

# Salt Intakes in the Irish Population: Estimates and Trends

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# Irish Universities Nutrition Alliance



IUNA ([www.iuna.net](http://www.iuna.net))

- Formal association of nutrition units in:  
University College Cork  
University College Dublin  
University of Ulster
- Committed to joint initiatives in education and research
- Jointly carry out dietary surveys



# IUNA National Dietary Surveys

Provide databases of habitual food & beverage consumption in representative samples of the Irish population:

- Data collected at an individual level and include data on food intake, body weight, physical activity, socio-demographics, health & lifestyle, food choice and eating behaviour
- Used for a wide range of applications relating to both food safety and nutrition

# IUNA National Dietary Surveys

Survey	Age Group	Year	n
North/South Ireland Food Consumption Survey (NSIFCS)	18-64 y	1997-1999	1379
National Children's Food Survey (NCFS)	5-12 y	2003-2004	594
National Teens' Food Survey (NTFS)	13-17 y	2005-2006	441
National Adult Nutrition Survey (NANS)	18-90 y	2008-2010	1500
National Preschool Nutrition Survey (NPNS)	1-4 y	2010-2011	500

# Dietary Salt-where does it come from?

- Discretionary

Added at the table



Added in cooking



- Already present in food (natural or added by manufacturer)

# How do we estimate Salt Intake?

- Urinary sodium (Na) excretion- estimation of total salt intake based on measured Na in urine
- Dietary intake (excludes discretionary salt)  
Food consumption data converted into nutrient intakes

## For IUNA Surveys:

### Food Consumption data

- Food Records

### Na content in food

- Composition tables (UK)
- Analytical data from Ireland (FSAI)
- Food labels (collected at time of surveys)

- Salt (g) calculated by Na (g) X 2.5

# Guidelines for Salt Intake

- Population targets\*

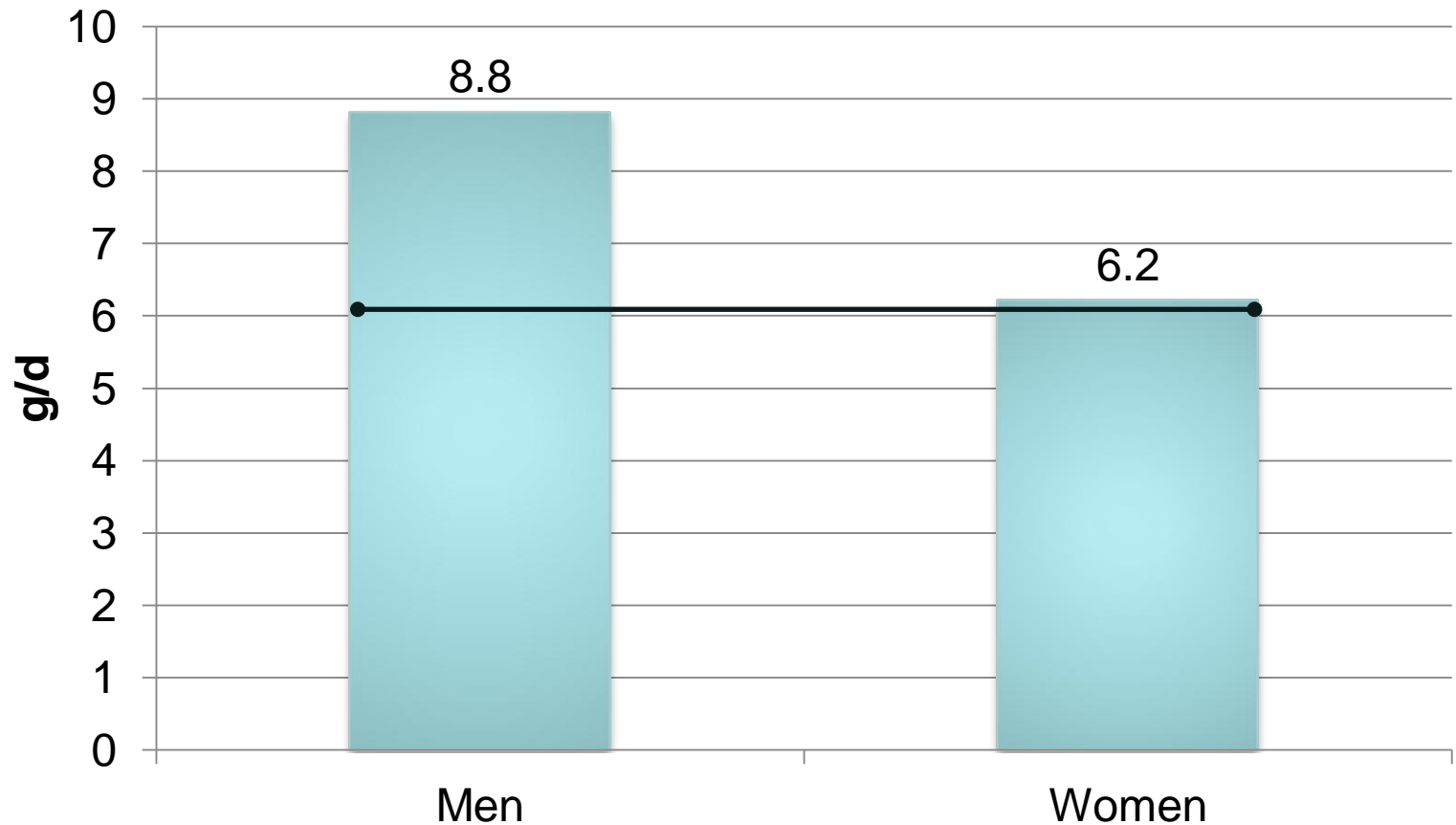
(not regarded as optimal or ideal but an achievable population goal)

Age	Salt (g/d)
	Population target
0-6 months	<1
7-12 months	1
1-3 years	2
4-6 years	3
7-10y	5
>10y	6

(FSAI 2005, SACN 2003)

