CLYDE HERTZMAN LECTURE NOTES FOR FEB 2, 3 2004 SEATTLE PRESENTATIONS

MAPPING EARLY CHILDHOOD DEVELOPMENT: THE BC EXPERIENCE
Early Learning Website: [http://www.earlylearning.ubc.ca/]
These notes are provided in outline form with some of the key materials taken from his slides which are also posted on this website. There is also a link to another lecture of Clyde's done in 1998 which reviews some basic material on population health.

Feb 2, 2004 PUBLIC HEALTH: SEATTLE/KING COUNTY in Tukwila Community Center

- school readiness assessment and action at the community level
- Neurons to Neighborhood: or zygote to Zeitgeist
+ 1958 British Cohort study with 33 year follow-up CONTRIBUTIONS TO SELF-RATED HEALTH AGE 33

Birth

Socio-Economic Environment
OR=1.87

Civil Society
OR=2.05

Social Network
OR=n.s.

“latent ” factors:
OR=5.03

“pathway/cumulative factors: OR=6.15

Death

“Intersecting factors: OR=3.83

+ Latent factors (birth to age 7):
  - read to consistently
  - how easily they adjusted to school
  - What fraction of adult height was reached by age 7
+ 3 broad domains of development
  + language & cognitive
    + Mother's speech effects on infant vocabulary
Effects of Mothers’ Speech on Infant Vocabulary

- study planted microphones in homes and monitored
- receptive language goes up as straight dose
- social and emotional
- physical
- published in 2001 in SSM with regression coefficients Hertzman lead author
+ National Longitudinal Study of Children & Youth (NLSCY)
+ have thick info about development, by now includes 26000 kids
- used to think would be two groups at risk at age 5, and the middle class
+ but find that those with problems at age 5 come with cumulation of small things
- big difference generated by cumulative impact of small differences, day to day
+ Determinants of healthy child development in Canada
+ Family
- income, education, parenting style
+ income gradient
- obesity goes up with food insecurity, income a measure of control

Source: Hutterlocher et al., 1991
+ education of parent spending time with child (also being a "service provider"
  - verbal fluency is important
  - more educated, the more you can enlist service providers
+ parenting style: 2/3 of parents are engaged, consistent, authoritative type (set rules but enforce flexibly)
  - 1/3 are inconsistent, disengaged, authoritarian (these kids don't do as well)
  - parental depression is important
+ Neighbourhood
  - safety/cohesion
  + by age 4-5 see neighborhood & context seeping in, with kids growing up in safe neighborhoods have better rates, and family environment may not buffer out these effects
  + Cohesion: Chicago neighborhood communities that mobilize resources for caring for kids
    + amount of residential transency
      - mobility is inverse of cohesion
+ socio-demographic ghettoization
  - neighborhoods pulling further & further apart, mixed neighborhoods better than poor ghettos
  - e.g. Granville Island in YVR
+ Society
  - access to “quality” care arrangements
  - 70% of kids in child care, and quality matters more as go down ses scale
+ 8 barriers of access to quality care emerge
  1. quality care does not exist
  2. exists but too expensive
  3. transportation
  4. time
  5. language
  6. information
  7. social distance (between service providers and those who need it)
  8. parental consciousness
+ by kindergarten age, get gradient with income levels
- Family with low vocabulary scores in age 4-5 years have 5-fold gradient of risk with no threshold
- Most of kids are broadly spread over society
- Once gradient establishes itself, it tracks forward over decades, not just a few years
- Report: Raising Young Children HRDC 2003
- Gradients are very important for policy
+ International Comparisons
- level 3 is functional numeracy, while level 1 knows that ten is larger than five but not much more
+ children should all be at level 3, and countries such as Sweden do that for parents of all grade levels
- 90% of children in Sweden are at least level 3, while in Canada, only 60%, and in US only 50%
- always see fan, closing in with higher education patterns, and quite level in Nordic countries
- compulsory maternal leave in Sweden
+ Canadian population is very diverse:
- 19% of Canadian population born outside of Canada, cf 12% of US
- 85% of children in Toronto have English as their 2nd language
+ Community Asset Mapping Project
+ Three Components:
  + Mapping Socio-Economic Characteristics
    - Income, education, single-parent families, etc.
  + Mapping Child Development
    + Early Development Indicator (EDI)
      - think of it as IMR
      - administer 4.5 to 6 years, and in kindergarten can abstract over language issues, done in February, EDI month
+ 5 orthogonal scales that devolve into 3 domains of development (1 & 5 are language, 2&3 are social/emotional, and 4 is physical
1. Language
2. Social
3. Emotional
4. Physical health, well being
5. Communicative skills in English
- 120 check list items for kindergarten teacher, validated Toronto to Baffin Island, take 15 minutes per child, 5 scales
+ integrate to get kids vulnerable on EDI
- prevalence of kids vulnerable going up, so if have high rate, get more problem kids in school
+ Mapping Community Assets
  - Libraries/literacy programs, childcare, prenatal or
  - parenting programs, family resource programs, etc.
+ School districts
  - 1/3 of kids being vulnerable in <20% of school districts
  - Prince George is most vulnerable, not inner cities,
  + Kootenays to Golden pretty good (off diagonal thing)
  - where lower population areas, have more intimate and harmonious areas (it takes a village to raise a child), and some have strong civic communities
  - Vernon/Armstrong/North Okanagan kids Y teachers know each others
+ Misc
  - if focus on poorest, will miss 80% of vulnerable kids
+ Try to pull sectors together, start using EDI to get schools to look at developmental trajectories
  - once go to worse SES, significance of schools matters
  - have schools use unused classrooms for other support programs
+ Cultural appropriateness
  - BC has 3% of population aboriginal, but 10% of all kids are
  - aboriginal communities vary a great deal from one to another & suicide rates in kids are highest in bands where have least control over their governance (land issues, others)
  - Richard Tremblay stuff in Montreal, where if kid is aggressive from 24-30 months, will be violent afterwards
  - Question about depression in mothers affecting attachment

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+ Material as above in addition to:
  + Synaptic Density
- Visual aspects of having faces up close develops early, leads to close attachment
- auditory later
- prefrontal has social aspects  Edith Chen, Polluck
- Book: Meaningful Differences

+ Social expenditures on family
+ % GDP  RANK (from OECD Social Expenditure Database (1998))
- Canada 0.51  6
- Australia  1.36  5
- USA 0.22  7
- Norway 1.91  3
- Sweden 2.23  1
- Finland 1.90  4
- France 2.13  2

+ Nordic Countries efforts
+ Sweden has high coverage for pre-natal care and LBW kept low
  - 1 year compulsory family leave "legislated attachment and bonding"
+ universal baby bonus payments
  + % below low income cut-offs
    - Sweden 5%, Canada 50%, US 65%
- Nordic countries give master's degree in "Play"
- have universal quality child care
+ have 26 weeks of long-long flexibility leave
- Jody Heyman notes 70% of adults in US experience a home/life crisis a week
- if have 6-8% unemployment rate, could share out that and have mothers at home or when out of hospital
- Sweden has municipal policies to manipulate housing policies
Canada Early Childhood Development Agenda EDI

+ Why do population-based work:

  - Policy Makers give a damn about the children in their jurisdiction
  + US importing intellectual labor
    - Heckman at U of Chicago Nobel Prize winner, talk about returns on investment