

Supplementary Online Content

Goldman-Mellor SJ, Caspi A, Harrington H, et al. Suicide attempt in young people: a signal for long-term health care and social needs. *JAMA Psychiatry*. Published online December 4, 2013. doi:10.1001/jamapsychiatry.2013.2803.

eTable 1. Brief Description of Health and Social Outcome Measures

eFigure 1. The Dunedin Study in the Context of New Zealand's Economy

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Brief Description of Health and Social Outcome Measures

Outcome	Description	Assessment Age(s)
<i>Mental Health</i>		
Persistent major depression episodes	Two or more diagnoses of past-year major depression between ages 26 and 38, assessed during structured interviews with study members using the Diagnostic Interview Schedule (DIS). ^{1,2}	26, 32, and 38
Persistent GAD episodes	Two or more diagnoses of past-year generalized anxiety disorder between ages 26 and 38, assessed using the DIS.	26, 32, and 38
Persistent substance dependence	Two or more diagnoses of past-year substance dependence (alcohol, cannabis, or hard drugs) between ages 26 and 38, assessed using the DIS.	26, 32, and 38
Any help sought for a mental health problem	Self-report of seeking professional mental health help from a doctor, emergency room, psychologist, therapist, or drug/alcohol treatment program.	26, 32, and 38
Any psychiatric medication usage	Self-report of taking medication (prescription or over-the-counter) for a mental health condition any time between ages 26 and 38.	26, 32, and 38
Hospitalization for a psychiatric problem	Self-report of being hospitalized for a mental health condition any time between ages 26 and 38.	26, 32, and 38
Attempted suicide	Self-reported suicide attempt(s) in past year and between assessments. Ascertainment conducted during standardized clinical interviews as well as the Life History Calendar (see text).	26, 32, and 38
Non-suicidal self-injury (NSSI)	Self-reported engagement in self-injury behaviors (e.g., cutting wrists, burning self) since assessment at age 32. ^{3,4} Behaviors only counted as NSSI if <i>not</i> accompanied by the intent to die.	38
<i>Physical Health</i>		
Poor or fair self-rated health	Study member response of “Poor” or “Fair” to the question “In general, would you say your health is excellent, very good, good, fair, or poor?” ⁵	38