# 1997-1999: NSIFCS (18-64y)

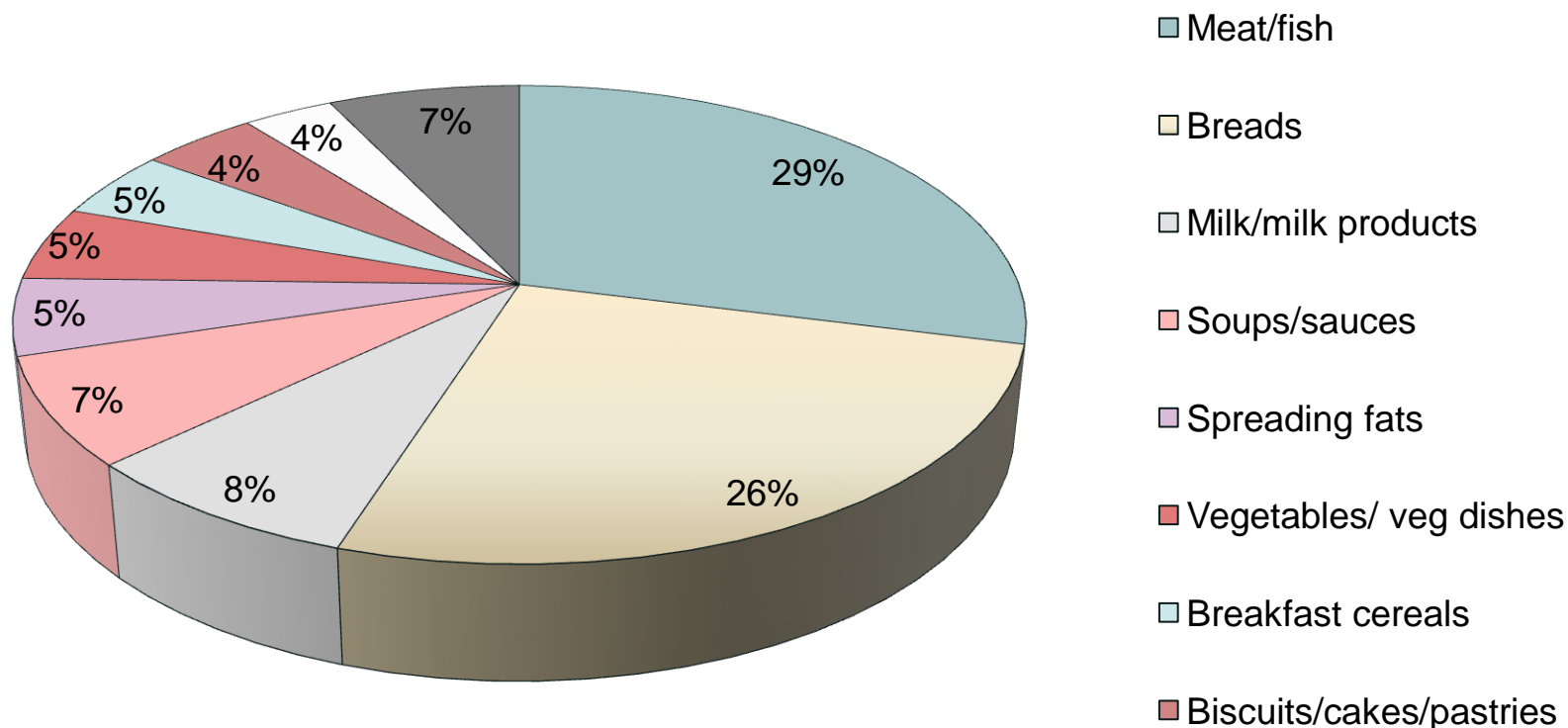
Mean daily salt intake (dietary)





# 1997-1999: NSIFCS (18-64y)

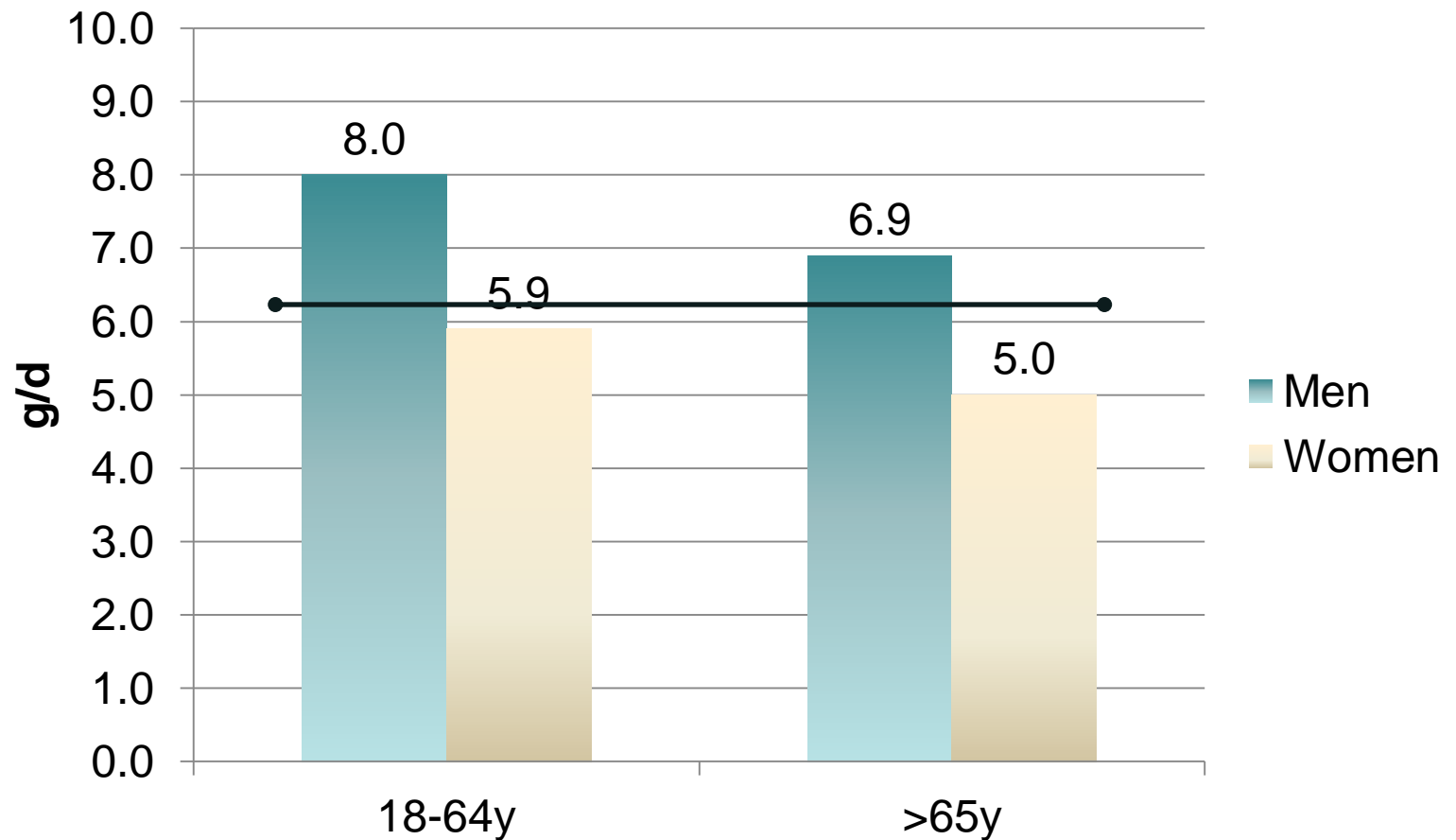
## Contribution of food groups to salt intake



