

NUTRITION PROGRAM

营养项目

Definition, data and working protocol

定义，资料和工作草案

Definition: 定义

WASTING= acute malnutrition 菱缩 = 急性营养不良

Moderate wasting: weight/height Z score <-2 to <-3 中度菱缩：体重/身高的 Z 值 <-2 到 <-3

Severe wasting: weight/height Z score <-3 严重菱缩：体重/身高的 Z 值 <-3

STUNTING= Chronic malnutrition 发育不良 = 慢性营养不良

Moderate stunting: Height or length (to age) Zscore <-2 to <-3 中度发育不良：身高或或是身体长度（相对于年龄） Z 值 <-2 到 <-3

Severe stunting: Height or length Z score <-3 严重发育不良：身高或或是身体长度（相对于年龄） Z 值 <-3

To determine the Z score see table (WHO), appendix 1 请在附注 1 参考 Z 值

MALNUTRITION: 营养不良

Moderate malnutrition: Moderate wasting or stunting

中度营养不良：中度菱缩或是发育不良

Severe malnutrition: Severe wasting or stunting or edematous malnutrition

严重营养不良：严重菱缩或是发育不良或是浮肿性营养不良

Data: 资料:

In July 2012 we have analyzed 492 children from 0-18 years old with their age distribution as below: 我们在 2012 年 7 月分析了 492 位 0 到 18 岁的孩子的年龄分布

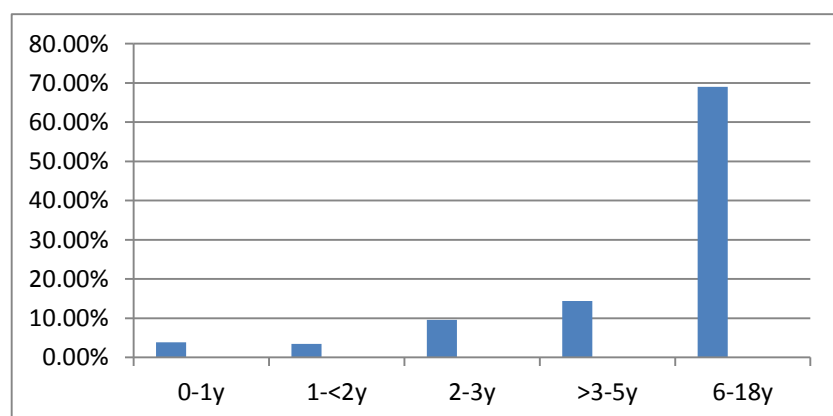


Figure 3

0-<1y: 19 children (小孩)=3.9%

1-<2y; 17 children=3.5%

2-3y:47 children=9.6%

>3-5y:71 children=14.3%

Preschool children: <6y: **154/492 = 31.3%** 学前小孩: <6岁: **154/492 = 31.3%**

School children :> 6y-18y: **338/492 = 68.7%** 学童: >6-18岁 **338/492 = 68.7%**

Using the WHO criteria we found that 93.09% of all children are below the 3 percentile curve for their length and/or weight, this is the growth patterns which raise concerns for under nutrition. These children are stunting, too small for their age as consequence of chronic malnutrition. They have delayed bone development due to chronic under nutrition. These children are at risk for cognitive and learning delay.

根据世卫的标准,我们发现 93.09%的小孩的身高和/或是体重都落在百分之三的曲线下,在这种的成长模式下我们对他们有营养不良的担忧。这些小孩子是由于慢性营养不良的结果而导致发育不良,个子长得太小。他们的骨骼发育也因为慢性营养不良也延迟了。他们也有认知和学习迟缓的危险。

Our analysis in more details reveals that 22 of 83, (26.5%) of children ≤ 3 years are in moderate and severe wasting condition (WHO criteria: Z score= weight for height respectively <-2 to<-3 and <-3, Appendix 1). Amongst the preschool children who are younger than 6 years old, there are **37/154 (24%)** in the moderate and severe wasting condition. Wasting is an acute case of malnutrition which is caused by too less nutrition and energy intake. Those children are too light in relation to their height. These children have a low lean body mass related to low muscle mass and low fat stores

我们进一步详细的分析得知在 83 位小于三岁的孩子中,有 22 位 (26.5%) 有中度到严重的菱缩情况(根据世卫的标准: 体重身高比的 Z 值分别<-2 到<-3 和<-3, 参考附注 1)。在学前小于 6 岁多的前儿童中,在 154 为小孩中有 37 为 (24%) 是中度到严重的菱缩状况。菱缩是一种急性营养不良的状况,这是由于吸收太少的营养和能量而导致的。那些孩子相对于他们的身高来说是长得太轻了。那些孩子相对于低的肌肉质量和低的脂肪含量来说还是长得过瘦。

