



How can we help parents recognise an unhealthy body weight in their children? The 4 & UPP Study

Angela Jones on behalf of the 4 & UPP Study team

Caroline Walker Trust Lecture

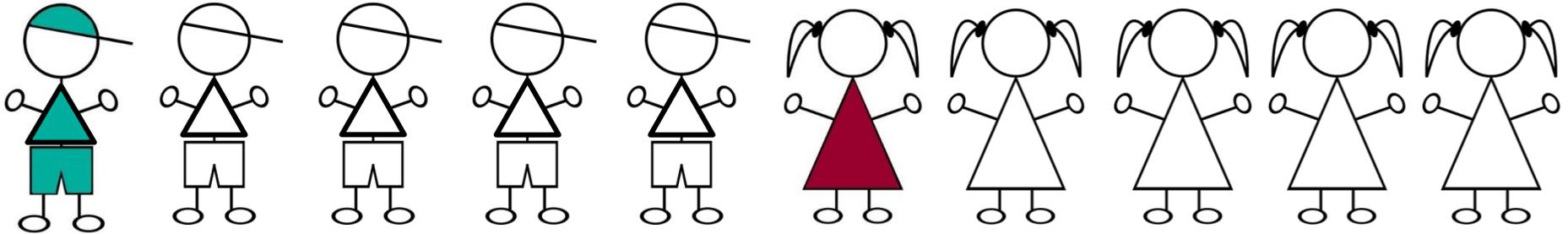
21st September 2016



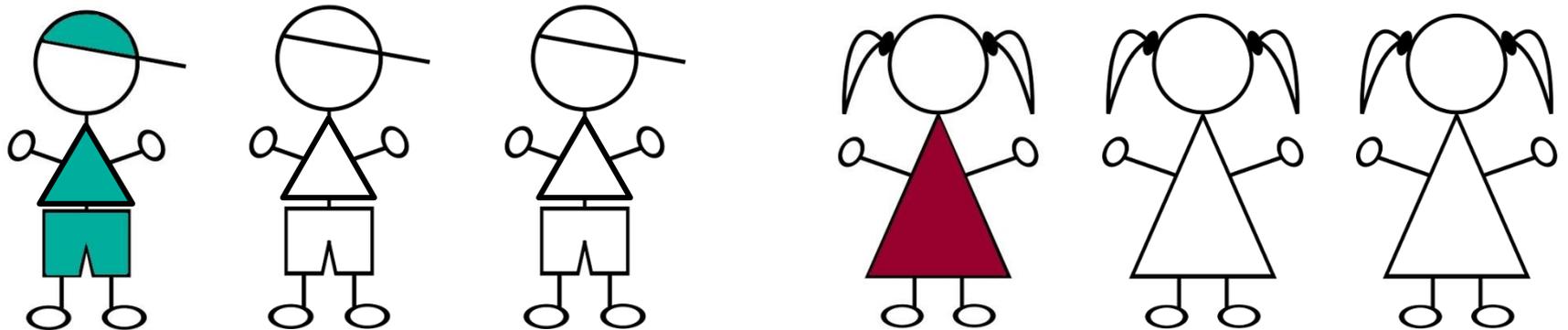
Background

PHE: National Child Measurement Programme (NCMP) 2014/15

One in five children in Reception is overweight or obese



One in three children in Year 6 is overweight or obese



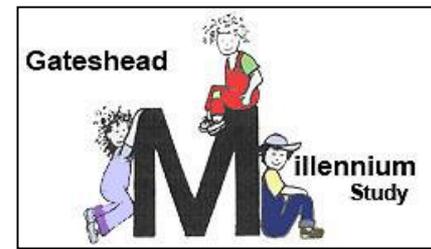
Background

- Parents play an important role in childhood obesity prevention
 - Parents play a key role in the shaping of children's health-related behaviours



- Parents are also relied upon to recognise unhealthy weight in their children and seek the appropriate support

Background



<http://research.ncl.ac.uk/gms/>

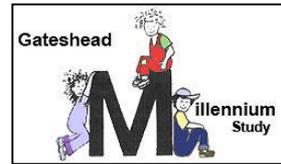
- Parents tend not to recognise when their child is OW
- Example from the GMS:

| <i>% perceived OW/VOW</i> | <i>% identified OW/OB</i> | <i>Identified – Perceived (%)</i> |
|---------------------------|---------------------------|-----------------------------------|
| 7.3 | 23.7 | 16.4 |

- **69.3%** of parents of OW/OB children identified their child as being of NW

(Jones *et al.* 2011 Int J Obes; IOTF criteria)

Background



- How do parents identify OW in children?

- Visual assessment and compare children within peer groups

“Unless somebody is sort of identified as completely obese, where you can see it...I think it’s very hard”

- Tend to rely on extreme cases as a reference point

“I think it’s very difficult and I think the statistics aren’t necessarily what you would consider if you saw a child in front of you”

“...I don’t know where all of these overweight, obese children are cos I don’t see lots of them on a day to day basis”



How can we help parents recognise an unhealthy body weight in their child?