Within the meat/fish category, cured/processed meats contributed 19%

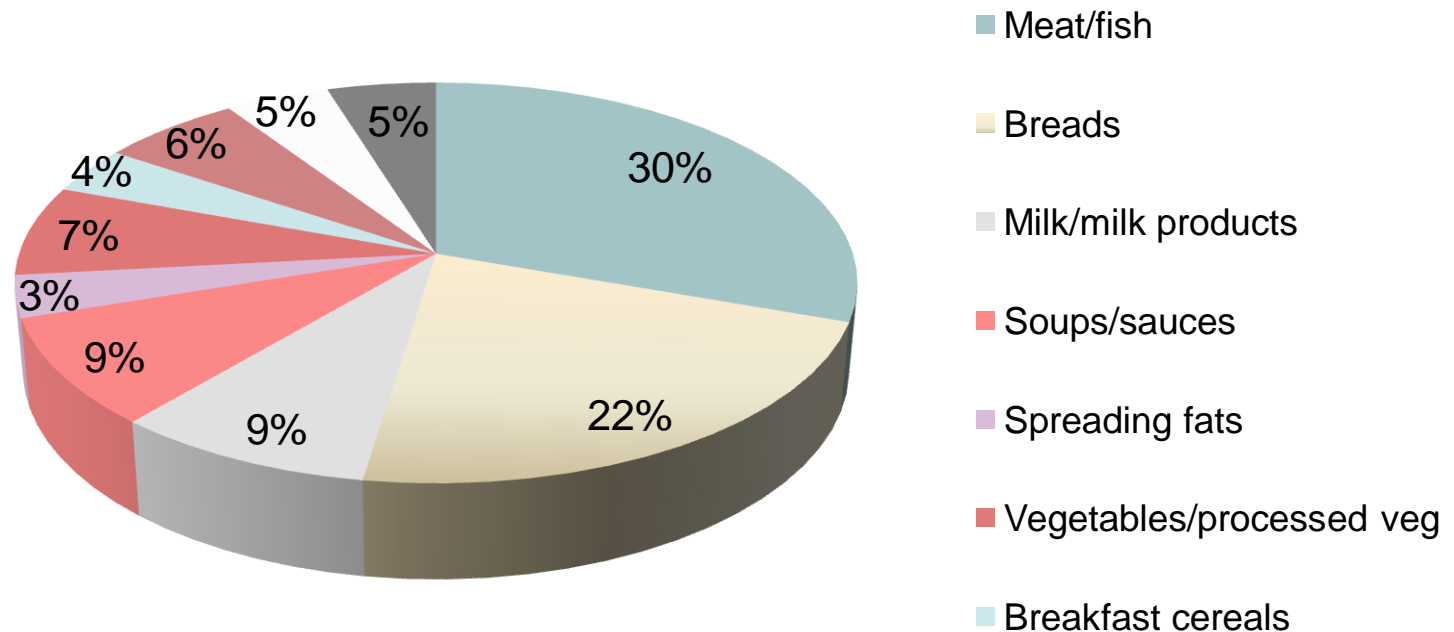
# 2008-2010: NANS (18-90y)

Mean daily salt intake (dietary)