Villages 村	0-<1 years 岁	1-<2 years	2-3 years	>3-5 years	Total pre- school 总学前	Acute malnourished pre school kids 急性营养 不良的学前儿童	6-18 years	Total
Xide	2	4	12	22	40	19	110	150
Jinyang	8	4	8	15	35	11	40	75
Butuo	5	3	16	12	36	5	41	77
Puge	1	4	7	15	27	1	127	154
Ganluo	0	2	2	5	9	1	7	16
Luding	3	0	2	2	7	0	5	12
Huili	0	0	0	0	0	0	8	8
	19	17	47	71	154	37	338	492

Table.1

Distribution of children in age and their home villages

Some understanding: 一些理解

Wasting is an acute case of malnutrition which is caused by too less nutrition and energy intake. Those children are too light in relation to their height. These children have a low lean body mass related to low muscle mass and low fat stores

菱缩是一种急性营养不良的状况，这是由于吸收太少的营养和能量而导致的。那些小孩的的体重相对于身高来说长得太轻了。那些孩子相对于低的肌肉质量和低的脂肪含量来说还是长得过瘦。

The children who are stunting, they are too small for their age as consequence of chronic malnutrition. They have delayed bone development due to chronic under nutrition. These children are at risk for cognitive and learning delay.

发育不良的小孩，这些小孩子是由于慢性营养不良的结果而导致发育不良，个子长得太小。他们的骨骼发育也因为慢性营养不良也延迟了。他们也有认知和学习迟缓的危险。

We will firstly treat the acute malnourished children.

我们会先治疗急性营养不良的孩子

Firstly we have to correct their micro nutrition, their electrolytes and Vitamins have to be corrected, without high dose iron which may increase the risk of infection and heart failure. We only provide iron **after** they gain their weight.

首先我们需要纠正他们的微营养素，他们的电解质和维生素，而不要高剂量的铁质因为那会增加他们被感染和心脏衰竭的危险，我们只有在他们的体重增加后才提供铁质。

We will provide the initial treatment with 12 days F-75, NOTE:

我们会提供 12 天剂量的 F-75 作为初步的治疗，注意：

F-75 is NOT given to gain weight but to correct the electrolytes imbalance

F-75 **不是**用来增重而是用于纠正电解质不平衡。

Secondly we then continue the treatment with NRG-5 this to gain weight till they have their normal weight. In average it will take 8 weeks.

接下来我们用 NRG-5 做第二部分的治疗，这是用来增加体重直到他们的体重正常为止，平均来说这疗程需要 8 个星期。

After we complete the treatments above we need to maintain their condition till their parents are able to provide them food from their own crops. We think it may take 10 months.

在完成了以上的疗程之后，我们还得需要保持他们的状况直到他们的父母可以用他们自家种的农作物来提供食物为止，估计这需要 10 个月的时间。

So we start with providing treatment to all preschool children.

所以我们要开始提供治疗给所有的学前儿童。

Why only give treatment to preschool children?

为什么只提供给学前儿童？

2 reasons: 2 个原因：

1. Malnutrition is quite difficult to treat after 3 years old, prevention is better than cure.
营养不良仔 3 岁后就很难治疗了，预防胜于治疗。
2. The school children receive lunch box at school.
学童们在学校有营养午餐。

We will work in phases, we move to the next phase after the previous one completed well
我们会分阶段的工作。我们只会在前一阶段的工作完全做好合作到位才会进入下一阶段。

