

# Early Educational Investment as an Economic Recovery Strategy

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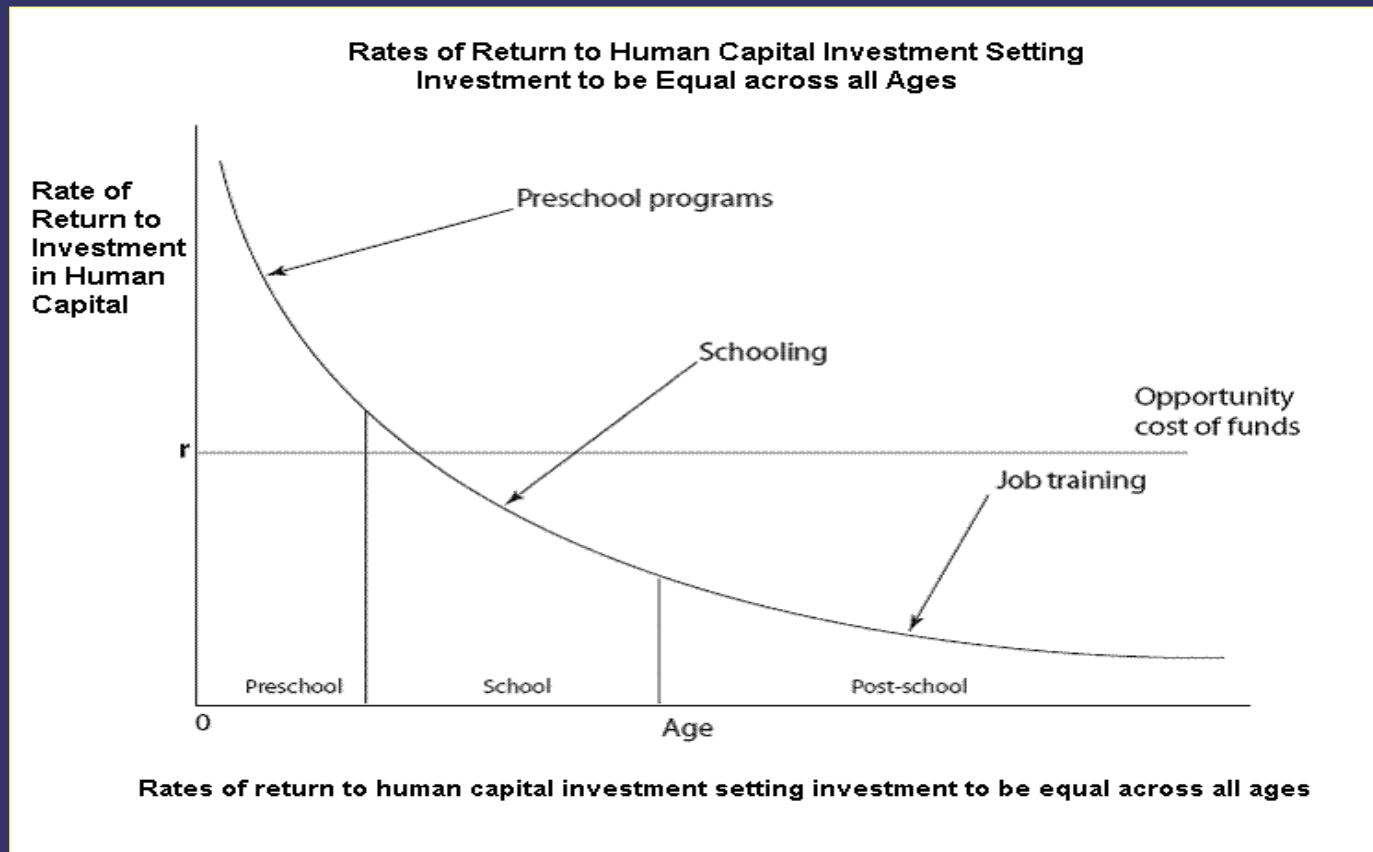
***"An ounce of prevention,  
is worth a pound of cure"***

