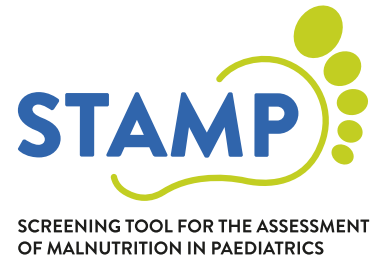


FREQUENTLY ASKED QUESTIONS



Development and Validation

1. Is STAMP a validated screening tool?

Yes – STAMP is the only validated paediatric screening tool for under-nutrition available in the UK.

2. What did the validation process for STAMP involve?

Helen McCarthy undertook the development and validation work at the Manchester Children's Hospital (MCH). All children admitted to 4 wards of MCH were screened using the nurse-administered tool and a registered dietitian further assessed a sample of 238 for malnutrition. The classifications for risk of under-nutrition were then compared using statistical analysis.

The tool was found to have good overall reliability¹ (reliability being the "consistency" or "repeatability" of the measures).

3. The tool was developed and piloted in a specialist teaching hospital. How is this relevant to me in a District General Hospital?

The wards used for the development and validation of the tool were selected to capture a good cross-section of clinical conditions and reasons for admission¹.

These wards included General Medical and General Surgical.

4. How do I know STAMP works?

STAMP was found to have good reliability¹. See question 1 above.

STAMP also has good sensitivity and specificity – these were calculated at 70% and 91% respectively¹.

In this instance, sensitivity represents the probability of correctly identifying malnutrition using STAMP, and specificity represents the probability of identifying healthy children as being malnourished using STAMP. This means that STAMP does not identify healthy children as being malnourished, but correctly identifies those that are malnourished.

5. Can STAMP be used in the community?

STAMP has been validated for use in hospitals. It is the author's intention to validate the tool for community use too. If this is something you are interested in, please contact Helen McCarthy directly via the STAMP website:

www.stampscreeningtool.org.

FREQUENTLY ASKED QUESTIONS

6. Can STAMP be used for children of all ages?

STAMP has been validated for use in children from aged 2 weeks to 16 years^{1,2}. For this reason, the quick reference centile tables and weighing and measuring instructions have been developed to include children aged 1-16 years old. If you want further information on the use of STAMP in this age group contact the author via the website: www.stampscreeningtool.org.

7. Has STAMP been peer reviewed?

Yes, the study undertaken to validate STAMP was submitted in part fulfilment of a PhD thesis and as such was extensively reviewed by two independent assessors with expertise in the fields of childhood anthropometrics and nutrition screening in adults and the elderly.

8. Why doesn't STAMP use BMI?

BMI is not easily interpreted in children and can be influenced by many factors such as puberty.

The use of BMI in the identification of under-nutrition has not been extensively explored and further studies are required in this area. Chronic under-nutrition results in stunting as well as low weight-for-age and this can mask under-nutrition as defined using BMI. For example, a 3 year old boy weighing 10kg and measuring 83cm will have a weight and height both markedly below the 0.4th centile. However BMI = 14.5kg/m² which is approximately on the 9th centile.

To calculate BMI nursing staff need to weigh and measure the child and then do the simple calculation. This then needs to be plotted on to a BMI reference chart and interpreted appropriately. This takes time and time is a commonly quoted barrier in adult nutrition screening.

Implementation

1. Can healthcare professionals other than dietitians use STAMP?

Yes. STAMP is intended for use by non-dietetic staff as a first-line screen, and those children identified as being at nutritional risk can then be referred to the dietitian for a full nutritional assessment in accordance with local guidelines. Therefore any healthcare professional or healthcare assistant can use STAMP, provided they are trained and competent on the use of the tool.

2. Do all children who score equal to or over 4 need to be referred to a dietitian?

If a child scores ≥ 4 , the suggested STAMP Care Plan is to refer the child to a dietitian, nutrition support team or consultant. However, this step should be tailored in line with local policies and procedures.

FREQUENTLY ASKED QUESTIONS

3. When using the quick reference tables for Step 3 of STAMP, what is meant by counting 'columns apart'?

Step 3 of STAMP requires a child's weight and height to be measured. Using growth charts or the quick reference tables available on the STAMP website, the number of centiles or columns these are apart is then determined.

