# Ethnicity and Inequalities in Health Expectancies

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InHALE -

Inequalities in Healthy Active Life Expectancy: the role of time, place, person and methods ESRC Research Fund RES-062-23-2970 1 October 2011 - 30 September 2014 <u>http://research.ncl.ac.uk/InHALE</u>

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### Rationale

Population ageing



Wohland P, Rees P, Norman P, Boden P and Jasinska M (2010) Ethnic Population Projections for the UK and Local Areas, 2001-2051, Working Paper 10/2 School of Geography, University of Leeds, Leeds

### Rationale

### Compositional change

<u>Today (2011)</u> ~14% of the population belong to ethnic minority group other than White

 1 in 5 considers themselves as <u>not</u> White British



Figure 2. Growth in ethnic minority group population in England & Wales, 1991-2001-2011

Jivraj S. How has ethnic diversity grown 1991-2001-2011? In: Simpson LaJ, Stephen editor. *Dynamics of diversity: evidence from the 2011 Census.* Manchester: Centre on Dynamics of Ethnicity, The University of Manchester, 2012.

### **Research Questions**

- How do health expectancies vary for ethnic groups in England and Wales?
- Are those differences significant?

Why don't we know this already? Lack of mortality data for ethnic groups What are health expectancies? Example: Disability free life expectancy

### Life expectancy

LE

- Life years with disability

Life years without disability = Disability free life expectancy = DFLE Ethnic groups England & Wales (2001)
Self identified / 16 options

- White (British, Irish, Other)
- Mixed (White & Black Caribbean, White & Black African, White & Asian, Other)
- Asian or Asian British (Indian, Pakistani, Bangladeshi, Other)
- Black or Black British (Caribbean, African, Other)
- Chinese or Other Ethnic Group.

## Data

• Mortality estimates for ethnic groups (Rees et al. 2009)

### 2 Census questions

11	Over the last twelve months
	would you say your health has
	on the whole been:

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Fair	ly	g	00	d
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#### Not good?

### Healthy life expectancy -HLE

- 13 Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do?
   ◆ Include problems which are due to old age.
   △ Yes
   △ No
- Sullivan method

# Results

### Life expectancy and disability free life expectancy at birth

Ordered by Women LE

**Differences compared to White British group** 

	LE	DFLE	Diff.	95%CI					Diff.	95%CI	DF	LE	LE
Chinese		н	4	3.4 - 4.6					5.2	4.5 - 5.8		н	
Other		н	2.2	1.5 - 2.9					1.3	0.5 - 2		щ	
Wh.Other		•	2.1	1.9 - 2.4					2.6	2.3 - 2.8		•	
W.Irish		ŀ	0.4	0 -0.8					-1.7	-2.11.3	3 4		
BI.African		H	-0.7	-1.20.2					1.8	1.3 - 2.4	ł	н	
BI.C'bean		H	-4	-4.33.7					-2.3	-2.61.9			
Indian		P	-4.8	-54.6					-0.8	-1.10.6	3		
Other Asians		н	-3.2	-3.72.6		$\bigcirc$			-1	-1.50.5	5 H		
Wh.&Asian		IH	-0.6	-1.4-0.1		Y			-0.6	-1.4-0.1	ŀ		
Wh.British			0	0 - 0					0	-0.1-0.1			
All			-0.2	-0.20.1					0	-0.1- 0			
Other Mixed		μ	-1.2	-1.90.4					-2.4	-3.2 1.6	зн		
Wh.&BI.African		н	-2.7	-3.91.5					-3.6	-4.82.5	5 н		
Other Black		н	-4.7	-5.63.7					-3.4	-4.52.4	4 H		
Bangladeshi			-8.4	-97.8					-7.5	-87	н		
Wh.&BI.C'bean		н	-4.4	-5.23.7			LE		-4	-4.83.2	2 н		
Pakistani			-9.9	-10.19.6					-6.2	-6.55.9	•		
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	80 70	) 60	50	40 30	0 20	10	0 10	20 3	30	40 5	0 60	) 70	80
\A/bita	Mixed	Acia	о <b>Г</b>	lack	Othou	Life	Years				0040		
vviite	IVIIXEU	Asidi		JIACK	Other			vvonia	and	l et al	2013	i, SUD	mitted

### Life expectancy and disability free life expectancy at 65

• Ordered by Women LE

Differences compared to White British group



DFLE & HLE at birth, ethnic groups, men and women



### Summary

- Variation in DFLE at birth: men 12.7 years, women 13.9 years for women, double of life expectancy
- DFLE at birth highest for Chinese men & women
- Over half of ethnic groups (men:10, women:9) significantly lower DFLE than White British
- Low DFLE in some Black, Asian and Mixed ethnic groups, lowest: Bangladeshi men & Pakistani women
- Indian women LE similar to White British, but low DFLE