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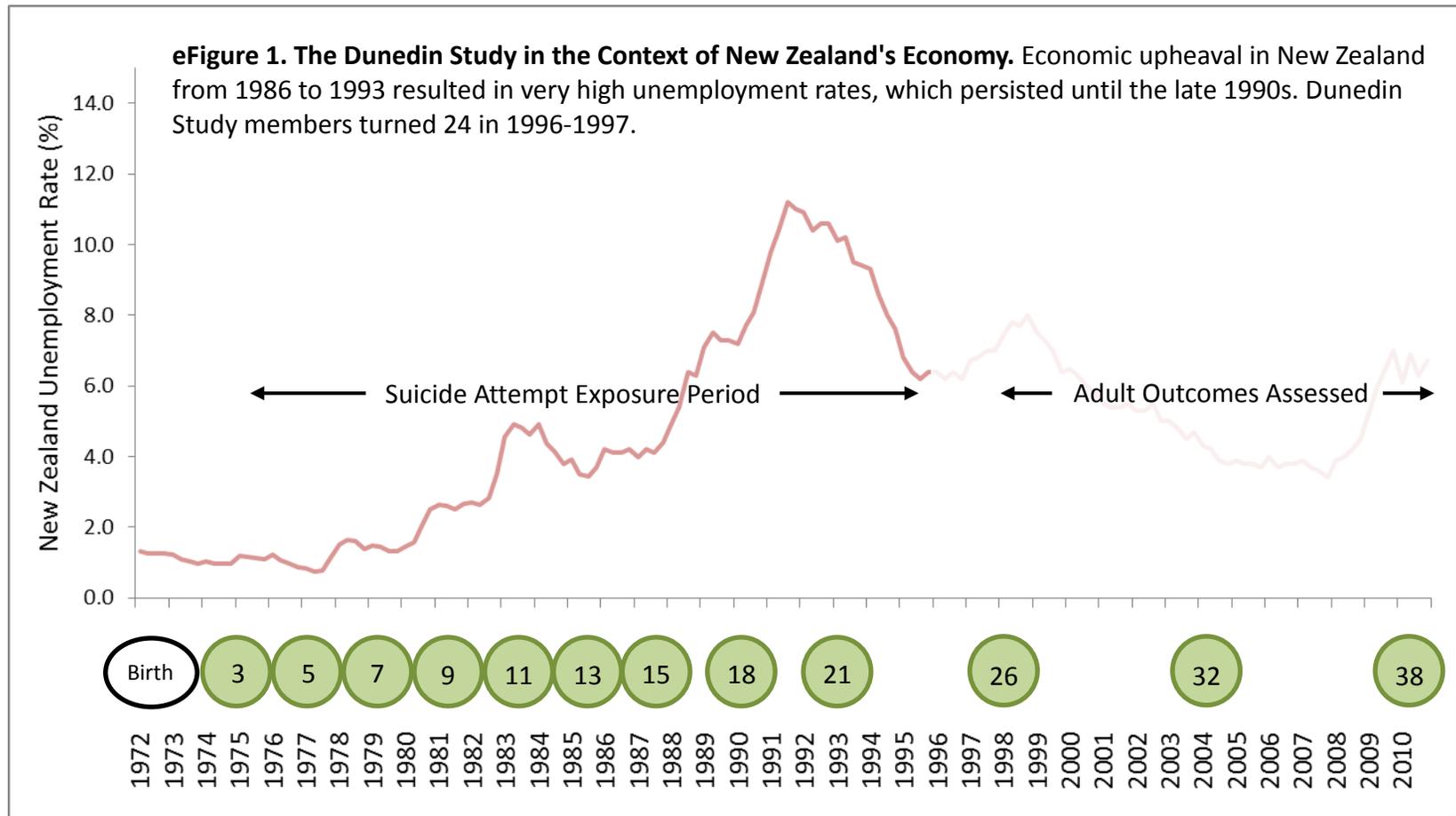
Physical functioning	Study member responses (“limited a lot,” “limited a little,” “not limited at all”) to the 10-item SF-36 physical functioning scale ⁵ assessed their difficulty with completing various activities, e.g., climbing several flights of stairs, walking more than 1 km, participating in strenuous sports. Item scores were linearly transformed to create an overall index ranging from 100 (no limitations) to 0 (severe limitations). ⁶	38
Metabolic syndrome	Metabolic syndrome was assessed with five risk factor biomarkers: (i) high waist circumference (women: >88cm; men: >102cm), (ii) high blood pressure (>130/85), (iii) low HDL cholesterol (women: <50mg/dl; men: <40mg/dl), (iv) high glycated hemoglobin (≥5.7%), and (v) high triglycerides (>200 mmol/l). Study members with 3+ risk factors were defined as having the metabolic syndrome, ⁷ per ATPIII guidelines (http://www.nhlbi.nih.gov/guidelines/cholesterol/index.htm).	38
Inflammation factor score	HsCRP (mg/liter) was measured on a Hitachi 917 analyzer (Roche Diagnostics, Mannheim, Germany) by using a particle-enhanced immunoturbidimetric assay. Fibrinogen (g/liter) was measured on a Sysmex (Malberg, Germany) CA-1500 by using a fully automated cap piercing coagulation analyzer. Interleukin-6 (pg/mL) was measured on a MolecularDevices (Sunnyvale, CA) Spectramax plate reader using R&D Systems (Minneapolis, MN) High sensitivity Elisa kit HS600B. WBC (10 ⁹ /liter) were measured on a Sysmex (Kobe, Japan) XE2100 automated hematology analyzer via flow-cytometry with a semiconductor laser. Intercorrelations among these four measures ranged from 0.23 to 0.62. A principal-component analysis of (ln)hsCRP, fibrinogen, (ln)IL-6 and WBC yielded one factor accounting for 55.2% of the total variance, showing that all four measures index inflammation risk.	38
Unintentional injuries	Linked NZ records were used to determine how many Accident Compensation Corporation (ACC)-covered unintentional injuries study members sustained from ages 26 to 38. The ACC provides comprehensive, no-fault personal injury coverage for all New Zealand residents. Claims cover full or part treatment and associated injury costs (e.g., GP visits, prescriptions, hospital services, rehabilitation costs) as well as weekly compensation for earnings lost due to injury and lump sum payments for permanent disability.	26, 32, 38
Framingham “Heart Age”	Heart age, a composite index of the Framingham cardiovascular disease risk score, ⁸ was computed at age 38 from five sex-specific factors: age, total cholesterol, HDL cholesterol, systolic blood pressure, diabetes status, and smoking status.	38
Perceived age range	Perceived age range was assessed at age 38 using an independent panel of four Duke University undergraduate raters. Raters were presented with standardized facial	38