# 2008-2010: NANS (18-90y)

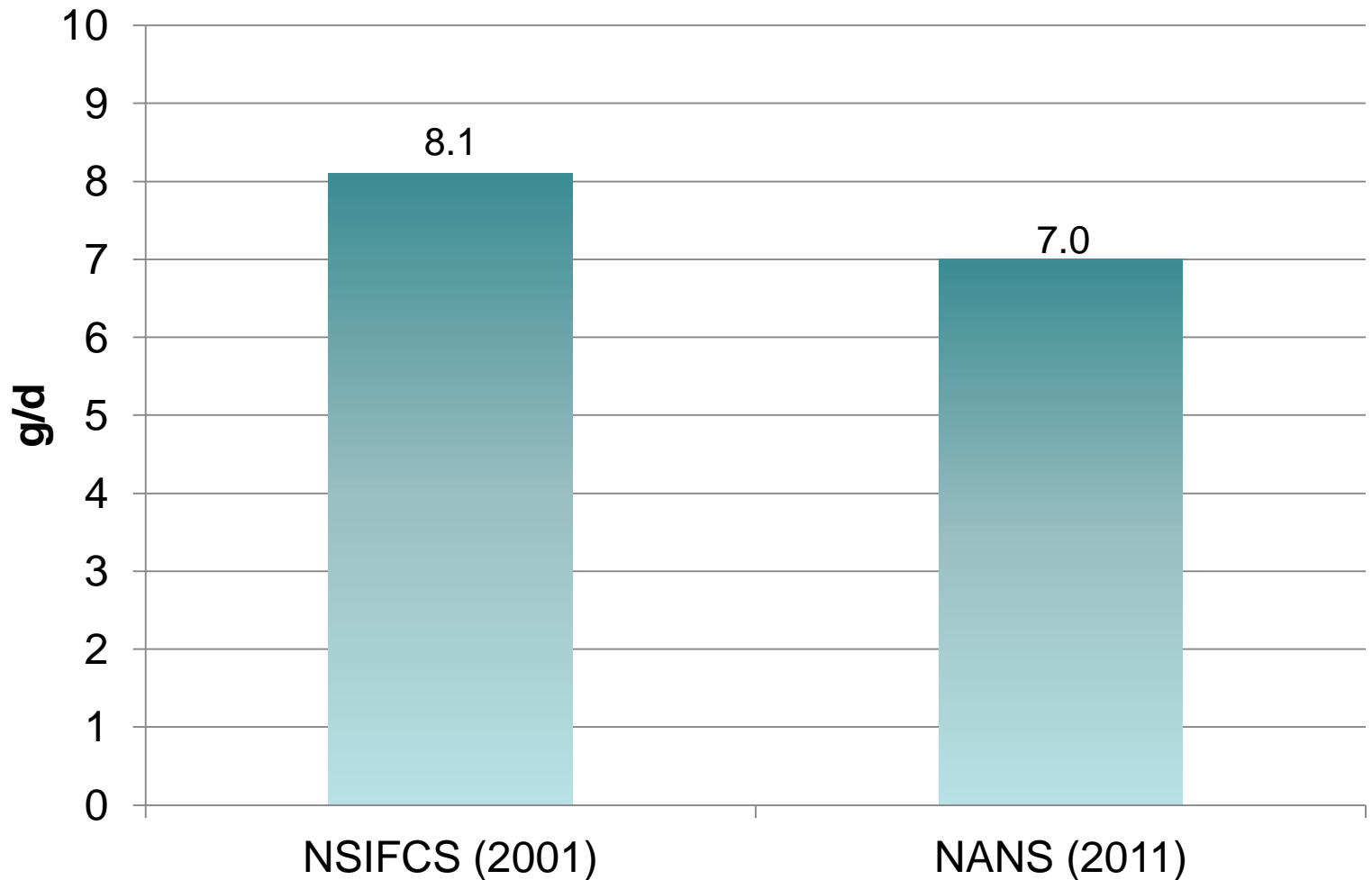
## Contribution of food groups to salt intake (18-64y)



Within the meat/fish category, cured/processed meats contributed 18%

For those aged 65y and over, similar findings with the exception of breads and spreading fats contributing more (26% and 6% respectively) and savouries contributing less (2%) to salt intakes than 18-64y olds

# Salt intake (dietary) in Irish adults between NSIFCS 2001 and NANS 2011

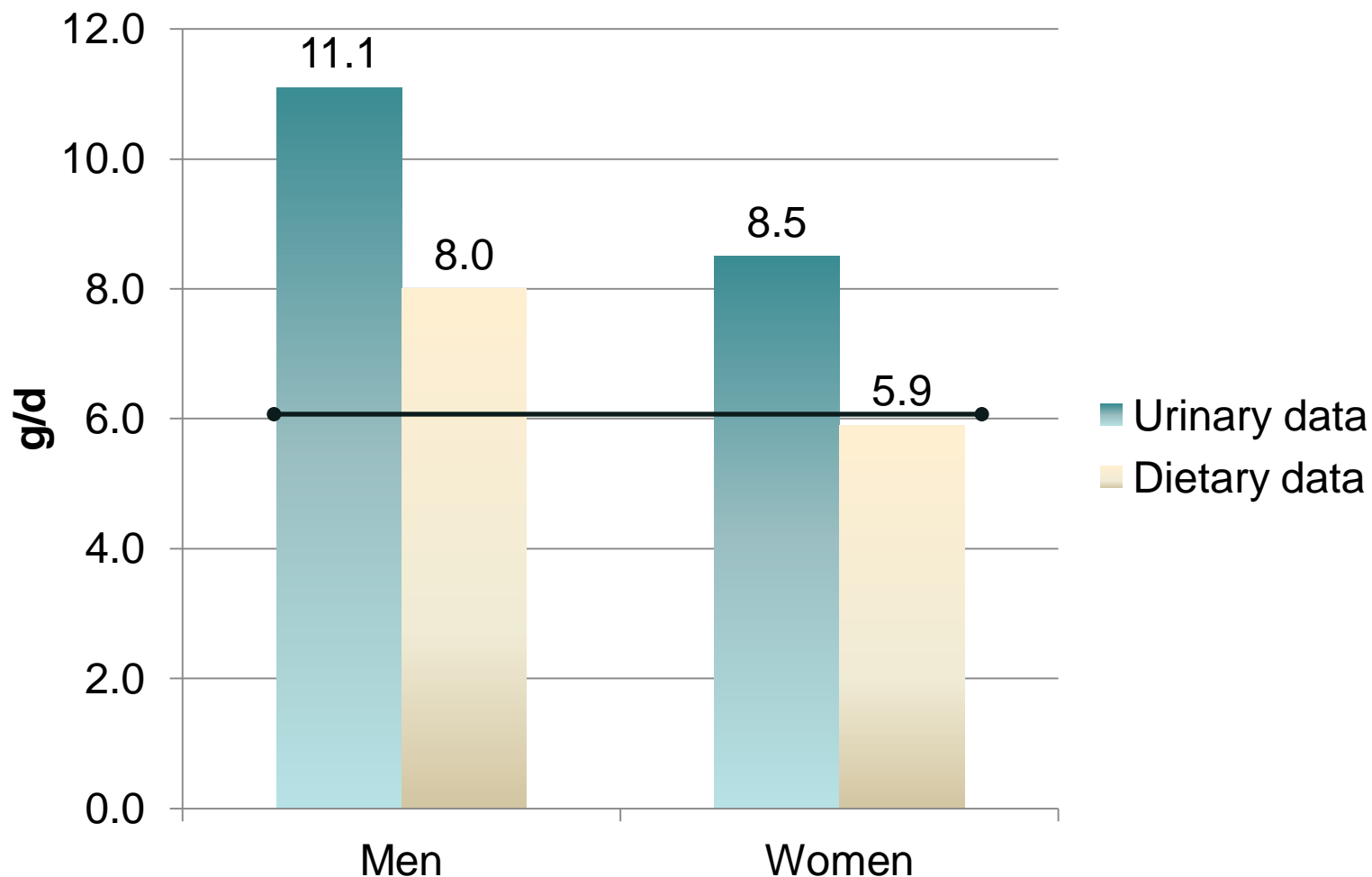


↓ 1.1g

## Contribution of key food groups to salt intake in Irish adults (18-64y) between NSIFCS (2001) and NANS (2011)

Food group	NSIFCS (2001)	NANS (2011)	Difference
	Salt intake (g/d)		
Breads	2.10	1.50	↓ 0.60
Cured/processed meats	1.68	1.33	↓ 0.35
Spreading fats	0.48	0.23	↓ 0.25
Ready-to-eat breakfast cereals	0.35	0.23	↓ 0.10
Milk/milk products	0.68	0.60	↓ 0.08
Processed vegetables/veg dishes	0.10	0.28	↑ 0.18
Savouries including pizza/pasta dishes	0.24	0.33	↑ 0.09

