SOCIAL DETERMINANTS, INEQUALITIES AND SUBSTANCE ABUSE

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If you admit that life is unfair, and that there’s only so much you can do about that at the starting line, then you can try to ameliorate the consequences of that unfairness.

That decency is what’s under attack by claims that it’s immoral to deprive society’s winners of any portion of their winnings. It isn’t.

My vision of economic morality is more or less Rawlsian:

“We should try to create the society each of us would want if we didn’t know in advance who we’d be.”
Even as simple a matter as the type of rock lies under ground has much to do with human life.

Bedrock determines the chemistry of soils which determine the kinds of plants and ways that plants can grow.

Bedrock formations also may contain minable minerals and the economic consequences of this are very complex.

Since the early 12th Century in English law, kings owned minable minerals – not the persons owning surface land rights.
Late Pennsylvanian (300 mya)
What about the problem of substance abuse as a dimension of inequality?

• Appalachia is a region of complex geology, topology and geography with great consequences for human life.

• It was ideal for individualistic pioneers; it is very compromised for even small urban living.

• We can characterize Appalachia as a region of wide-spread poverty and severe substance abuse.

• In the past, alcohol was described as rampant in the region.

• Regional poverty was highlighted by “The Other America” and by the Johnson administration’s “War on Poverty.”
Basic facts…..

• Has anything changed?

• The facts about Appalachian substance abuse are now well known even nationally.

• Here are some sample stats.
The substance abuse conundrum

- National and state data have consistently shown central Appalachia as having distinct and serious substance abuse problems.
- Opioid use coupled with benzodiazepine use are the major concerns.
  - NSDUH 2007-2008 Opiate use –
    - KY 6.58% of the age 12+ population
    - TN 6.52%
    - WVA 4.98%
    - VA 4.85%
    - Ohio 5.52%
Kentucky Treatment Outcome Data: Clients during July 2008-June 2009 and in follow-up by June 2010 (n=1,188)

**FIGURE 2. PERCENT OF CLIENTS REPORTING USE OF SUBSTANCES IN THE 12 MONTHS BEFORE INTAKE (n=1188)**

- **TOBACCO**: 88.4%
- **ALCOHOL**: 71.4%
- **ALCOHOL TO INTOXICATION**: 60.4%
- **MARIJUANA**: 53.1%
- **PRESCRIPTION OPIATES**: 51.0%
- **TRANQUILIZERS**: 39.0%
- **COCAINE**: 28.4%
- **NON-PREScribed METHADONE**: 18.9%
- **AMPHETAMINE**: 13.8%
- **METHAMPHETAMINE**: 10.6%
- **HEROIN**: 7.6%
- **HALLUCINOGENS**: 5.8%
- **INHALANTS**: 1.9%

**FIGURE 3. PERCENT OF CLIENTS REPORTING USE OF SUBSTANCES IN THE 30 DAYS BEFORE INTAKE (n=1188)**

- **TOBACCO**: 84.3%
- **ALCOHOL**: 41.1%
- **ALCOHOL TO INTOXICATION**: 33.3%
- **MARIJUANA**: 29.9%
- **PRESCRIPTION OPIATES**: 32.0%
- **TRANQUILIZERS**: 19.8%
- **COCAINE**: 13.4%
- **NON-PREScribed METHADONE**: 8.8%
- **AMPHETAMINE**: 5.5%
- **METHAMPHETAMINE**: 3.8%
- **HEROIN**: 3.6%
- **HALLUCINOGENS**: 2.1%
- **INHALANTS**: 1.2%
Example: Intake data from a residential program serving pregnant women in eastern Kentucky.

