

cycle BOOM
DESIGN FOR LIFELONG HEALTH & WELLBEING

Using Biographical Interviews to Understand Low Levels of Cycling in Older Age in Great Britain

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Motivation cycle BOOM

- Cycling in older age is very uncommon in GB
- Nearly a half of adults aged between 65 and 74 in GB do not meet physical activity guidelines
- Wish to find out why older people give up cycling and what potential there is for more cycling in older age

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Outline cycle BOOM

- Statistical context - cycling in older age in GB
- Method – biographical interviews
- Results – cycling trajectories in mid to later life
- Implications

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Statistical context

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Cycling across age groups cycle BOOM

Age Group	Bicycle Share (%)
0-16	1.27
17-20	2.58
21-29	2.46
30-39	1.85
40-49	1.84
50-59	1.21
60-69	0.99
70+	0.75

Period: 2013
Source: NTS (England)

Drops off sharply after 40-49.

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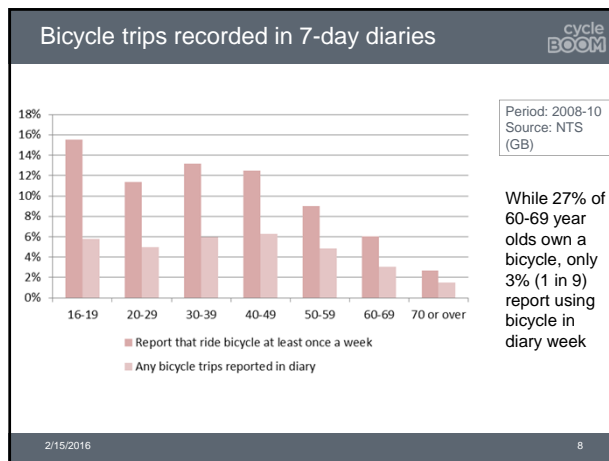
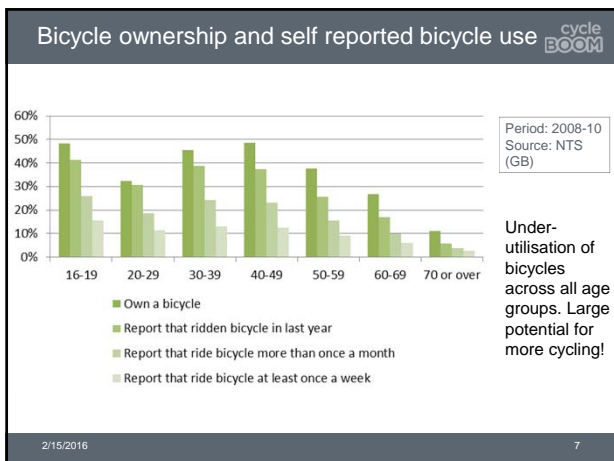
DIFFERENT STORY ELSEWHERE

Cycling is an important method of transport in older age in other parts of Northern Europe.

Share of journeys by people aged 65+

UK 1%
DENMARK 15%
NETHERLANDS 23%
GERMANY 9%

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Profile of older cyclists (60-69)

Characteristic	Own bike	Report bike trip
Across all aged 60-69	27%	3.0%
Live in Metro area	16%	1.0%
Live in rural area	38%	3.5%
Live in purpose-built flat	12%	2.9%
Live in detached home	37%	3.5%
Own 0 cars	14%	3.5%
Own 2 cars	36%	2.9%
Lowest income quintile	22%	3.7%
Highest income quintile	41%	3.6%
Female	20%	1.9%
Male	34%	4.3%
Non-white	7%	1.6%
White	28%	3.1%

Period: 2008-10
Source: NTS (GB)

Own bikes - wealthy, male and white!