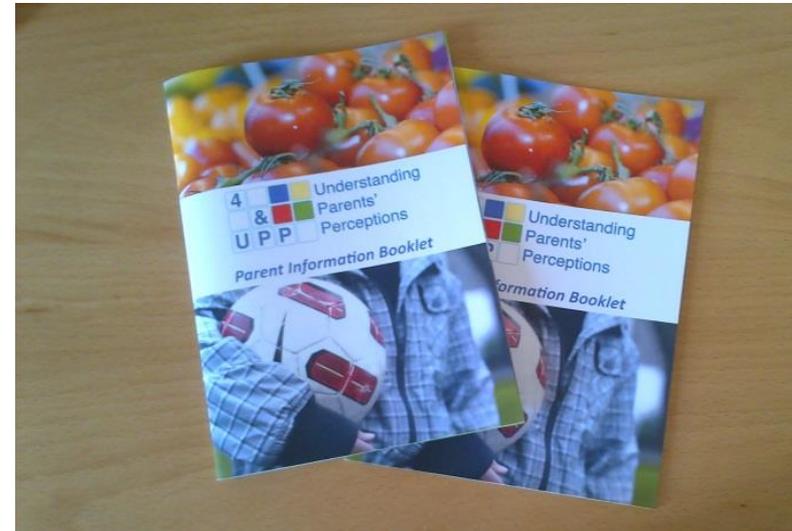
- *Rationale:* Addressing parents' misperceptions of child weight status is important
 - Without recognition of overweight, parents are unlikely to take appropriate action and/or seek support

Aim

- Develop and test a **visual** method to improve parents' recognition of child weight status
- Develop and test a tool to improve parental knowledge of the consequences of childhood OW
- Body image scales of known BMI:
 - Girls and Boys, 4-5 years (Reception)
 - Girls and Boys, 10-11 years (Year 6)
- Supporting information covering:
 - Consequences of childhood OW, healthy eating, PA, sources of support



- The Map Me tool has been created in paper- and web-based format



Web -based format

NHS choices Your health, your choices

In association with  Newcastle University

MapMe .beta [About MapMe](#)

1 Select gender and age and choose which of the body shapes best represents your child

Male Female Reception (age 4-5) Year 6 (age 10-11)



1 2 3 4 5 6 7

Front view Side view Next

MapMe_{.beta}

About MapMe

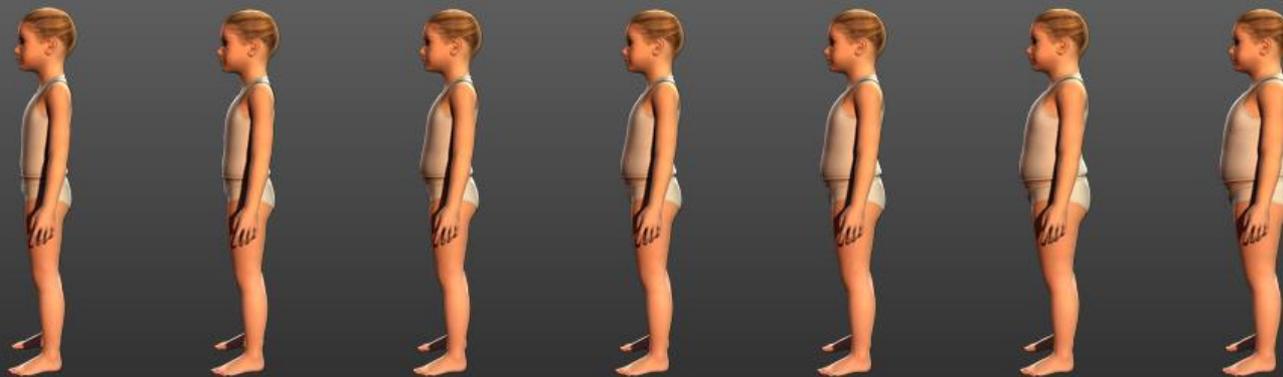
1 Select gender and age and choose which of the body shapes best represents your child

Male

Female

Reception (age 4-5)

Year 6 (age 10-11)