Henry De Bracton, 1240

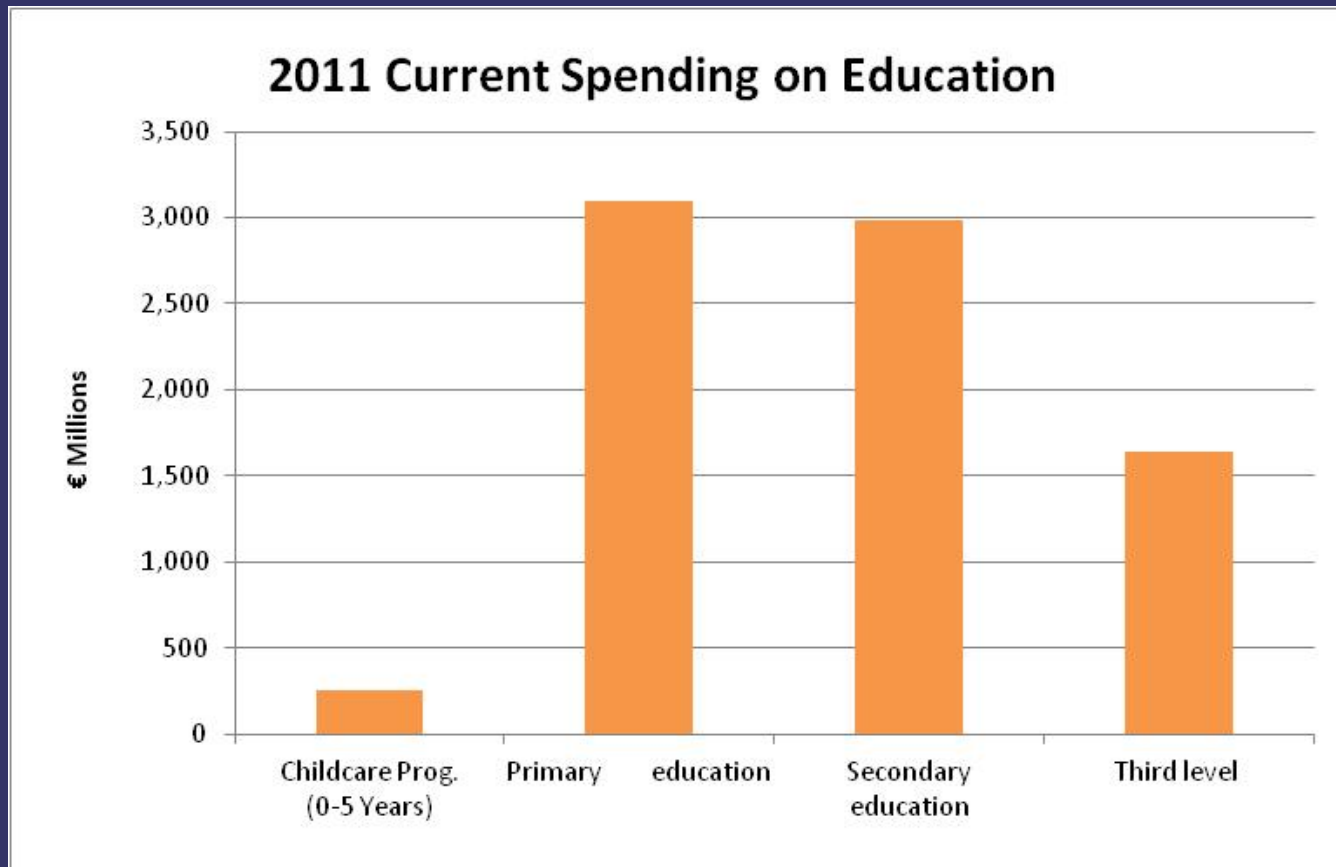


# The Heckman Curve

Evidence shows higher returns from investment in education early in life



# How does educational spending in Ireland compare?

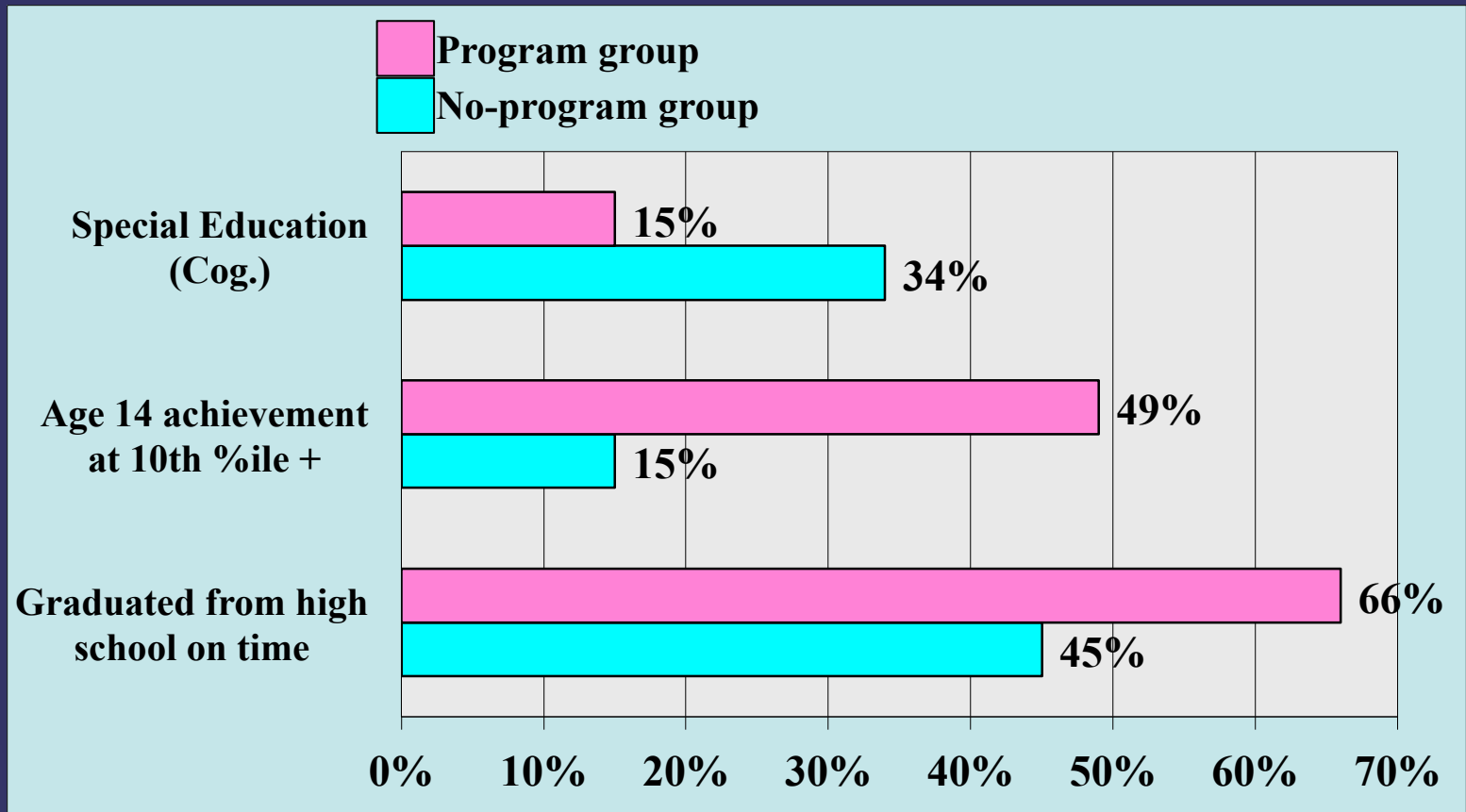