Use bikes - male and white but more mixed

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Built environment and bicycling

Settlement type	16-59	60+
London	5.9%	2.2%
Metro	3.9%	1.0%
Other urban over 250k	6.6%	2.7%
Urban 25k to 250k	6.0%	2.3%
Urban 10k to 25k	5.5%	2.9%
Urban 3k to 10k	5.0%	2.5%
Rural	5.4%	2.6%
Overall	5.6%	2.3%

Indicator: Any bicycle trips reported in diary
Period: 2008-10
Source: NTS (GB)

60+ relatively more likely to cycle in smaller settlements (than 16-59)

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Attitudes to cycling

Agreement with statement	16-59	60+
Disability/health making it difficult to cycle	6%	43%
Not kind of person who rides bicycle	30%	48%
Confident cycling on roads	41%	22%
Too dangerous for me to cycle on roads	57%	72%
Cycle (more) if more dedicated cycle paths	55%	42%
Rather cycle than use public transport	40%	18%
I (would) enjoy cycling as a leisure activity	72%	45%

Period: 2009-10
Source: DfT Climate Change and Transport Choices Segmentation Model project (N=3923) (England)

Less able/inclined to cycle and discouraged to cycle on roads

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- ### Gap
- Older people who cycle - what enables them to continue cycling?
 - Older people who do not cycle - when do they give up and why?
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Method

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Method: Cycle Boom project

Research call for studies on ageing, mobility, built environment and technologies

One of eight 3-year funded projects, only one on cycling

One of eight 3-year funded projects, only one on cycling

A study to understand cycling amongst the older population in the UK and how this affects independence, health and wellbeing

(Oct 2013 – Sep 2016)

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Project team

Urban designers and architects - worked on ageing issues
 Geographers - governance | mobility and affect
 Transport planners – understanding travel behaviour
 Neuropsychologists – effect of physical activity on ageing brain

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Role of biographical interviews

To understand engagement with cycling over the life course, revealing change and continuity in cycling in relation to life transitions and events and evolving social and physical settings

Narrative biographical interviews have been used in some other recent studies (Frandsen, 2006; Lanzendorf, 2010; Chatterjee et al, 2013; Jones et al, 2014)

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Research approach - life course perspective

Cycling status in mid and later life viewed “dynamically as the consequence of past experience and future expectation as well as the integration of internal motive and external constraint”

(Giele and Elder, 1998)

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Biographical interviews

- Narrative life history describing and explaining changes and continuities in cycling
- Techniques
 - Life history grid
 - Semi-structured interview
 - Maps and panoramic street view
 - Schematic cycling timeline
- View bicycle(s), bicycle storage, local context
- Followed by accompanied cycle ride (not focus of this presentation)

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Interview structure

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pre-interview life history grid → interview

- Semi-structured interview
- Current cycling
- Future outlook
- Past residential contexts and cycling
- Ageing and cycling

