

Environmental and Policy Approaches to Increase Physical Activity:
 Point-of-Decision Prompts to Encourage Use of Stairs
 Summary Evidence Table

Author & year (study period)	Design suitability (design)	Quality of execution (# of Limitations)	Evaluation setting	Intervention and comparison elements	Study population & description Sample size	Results							
						Effect measure	Reported baseline	Reported effect		Value used in summary			FU time
Adams 2002 (2000)	Moderate (time-series)	Fair (4)	Medical school of the University of Newcastle ()	Location: Tyne, England, United Kingdom Components: Placement of 39 signs next to the elevator buttons on each floor and 1 sign in each elevator Comparison: Measurements during the baseline period without the signs	All users of the stairs and elevators including medical, dental and biomedical sciences undergraduate and postgraduate students, teaching, research and support staff, and visitors N = 1750 observations at baseline N = 1770 observations at 1 week N = 1773 observations at 4 weeks	Change in stair use in response to the intervention Stairs	<u>Baseline</u> 20.1%	<u>1 wk FU</u> 20.6%	<u>4 wks FU</u> 19.5%	<u>Diff</u> 0.5%	<u>RC</u> 2.49	<u>p</u> NS	4 wks

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Anderson 1998 (NR)	Moderate (time-series)	Fair (2)	Shopping mall	Location: USA (Baltimore, MD) Components: 1) Placement of a "health benefits" sign near the escalator and stairs 2) Placement of a "weight control" sign near the escalator and stairs Comparison: Measurements during the baseline period without the signs	All users of stairs and elevators in a shopping mall Exclusions: persons carrying baggage larger than a briefcase; persons carrying a baby or child; and those judged to be younger than 18 years of age N = 17,901 adult patrons	Percent of people using the stairs "Health Benefits" sign "Weight Control" sign	<u>Baseline</u> 4.8% 4.8%	<u>FU</u> 6.9% 7.2%	<u>Diff</u> <u>RC</u> <u>p</u> 2.1% 43.75 sig 2.4% 50.00 sig	3 mos
Anderson 2000 (NR)	Moderate (time-series)	Fair (2)	Setting NR	Location: USA Components: Placement of a sign with an African American women climbing the stairs Comparison: Measurements during the baseline period without the sign and after the removal of the sign	African American commuters N = 5287 observations with no sign N = 4479 observations with the sign N = 4548 2 nd observation without the sign N = 1721 2 nd observation with the sign posted	Percent of people using the stairs African Americans White Americans	<u>Baseline</u> 10.2% 23.1%	<u>FU</u> 16.2% 28.2%	<u>Diff</u> <u>RC</u> <u>p</u> 6.0% 58.82 <.001 5.1% 22.08 <.001	NR

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Blamey 1995 (NR)	Moderate (time-series)	Fair (3)	Underground train station	Location: England Components: Placement of a signs where stairs and escalators were adjacent Comparison: Measurements during the baseline period without the sign and after the removal of the sign	Scottish commuters or shoppers N = 22,275 observations	Percent of people using the stairs Total	<u>Baseline</u> 8%	<u>FU</u> 16%	<u>Diff</u> 8%	<u>RC</u> 100	<u>p</u> sig	3 wks
Boutelle 2001(1997)	Moderate (time-series)	Fair (2)	University of Minnesota School of Public Health building (worksite)	Location: USA (Minneapolis, MN) Components: 1) Placement of a sign at the decision point for the stairs, escalators, above all of the elevator buttons, and on the stairwell doors 2) Artwork and music added to the stairwell Comparison: Measurements during the baseline period without the sign and after the removal of the sign	Full- and part-time employees N = 35,475 observations	Percent of people using the stairs Signs	<u>Baseline</u> 11.1%	<u>FU</u> 12.7%	<u>Diff</u> 1.6%	<u>RC</u> 14.41	<u>p</u> <0.01	4 wks

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Brownell 1980 (NR)	Moderate (time-series)	Fair (2)	Shopping mall, train station, and bus terminal	Location: USA (PA) Components: Placement of a sign at the decision point for the stairs and escalators Comparison: Measurements during the baseline period without the sign	Commuters or shoppers N = 21,091 observations N = 24,603 observations	Percent of people using the stairs	<u>Baseline</u>	<u>FU</u>	<u>Diff</u> <u>RC</u> <u>p</u>	2 wks
						Totals for all phases	6.3%	14.4%	8.1% 128.57 <.0001	
						Mall	7.2%	17.8%	10.6%	
						Train station	5.6%	12.7%	147.22	
						Bus station	5.9%	10.6%	7.1% 126.79	
						Train station II	11.6%	18.3%	4.7% 79.66	
									6.7% 57.76 <.0001	

