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Thank you for the opportunity to comment on the SACN Draft Report on Feeding in the First Year of Life. My comments are:

Paragraph 37

A claim is made that current policy is to recommend 20mg vitamin C each day for infants. There is no scientific document that has proposed a universal recommendation for vitamin C supplements since infant formula has been fortified with vitamin C to a similar level in breastmilk. I suspect this recommendation has been erroneously imported into advice by current agencies and NHS choices because vitamin C is present in the Healthy Start vitamin drops for children. Vitamins A & D were recommended in the 1994 COMA report 45 *Weaning and the Weaning Diet* but not vitamin C. Vitamin C was added to the Welfare Food vitamins, which became the Healthy Start vitamins, because low income groups have been shown to have lower intakes of vitamin C. The 2002 COMA report *Scientific Review of the Welfare Food Scheme* 51 reinforced this reason for including vitamin C in the free vitamin drops for low income families. The Diet and Nutrition Survey of Infants and Young Children did not show vitamin C deficiency in infants as noted in paragraph 448 of this draft report. Hence there is no justification for currently recommending all infants take a vitamin C supplement.

Paragraphs 38, 261, 243

Five hundred millilitres of any brand of infant formula provides much less than the Safe Intake of 8.5-10micrograms of vitamin D:

Vitamin D fortification of different brands in the UK:

Brand	Vitamin D content in infant formula			
	mcg/100mLs	mcg/500mLs	mcg/800mLs	mcg/1100mLs
SMA PRO	0.9	4.5	7.2	9.9
Aptamil 1 st / Profutura	1.2	6	9.6	13.2

Cow & Gate 1 st	1.2	6	9.6	13.2
Hipp Organic	1.2	6	9.6	13.2
Kendamil	0.8	4.0	6.4	9.6

As commercial infant foods are not fortified with vitamin D it is unlikely that there would be other significant sources of vitamin D in foods offered in the complementary feeding period. Hence infant formula would be the most significant source of vitamin D throughout infancy. From the table above it would seem wise to recommend a higher intake of formula than 500mLs before recommending discontinuing the vitamin D supplement. It would be preferable to give a simpler message on vitamin D supplementation such as 'all infants to being a supplement at birth and continue throughout childhood'. A simple and consistent public health message is more likely to be remembered and passed on by healthcare professionals and more likely to be remembered and implemented by parents and carers.

The European upper intake level of vitamin D for infants is 25mcg/day and 50mcg/day for children 1-10 years. The Institute of Medicine considers it to be double that at 50mcg/day for infants and 100mcg/day for older children. Hence there would be no risk for infants who drink up to 1100mLs /day of infant formula and in addition take a supplement of 8.5-10mcg/day. Few infants would drink this volume and this would not continue for long:

- A 50th centile boy not receiving complementary feeding at 6 months would weigh 7.4kg and with an energy requirement at 84kcal/kg /day (SACN 2011 Dietary Reference Values for Energy), he would need to drink 920mLs formula milk/day to provide 620kcal/day but as complementary feeding progressed, the daily volume of formula consumed would decrease.
- a 98th centile boy not receiving complementary feeding at 6 months would weigh 10kg and with an energy requirement at 84kcal/kg /day (SACN 2011 Dietary Reference Values for Energy), he would need to drink 1270mLs formula milk/day to provide 840kcal/day. In fact large, male infants are usually weaned earlier than 6 months (Wright al. 2004) so it is unlikely any infants would consume more than 15mcg vitamin D/day from formula. If they did it would be for a very short period as the daily volume of formula decreased with the introduction of complementary foods.

From 2020 when the European Infant Formula regulations change, all brands will be required to fortify to slightly higher levels between 2-3 mcg vitamin D/100Kcal (1.3-1.95mcg/100mLs). Infant formula fortified at these levels will provide 6.5 – 9.75 mcg vitamin D/500mLs. I would suggest that PHE work with the different companies now so that a similar level of vitamin D fortification occurs in all brands sold in the UK. The lower level of fortification would be preferable so that the message on vitamin D supplementation could be as suggested above and exactly the same for both breastfed and formula fed infants.

Paragraph 222

The recommendation for dietary diversity from 6 months of age is made to guarantee an adequate iron intake. This is at odds with recommending complementary feeding to commence 'around 6 months of age' as 'around six months' can be interpreted to be as late 7-8 months. I have seen parents in my clinic who do not begin complementary feeding until after 7 months of age.

To ensure iron intakes especially for those already with low iron status at 6 months of age, it would be preferable to recommend commencing complementary feeding 'by six months but not before 4 months'. This has the advantage of allowing parents to decide when their infant is ready for beginning complementary feeding and advising against those beginning very late.

Paragraphs 157, 486, 506

These refer to risks of displacing breastmilk from the diet. If complementary feeding is recommended more clearly as anytime between 4 & 6 months of age a small displacement of breastmilk in this time frame would not significantly increase any risks for those being exclusively breastfed up until this age. In the Wells study in Iceland in 2012 introducing complementary feeding in the 4-6 month period only displaced 9% of daily breastmilk intake with no reported consequences in anthropometry or body composition.

Paragraph 535 & 536

The recommendation for complementary feeding to be introduced at around 6 months of age but not before 4 months is a vague recommendation and is currently interpreted and passed on by some healthcare professionals as 'do not begin complementary feeding before 6 months of age'. This adds considerable anxiety and a feeling of guilt to parents who perceive that their infant is ready to begin complementary feeding earlier than 6 months, at 4 or 5 months of age. It also reinforces the concept that infants develop their various skills at different rates and any skill development is not tied strictly to one specific calendar date.

A clearer recommendation for healthcare professionals and parents to understand and in which to have confidence, would be to begin complementary feeding by 6 months but not before 4 months or more simply begin anytime between 4 and 6 months of age.

The WHO growth charts by which infant growth is now assessed are based on infants who were exclusively breastfed and introduced to complementary feeding in the 4-6 month age range.

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Reference:

Wright CM, Parkinson KN, Drewett RF. Why are babies weaned early? Data from a prospective population based cohort study. *Arch Dis Child* 2004 **89**(9):813-6.