# High returns to early investment

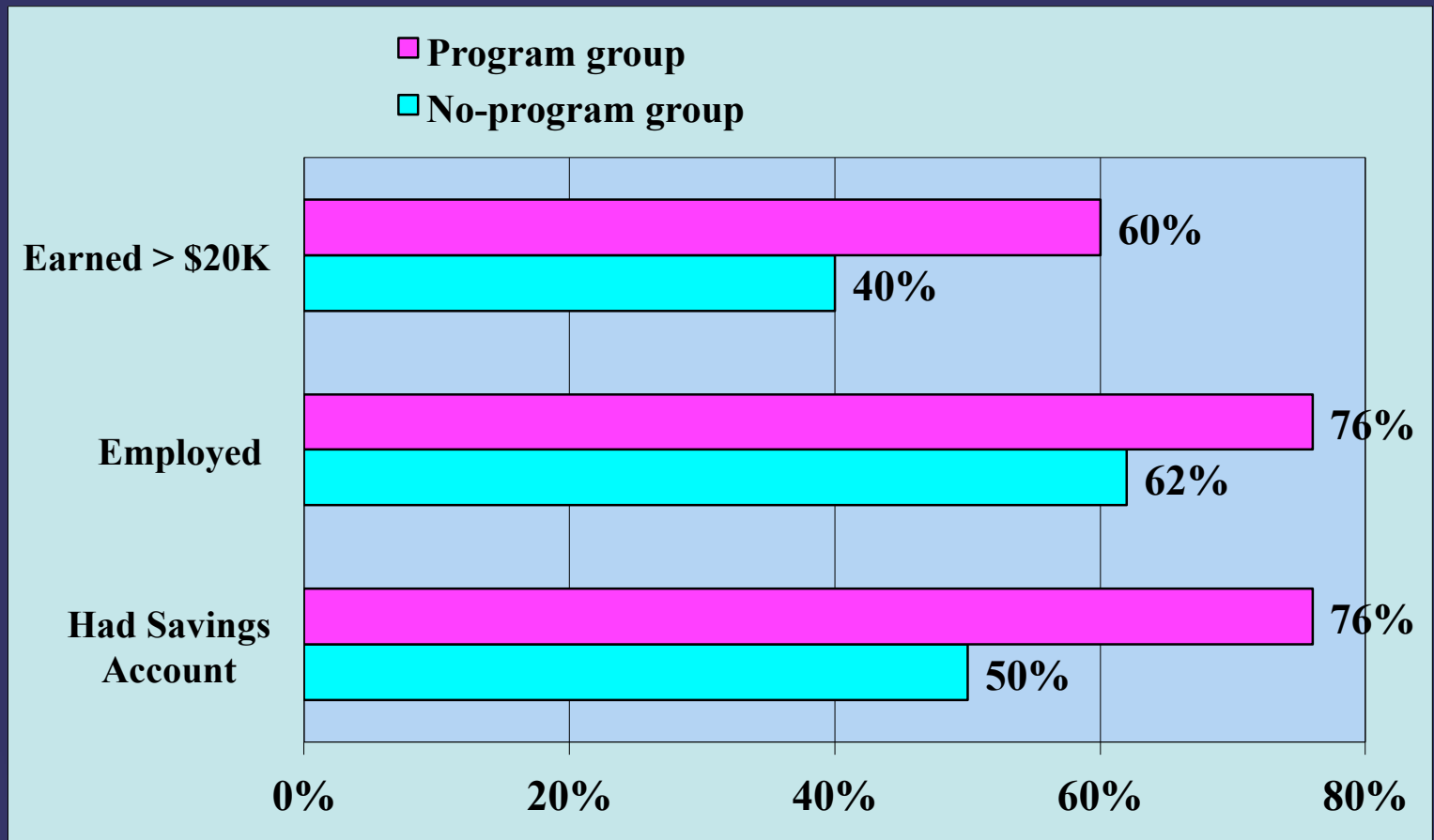
- High quality early childhood interventions can generate a return to society ranging from \$1.80 to \$17.07 for each dollar spent
- **Perry Pre-school Program**
  - 123 disadvantaged, African-American children, ages 3-4, from Ypsilanti, Michigan
  - Children were provided with an enriched pre-school environment during ages 3-4
  - Followed, along with a control group, for over 35 years