Example using the centile quick reference tables:

Count columns



= >3 columns apart

CHILD WEIGHT CENTILE TABLE - BOYS

Age	Weight Centiles (kg)								
	0.4 th	2 nd	9 th	25 th	50 th	75 th	91 st	98 th	99.6 th
2 years	9	9.7	10.4	11.25	12.2	13.14	14.2	15.3	16.4
2.5 years	9.75	10.5	11.4	12.3	13.3	14.4	15.6	16.9	18.1
3 years	10.4	11.2	12.2	13.2	14.3	15.5	16.9	18.3	19.9
3.5 years	11.1	12	13	14.1	15.3	16.7	18.1	19.9	21.4
4 years	12.4	13.3	14.2	15.3	16.5	17.9	19.4	21.1	23
4.5 years	13.1	14	15.1	16.2	17.6	19	20.7	23	24.6
5 years	13.9	14.9	16	17.2	18.6	20.2	22	24.1	26.5
5.5 years	14.6	15.5	16.8	18.1	19.7	21.5	23.5	26	29

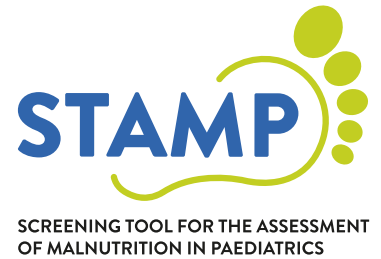
CHILD HEIGHT CENTILE TABLE - BOYS

Age	Height Centiles (cm)								
	0.4 th	2 nd	9 th	25 th	50 th	75 th	91 st	98 th	99.6 th
2 years	79	81	83	85.1	87.1	89.2	91.2	93.5	95.3
2.5 years	83	85	87.4	89.6	91.9	94.2	96.5	99	101
3 years	86.1	88.5	91	93.6	96.1	98.6	101	103.5	106
3.5 years	89.2	92	94.5	97.2	99.9	102.5	105.1	108	110.5
4 years	91.5	95.5	97	99.7	102.5	105.2	108	111	113.5
4.5 years	94.5	97.5	100.3	103.1	106	108.9	111.8	115	117.5
5 years	97.5	100.5	103.5	106.5	109.6	112.5	115.7	119	121.8
5.5 years	100	103	106	109.2	112.4	115.5	118.5	122	124.8

STEP 3 - Weight and height

Use a growth chart or the centile quick reference tables to determine the child's measurements	Score
> 3 centiles/columns apart (or weight < 2nd centile)	3
> 2 centiles/columns apart	1
Similar centiles/columns	0

FREQUENTLY ASKED QUESTIONS



Screening for Malnutrition in Children

1. Does STAMP replace growth charts?

No. STAMP is not intended to replace growth charts.

Growth charts monitor a child's weight and height/length over time while STAMP assesses a child's nutritional status on a given date in time using a combination of measures, including weight and height/length. STAMP also takes into consideration nutritional intake and underlying clinical condition.

STAMP does not replace a full nutritional assessment by a dietitian – any children found to be at risk of malnutrition on screening should be referred to a dietitian for a full nutritional assessment, which will include plotting weight and height/length on a growth chart.

2. Which growth charts should be used with STAMP?

The centile tables that are provided as part of the tool have been developed using the UK90 growth charts, which are the ones most commonly used in UK practice.

Other growth charts may be used with STAMP. Please be aware that STAMP was validated using the UK90 growth reference charts where a 3 centile difference (the difference between the 50th centile and the 98th centile) in weight and height reflects a

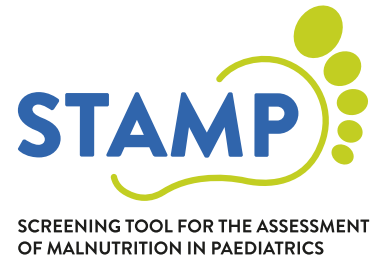
2 standard deviation discrepancy.

This may vary for other growth charts e.g. WHO and USA.

3. Can STAMP be used to screen for obesity?

No. However, obese children may be identified through Step 3 of STAMP where weight & height/length are measured. Any children who have been identified as being obese should be referred to the appropriate healthcare professional and be managed as per local policy or guidelines.

FREQUENTLY ASKED QUESTIONS



Copyright

1. Can I make changes to the layout and logos of the STAMP materials?

No. The layout and logos on the STAMP materials are copyright protected and cannot be amended or removed.

The documents relating to STAMP may be printed and copied for clinical use on condition that the copyright is retained in full (i.e. that the documents are printed or copied without any modification).

STAMP may however be printed onto Trust headed paper.

2. Can I make modifications to the “Diagnosis Criteria” in STAMP?

Any changes or modifications, however small, will invalidate STAMP.

The nutritional risk scores assigned to the Diagnosis Criteria in STAMP are evidence based.

If you feel that any diagnosis is not covered in the current list, the author would be pleased to hear from you. Please contact Helen McCarthy via the STAMP website (www.stampscreeningtool.org) outlining details of the diagnosis and attach the relevant evidence for her consideration.

References

1. McCarthy H et al. The development and evaluation of the Screening Tool for the Assessment of Malnutrition in Paediatrics (STAMP®) for use by healthcare staff. *J Hum Nutr Diet.* 2012, 25, 311–318
2. Carey A et al. A pilot study evaluating the use of STAMP® nutrition screening tool in hospitalised infants. *Abstracts/Clin Nut. ESPEN 10 2015.* E174-E212, Oc 34.

For additional information about STAMP, please visit the website:

www.stampscreeningtool.org