1

2

3

4

5

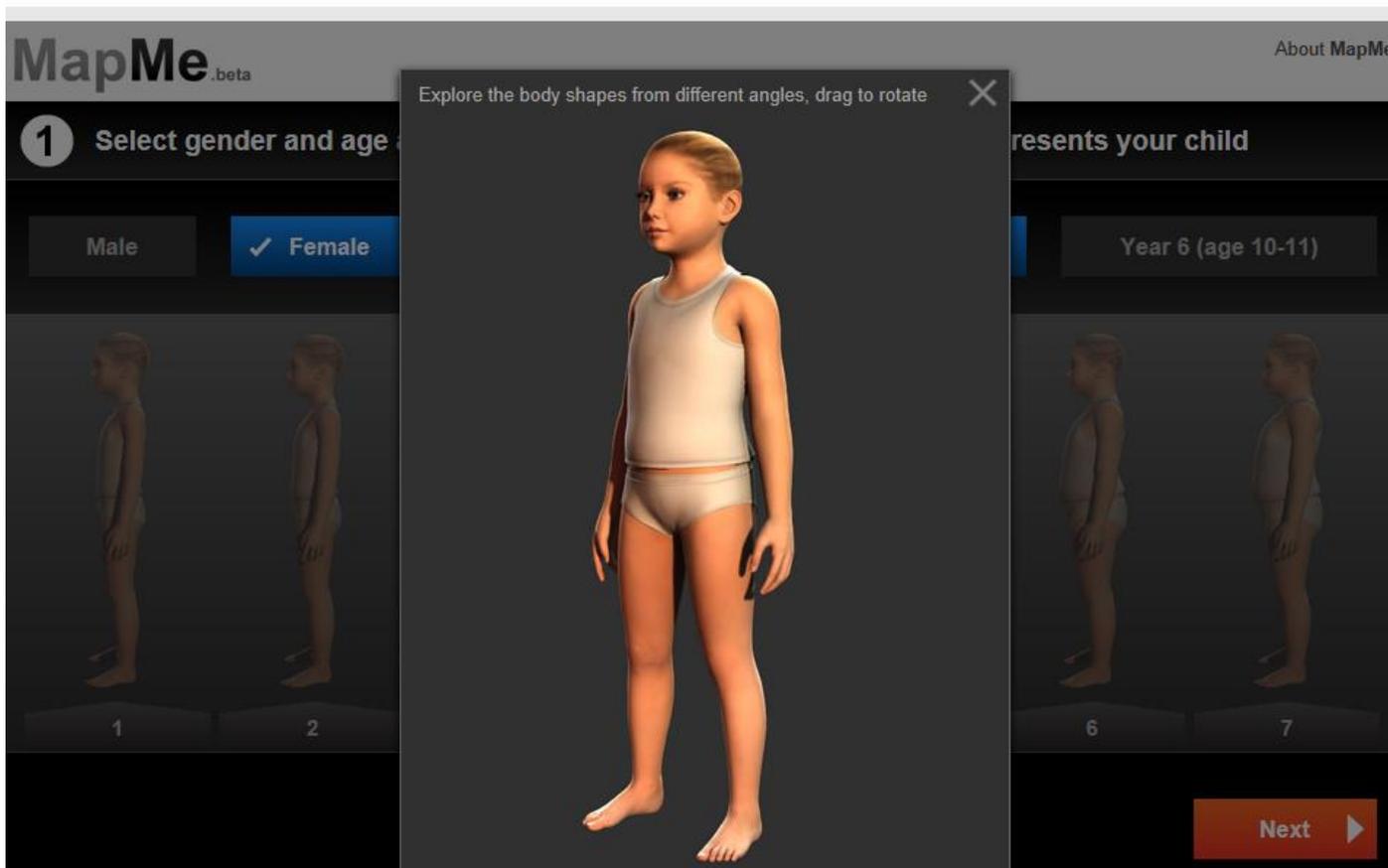
6

7

Front view

Side view

Next 

A screenshot of the MapMe .beta web application interface. The interface is dark-themed and shows a 3D model of a young girl. A central modal window is open, displaying the girl from a three-quarter front view. The modal has a title "Explore the body shapes from different angles, drag to rotate" and a close button. To the left of the modal, there are buttons for "Male" and "Female" (selected), and two side-view thumbnails labeled "1" and "2". To the right, there are buttons for "Year 6 (age 10-11)" and two more side-view thumbnails labeled "6" and "7". A "Next" button with a right-pointing arrow is at the bottom right. The top left of the interface says "MapMe .beta" and the top right says "About MapMe".

MapMe^{.beta}

[About MapMe](#)

2 Enter your child's details

Date of birth

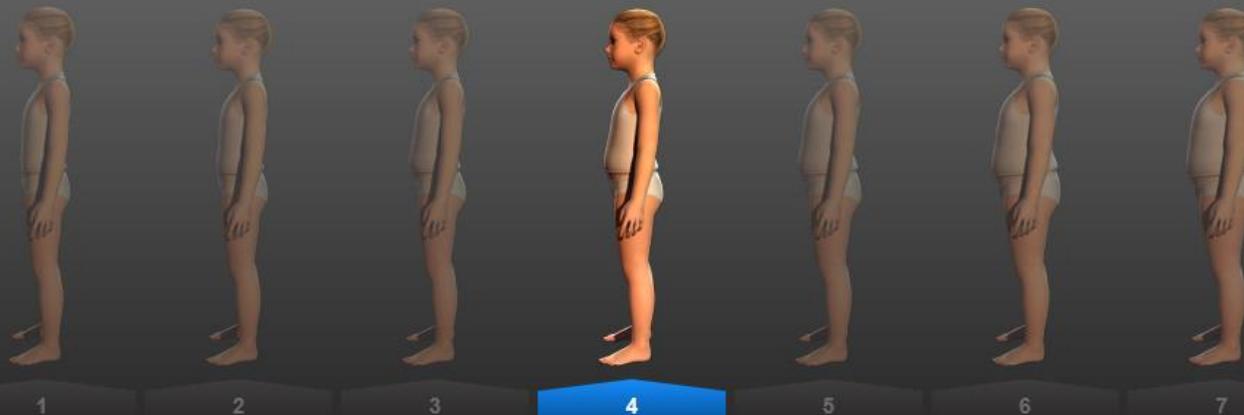
Height

 cmImperial | [Metric](#)