# Perry Preschool Program: EDUCATIONAL EFFECTS

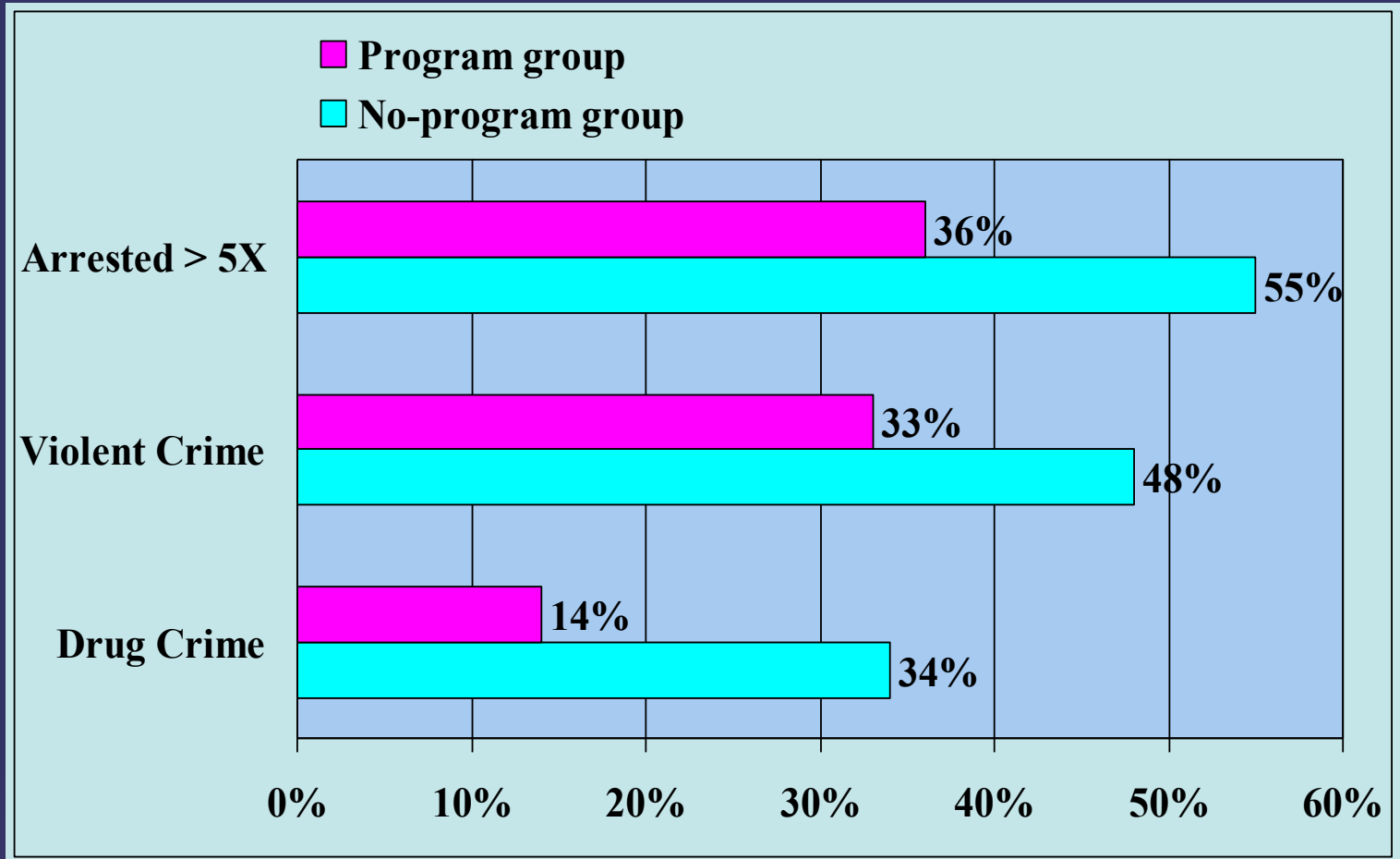


# Perry Preschool Program: ECONOMIC EFFECTS AT AGE 40



Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40* (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Educational Research Foundation.

# Perry Preschool: CRIME EFFECTS AT 40



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# Private & Social Returns to Early Investment

- **Private Success – 20% of gains**
  - Better Employment Attributes
  - Higher Income
  - Better Health
- **Public Externalities – 80% of gains**
  - Lower Crime