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	<p>photographs of study members, and blinded to their actual age. Photos were divided into sex-segregated slideshow batches containing approximately 50 photos, viewed for 10s each. Raters were randomized to viewing the slideshow batches in either forward progression or backwards progression. They used a Likert scale to categorize each study member into a 5-year age range (1=20-24 years old, 2=25-29 yrs, 3=30-34 yrs, 4=35-39 yrs, 5=40-44 yrs, 6=45-49 yrs, ... 10=65-70 yrs). Scores for each study member were averaged across all raters ($\alpha=0.71$).</p>	
<i>Harm Towards Others</i>		
Convicted of violent crime	<p>Computerized searches carried out by police indicated that the study member had been convicted of a violent crime (e.g., common assault, assault with intent to injure with weapon, robbery, robbery aggravated with firearm, manslaughter, rape, common assault domestic) in adult criminal courts in New Zealand or Australia, between ages 26-38.</p>	26, 32, and 38
Perpetration of intimate partner physical abuse	<p>Self-report of past-year engagement in 13 forms of partner physical abuse (e.g., slapping, strangling, kicking, hitting, beating up, using a weapon against partner).^{9,10} Study members were categorized as persistent abusers if they reported abuse perpetration at 2 or more assessments between ages 26 and 38.</p>	26, 32, and 38
Had child removed by Social Services	<p>Self-reported during the Life History Calendar¹¹ assessment that a child of theirs had been separated from them for >1 month between ages 26 and 38 due to being removed for care or protection by Social Services.</p>	26, 32, and 38
<i>Need for Support/Quality of Life</i>		
Duration of unemployment	<p>Self-reported total months of unemployment (i.e., wanting to work but had no job) between ages 26 and 38, ascertained via the Life History Calendar.</p>	26, 32, and 38
Duration of welfare benefits receipt	<p>Linked NZ government records (via the NZ Ministry of Social Development) were used to determine the number of months study members received some type of welfare benefit between ages 26 and 38.</p>	26, 32, and 38
Victimization from intimate partner physical abuse	<p>Self-reported experiences of any of 13 forms of partner physical abuse in past year (e.g., being slapped, strangled, kicked, hit, beaten up, threatened with a weapon).^{9,10} Study members were categorized as persistent abuse victims if they reported experiencing abuse</p>	26, 32, and 38

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	at 2 or more assessments between ages 26 and 38.	
Loneliness	Study member responses at age 38 (“hardly ever, some of the time, often”) to 4 items on the UCLA Loneliness scale ¹² and 1 item from the CES-D Scale ¹³ were summed to create a score that ranged from 0 (low) to 10 (high) in this sample ($\alpha = .86$). Items included “How often do you feel... you lack companionship/ isolated from others/left out/alone? How often have you felt lonely in the past week?”	38
Life satisfaction	Responses at age 38 (Likert scale, where 1 indicated “strongly disagree” and 5 indicated “strongly agree”) to the 5-item Satisfaction with Life Scale ¹⁴ were recoded (range: 1 to 4) and summed to create a score ranging from 0 (lowest satisfaction) to 20 (high satisfaction) in this sample ($\alpha = .88$). Items included, e.g., “In most ways my life is close to ideal,” “I am satisfied with my life,” “So far I have gotten the important things I want in life.”	38



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