Implementation of phase 1: 进行第一阶段

1. To solve the problem firstly we need to update the knowledge of our staff who have received the training about good nutrition, hygiene and community health since mid-2012
要解决问题，我们首先在 2012 年中增加员工对营养，卫生和社区卫生教育的培训。
2. Complete the answers of agricultural data for preparation (Appendix 3)
完成回答了农业资料的准备（附注 3）
3. Recruit and/or train extra staff, for data collection, follow up nutrition (local dietitian), water (water technician) and social economic state of the villagers (Yi speaking social worker),
聘请和/或是培训额外的员工，用于收集资料，跟进营养（本地的营养专家），水利（水利专家）和村民的社会经济地位（说彝语的社工）。
4. We need to understand the background and the reason why the children in these villages receive so less food.(Appendix 4)
我们需要了解为什村里的小孩都吃的这么少的背景和原因（附注 4）
5. To be able to take care of themselves firstly we need to make them understand the importance of good health of their children.(Appendix 5)
为了使他们能好好的照顾好自己，我们首先得让他们理解到良好的健康对他们的孩子的重要性。
6. To achieve the greatest health benefits, we need to improve their hygiene: personal, domestic and community hygiene. As preparation we need to assess the current state of the clean running water supply in the villages and make plan for equal distribution through the year and for every household.
为了达到最大的健康益处，我们需要改善他们的卫生：个人，家庭和社区卫生。为了准备好，我们需要评估目前村里的清洁用水的供应和计划以后全年把用水平均的分配给各家各户。
7. Assess the need and build more toilets and shower rooms
评估建造更多的厕所和淋浴间的需要性。
8. Educate the villager's hygiene and nutrition, including the source of proteins (Appendix 6).
教育村民卫生和营养，包括蛋白质的来源（附注 6）
9. Collecting baseline data for children we have detected before with acute malnutrition state.
收集那些我们证实了那些小孩还有急性营养不良之前的基线资料。
10. Collect information of the available local ingredients to make good food for the acute malnourished children.
收集一些本地即可以得到有良好营养成分的食品可以同给那些急性营养不良的孩子。
11. Offer 19 model families to participate as the first 2 cohorts, which will start with the nutrition program with 2 weeks interval. These are families with at least one child suffering from acute malnutrition in each family.
把 19 个参加计划的示范家庭分成两个梯队，在开始营养计划是有两个星期的区间。这些家庭至少都有一位急性营养不良的孩子。

12. Prepare a nutrition center in Xide, as workable place to keep, prepare and distribute food in the existing building close to the clinic in Xide and connect water pipe from the existing shower room nearby, day care center for children whose parents working in the field and laundry possibilities, (Appendix 5)

在喜德设立一个营养中心，作为一个在卫生站附近的现存建筑物可以工作的平台用于，保存、准备和分发食物，也要从附近有饮用水的地方连接水管到营养中心，也可以作为那些父母需要工而无人照顾孩子的日间护理中心，和洗衣的地方（附注 5）

13. Placing of weather station with data recorders in **Xide, Jinyang and Butuo**.

在喜德、金阳和布托设置气候站。

14. Appoint (a) villager(s) to run the nutrition center (candidate (s) are elected by the villagers. (E.g. villagers elected 4 candidates and after undergo a test of knowledge of nutrition and management we make the decision to appoint 2 from the 4 candidates).

聘请一位或多位有村民选举出来的人员来管理营养中心（譬如：村民选了 4 位候选人，在进行营养知识的测验和管理后，我们再决定从哪 4 为选 2 位出来）

15. Assess possibility of animal farm and plan which animals are suitable as potential source of protein.

评估动物农场的可能性和计划那些动物适合作为提供蛋白质的来源。

PHASE 2. Start with providing the acute malnourished children good food made from local ingredients in case F-75 is unavailable. Early NOVEMBER - mid January 2014.

第二阶段，万一我们没办法买大 F-75，需要开始提供从本地的到有良好营养成分的食品给那些急性营养不良的孩子，11 月初到 2014 年一月中。

Eligible criteria:合资格准则

- 1. Acute malnourished child >6 months old. 大于 6 个月大的急性营养不良的孩子**

All acute malnourished children of the model families will be included in this nutrition program. We should take into account that even with good education, parents will still give their other non patient children some of the treatment we provide, this is the so called SHARING PHENOMENA, if we only give treatment in this case provide food to the patient, the parents will share the food with their siblings so that the patient finally ends up with too less food and does not receive an appropriate and correct treatment.

所有在这些示范家庭里的急性营养不良孩子都会包括在计划中。我们也得要估计，就算接受过良好的教育，这些父母们也会把我们拿来作为治疗的治疗品分给其他没生病的小孩，我们叫这座**共享现象**，如果我们只提供治疗品给那位病人，这些父母们回家后也会分给病人的兄弟姐妹所以病人到最后会得不到足够的治疗品和食物而导致得不到正确的治疗。

- 2. A child who has received breastfeeding, 接受母乳喂哺的孩子**

if older than one year old the child has received breastfeeding for at least 1 year long.