  - Less Social Intervention
  - Greater Civil Contributions
- **Business**
  - More Skilled Workforce
  - Higher Productivity



# Why is Early Intervention Effective?

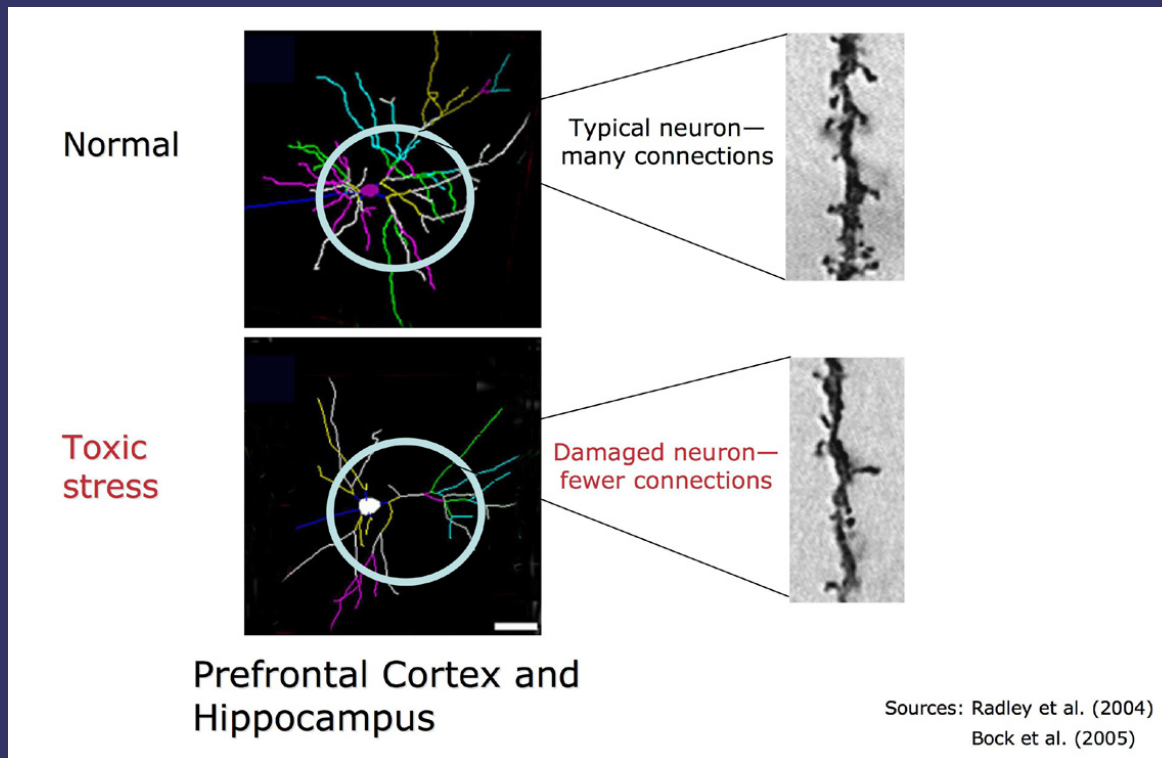
- Developmental neuroscience shows that brain development is more malleable early in life
  - Capacity for change decreases with age
  - Simple neural circuits provide the scaffolding for more advanced circuits over time
  - Sensitive periods & windows of opportunity
  - Timing & sequencing of development is genetic, but early experiences can determine strength of circuits