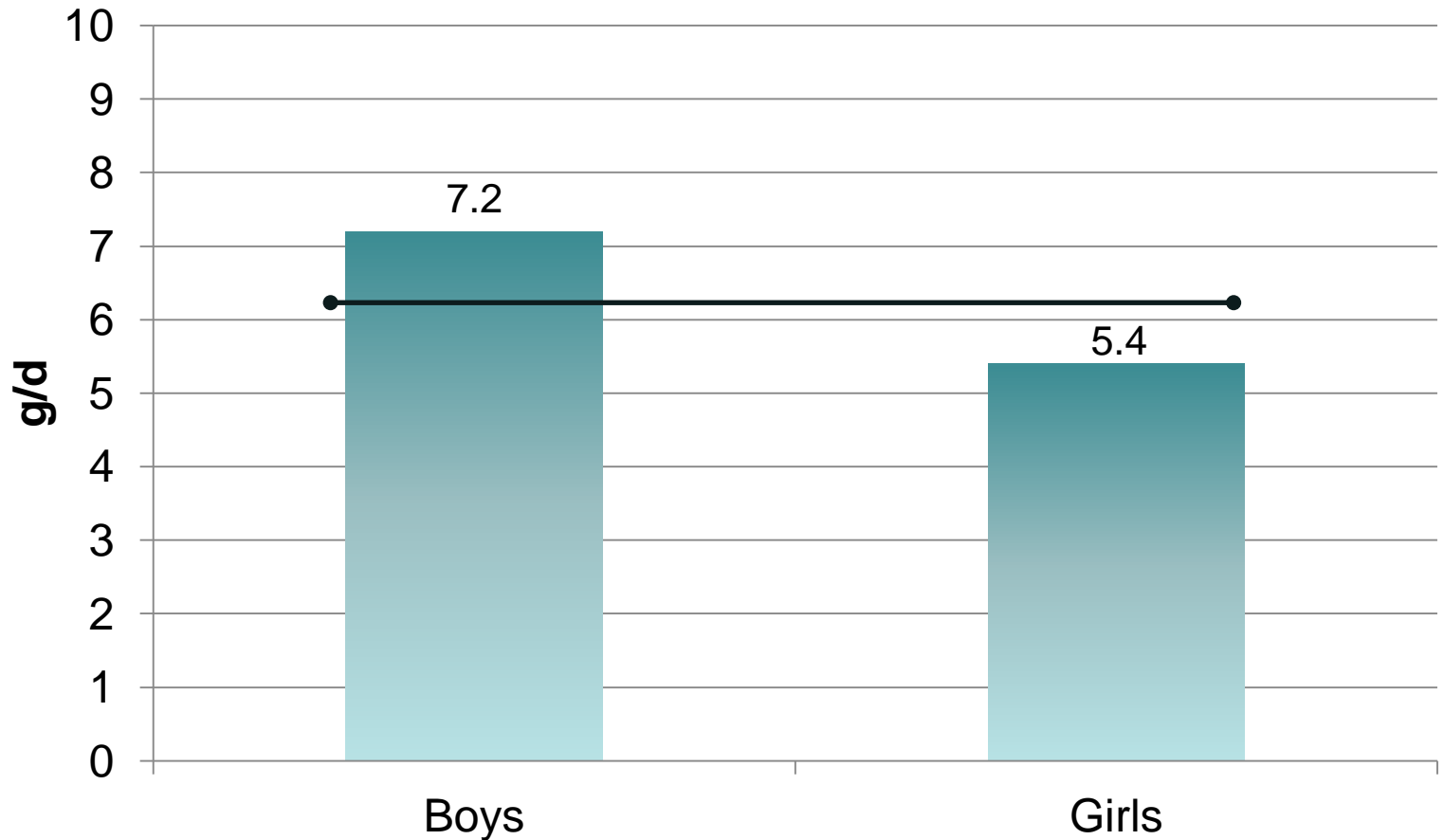
# 2008-2010: NANS (18-64y)



This difference indicates that discretionary salt accounts for about 25-30% of total salt intake in Irish adults