If younger than one year old the child is still receiving breast feeding and to be continued for at least till the baby becomes 1 year old

如果一个大于一岁带孩子他接受母乳喂哺至少一年的时间，如果小于一岁，而他也还在接受母乳喂哺直到它至少一岁为止。

TARGETS: 目标

1. **After 8 weeks treatment with NRG-5 an acute malnourished child should gain weight up to 10% (?) -15% from the baseline weight** (using Plumpy Nuts in average after 6- 8 weeks children will gain 15% of their weight/normal weight, since we only have the alternative product with lesser calorie content, we have to take into account that the weight gain could be lesser, data are not shown in the literature)

急性营养不良小孩接受 NRG-5 的治疗 8 个星期之后而体重也从基线调查前增加了 10-15% (平均使用 Plumpy Nuts 6-8 个星期, 小孩子的重量会从他们原来的/正常的体重增加 15%, 我们也要考虑到体重的增加也许会没有这么多, 因为我们使用热量没这么多的替代品, 数据也没有在学术理论中记载过。)

2. **Parents fulfill their commitment to provide their kids at least 2 meals a day timely.**
父母们能做到提供子女每天至少两餐的承诺。

Implementation of phase 2: 进行第二阶段

1. Start preparing food for the initial treatment follow with distributing food in the Nutrition center for the acute malnourished children of the model families and their siblings.
开始在营养中心准备和提供给那些示范家庭里急性营养不良孩子和他们的兄弟姐妹们的初步治疗食品,
2. Enter the baseline data on the day they start the food in their individual medical file.
在他们刚开始治疗的第一天收集基线资料放在他们各自的病历里。
3. Start supply of clean running water and placing water pipe to the field of model families (Appendix 7)
开始提供干净的应用水和加装水管到那些示范家庭的屋子里 (附注 7)
4. Start building new toilets and shower rooms if necessary (see item VII in Phase 1)
如果有需要, 开始建造新的厕所和淋浴间 (参考第一阶段的第 7 点)
5. AGRICULTURAL Consultation and training by Mr. Tom WIEDEMANN (Appendix 8)
由农业顾问 Thomas 进行培训 (附注 8)
6. Start animal farm (pigpens?) for model families
在示范家庭离开时进行动物农场 (猪圈?)
7. Update and continue education in hygiene and nutrition
更新和持续的卫生和营养教育。
8. First and interim assessment of H and W of the children at the end of December, 2 months after start with the initial treatment and 6 weeks after start RTUF/NRG-5,
在 12 月底, 就是我们进行初步治疗后的两个月和进行 RTUF /NRG-5 治疗的 6 星期后, 进行首次和中期的身高和体重评估
9. Complete the 8 weeks long treatment course with NRG 5 till mid-January
完成 8 个星期的 NRG 5 疗程知道一月中。

PHASE 3. Mid-January 2014- March 2014 第三阶段：2014 年一月中到三月

Implementation of phase 3:进行第三阶段

1. Second and end assessment in weight , length and other health state including any side effects and consequences of the treatment of the children in the model families after 8 weeks course of NRG-5 in mid-January

第二和期末的体重，身高和其它健康状况包括有没有任何副作用的评估，和那些示范家庭的急性营养不良孩子在接受 8 个星期的 NRG 5 治疗后的结果。

2. Hygiene assessment 卫生评估
3. Meeting with the model families in Xide about the result of assessment,
约见在喜德示范家庭讨论评估的结果，
Are there common problem they are facing? How to improve?
他们有没有碰到任何的问题？怎样改善？
Could we continue?
我们可以继续吗？

If successful in Xide, 如果在喜德的计划是成功的话，

4. Plan to start with Phase 1 in Jinyang and Butuo January 2nd
计划在金阳和布托进行第一阶段的后动
5. Provide treatment for 10 months duration to all pre-school of the children in Xide. (number of children 0-5 years old: 40, data collected in June 2012). This is to maintain weight for those acute malnourished children who have gained weight and to prevent deterioration those suffering from chronic malnutrition till good food from own harvest is available.
提供系的所有学前 0-5 岁的儿童 10 个月的营养治疗。（0-5 岁孩子的数目，根据 2012 年 6 月份得到的资料有 40 位）。则是为了要维持那些急性营养不良孩子在体重保持在同一水平，和为了预防那些慢性营养不良孩子的情况变坏，直到他们自家的农作物有收成为止。
6. W/L and health assessment every month.
每月进行体重/身高的评估。

If there is no good result at the end of the phase 2 (lesser than 50% of the children gain weight for 10%), depends on the willingness of the villagers and the cause of the failure, we stop the program till e.g. they understand the objective of the project and solved all problem or we repeat phase 2 completely or partially.