(Hannon, 2003; Ruben, 1997; Weaver et al. 2004)



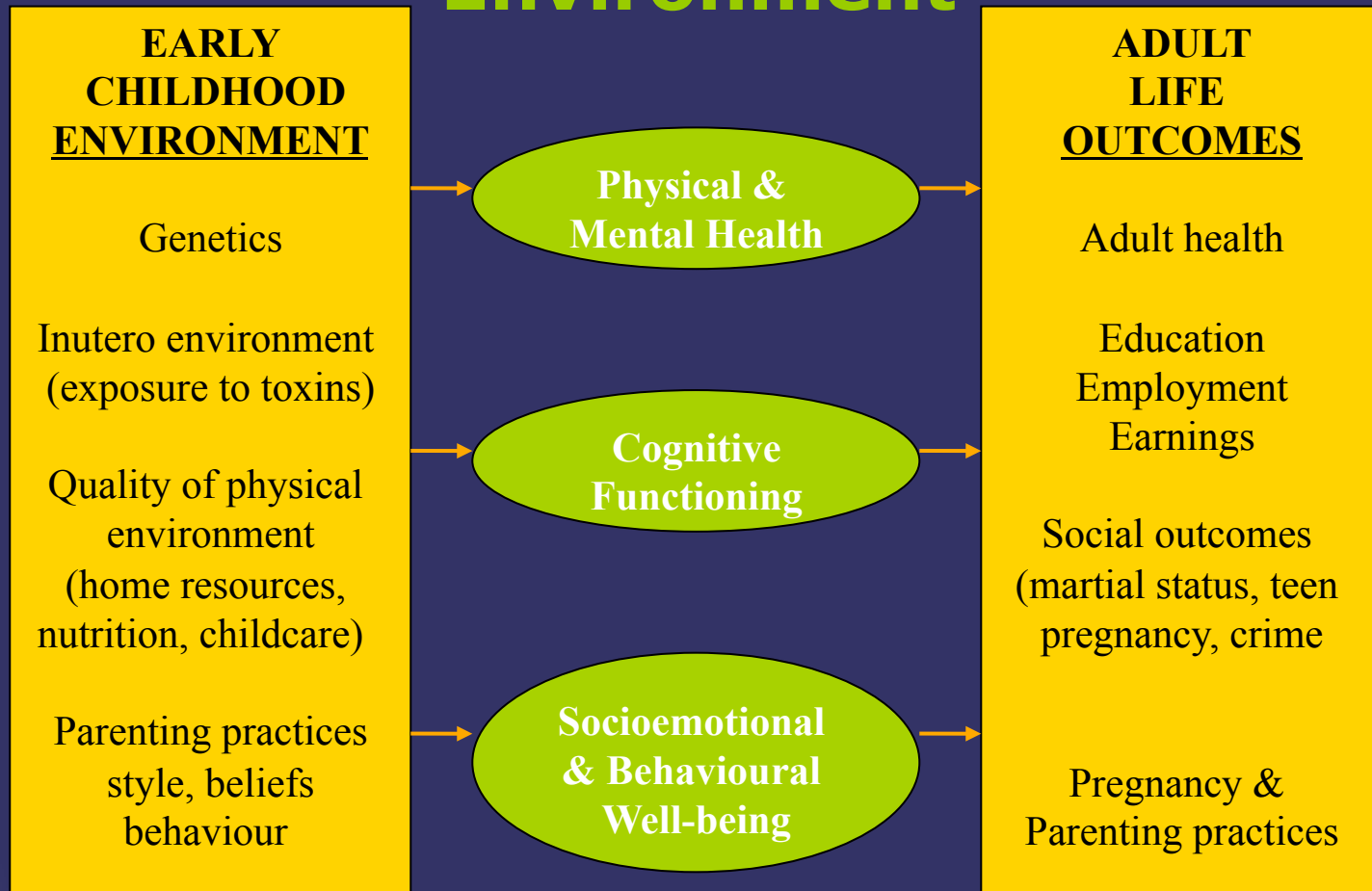
# Brain Development & Early Environment

- Toxic stress is a strong, prolonged activation of the body's stress response systems



Exposure to high levels of stress early in life can affect the architecture of the developing brain

# The Importance of the Early Environment



⇒ It is more efficient, both biologically and economically, to get things right the first time than to try to fix them later

# Early Childhood Interventions

- **Definition:**
  - Programmes which provides enriched environment to young children typically from a disadvantaged communities
- **Common Aim of ECIs:**
  - To provide a protective influence to compensate for the various risk factors that potentially compromise healthy child development
- **No single 'catch-all' ECI - Differ in terms of:**
  - Outcomes targeted
  - Type
  - Focus
  - Timing
  - Intensity



# Early Intervention Programmes in Ireland

- Argument for early intervention in more generous welfare systems is not rooted in strong empirical evidence
- Move from crisis intervention to early intervention/prevention in children's services
- Department of Children and Youth & Atlantic Philanthropies '*Prevention and Early Intervention Programme*' (PEIP)
- *Preparing for Life (PFL)*: community-led initiative operated by Northside Partnership in Dublin & evaluated by the UCD Geary Institute