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Life history grid

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Year of birth	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
Residence		HAGLEY, GLOUCESTER	→ 1977 AYLESHAM, GLOUCESTER	→ 1982 AYLESHAM, GLOUCESTER	→ 1982 AYLESHAM, GLOUCESTER	→ 1982 AYLESHAM, GLOUCESTER	→ 1982 AYLESHAM, GLOUCESTER	→ 1982 AYLESHAM, GLOUCESTER
Household		MUM, DAD, OLDER SISTER	M, D, SISTER	M, D, 2 UNCLE COLLEGE OF ARTS	HOUSEHOLD WITH SISTER	HOUSEHOLD WITH SISTER	M, D, WIFE, 2 CHILDREN	HOUSEHOLD WITH SISTER, 2 CHILDREN
Education / work (paid / unpaid)		HUNTER SCHOOL 1948	WIMBORNE SCHOOL 1958	WIMBORNE SCHOOL 1968	WIMBORNE SCHOOL 1978	WIMBORNE SCHOOL 1988	WIMBORNE SCHOOL 1998	WIMBORNE SCHOOL 2008
Activities / hobbies / leisure			FOOTBALL, BASKETBALL, RIDE TO SCHOOL WITH FRIENDS	FOOTBALL, BASKETBALL, RIDE TO SCHOOL WITH FRIENDS	FOOTBALL, BASKETBALL, RIDE TO SCHOOL WITH FRIENDS	FOOTBALL, BASKETBALL, RIDE TO SCHOOL WITH FRIENDS	FOOTBALL, BASKETBALL, RIDE TO SCHOOL WITH FRIENDS	FOOTBALL, BASKETBALL, RIDE TO SCHOOL WITH FRIENDS
Transport		MUMS BIKES, WOODMOT BIKES	1976 FIRST BIKES, 1980 BIKES, 1984 BIKES	1984 BIKES, 1988 BIKES, 1992 BIKES	1992 BIKES, 1996 BIKES, 2000 BIKES	2000 BIKES, 2004 BIKES, 2008 BIKES	2008 BIKES, 2012 BIKES, 2016 BIKES	2016 BIKES, 2020 BIKES, 2024 BIKES
Cycling - owned or had access to a bike		YES BIKES ETC	YES BIKES ETC	YES BIKES ETC	YES BIKES ETC	YES BIKES ETC	YES BIKES ETC	YES BIKES ETC
Cycling - activity			WENT TO SCHOOL AND BIKES 1975 → 1986	WENT TO SCHOOL AND BIKES 1986 → 1997	WENT TO SCHOOL AND BIKES 1997 → 2008	WENT TO SCHOOL AND BIKES 2008 → 2019	WENT TO SCHOOL AND BIKES 2019 → 2020	WENT TO SCHOOL AND BIKES 2020 → 2021

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Google Street View and residential biography

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United Kingdom, Belgium, France, Switzerland

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Research participants

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Bristol | Cardiff | Oxford | Reading

Each city:

- Gender balance
- Age balance (50s | 60s | 70+)
- 30 still cycling
- 30 no longer cycling
- Spatial diversity

Core | fringe | free-standing

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Data processing

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life history: recordings, grid, photos → Case summary

ride: recordings, gps → 'gist'

post ride interview: recordings → Clips, memo

30 + 30 → 30

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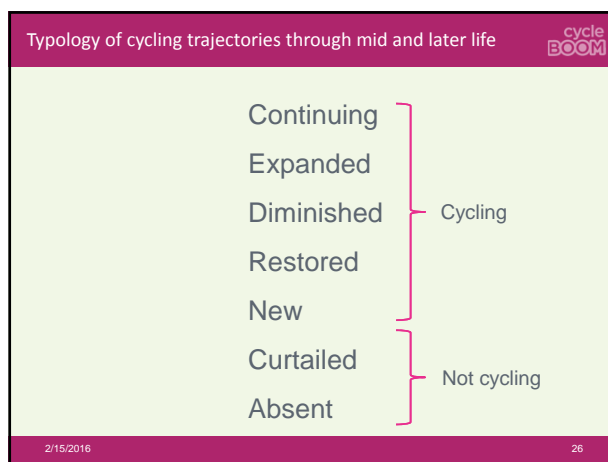
Results

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Interview sample for Bristol in 2014

	Bristol (N=18)
Gender	
male	8
female	10
Age Band	
50-59	7
60-69	13
70+	9
IMD quintile	
1	8
2	2
3	4
4	3
5	1



- Continuing**
- Largely continuous cycling through mid and later adulthood
 - Does not mean cycling unchanged, but there was some continuity in engagement with cycling
 - Generally an expectation to continue
 - Some noted changes in type of cycling they were doing

Continuing – example summary biography

Jerry was an electrician who had spent most of his adult life living in a housing estate on the edge of the city. He had been employed at various sites around the urban fringe through his career; he had cycled to work even after changing employment location. He was a competent cyclist and generally unintimidated by road conditions. Jerry often cycled when he travelled somewhere on his own but would usually drive if travelling with his wife or daughter. Jerry had a group of retired friends who had been cycling for leisure on a weekly basis since retirement. Jerry would join them when he was available. [Bristol, 58, IMD=2]

“If its only me... if its only me and I’m going into town I don’t think nothing of cycling into town.”

