



AN EXPLORATORY INVESTIGATION OF FOOD POVERTY PREVALENCE INDICATORS

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safefood workshop, Dublin, January 2012



(DIRECT) FOOD EXPENDITURE MEASURES

$$\text{Rose \& Hamilton} = \frac{\text{Food spending}}{\text{Cost ("acceptable" diet)}} \times 100\%$$

$$\text{DEFRA} = \frac{\text{Food spending}}{\text{Total spending}} \times 100\%$$

$$\text{AFP} = \frac{\text{Food spending}}{\text{Income}} \times 100\% \quad (\text{Analogue of fuel poverty indicator})$$



FOOD CONSUMPTION MEASURES

Direct measures:

$$\text{Low Energy Availability (LEA)} = \frac{\text{Energy available}}{\text{Recommended Energy Intake}} \times 100\%$$

Indirect measures:

Those based on food items in national poverty indicators (EU-SILC):

- “Inability to afford a meal with meat, chicken or fish every 2nd day”
- “Inability to have roast or its equivalent once a week”
- “Having gone without a substantial meal due to lack of money”
- “Inability to have family or friends for a drink or meal once a month”

None in RoI’s Household Budget Survey but others in NI’s Living Costs and Food Survey



DEFINING THE FOOD POVERTY PREVALENCE (FPP) INDICATOR

FE and FC measures alone do not (explicitly) classify households; you need to compare them to an explicit threshold

FPP is FE plus THRESHOLD

FPP indicator = FE measure (q) (threshold is q)

These can be based on FE, FC data and food cost data that can be combined in different ways:

- Additively: food analogue of consistent poverty indicator
- More advanced: Rose & Hamilton indicator, USDoA indicator



EXISTING FPP INDICATORS

	FE (or FC) measure	Threshold	Food poverty
Rose & Hamilton indicator	Food spending ----- Cost (acceptable diet)	100%	Measure < threshold
Low Energy Availability (LEA) indicator	Energy available ----- Recommended Energy Intake (REI)	100%	Measure < threshold
DEFRA measure	Food spending ----- Total spending	National mean ??	Measure > threshold
Analogue to Fuel Poverty (AFP) indicator	Food spending ----- Income	200% x national median ??	Measure > threshold