如果在第二阶段完成后没有达到良好的效果（少于 50% 的孩子体总增加 10%），取决于村民的意愿和失败的原因，我们将会暂停计划知道，譬如说，他们明白项目的目标和解决问题或是我们完全或是部分的重复第二阶段。

Time line for XIDE: mid June 2013- March 2014 喜德的时间表： 2013 年 6 月中-2014 年 3 月

Time 时间	Phase 1 第一阶段	Phase 2 第二阶段		Phase 3 第三阶段
Group 1 第一组	Mid June- early November 2013 6 月中到 11 月初	Early November- mid January 2014 11 月初, 到 2014 年 1 月中		mid-January 2014- end March 2014, with continuation Of 10 mo. duration of treatment till mid October 2014. 2014 年预约中到 3 月底。再延续 10 个月的治疗知道 2014 年 10 月
Group 2 第二组	The same as Group 1 跟第一组一样	2 weeks later than Group 1 (mid November 2013- end January 2014 第一组实行后的两星期 (11 月中到 2014 年 1 月底)		2 weeks later than Group 1 (end January 2014-mid April 2014). With treatment end at end October 2014. 比第一组迟两星期 (2014 年一月底到四月中延续到 2014 年 10 月底)

Time line for Jinyang and Butuo 金阳和布托的时间表

Time	Phase 1	Phase 2		Phase 3
	2 nd January 2014- end March 2014 2014 年 1 月 2 号到 3 月底	Begin April - mid June 2014 2012 年 4 月初到 6 月中		mid June- end August 2014, end 10 mo. treatment in mid April 2015 2014 年 6 月中到 8 月底再延续 10 个月直到 2015 年 4 月中

Time line for Puge, Ganluo, Luding and Muli (?) 普格, 甘洛, 泸定和木里的时间表

Muli has to be assessed during the next POD visit (data collection of children in Muli in their length and weight including the number of their siblings)

在下次 POD 访村时, 需要为木里的孩子做调查 (木里儿童身高和体重的资料和他们兄弟姐妹的数目)

Time	Phase 1	Phase 2		Phase 3
	June- early November 14 2014年6月初到14年 11月	Early November 14- mid January 15 24年11月初, 到15 年一月中		mid-January end March 2015, end 10 mo. treatment in mid November 2015. 15年一月中到3底, 再 延续10个月的治疗直 到15年11月中

Working protocol 拟定工作

ALWAYS WASH YOUR HANDS WITH SOAP BEFORE DEALING WITH FOOD AND DRY THEM IN CLEAN TOWEL.

在处理食物前一定要用肥皂洗手再用干净的毛巾抹干

MAKE SURE THAT YOUR WORKING/KITCHEN TABLE IS CLEAN BEFORE START WITH PREPARING FOOD

确保厨房的工作台在准备和处理食物前要清洁干净

PUT WASHING DETERGENT IN SEPARATE CABINET HIGHER UP THAT CHILDREN CANNOT REACH (THESE ARE POISON !!!)

把洗洁精放在小孩拿不到的高柜子里。(那是有毒的!!!)

ALWAYS CLEAN AND WASH KITCHEN UTENSILS BEFORE AND AFTER USE WASH TOWELS AND DRY!!.

在使用厨具前和后都要用墨不清洗干净, 再抹干!!

ONCE YOU OPEN THE PACKING OF THE FOOD (POWDER OR BISCUIT) IT AHS THEN TO BE EATEN ON THE SAME DAY. THE PORRIDGE MADE FROM THE POWDER ASSSH TO BE EATEN WITHIN 3 HOURS WHEN KEEP IN ROOM TEMPERATURE

一旦把食品的包装打开(粉或是饼干)就要在同一天给吃完。那些用营养品调开的粥在摆放在室温下需要在3小时内吃完

BASELINE DATA SHOULD BE COLLECTED BEFORE THE START OF THE TREATMENT. WEIGHT, LENGTH AND Z SCORE THESE DATA SHOULD BE WRITE DOWN IMMEDIATELY ON THEIR INDIVIDUAL MEDICAL FILE WITH DATE ON IT.

要在他们开始营养治疗前进行收集基线调查资料, 体重, 身高 Z 值。 这些资料一经收集就要马上记录下在他们各自的病历里。

WE ONLY TREAT CHILDREN > 6 MONTHS.

我们只治疗大于6个月的孩子

ACUTE MALNOURISHED CHILDREN < 6 MONTHS SHOULD BE TREATED AS A SPECIAL CASE, WE NEED TO MAKE SURE THIS BABY HAS ENOUGH BREAST FEEDING AND CHECK ON THE MOTHER HEALTH AND NUTRITION CONDITION.

小于 6 个月的急性营养不良孩子需要以特别个案的方式来治疗，我们要确定这还是有足够的母乳和检查母亲的健康和营养状况。

WEIGHT THE FOOD TO BE PREPARED ACCURATELY, DON'T SPILL.