Weight

 kgImperial | [Metric](#)

Date height/weight were measured

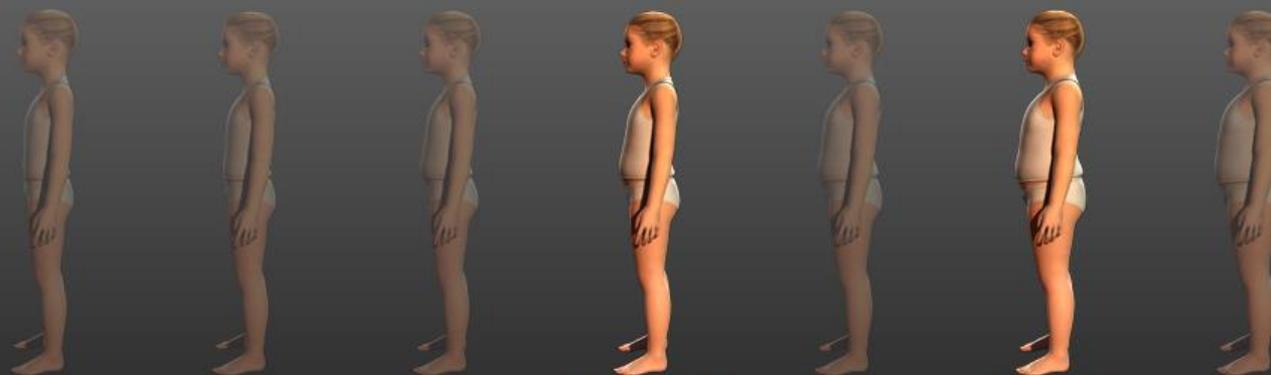
 Today Not today[Why is this being asked?](#)[Clear values and start again](#)[Back](#)[Check your choice](#)

You are incorrect

Don't worry, this is common. In fact, around two thirds of parents with an overweight child thought their child was a normal weight.

Based on the details you provided, your child is in the 98th centile for their age.

This is within the **very overweight** range.



1

2

3

Incorrect

5

Reality

7

Underweight

Healthy weight

Overweight

Very overweight

[Back](#)[Why weight matters](#)

MapMe_{.beta}

[About MapMe](#)

Why it's important to act now

Based on your child's weight category, this is how they may look as a young adult.

Being **overweight** in childhood is linked to problems such as increased risk of asthma and joint problems as well as being bullied and low self-confidence. If they grow up to be an overweight adult, they are at increased risk of serious health problems such as type 2 diabetes, heart disease and certain cancers.

Research shows that our weight status in childhood is likely to follow through to adulthood.



 Click to enlarge



 Back

 Reset tool and start again

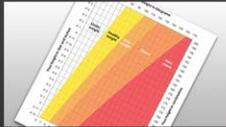
Healthy weight information

Here is a selection of articles, videos and useful links to help you manage your child's weight



When your child is overweight

Read this article which outlines the simple steps you can take to help your child reach a healthy weight.



Find services near you

Search for services near you from GPs and weight loss services to family activities and exercise classes.



BMI tracker iPhone app

Download the BMI app and use it to calculate and track the whole family's BMI over time.



Back

Reset tool and start again

Healthy weight information



Exercising with kids

Children need 60 minutes of physical exercise a day. Watch this video to find out why and how to achieve it.



Active play

Watch this video on how playing can help all aspects of your child's development and improve their health.



The National Child Measurement Programme

Watch this video to understand what's involved and why it's important for your child to take part.



Back

Reset tool and start again

Healthy weight information



MEND

MEND empowers children and adults to become fitter, healthier and happier and to reach or maintain a healthier weight.



Change4Life recipe finder

Explore over 100 healthier meal ideas with the online recipe finder or the apps for iPhone, iPad and Android.



MoreLife

MoreLife delivers weight management and health improvement programmes. Learn more and get involved today.