### **Conclusions and Discussions**

- Mortality inequalities underestimate health inequalities
- Two Health expectancy measures more confident in results
- Not all variation explained by socioeconomic factors
- More non-White British people in population importance to pick ethnic groups at higher risk of disability to target appropriate interventions



# THANKS

# **Questions**?

### Scotland - Edinburgh - REVES 2014

# How does England and Wales compare to other countries?

# References

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- Jagger, C., B. Cox, S.L. Roy and THE EHEMU TEAM. 2007. Health expectancy calculation by the Sullivan method: a practical guide, 3rd edition [online]. EUROPEAN HEALTH EXPECTANCY MONITORING UNIT, France. <u>http://www.ehemu.eu/pdf/Sullivan\_guide\_final\_jun2007.pdf</u>

	Women												Men													
	LE	HLE		Diff.	95%	6CI						Diff.	95%	6CI		HLE	LE									
Chinese	i H			3.7	2.9 -	4.5						4	3.2	- 4.8		i H										
Other		нi		1.6	0.7 -	0.7 -2.5					-0.1	-1	-0.8		H											
Wh.Other		ŧ.		1.6	1.3 - 1.8					1.5	1.2	- 1.8														
W.Irish		H		-0.2	-0.7	-0.7 - 0.3				-2.5	-3	2		н	ľ											
BI.African		ł		0.3	-0.4	· 1						1.2	0.6	- 1.9		н	-									
BI.C'bean		i H		-4.4	-4.8	-4						-3	-3.5	2.6		H	Dį –									
Indian		¦ H		-4.4	-4.7	-4.1						-1.1	-1.4	0.7		H										
Other Asians		ļμ		-2.6	-3.3-	-3.31.9				-1.3	-2	0.6		нÌ												
Wh.&Asian		H		-0.8	-1.8 - 0.2					-0.7	-1.7	-0.3		Ĥ												
Wh.British				0	-0.1 - 0.1					0	-0.1	-0.1		I												
All				-0.2	2 -0.30.2					-0.1			-0.2- 0													
Other Mixed		н		-1.8	-2.8	-0.8						-2.6	-3.7	1.6		нi	]									
Wh.&BI.African		1-1		-2.2	-3.9	-0.5				-4.2 -5.82.6				F	Ηİ	   										
Other Black		і н		-4.7	-6 -	-3.4				-3.7 -52.4				2.4	ŀ	Ηİ	   									
Bangladeshi			н	-8	-8.7	-7.2						-7.3	-8	6.6	н											
Wh.&BI.C'bean		-5.1 -84.1										-4.6	-5.7	3.5	٢	+ ¦										
Pakistani		-10.5 -10.9-10.1							E		-6.7	-7.1	6.3	H												
	i		- 1		- 1	- 1		- 1		- 1	- 1			- 1	- 1	<u> </u>	i,									
	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80									
								L	ife Ye	ars						Life Years										

	V	Vomer	า		Men								
		Diff.	95%CI	LEHLE	HLELE	Diff.	95%CI						
Chinese		2.1	1.6 - 2.7	I HI	1.11	2.1	1.5 - 2.7						
Other		1.2	0.5 - 1.9	ļμ	H i	-0.1	-0.9-0.6						
Wh.Other		1.1	0.9 - 1.2			0.9	0.8 - 1.1						
W.Irish		0.8	0.6 - 0.9			-0.7	-0.80.5						
BI.C'bean		-2.3	-2.52			-1.8	-21.6						
BI.African		0.6	0.1 - 1.2	l H	- H	0.8	0.2 - 1.3						
Indian		-2.7	-2.92.5			-0.7	-0.90.5						
Other Asians		-1.2	-1.70.7		H	-0.7	-1.10.2						
Wh.&Asian		0.6	-0.1 - 1.4	l H	Н	0.5	-0.2 - 1.3						
Wh.British		0	0 - 0			0	0 - 0						
All		-0.1	-0.10.1			0	-0.1- 0						
Other Mixed		-0.2	-1 -0.6	H	н	-0.9	-1.70.1						
Wh.&BI.African		0.1	-1.2 - 1.5	н	HI H	-2	-3.30.7						
Bangladeshi		-3	-3.62.3	н	H	-3.4	-3.82.9						
Other Black		-1.9	-2.91		H.	-1.7	-2.60.9						
Wh.&BI.C'bean		-2.4	-3.11.7	H	н	-1.9	-2.61.2						
Pakistani		-5.2	-5.54.9	<b>P</b>		-3.2	-3.42.9						
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	80 70 60	50	40 30	20 10	0 10	20 30	40 50	60	70	80			
	Life Years												