- Expanded**
- Increased engagement with cycling (in last five years)
 - Cycling featured relatively consistently throughout adulthood

Expanded – example summary biography

Juan, a retired engineer, had had a long hiatus in cycling between his teenage years and a second phase beginning in his fifties. For much of his adult life he lived and worked in the urban fringe; although living close to work, he considered that the route along a dual carriageway was too unpleasant to cycle. Reengagement with cycling followed back surgery. It was initially about rehabilitation and eventually general exercise and pleasure. Once he retired he joined an ‘old timers’ cycling group who he rode with twice a week. Juan saw a distinction between his current cycling which was about “leisure, enjoyment and fitness” and his early cycling which had been to get about. He now lived in a village beyond the city limits and would cycle out into the country; it was rare that he would ride in to the city. [Bristol, 67, IMD=1]

“I cycle more now because I’ve got a lot more time. I also cycle with a group now which I didn’t used to do.”

Diminished cycle
BOOM

- Some recognition of reduced cycling by the participant

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Diminished – example summary biography cycle
BOOM

Edith worked as a therapist. She started using a bike as means of transport in her twenties. From this point onwards she had always had access to and made use of a bike in some way. In the last ten years she had moved to live more centrally in Bristol following separation from her partner and changed careers. Her new work entailed travelling to different sites within the city. For local trips she quite often chose to walk, considering it too short a journey to warrant getting her bike through the house. Edith wasn't currently using her bike as much as she'd like or thought she ought to. She found that she wobbled on steep inclines and often got off and pushed. She rejected the proposition of a power-assisted cycle, declaring she was "not there yet". She thought her sense of vulnerability as a cyclist had grown noting that she avoided cycling in rush hour, after dark and when it might be slippery or icy. Edith wanted to do some recreational cycling but didn't feel she had anyone to do this with. [Bristol, 60, IMD=4]

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Restored cycle
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- A re-engagement with cycling following some hiatus
- Variation in the precipitating events and purpose of renewed cycling

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Restored – example summary biography cycle
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Leona worked fulltime as a personal assistant. When she moved to the edge of Bristol she commuted into the centre by car for a short time. She then changed jobs to work in a business park on the edge of the city. The offices had good facilities for cyclists and there are measures to promote cycling amongst the workforce, many of who cycle. Leona started cycling a couple of times a week using a segregated cycle path parallel to the ring road. She was motivated by awareness that her job is largely sedentary and valued her ride as a time to think over things. Leona didn't cycle after the clocks had changed because the path was unlit. She was soon to move house and was uncertain about whether this would disrupt her cycling. [Bristol, 53, IMD=1]

"as a child fairly level, then a big stop while I was at uni, then started again and then there was another stop and then since I've had this new bike its probably grown and as I say I probably cycle more now than I ever have done in my life. Yeah I probably do, I cycle more now than I ever have done."

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New cycle
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- Only one case in Bristol so far
- Very limited cycling experience (in childhood)
- Illustrates challenge of starting cycling in later life

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New – example summary biography cycle
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Cindy was a technician who for much of her life held the impression that she possessed insufficient balance and co-ordination two-wheeled bike safely. She started riding a tricycle in her fifties following only a brief attempt to try cycling as a child. A non-driver, Cindy took up cycling to get to work and help her reduce her spending on transport. Cindy had moved a few years ago into the city centre to improve her access for cultural activities. She planned her routes carefully to avoid physical obstacles and interaction with traffic which she found stressful. There was a general sense of stoicism and accomplishment about her cycling and an acceptance that journeys could be lengthy. She made the time to travel in this way and preferred to be unhurried. She had recently invested in a powered tricycle following the onset of some health issues preventing her from cycling. [Bristol, 57, IMD=3]

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Curtailed cycle BOOM

- Stopped cycling in the last five years
- Some uncertainty whether cessation was permanent
- Ambivalence or positive inclination towards prospect of cycling again