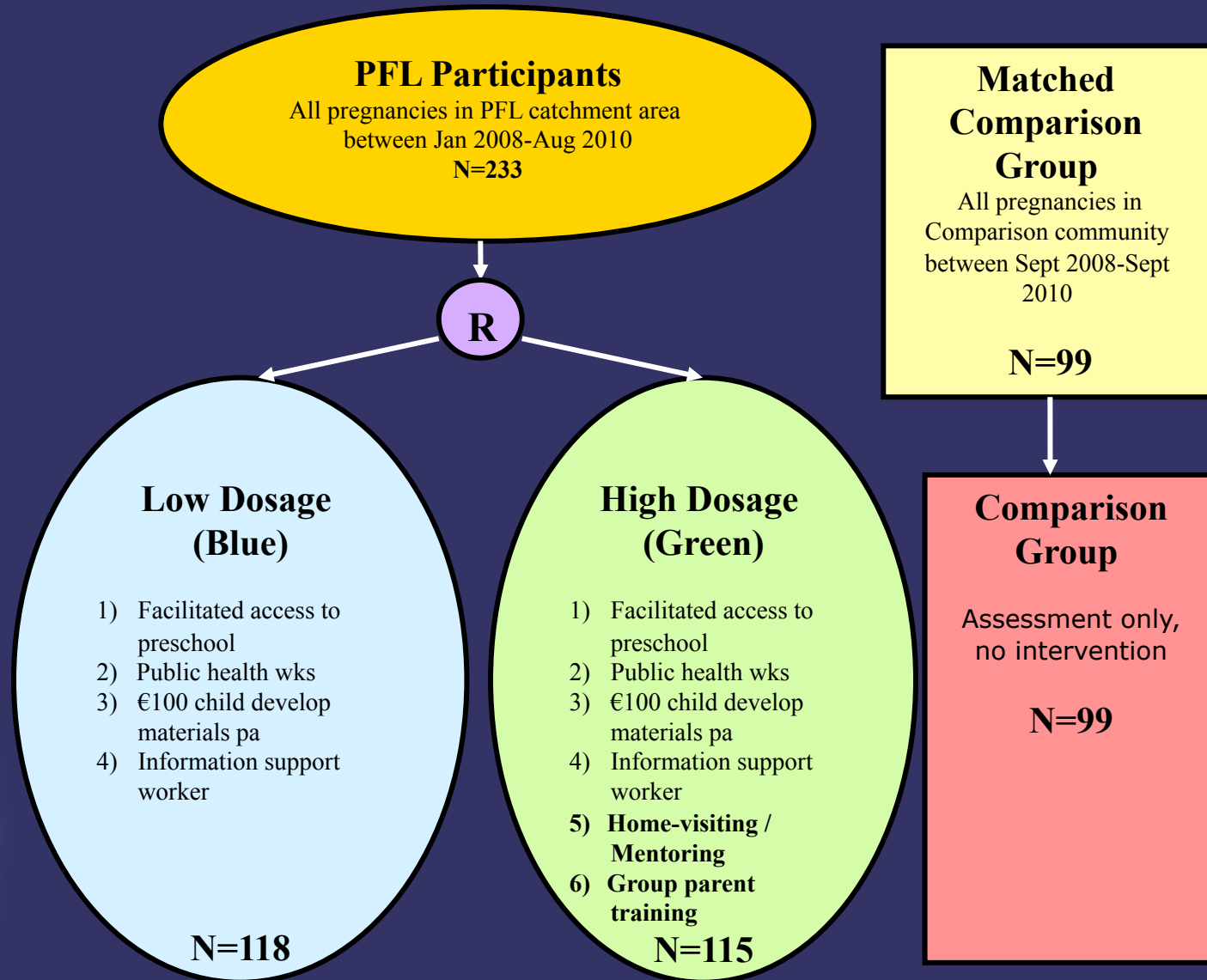


# Preparing For Life

- Surveys consistently find that ~50% are not ready for school in *PFL* communities (Murphy et al. 2004; Doyle et al. 2008, 2009, 2010)
- **Aim:** Improve levels of school readiness by assisting parents in developing skills to prepare their children for school
- **Bottom-up approach:** community initiative involving 28 community groups, service providers, & local representatives to develop tailored activities to improve school readiness
- **Intervention length:** Pre-birth - 5 years
- **Evaluation:** Randomised Control Trial design



# PFL Design: Longitudinal experimental study





# PFL Evaluation

## Impact Evaluation

- **Data collection:** Pre-intervention (baseline), 3 mnts (WASI), 6mths, 12mths, 18mths, 24mths, 3yrs, 4yrs
- **Informant:** Mother is the primary informant, but also fathers, child, other independent data sources (birth records)

## Implementation Evaluation

- **Aim:** Determine the effectiveness of the programme as described by *PFL* participants, programme staff and local community
- **Data collection:**
  1. Implementation data on the Database Management System
  2. Focus groups with participants
  3. Semi-structured interviews with mentors/IO



# Recruitment & Randomisation

- **Eligibility Criteria:**

- Cohort of pregnant women residing in *PFL* catchment area between Jan 2008-August 2010 (32 months)
- Includes primiparous and non-primiparous women

- **Recruitment:**

- Maternity hospital at first booking visit (b/w 12-26 weeks) & within the local community

- Population-based recruitment rate, *based on all live births during the recruitment phase*, was **52%**

- **Randomisation**

- Unconditional probability randomisation strategy
- 115 allocated to **High** treatment group
- 118 allocated to **Low** treatment group



# Baseline Characteristics of the *PFL* sample

Maternal Characteristics	%
Mother Age	25.4
Teenage Mothers	18%
Married	16%
In Relationship	81%
Residing in Social Housing	55%
Medical Card	63%

Maternal Characteristics	%
Junior Cert. Qualification or Lower	37%
Primary Degree	3%
In paid employment	38%
Unemployed	42%
WHO-5 Low Mental Well-being Score	40%
Smoking During Pregnancy	49%

# Update

- Report on first wave of outcome data at 6 months will be publically launched very soon!



Programme website: [www.preparingforlife.com](http://www.preparingforlife.com)

Evaluation website: <http://geary.ucd.ie/preparingforlife/>

# To Finish

- Differences in early health, cognitive & non-cognitive skills are a major and costly source of inequality
- Early childhood interventions can promote schooling, reduce crime, promote worker productivity, social behaviours
- The economic returns to early investment are high
  - Rate of return is higher than standard returns on stock market equity
- There is a strong case for public investment in early education as a strategy for economy recovery

