisor with ingredients purchased by the facility since the department had a stock of CMV. In November the district received supplies of F75, F100 and RUTF from Unicef and the dietetic unit was given a box of each product.

Before the supplies were received from Unicef, RUTF manufactured by project peanut butter was purchased by the facility or provided by donors.

Table VI. Conditions Managed over the period of 2018-2020

Indicators	2018	%	2019	%	2020	%
Non-Edematous SAM	262	*45.8*	280	*58.2*	202	*45.8*
Edematous SAM	29	*5.1*	30	*6.2*	36	*8.2*
MAM & Underweight	218	*38.1*	136	*28.3*	120	*27.2*
Overweight	18	*3.1*	13	*2.7*	19	*4.3*
Poor feeding	25	*4.4*	12	*2.5*	29	*6.6*
Other [a]	20	*3.5*	10	*2.1*	35	*7.9*
Total	572		481		441	

[a] conditions other than malnutrition, including feeding challenges, nephrotic syndrome, burns, etc.

There was a reduction (12.4%) in the number of severely wasted children managed this year compared to the previous year.
A steady rise is observed in the number of oedematous cases over the three year period.
The same percentage (45.8 %) of cases was seen in 2018.
A steady rise is also seen in the number of overweight cases (1.6%) compared to the previous year.
There was an increase in the number of overweight children seen this year as against both 2019 and 2018. This may be attributed to the long stay at home during the closure of schools as a result of COVID 19 coupled with inappropriate feeding practices, increased screen time and reduced physical activity.

There was a sharp rise in other cases (5.8%) compared to the previous year and this is as a result of an increase in the number of nephrotic/nephritic syndrome cases (23) seen this year as opposed to 1 case seen last year.

Table VII. Outcome of Cases Admitted (2018 - 2020)

Indicators	**2018**	***%***	**2019**	**%**	**2020**	***%***
No. at the beginning of the year	0		7		6	
No. treated and discharged	386	*85.2*	307	*82.7*	311	*87.1*
No. absconded	18	*4.0*	20	*5.4*	9	*2.5*
No. died	34	*7.5*	27	*7.3*	31	*8.7*
No. referred out	8	*1.8*	11	*3.0*	3	*0.8*
Still on admission	7		6		9	
Total no. of pt. admitted	453		**371**		357	

87.1% of the children admitted were successfully treated and discharged in 2020. This was a 4.4% and 1.9% increment from 2019 and 2018 rates respectively. About 2.5 % of patients absconded this year, showing a sharp decrease in percentage of absconding cases in the last 2 years.
8.7% of the admitted cases died this year. This unfortunate incident is likely as a result of the following factors:

- Delay in seeking medical care due to the fear of getting in infected with COVID 19.
- Late presentation of very complicated SAM cases.
- Erratic reshuffling of staff in malnutrition ward with no SOPS available to ensure proper continuity of care.

Out of the 31 children who died this year, 29 of them were severely malnourished children with co-morbidities such as retroviral infection, lower respiratory tract infection and congenital heart condition.
Majority (14) of them died within the first week of admission.

ADULT CLINIC
CLASSIFICATION BY AGE

AGE (YRS)	**NO. SEEN**	***PERCENTAGE (%)***
20-29	2	*8.9*
30-39	1	*4.3*
40-49	1	*4.3*
50-59	11	*47.8*
60-69	5	*21.7*
>/=70	3	*13.0*
TOTAL	23	100

A total of 23 new cases was managed by the department this year. These were patients from neighboring hospitals such as Ussher Polyclinic, Kaneshie Polyclinic, WAEC clinic etc. referred by physicians for dietary related disease conditions. Most patients seen were within the ages of 50 - 59 years.

CLASSIFICATION BY CONDITION

AGE (YRS)	**NO. SEEN**	***PERCENTAGE (%)***
Hypertension	1	*4.3*
Obesity	2	*8.8*
Diabetes	2	*8.8*
Metabolic syndrome	7	*30.4*
Dyslipidemia	1	*4.3*
Hypertension & Obesity	2	8.8
Hypertension & Diabetes	6	26.1
Diabetes & Obesity	1	4.3
Diabetes & Underweight	0	0
Obesity & Dyslipidemia	1	4.3
Total	23	100

Out of a total of 23 patients, the most prevalent condition seen was metabolic syndrome (that is, having any three of the following; hypertension, diabetes, dyslipidemia, and obesity). It can be inferred from the above that there is the need for more education of the public on nutrition to enable people to make healthy and informed food choices especially the elderly (50+).

Income generated: Jan-Dec. 2018-2020

MONTH	2018 GH₵	2019 GH₵	2020 GH₵
January	210	750	615
February	245	1,055	790
March	150	965	680
April	290	795	245
May	745	580	605
June	415	790	665
July	710	610	650
August	510	775	580
September	525	585	450
October	760	400	550
November	1,025	125	475
December	760	215	550
TOTAL	6,345	6,947	6,855

For this year, income generated by the unit was almost as much as that of last year despite a reduction in the number of patients seen as a result of the COVID 19 pandemic.

THESE ARE SOME OF THE SUCCESS STORIES OF PATIENTS MANAGED FOR THE HALF YEAR

Pt MA,8 months, who lives with both parents at Domi , is the 2nd born of both parents. came in with a MUAC of 7.6cm, wt 4.06kg, stayed for 3 weeks and went home with a weight of 5.04kg and MUAC of 10.5 cm.

BEFORE STABILISATION

AFTER STABILISATION

Pt SM, 1year 6months who lives with mother in the Northern Region, is the the 2nd born of both parents. came in with a MUAC of 9.5cm, wt 6.02kg, stayed for 2 weeks and went home with a weight of 6.33 kg and MUAC of 10.1cm.

Constraints:
Inadequate staff; Two more dietitian and a diet cook are needed.

Way forward:

- To continue to lobby for the posting of more dietitians and diet cooks to the hospital.
- To continue to work together with multidisciplinary team to improve treatment outcomes of children admitted with severe malnutrition and other conditions.

In the presence of fewer to no working constraints, this department seeks to improve health care efficiency.

Conclusion:

The goal of every good clinician is to see their patients successfully treated and discharged,

In spite of the increased referrals coupled with inadequate dieticians, the department was able to come up with achievements such as an increased discharge rate by 4.4 % compared to last year.