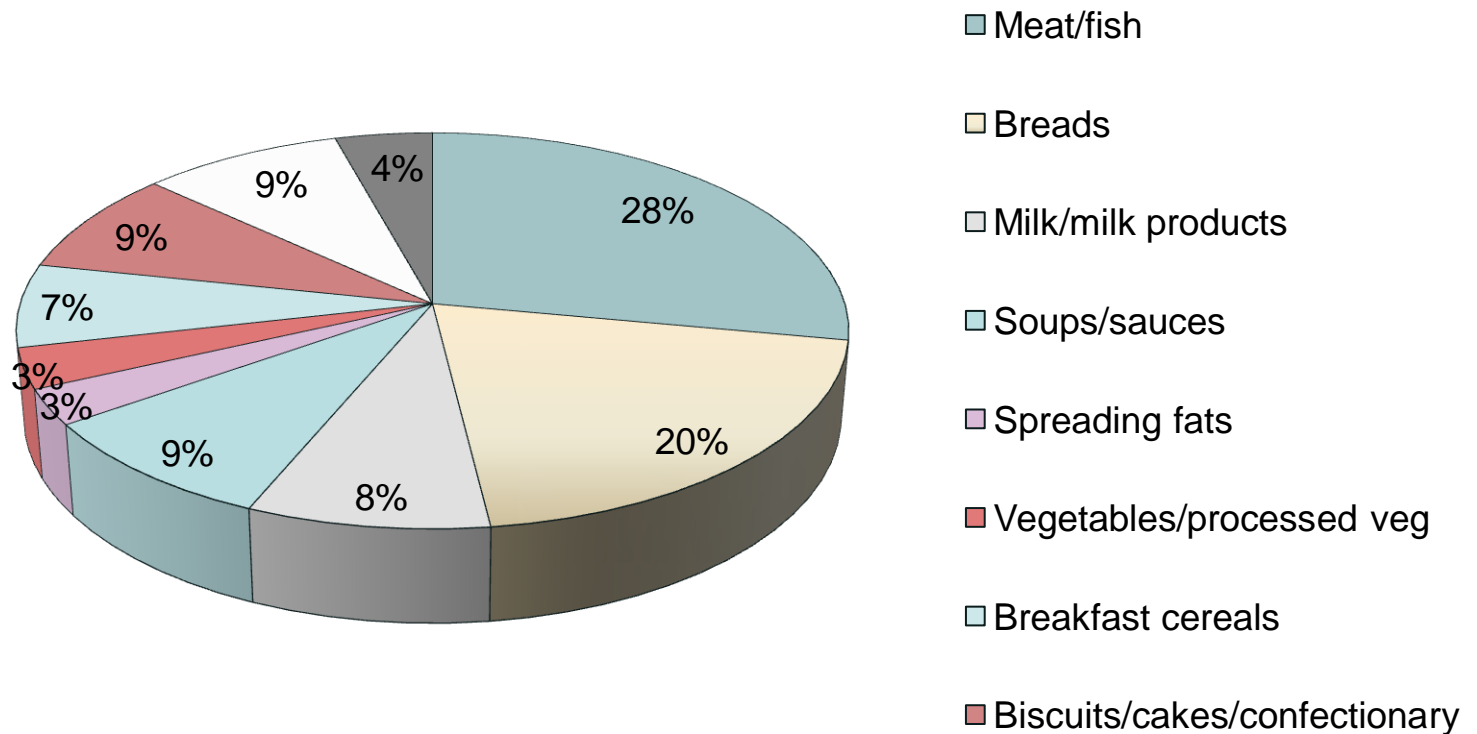
# 2005-2006: NTFS (13-17y)

Mean daily salt intakes (dietary)