要把准备用来煮的食品准确的称重，不要倒翻。

F-75: FORMULA 75 配方 75

THE DOSE WHICH EACH CHILD NEEDS: 100KCAL/KG BODY WEIGHT.

每个孩子需要的剂量：**100 大卡/公斤体重**

(STAFF MAKES TABLE FOR EVERY BODY WEIGHT SO THAT IT IS EASY TO FIND HOW MUCH A CHILD WITH THE PARTICULAR BODY WEIGHT MAY NEED F-75)

(员工要做一个对照表格以方便营养中心的管理人员正确的把 F-75 分发给小孩)

F-75	BODY WEIGHT 体重	NUMBER /SACHET 数量/包	WEIGHT OF POWDER IN GRAM 粉末的重量，克	DRINK WATER TO ADD 需要加紧饮用水
	5KG	1		500ML
	6KG			
	ETC			

EACH SACHET CONTAINS 102,5G SHOULD BE ADD WITH 500 ML DRINKING WATER TO OBTAIN 600ML OF MILK/THIN PORRIDGE

THIS IS EQUAL TO 75 KCAL PER 100 ML

每一小包有 102.5G，再加进 500 毫升的饮用水已可得到 600 毫升的奶/稀粥。

这每 100 毫升等于 75 大卡

EXAMPLE A BABY WITH 5 KG BODY WEIGHT NEEDS, 5X 100KCAL/KG BW= 500KCAL IN TOTAL, WHICH IS EQUAL TO 500KCAL/75 KCAL*100ML =666 ML

ROUNDING UP. 1 SACHET F-75 POWDER IS GOOD FOR 1 CHILD WITH 5 KG BODY WEIGHT.

譬如说一个孩子他的体重是 5 公斤，他需要，5 X 100 大卡/公斤体重 = 总共要 500 大卡。那就是需要 500 大卡/75 大卡 X 100ML = 666 毫升。也就是说一小包的 F-75 足够给一个 5 公斤重的小孩。

A SMALL CHILD HAS A SMALL STOMACH, THE BEST WE DIVIDE THE MEAL TO 2X /DAY. PREPARE HALF SACHET FOR EACH MEAL.

小孩子的胃部也较小，最好是分为每天最少 2 次以上。也许是没餐用半包的分量。

WE PROVIDE THIS AS MEDICINE IN THERMOS BOTTLE WITH THE NAME OF THE CHILD.

我们是以药物的名义再放在保温壶里发给小孩子，再给保温壶都写上小孩的名字。

NRG-5 TO GAIN WEIGHT: DOSE : 200KCAL/KG BODY WEIGHT/DAY

使用 NRG-5 来增加体重：剂量：200 大卡/公斤体重/天

PER CHILD 200KCAL/KG BODY WEIGHT WE WILL PROVIDE THEM FOR 8 WEEKS LONG THEIR THEY GAIN WEIGHT WITH 15% OR REACH THE TARGET WITH Z SCORE WEIGHT FOR LENGTH <-1

每个小孩提供 8 个星期按照 200 大卡/公斤体重/天 的剂量知道他们的体重增加 15%或是达到体重身高比的 Z 值<-1 为止。

CAN BE DISTRIBUTED AS BISCUIT OR AS PORRIDGE, ENCOURAGE CHILDREN TO EAT AS BISCUIT THEN WE DON'T HAVE TO PREPARE AS PORIDGE. WE CAN MAKE PORRIDGE BY ADDING CLEAN DRINK WATER TO IT.

可以以饼干或是稀粥的方式发放，要鼓励小孩以饼干的方式来吃，这样的话我们就不用把他煮成稀粥了。我们可以使用清水把饼干弄成稀粥。

BISCUIT 458 KCAL PER 100G 饼干 458 大卡/100 克

PACKING: 包装

500g / 9 bars per ration 每份 500 克/9 片

IT MEANS 254 KCAL PER BAR (458 X 9= 2290KCAL/9 BARS), EXAMPLE A CHILD WITH 5 KG BODY WEIGHT NEEDS 5 X 200KCAL/KG BODY WEIGHT =1000KCAL/DAY, THOSE ARE 4 BARS PER DAY, LET THEM EAT E.G AT 8-12-4PM-8PM

也就是说 254 大卡/片 (458 X 9 =2290 大卡/9 片)，譬如说一个 5 公斤重的孩子需要 5X200 大卡/公斤体重/天 = 1000 大卡/天，这就是说一天要吃 4 片。譬如可以让他们在早上 8-12 点和下午 4-8 点吃。

NRG-5 TO MAINTAIN WEIGHT: DOSE : 100KCAL/KG BODY WEIGHT/DAY

使用 NRG-5 来维持体重：剂量：100 大卡/公斤体重/天

EXAMPLE A CHILD WITH 5 KG BODY WEIGHT NEED 500KCAL/DAY

THAT IS 2 BARS A DAY, FOR EXAMPLE EAT AT 8 O'CLOCK AND 18 O'CLOCK.