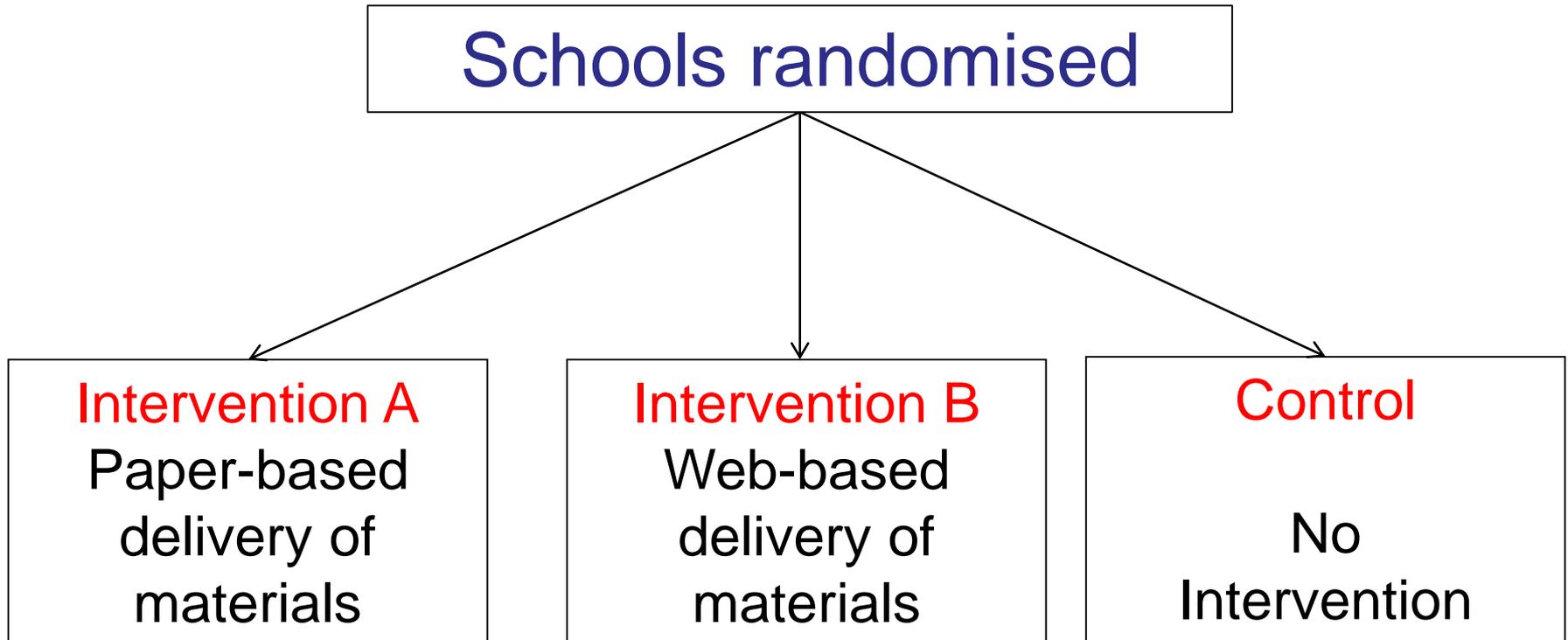
Back

Reset tool and start again

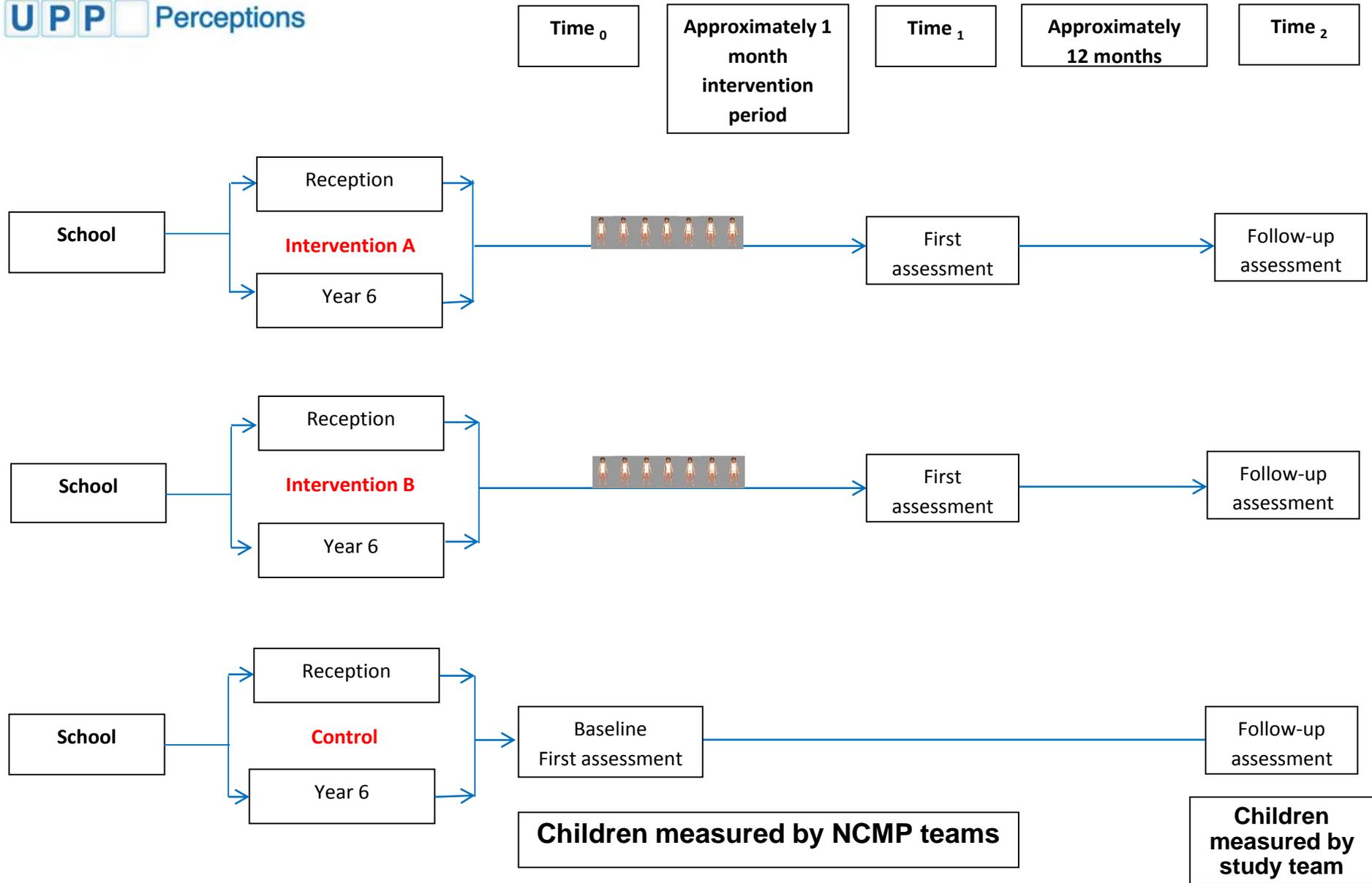


Design

- A cluster randomised 3 arm trial
 - Reception (4-5 years)
 - Year 6 (10-11 years)



A cluster randomised 3 arm trial

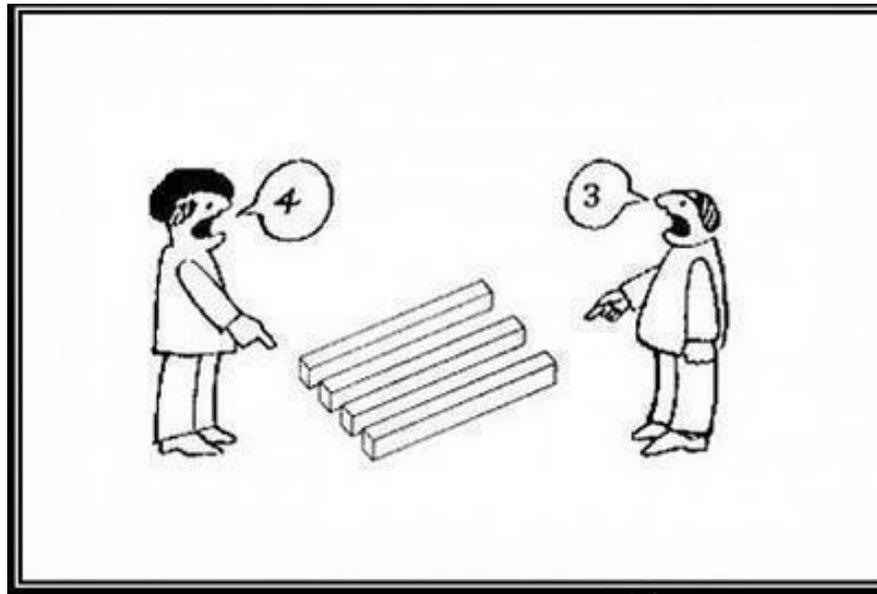


Study sample

- Target sample size: 3131 parent-child pairs
 - Principal group of interest: OW/VOW children so large sample needed to capture sufficient OW/VOW children
- Total number of families targeted: 36,980
 - Recruited through 'pupil post' and/or mail out
 - 15 Local Authority areas across England
- Total number of families recruited: 2933
 - 7.9% consent rate
 - 52.5% Boys and 47.9% Reception

Research Questions

- How do parents perceive their child's weight?
 - Categorical question
 - Body image scale question



Assessing parents' perception: categorical question

- How would you describe your child's weight at the moment?