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Curtailed – example summary biography cycle BOOM

Gareth worked part-time in consultancy. He had a couple of periods during his career when he had commuted by bike. A later phase emerged when work was once again a convenient distance from home; Gareth had considered this had a more positive choice to cycle for fitness. As he became more senior in work Gareth found cycling was often displaced by the need to travel for meetings. Cycle commuting then stopped altogether when he changed jobs for one which meant travelling beyond Bristol, his cycling then became about occasional local trips. Aside from commuting Gareth had ridden with friends on an irregular basis doing some leisure and organised rides over the years. Gareth hadn't ridden his bike since a road collision whilst driving a few years earlier. He made a full recovery and liked the idea of doing another social ride but suspected he would feel quite vulnerable on a bike. [Bristol, 64, IMD=1]

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Absent cycle BOOM

- Not cycled in the last five years
- Viewed cycling as behind them

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Absent – example summary biography cycle BOOM

Yasmeen was a retired admin assistant. She had cycled for a few years in her late fifties and early sixties. This followed a short period of using a bike occasionally in her thirties for getting about. Her second bout of cycling was initiated by her borrowing a bike to cycle to a local event. At the time she had been finding it more difficult to park in the city centre for work and so she accepted a bike from a colleague and cycled to work for a few years. She stopped cycling when she fractured her hip (not whilst cycling) and was subsequently diagnosed with osteoporosis. She then stopped cycling, considering it too risky and irresponsible. [Bristol, 74, IMD=4]

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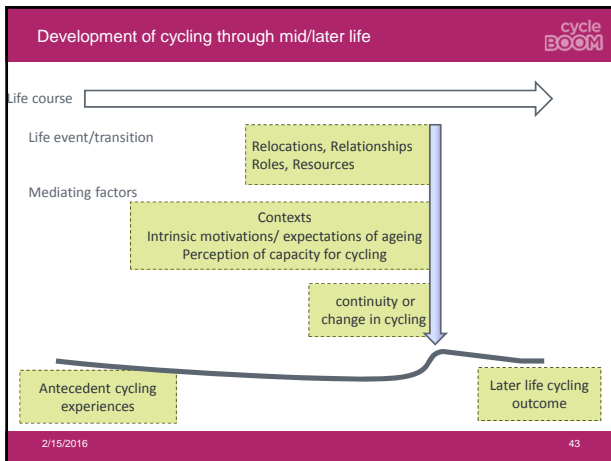
Snapshot of cyclists masks myriad of pathways cycle BOOM

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Influence of later life transitions on cycling cycle BOOM

Type of life event/ transition	Examples	Implications for cycling
Relocation home work	Down-sizing, down-shifting	Physical domain: Distances, infrastructure, safety, aesthetics
Roles	Retirement/ down shift in work Caring	Time
Relationships	New/dissolution Evolving relationships with (adult) children	Social support
Health	Loss of fitness, flexibility, sensory and motor abilities Need for rehabilitation, management	Capacity and comfort Motivation

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Implications

Supporting cycling in mid and later life

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-
- Implications
- Trajectories allows longitudinal distinction of behaviour types
 - Identifies larger potential market of possible cyclists than snapshot survey
 - Boundaries between groups are somewhat fuzzy
 - Each group is not homogeneous, but mechanisms can be explored for each group and differences revealed
 - Ultimately, this can enable better targeted policy interventions
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Engineering research council

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University of the West of England

ABSENCE OF OLDER PEOPLE CYCLING IS GETTING NOTICED

Public figures are starting to draw attention to the unequal distribution of cycling amongst the population.

*“At the moment cycling is disproportionately young and male and that’s because of the conditions. I suppose those are the people who feel able to cycle...What I want to see from these changes, and I think we will see, is far more women doing it, far more **older** people doing it”.*

London’s Cycling Commissioner Andrew Gilligan discussing the Mayor of London’s plans for cycling in the capital.