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Coleman 2001 (1999)	Moderate (time-series)	Good (1)	Airport, bank, office building, and the University of Texas at El Paso (UTEP) library	Location: USA (El Paso, TX) Components: Placement of 2 types of signs (individual perspective and family perspective) Comparison: Measurements during the baseline period without the sign and after the removal of the sign	Patrons and employees of the airport, bank, office building, and the library N = 10,155 observations (at bank) N = 34,125 observations (at airport) N = 9257 observations (at library) N = 8361 observations (at office building) N = 38,022 observations (at airport) N = 15,233 observations (at library)	Percent of people using the stairs Individual-oriented sign <u>Bank</u> Men Women <u>Airport</u> Men Women <u>Library</u> Men Women Family-oriented sign <u>Office building</u> Men Women <u>Airport</u> Men Women <u>Library</u> Men Women	<u>Baseline</u> 1.4% 2.0% 5.1% 3.5% 41.0% 30.6% 29.8% 36.6% 4.8% 2.7% 45.7% 25.7%	<u>FU</u> 4.6% 4.5% 5.8% 4.5% 35.6% 28.8% 23.7% 37.6% 8.1% 4.0% 38.9% 33.2%	<u>Diff</u> 3.2% 2.5% 0.7% 1.0% -5.4% 13.17 -1.8% -6.1% 20.47 3.3% 1.3% -6.8% 14.88	<u>RC</u> 228.57 125.00 13.73 28.57 - NS -5.88 sig - 1.0% 2.73 NS 68.75 48.15 - 7.5% 29.18	<u>p</u> sig sig NS sig - NS -5.88 sig - 1.0% NS sig sig - 7.5% sig	1 mo

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Kerr 2001 (NR)	Moderate (time-series)	Fair (2)	Shopping mall	Location: England Components: Placement of banners on alternate stair risers Comparison: Measurements during the baseline period without the banners and after the removal of the banners	Shoppers in a shopping mall who use the stairs or escalators N = 45,361 escalator or stair choice observations	Percent of people using the stairs	<u>Baseline</u> 8.1%	<u>FU</u> 18.4%	<u>Diff</u> <u>RC</u> <u>p</u> 10.3% 127.16 sig	6 wks

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Kerr 2004 (1998–2002) Moderate (time-series) Fair (2) Worksite	Location: USA (Atlanta, GA) Components: 1) Installation of new carpet, painting the walls, and painting large numbers on the doors to identify building floors 2) Adding framed artwork to the stair landings 3) Display of motivational signs throughout the building and on the computer kiosk in the lobby 4) Adding a stereo system which played various types of music in the stairwell Comparison: Measurements during the baseline period without the sign	Permanent and temporary employees who used the stairs N = 664 (total building population)	Mean trips per day per occupant Signs (weeks 1–3)	<u>Baseline</u> NR	<u>FU</u> NR	<u>Diff</u> <u>RC</u> <u>p</u> NR 8.88 <.05	3 mos

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Marshall 2002 (NR) Moderate (time-series) Good (1) Healthcare facility	Location: Australia Components: Placement of colored signs on the wall next to elevator and stair areas and vinyl footprints on the floor leading to the stairs Comparison: Measurements during baseline period without signs and footprints and after removal of signs and footprints	Patrons and employees who used the stairs and elevators N = 158,350 motion-sensing device (MSD) counts	Observed stair use	<u>Baseline</u> 15.5%	<u>FU</u> 16.3	<u>Diff</u> <u>RC</u> <u>p</u> 0.8% 5.16 NR	12 wks
Russell 1999 (NR) Moderate (time-series) Fair (3) University library	Location: USA (Illinois) Components: Placement of a sign on the main floor between two elevators at eye level stating that elevators to be used only by staff and physically challenged Comparison: Measurements during baseline period with standard sign and with no sign (combined in analysis)	Consumers of the library who used the stairs and elevators N = 6216 observations N = 2486 individuals chose the stairs	Percent of people using the stairs	<u>Baseline</u> 39.7%	<u>FU</u> 41.9%	<u>Diff</u> <u>RC</u> <u>p</u> 2.2% 5.54 <.05	5 wks

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Russell 2000 (NR)	Moderate (time-series)	Fair (2)	Midwest airport	Location: USA Components: 1) Placement of a health promotion sign at eye level on the ground floor directly between stairs and escalators 2) Placement of a deterrent sign limiting elevator use to staff and those individuals unable to use stairs located at eye level on the ground floor directly between stairs and escalators Comparison: Measurements during baseline period without signs and after removal of signs	Travelers who used the stairs and escalators N = 3369 individuals observed	1) Percent of people using the stairs Health Promotion sign Deterrent sign	<u>Baseline</u> 8.22% 8.22%	<u>FU</u> 14.89% 14.4%	<u>Diff</u> 6.67% 6.18%	<u>RC</u> 81.14 NR 75.18 NR	<u>p</u> NR NR	5 wks

Diff absolute difference; FU follow up; mo month; N sample size; NR not reported; NS non-significant; p p-value; RC relative change; sig significant; wk week; yr year;