CONSTRUCTING INDICATORS

THE MEASURE

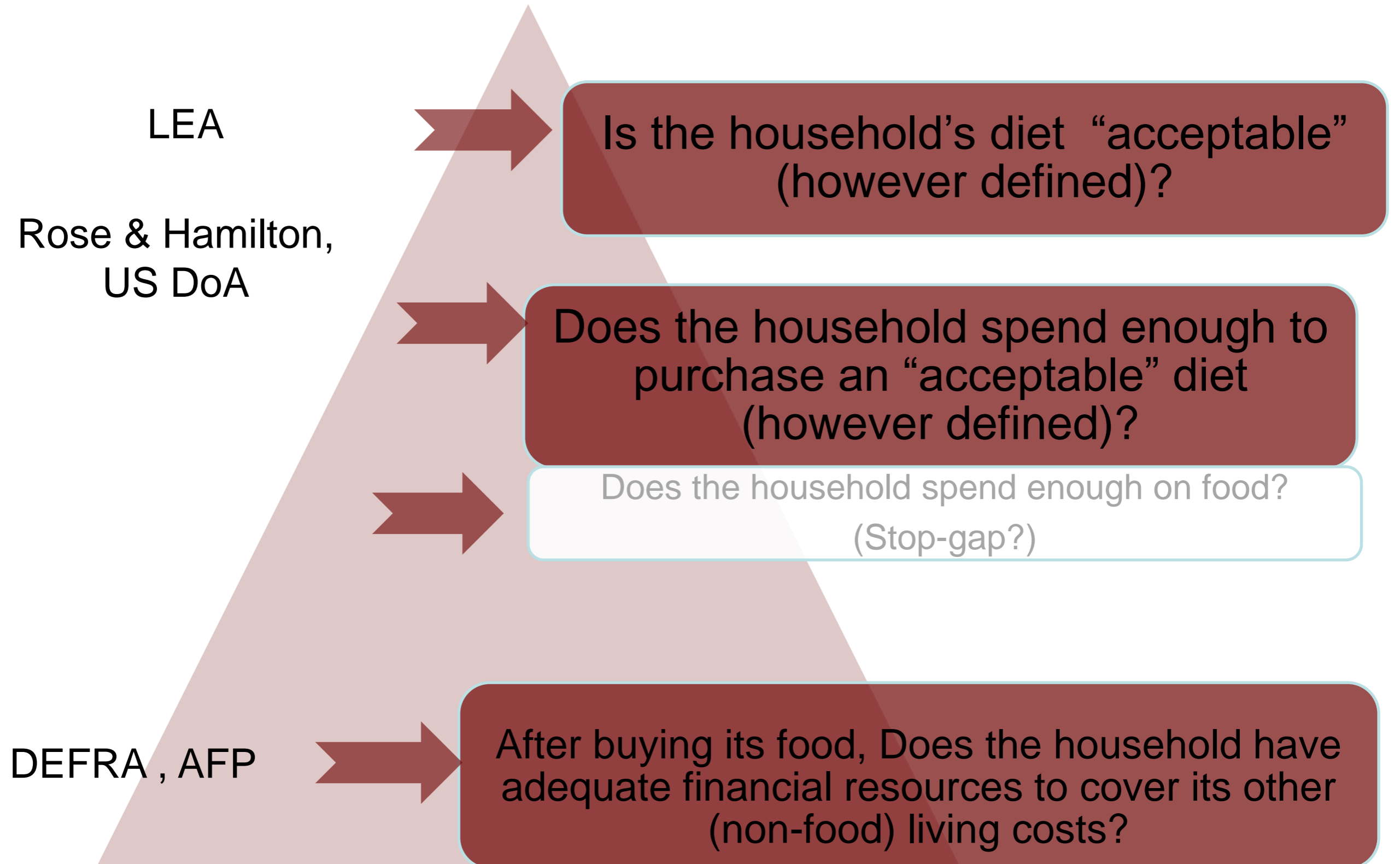
- Adjustment for household size & economies of scale (“equivalisation”)
- Direct comparison?

THE THRESHOLD

- Normative references
- Measure-specific
- Other

- Food expenditure
- Food consumption
- Food cost data
- Direct/indirect data

HEADLINE INDICATORS





THREE TIERED HEADLINE INDICATORS

Could food spending buy an acceptable diet?

- Cost comparison of food spending and cost of “acceptable” diet (eg Rose & Hamilton type indicators)
- (Food-) equivalised household food spending with thresholds as percentages of the median (“food poverty lines”)
- “Per capita food spending” (stop-gap)

After food spending, is there enough money to cover other living costs?

“Contextualised” food spending indicators (eg DEFRA, AFP type indicators)

Cost comparisons (eg Rose & Hamilton type indicators)

Equivalised non-food spending

Is the household diet acceptable?

Indirect (“subjective”) food consumption indicators

Name	FE measure	Threshold
FP(q)	Unadjusted food spending	100q% of median value (q = 40, 50, 60)
sFP(q)	Per capita food spending (adjusted for household size)	100q% of median value (q = 40, 50, 60)
eFP(q)	Equivalised food spending (adjusted for household size and economies of scale) <income equivalisation scale used>	100q% of median value (q = 40, 50, 60)
DEFRAmean	DEFRA (food spending/total spending)	Mean value
AFP(200)	AFP (Analogue of fuel poverty measure) (food spending/income)	2 x median value



EXPLORATORY STATISTICAL ANALYSIS

Population Characteristics

Household income

Social Group (HRP)

Household size

Household composition (number of adults, number of children)

Household tenure

Output Area Classification

Location (urban/rural, farm/non-farm)

- Two groups of indicators tap into different aspects of food poverty
- DEFRA and AFP indicators seem promising (threshold?)
- Suite of FP(q), iFP(q) and eFP(q) indicators seems promising:
 - Adjustment for household size critical
 - It may be quite inappropriate to use an income equivalisation scale to adjust for food-related economies of scale
- Fuller investigation using more recent data is warranted
 - Development of a food equivalisation scale
 - Inclusion of Rose and Hamilton type indicators
 - Incorporation of (indirect?) FC measures



THANK YOU.

ANY CLARIFICATIONS?

ANY QUESTIONS?

ANY COMMENTS?