譬如一个 5 公斤重的孩子需要 500 大卡/天

这也就是每天 2 片，可以建议在早上 8 点和下午 6 点吃。

ANNEX 1

Weight-for-Length Reference Card (below 87 cm)

Boys' weight (kg)					Length	Girls' weight (kg)				
-4 SD	-3 SD	-2 SD	-1 SD	Médian	(cm)	Médian	-1 SD	-2 SD	-3 SD	-4 SD
1.7	1.9	2.0	2.2	2.4	45	2.5	2.3	2.1	1.9	1.7
1.8	2.0	2.2	2.4	2.6	46	2.6	2.4	2.2	2.0	1.9
2.0	2.1	2.3	2.5	2.8	47	2.8	2.6	2.4	2.2	2.0
2.1	2.3	2.5	2.7	2.9	48	3.0	2.7	2.5	2.3	2.1
2.2	2.4	2.6	2.9	3.1	49	3.2	2.9	2.6	2.4	2.2
2.4	2.6	2.8	3.0	3.3	50	3.4	3.1	2.8	2.6	2.4
2.5	2.7	3.0	3.2	3.5	51	3.6	3.3	3.0	2.8	2.5
2.7	2.9	3.2	3.5	3.8	52	3.8	3.5	3.2	2.9	2.7
2.9	3.1	3.4	3.7	4.0	53	4.0	3.7	3.4	3.1	2.8
3.1	3.3	3.6	3.9	4.3	54	4.3	3.9	3.6	3.3	3.0
3.3	3.6	3.8	4.2	4.5	55	4.5	4.2	3.8	3.5	3.2
3.5	3.8	4.1	4.4	4.8	56	4.8	4.4	4.0	3.7	3.4
3.7	4.0	4.3	4.7	5.1	57	5.1	4.6	4.3	3.9	3.6
3.9	4.3	4.6	5.0	5.4	58	5.4	4.9	4.5	4.1	3.8
4.1	4.5	4.8	5.3	5.7	59	5.6	5.1	4.7	4.3	3.9
4.3	4.7	5.1	5.5	6.0	60	5.9	5.4	4.9	4.5	4.1
4.5	4.9	5.3	5.8	6.3	61	6.1	5.6	5.1	4.7	4.3
4.7	5.1	5.6	6.0	6.5	62	6.4	5.8	5.3	4.9	4.5
4.9	5.3	5.8	6.2	6.8	63	6.6	6.0	5.5	5.1	4.7
5.1	5.5	6.0	6.5	7.0	64	6.9	6.3	5.7	5.3	4.8
5.3	5.7	6.2	6.7	7.3	65	7.1	6.5	5.9	5.5	5.0
5.5	5.9	6.4	6.9	7.5	66	7.3	6.7	6.1	5.6	5.1
5.6	6.1	6.6	7.1	7.7	67	7.5	6.9	6.3	5.8	5.3
5.8	6.3	6.8	7.3	8.0	68	7.7	7.1	6.5	6.0	5.5
6.0	6.5	7.0	7.6	8.2	69	8.0	7.3	6.7	6.1	5.6
6.1	6.6	7.2	7.8	8.4	70	8.2	7.5	6.9	6.3	5.8
6.3	6.8	7.4	8.0	8.6	71	8.4	7.7	7.0	6.5	5.9
6.4	7.0	7.6	8.2	8.9	72	8.6	7.8	7.2	6.6	6.0
6.6	7.2	7.7	8.4	9.1	73	8.8	8.0	7.4	6.8	6.2
6.7	7.3	7.9	8.6	9.3	74	9.0	8.2	7.5	6.9	6.3
6.9	7.5	8.1	8.8	9.5	75	9.1	8.4	7.7	7.1	6.5
7.0	7.6	8.3	8.9	9.7	76	9.3	8.5	7.8	7.2	6.6
7.2	7.8	8.4	9.1	9.9	77	9.5	8.7	8.0	7.4	6.7
7.3	7.9	8.6	9.3	10.1	78	9.7	8.9	8.2	7.5	6.9
7.4	8.1	8.7	9.5	10.3	79	9.9	9.1	8.3	7.7	7.0
7.6	8.2	8.9	9.6	10.4	80	10.1	9.2	8.5	7.8	7.1
7.7	8.4	9.1	9.8	10.6	81	10.3	9.4	8.7	8.0	7.3
7.9	8.5	9.2	10.0	10.8	82	10.5	9.6	8.8	8.1	7.5
8.0	8.7	9.4	10.2	11.0	83	10.7	9.8	9.0	8.3	7.6
8.2	8.9	9.6	10.4	11.3	84	11.0	10.1	9.2	8.5	7.8
8.4	9.1	9.8	10.6	11.5	85	11.2	10.3	9.4	8.7	8.0
8.6	9.3	10.0	10.8	11.7	86	11.5	10.5	9.7	8.9	8.1