Underweight

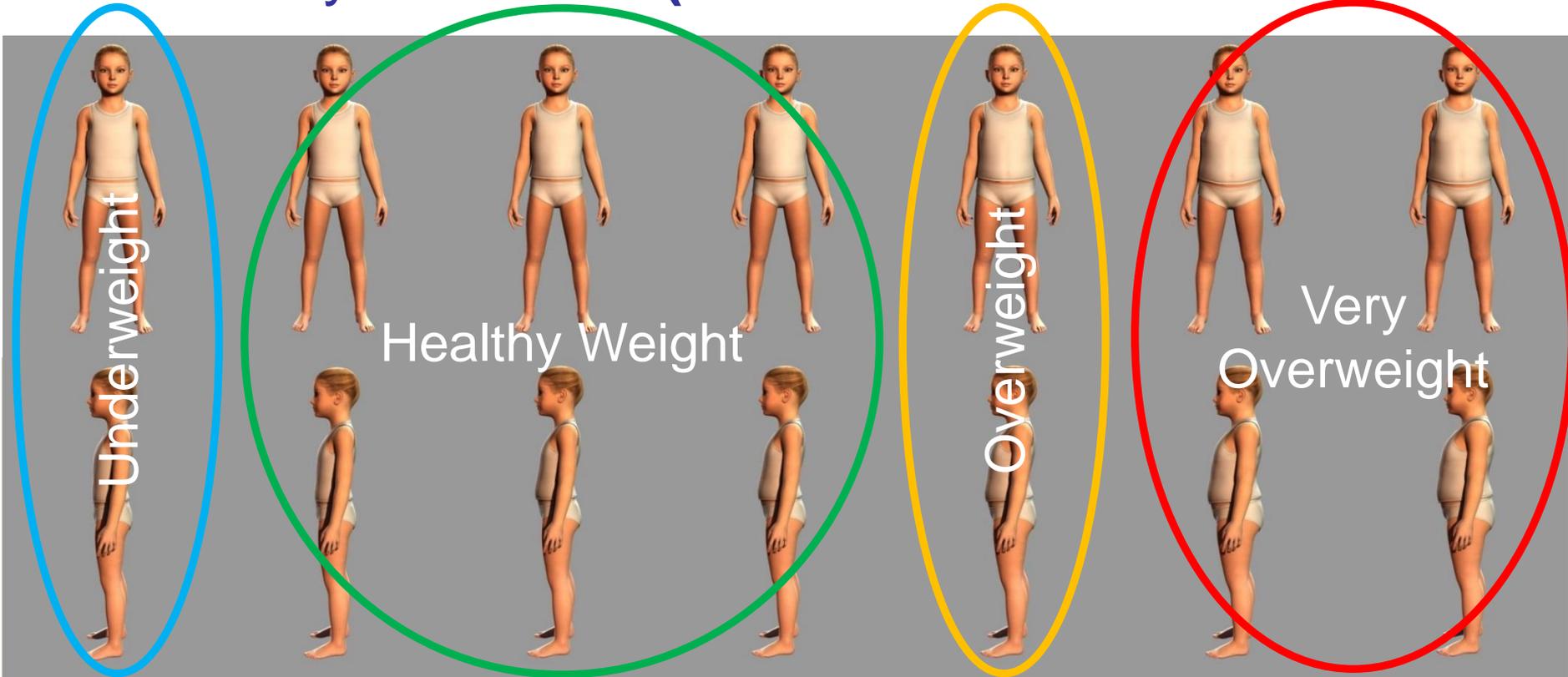
Healthy weight

Overweight

Very overweight

Body Image Scale Question

Looking at the pictures below which body shape looks most like your child? **(Please circle one letter)**



A

B

C

D

E

F

G

Research Questions

- How do parents perceive their child's weight?
 - Categorical question
 - Body image scale question
- Does MapMe improve parental recognition of childhood OW?

Determining correctness using Perception & NCMP data

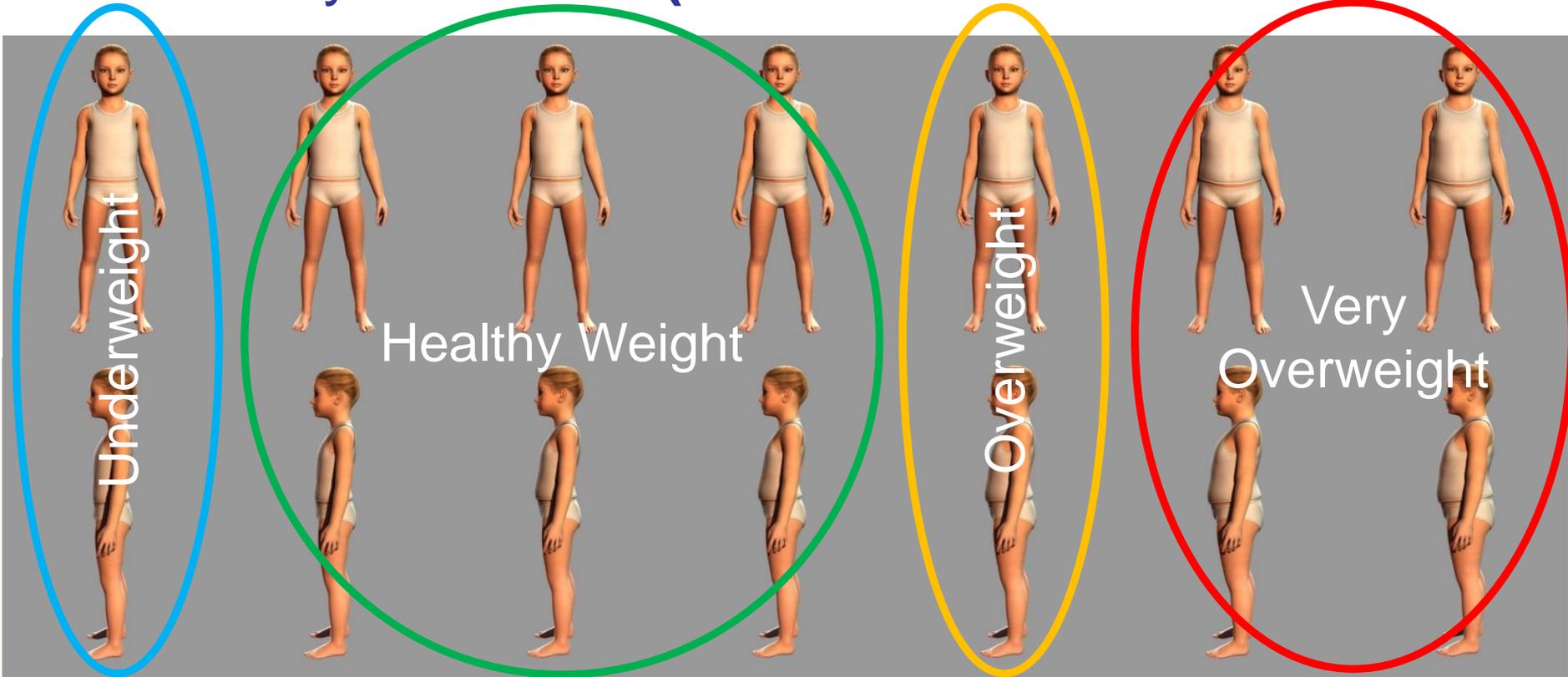
| Child weight status | Parental perception | Correctness |
|---------------------|----------------------------|-------------|
| Underweight | Underweight | ✓ |
| Healthy weight | Healthy weight | ✓ |
| Overweight | Overweight/Very Overweight | ✓ |
| Very overweight | Overweight/Very Overweight | ✓ |