<table>
<thead>
<tr>
<th>Substance used (n=90)</th>
<th>Past 30 days</th>
<th>Past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription opiates (morphine, Dilaudid, Demerol®, Percocet®, Darvon®, codeine,</td>
<td>41%</td>
<td>87%</td>
</tr>
<tr>
<td>Tylenol, Oxycontin®, hydrocodone)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines, barbiturates, other tranquilizers</td>
<td>24%</td>
<td>60%</td>
</tr>
<tr>
<td>Alcohol, any use</td>
<td>8%</td>
<td>50%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>14%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Illicit methadone and suboxone</strong></td>
<td>13%</td>
<td>39%</td>
</tr>
<tr>
<td>5 or more drinks in one sitting</td>
<td>2%</td>
<td>33%</td>
</tr>
<tr>
<td>Alcohol/drugs same day</td>
<td>4%</td>
<td>31%</td>
</tr>
<tr>
<td>Cocaine, crack</td>
<td>2%</td>
<td>23%</td>
</tr>
<tr>
<td>Methamphetamines and other amphetamines</td>
<td>2%</td>
<td>19%</td>
</tr>
</tbody>
</table>
Percent of FY 2009 Pathways clients reporting past 12-month substance use compared to the rest of the state

- **Alcohol**
  - Pathways (n = 771): 68.7%
  - Rest of State (n = 5,372): 72.8%

- **Alcohol to intoxication***
  - Pathways (n = 771): 54.1%
  - Rest of State (n = 5,372): 60.6%

- **Cocaine***
  - Pathways (n = 771): 17.5%
  - Rest of State (n = 5,372): 27.8%

- **Marijuana**
  - Pathways (n = 771): 44.7%
  - Rest of State (n = 5,372): 50.3%

- **Heroin**
  - Pathways (n = 771): 7.1%
  - Rest of State (n = 5,372): 6.3%

- **Opiates***
  - Pathways (n = 771): 59.7%
  - Rest of State (n = 5,372): 47.4%

- **Methadone**
  - Pathways (n = 771): 14.3%
  - Rest of State (n = 5,372): 16.6%

- **Amphetamines**
  - Pathways (n = 771): 9.6%
  - Rest of State (n = 5,372): 13.3%

- **Tranquilizers***
  - Pathways (n = 771): 46.7%
  - Rest of State (n = 5,372): 35.8%

- **Multiple drugs***
  - Pathways (n = 771): 45.0%
  - Rest of State (n = 5,372): 52.3%
Percent of clients reporting past 12-month substance use FY 2011

- **Pathways (n = 821)**
  - Alcohol 71.0%
  - Cocaine*** 12.7%
  - Marijuana** 44.5%
  - Heroin 6.2%
  - Opiates*** 57.9%
  - Methadone* 12.7%
  - Amphetamines*** 10.2%
  - Barbiturates* 3.3%
  - Tranquilizers*** 35.1%
  - More than one substance... 66.1%

- **Rest of State (n = 4,502)**
  - Alcohol 70.3%
  - Cocaine*** 23.1%
  - Marijuana** 50.5%
  - Heroin 6.6%
  - Opiates*** 49.3%
  - Methadone* 15.9%
  - Amphetamines*** 17.1%
  - Barbiturates* 4.8%
  - Tranquilizers*** 43.5%
  - More than one substance... 72.5%
Change in past 12-month prescription opiate use by follow-up

Percent reporting opiate use at intake and follow-up

- **FY2005**
  - Opiates (intake): 18.2%
  - Opiates (follow-up): 26.3%

- **FY2008**
  - Opiates (intake): 45.4%
  - Opiates (follow-up): 56.6%

Percent of change in clients reporting opiate use from intake to follow-up

- **FY2005** (n = 293)
  - -45.0%

- **FY2008** (n = 76)
  - -53.5%***
  - -59.9%***
How does substance abuse stand in relation to overall well-being?

- But with all our traditional emphasis on treatment and change - do we have the emphasis on the wrong syllable?

- We repeatedly call for more funding for treatment, but is that the answer?

- Is the problem best characterized as a discreet disease of human individuals OR –

- When we look at substance abuse are we merely seeing the tip of an iceberg?
The social gradient: another take on the problem
Source materials

Michael Marmot  

Richard Wilkinson & Kate Pickett  

Tony Judt  

Amartya Sen  
Michael Marmot’s Whitehall Studies - The status syndrome

I - Over 18,000 civil servants (all male) in the UK. Study began in 1967. Males were selected due to bias about the prevalence of heart disease.