# 2005-2006: NTFS (13-17y)

## Contribution of food groups to mean daily salt intake

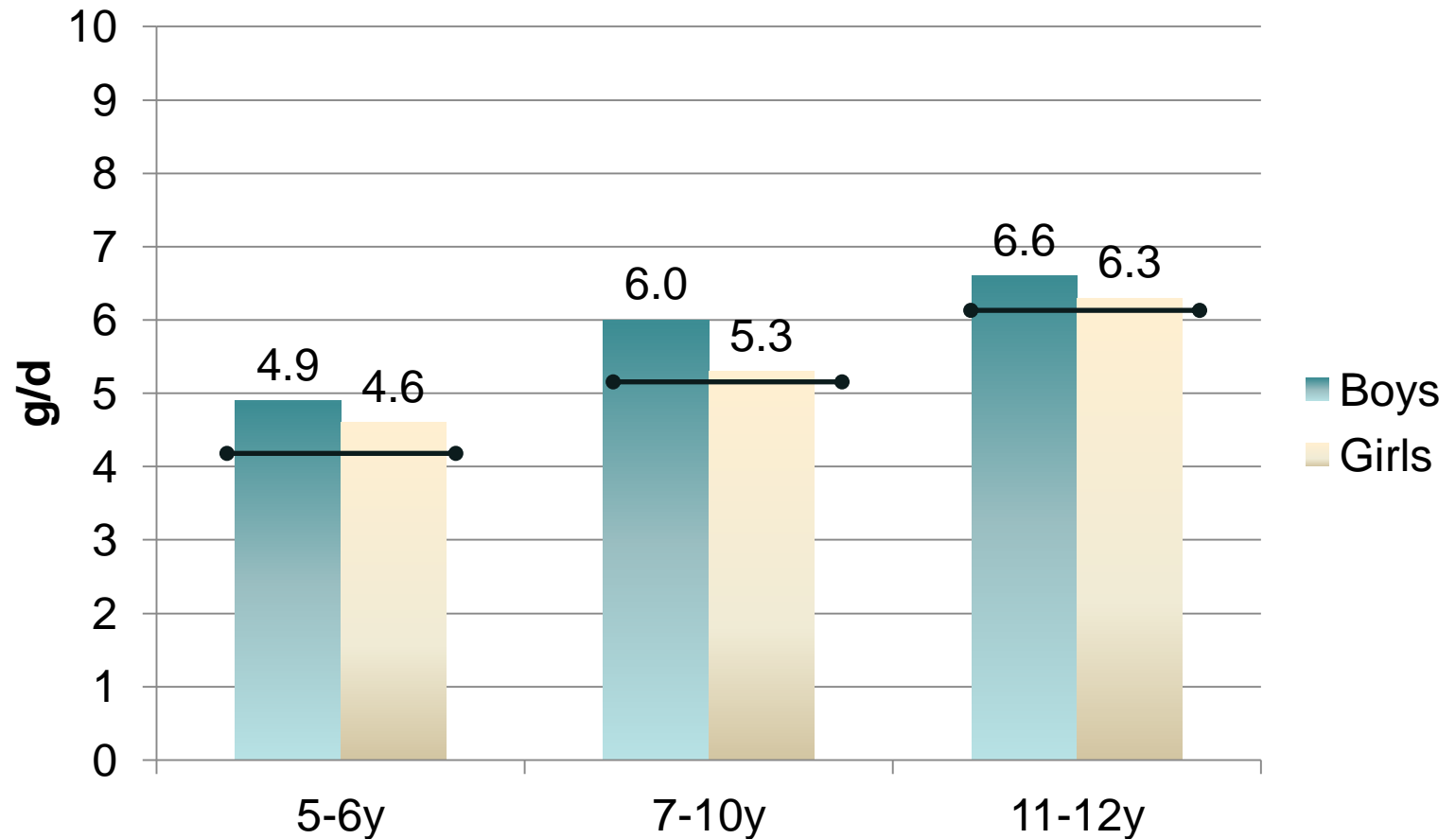


Within the meat/fish category, cured/processed meats contributed 20%



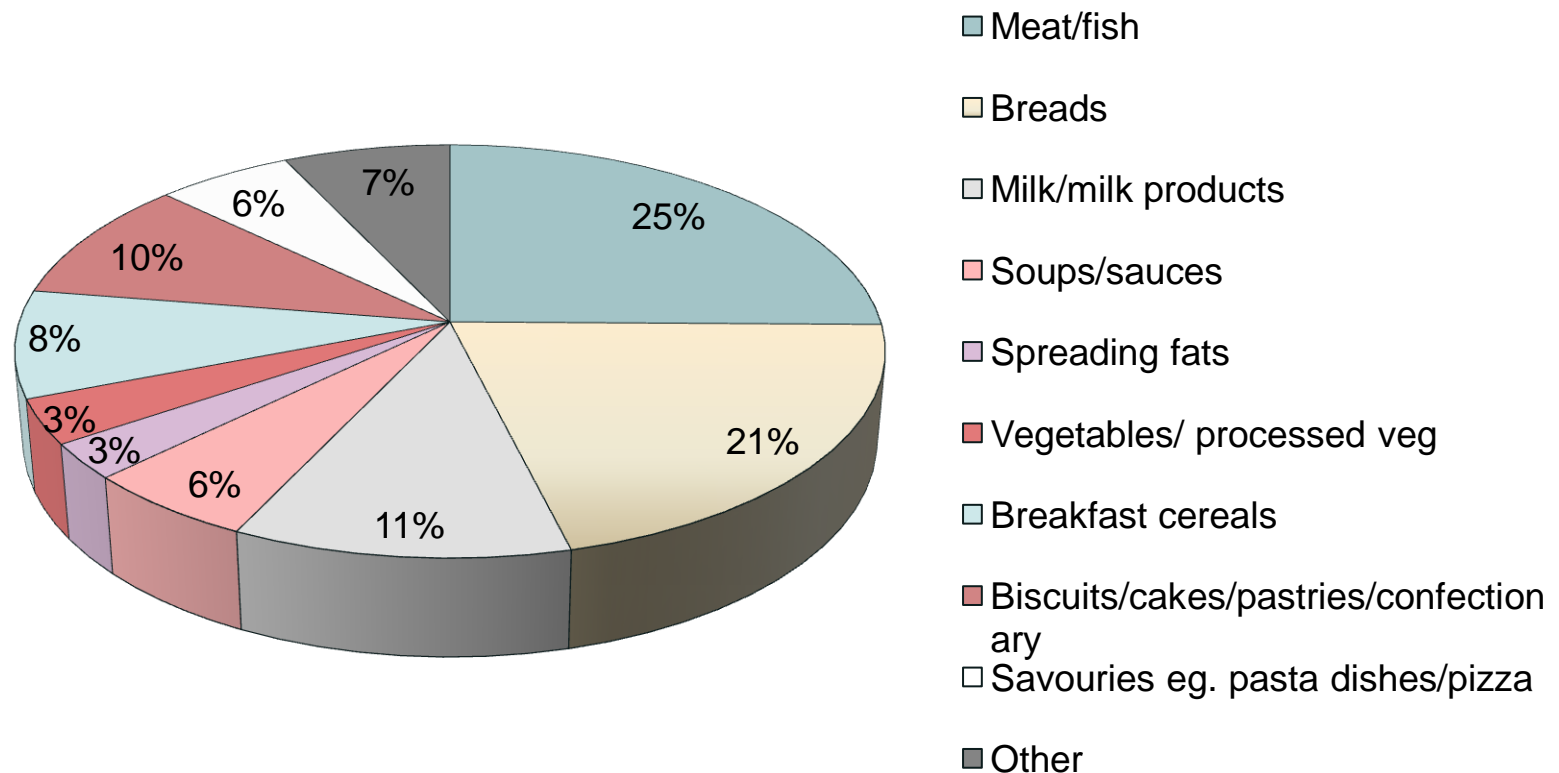
# 2003-2004: NCFS (5-12y)

Mean daily salt intakes (dietary)



# 2003-2004: NCFS (5-12y)

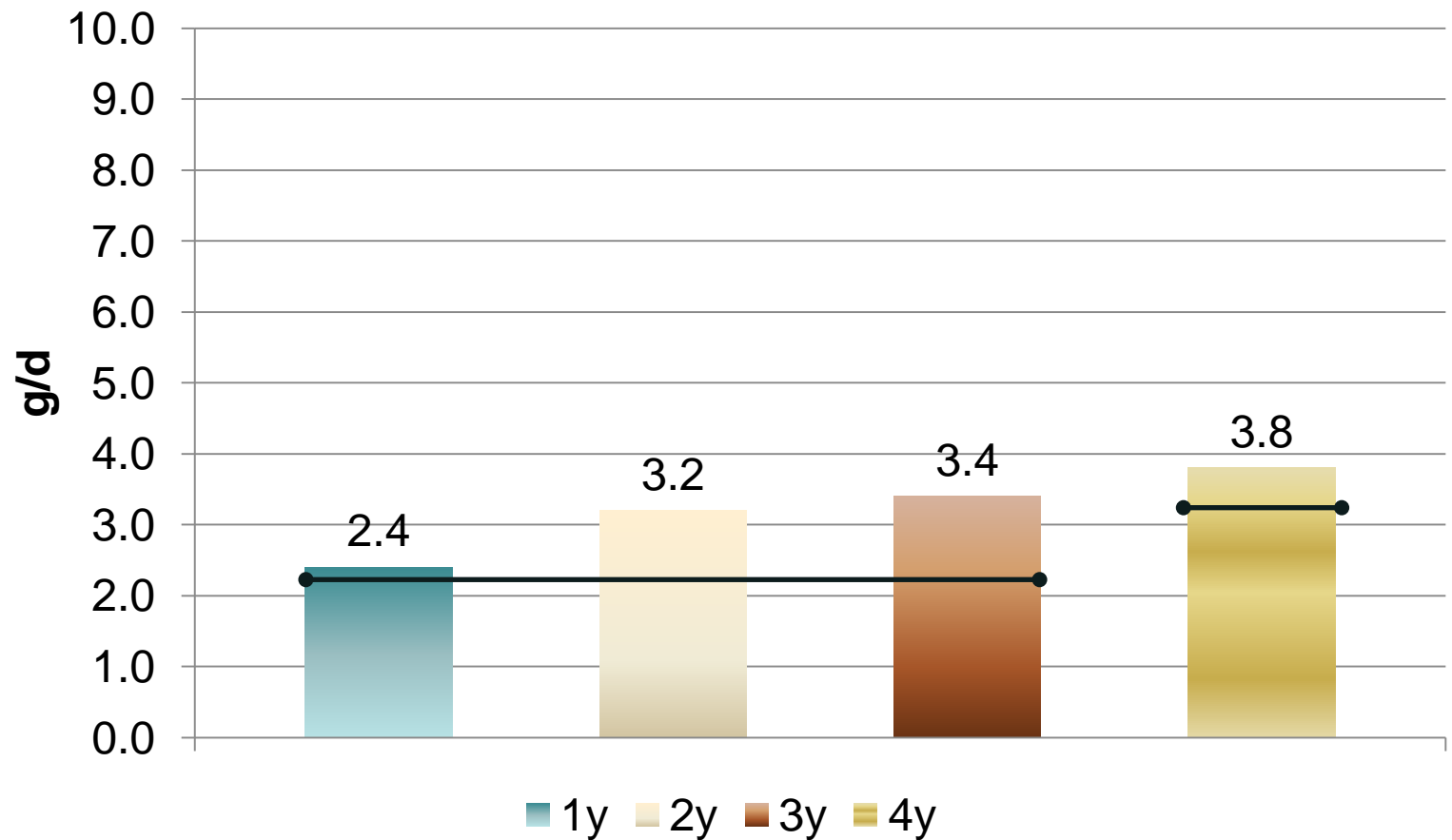
## Contribution of food-groups to mean daily salt intakes