Weight-for-Height Reference Card (87 cm and above)

Boys' weight (kg)					Height	Girls' weight (kg)				
-4 SD	-3 SD	-2 SD	-1 SD	Médian	(cm)	Médian	-1 SD	-2 SD	-3 SD	-4 SD
8.9	9.6	10.4	11.2	12.2	87	11.9	10.9	10.0	9.2	8.4
9.1	9.8	10.6	11.5	12.4	88	12.1	11.1	10.2	9.4	8.6
9.3	10.0	10.8	11.7	12.6	89	12.4	11.4	10.4	9.6	8.8
9.4	10.2	11.0	11.9	12.9	90	12.6	11.6	10.6	9.8	9.0
9.6	10.4	11.2	12.1	13.1	91	12.9	11.8	10.9	10.0	9.1
9.8	10.6	11.4	12.3	13.4	92	13.1	12.0	11.1	10.2	9.3
9.9	10.8	11.6	12.6	13.6	93	13.4	12.3	11.3	10.4	9.5
10.1	11.0	11.8	12.8	13.8	94	13.6	12.5	11.5	10.6	9.7
10.3	11.1	12.0	13.0	14.1	95	13.9	12.7	11.7	10.8	9.8
10.4	11.3	12.2	13.2	14.3	96	14.1	12.9	11.9	10.9	10.0
10.6	11.5	12.4	13.4	14.6	97	14.4	13.2	12.1	11.1	10.2
10.8	11.7	12.6	13.7	14.8	98	14.7	13.4	12.3	11.3	10.4
11.0	11.9	12.9	13.9	15.1	99	14.9	13.7	12.5	11.5	10.5
11.2	12.1	13.1	14.2	15.4	100	15.2	13.9	12.8	11.7	10.7
11.3	12.3	13.3	14.4	15.6	101	15.5	14.2	13.0	12.0	10.9
11.5	12.5	13.6	14.7	15.9	102	15.8	14.5	13.3	12.2	11.1
11.7	12.8	13.8	14.9	16.2	103	16.1	14.7	13.5	12.4	11.3
11.9	13.0	14.0	15.2	16.5	104	16.4	15.0	13.8	12.6	11.5
12.1	13.2	14.3	15.5	16.8	105	16.8	15.3	14.0	12.9	11.8
12.3	13.4	14.5	15.8	17.2	106	17.1	15.6	14.3	13.1	12.0
12.5	13.7	14.8	16.1	17.5	107	17.5	15.9	14.6	13.4	12.2
12.7	13.9	15.1	16.4	17.8	108	17.8	16.3	14.9	13.7	12.4
12.9	14.1	15.3	16.7	18.2	109	18.2	16.6	15.2	13.9	12.7
13.2	14.4	15.6	17.0	18.5	110	18.6	17.0	15.5	14.2	12.9
13.4	14.6	15.9	17.3	18.9	111	19.0	17.3	15.8	14.5	13.2
13.6	14.9	16.2	17.6	19.2	112	19.4	17.7	16.2	14.8	13.5
13.8	15.2	16.5	18.0	19.6	113	19.8	18.0	16.5	15.1	13.7
14.1	15.4	16.8	18.3	20.0	114	20.2	18.4	16.8	15.4	14.0
14.3	15.7	17.1	18.6	20.4	115	20.7	18.8	17.2	15.7	14.3
14.6	16.0	17.4	19.0	20.8	116	21.1	19.2	17.5	16.0	14.5
14.8	16.2	17.7	19.3	21.2	117	21.5	19.6	17.8	16.3	14.8
15.0	16.5	18.0	19.7	21.6	118	22.0	19.9	18.2	16.6	15.1
15.3	16.8	18.3	20.0	22.0	119	22.4	20.3	18.5	16.9	15.4
15.5	17.1	18.6	20.4	22.4	120	22.8	20.7	18.9	17.3	15.6