Whitehall II had men and women in it (n=10,308).

The fundamental finding from the Whitehall studies was that:

- Social rank was linearly related to health (including mental health) and mortality with every step downward in social rank associated with poorer health and earlier mortality.

- Longevity is related to status - Academy Award winners live 4 years longer than nominees.
Wilkinson and Pickett used large data sets with indexes for most of their analyses.

In most cases the indexes were developed by others and merely used by W & P – thus reducing possibilities of distortion of findings.

The index for child well-being included 39 variables, for example.

Their work coincides with Marmot’s and underscores the critical element of inequality as the driving force behind health problems of almost every type.
Health and Social Problems are Worse in More Unequal Countries

Index of:
- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

Health and Social Problems are not Related to Average Income in Rich Countries

Index of:
- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

Health and Social Problems are Worse in More Unequal US States

Source: Gini index and mean number of healthy days was estimated by using data retrieved from the Behavioral Risk Factor Surveillance System, 2007. Available at http://www.cdc.gov/BRFSS.
Levels of Trust are Higher in More Equal US States

The Prevalence of Mental Illness is Higher in More Unequal Rich Countries

Drug Use is More Common in More Unequal Countries

Index of use of: opiates, cocaine, cannabis, ecstasy, amphetamines

Almost ¼ of U.S. households had net worth of zero or negative net worth – up from 18.7% in 2007.

Four Americas and Kentucky

- Puritan New England
- Master/slave Virginia
- Quaker Pennsylvania
- Scots-Irish
Master/slave Virginia

• Virginia settled by latter born aristocracy AND indentured servants and slaves.

• 75% of the people settling Virginia had no property at all.

• Religion = Church of England – hierarchical version.

• Head rights exercised extensively here.

• Power lodged exclusively among males with land holdings – cheap labor seen as a ‘right’.

• Land was surveyed in the west and ‘bought’ by the aristocracy (Lee and Washington families).

• Settlers then had to buy the land from these absentee landlords.

• Even by 1820, 45% of Clay county was owned by people who never set foot in Kentucky.
Scots-Irish

• They owe their origin to being marginalized English from the time of Henry VIII, through Elizabeth I and James I and then Cromwell following the English Civil War.

• They were pushed to border Scotland, then to Northern Ireland and the they left for America – mostly Virginia.

• They hated law and order, trusted no one but family, despised book ‘larnin’, and wanted unmediated religion – Calvinist background.

• Dispossessed for generations, they saw themselves as a law unto themselves.
These two = Kentucky

- Little appreciation for community.

- Default ethic - reliance on individual for everything.

- Belief that government should not interfere in anything.

- Hatred for taxation.

- Greed is good.

- Tradition is the rule.
Culture + status syndrome

- The net effects of our history coupled with the effects of social status on health and well-being may explain much of the current social diseases in America.

- *Still we must explain how these large social constructs affect individual lives.*

- And, we will see it isn’t just ‘culture’ or historical, multigenerational poverty at play.
What mediates all of this?

• Wilkinson, Pickett, and Marmot all show that *poverty is not the major contributing factor* to disability – it is the *inequality of incomes and social status* that drives disorder and dysfunction.

• The mediating factor in the ‘status syndrome’ is *consciousness* of social rank and a person’s position among those ranks.

• Lower position is associated with greater distress as measured psychologically, socially, and neurochemically and physiologically.
• We have innate neuroanatomical structures that detect social rank almost immediately upon contact with others.

• These structures operate outside of conscious controls.

• Lower rank is associated with increased stress-related neurotransmissions and other physiological responses.

• The more enforced or iterated the hierarchy, the more pronounced the effects of lower status.
The net effect of the neuroanatomical and neurochemical actions in response to stress is harmful to mental and physical health in multiple ways.

- Increased anxiety

- Increased risk of substance use to moderate negative affects (including tobacco)

- Increased risk taking (including gambling, lottery-playing) – and all the health consequences of risk taking (TBI)

- Increased risk for obesity (carbohydrate loading)

- Sleep disorder
Comorbidities abound

• With this broader perspective, the incidence of comorbidity makes even greater sense.