Within the meat/fish category, cured/processed meats contributed 17%

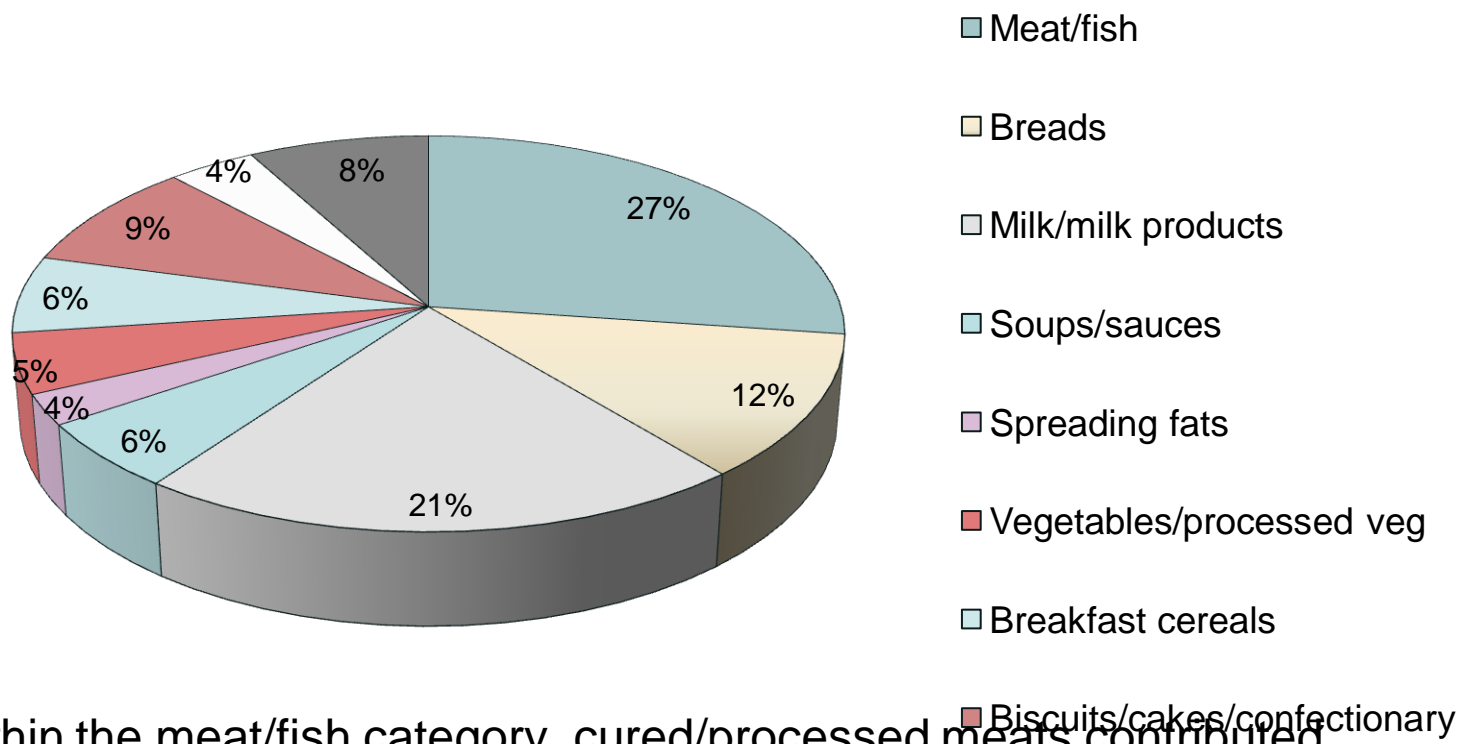
# 2011-2012: NPNS (1-4y)

Mean daily salt intake (dietary)



# 2011-2012: NPNS (1-4y)

## Contribution of food groups to mean daily salt intake



Within the meat/fish category, cured/processed meats contributed 16%

# Conclusions

## Using dietary data:

- Cured/processed meats & breads-two main contributors to salt intakes for most population groups
- Mean daily salt intake in adults ↓ by 1.1g between 2001 and 2011
- ↓ salt intake reflects ↓ in salt content of many foods (in particular breads, cured/processed meats, spreading fats and breakfast cereals)

## Overall:

- Salt intakes are higher than targets for the Irish population
- Discretionary salt intake in Irish adults is estimated to be about 25-30% of total salt

# Acknowledgements

- IUNA survey teams in UCC and UCD led by Prof Albert Flynn and Prof Mike Gibney
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