Research Questions

- How do parents perceive their child's weight?
- Does MapMe improve parental recognition of childhood OW?
 - Categorical question
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Body Image Scale Question

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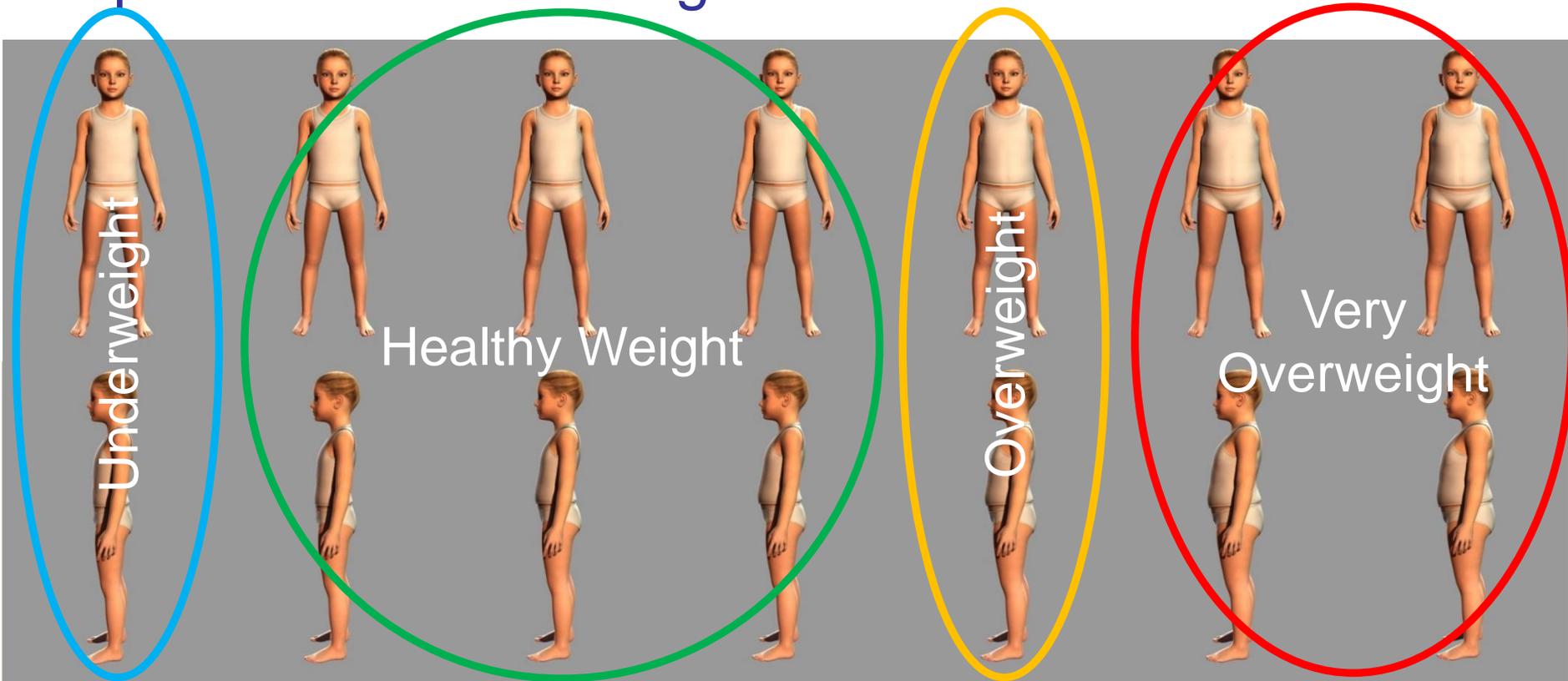
E

F

G

Body Image Scale Question

Looking at the pictures below which body shapes represents an overweight child?



A

B

C

D

E

F

G

Research Questions

- How do parents perceive their child's weight?
 - Categorical question
 - Body image scale question
- Does MapMe improve parental recognition of childhood OW?
- Are there improvements in weight status 12 months post-intervention?

Conclusions

- First study of its kind to examine if parental recognition can be improved by a visual tool
- Report to be circulated to participating Local Authorities 2016
- Paper submitted to peer reviewed journal

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<http://www.mrc.ac.uk/research/initiatives/national-prevention-research-initiative-npri/>



Sefydliad Cenedlaethol | National Institute
ar gyfer Ymchwil Gofal | for Social Care and
Cymdeithasol ac Iechyd | Health Research