• The driving force behind the disorders is not what we thought – it is far larger social constructs than the medical model.

• The core damage of the social gradient is reduced capabilities.

• It is a Gordian Knot of tangled conditions – all of which are intertwined.

• We search for the sword to cut through it.
Implications of inequality for intervention thinking

• Amartya Sen, a Nobel Prize winning economist developed a theory of justice aimed at clarifying the importance of human capabilities.

• Any idea about justice or rights or liberties must go beyond thinking about the generic idea of freedom; it must consider people’s ability to make capable uses of those rights and freedoms.

• The American variant of freedom – freedom to be what you want to be without governmental impediment does not take capabilities into account.

• Our current account of freedom - The ends justify the means – unrestrained capitalism may result in losses, but holds the promise of great gains and that end justifies the means of obtaining gains.
• If liberty is actually derived from capabilities, then factors limiting capabilities become critical targets for interventions.

• Capabilities are limited by health and behavioral health conditions that are the effects of large scale inequalities.

• However, Sen’s idea suggests that simply dumping more services or utilities on people may have little or no effect.
What must be assessed is **people’s ability to benefit** from the utilities and to actually have **increased capabilities** as a result of services or goods.

This goes far beyond simply dishing out services.

It means we must ask carefully about the individual effects of our services and how they can enhance capabilities – a difficult challenge.

This is a different version of ‘outcomes’.
What are the capability-limiting conditions among our people?
Conditions that reduce capabilities


2. **Divorce.** Fragments family income, multiplies family costs for basic necessities.

3. **Violence victimization.** Increases likelihood of behavioral health disorders, reduces employment, reduces social supports.

4. **Mental illness.** Reduces income, employability – increases health care needs, reduced quality of life.

5. **Cognitive difficulties.** Reduces employability, increases risk for multiple disorders and social problems.
6. **Low educational attainment.** Reduces employability, social mobility. Increases risk of legal problems.

7. **Lack of employability skills** – both social skills and technical skills. Reduces income potential in the short and long term.

8. **Having disabled children or adult dependents.** Reduces employability, increases health care needs.

9. **Lack of accessible utilities** (jobs, community wealth, recreational areas).

10. **Poor dentition.** Reduces ability for healthy diet, reduces employability and socialization.

11. **Detrimental and habitual behavioral adaptations** to negative life events and affects (smoking, drinking, drugging).
Conditions that reduce capabilities

12. Persistent stress from loss of control over one’s life. Increased health care needs, increased behavioral health care needs. Reduced employability. Increase risk of legal problems.

13. Lack of validating self-worth. Reduced socialization, reduced employability, increase risk of behavioral health problems.

14. Lack of power to influence how family and personal needs are met – lack of choices.

15. Having young children. Reduced employability, reduced educational opportunities, greater risk for welfare rut.

16. Unemployed person versus unemployed carpenter. Damage to self and reduced future employability after about 2 years.
Conditions that reduce capabilities

17. **Physical disabling conditions:**
   - Diabetes
   - Hypertensive disease
   - Obesity
   - Asthma
   - Chronic nonmalignant pain
   - Brain injury
   - Metabolic syndrome
   - Cardiovascular disease

18. **Lack of transportation** to gain access to:
   - Employment
   - Health care services
   - Health promoting services (exercise, etc)
   - Social connectivity
   - Family connectivity
What must we ask?

• Given this broader understanding, there are several questions about our current policy thinking about substance abuse in Appalachia.

1. Does the disease model get it?
2. Is more treatment the solution?
3. Does the use of evidence based practices address the problem?
4. Can we arrest our way out of the problem?
5. What are the many unintended effects of the current intervention systems?
1. Does the disease model get it?

- For many years, we have tried to educate the public about addiction as a disease.

- We have contrasted this model with the moralistic and legalistic ways of viewing the problem.

- But, given the large scale factors surrounding substance abuse, does the disease model offer a potent intervention perspective?

- The same question might be raised with each of the health conditions associated with the status syndrome.
2. Is more treatment the solution?

- Many of us have argued so.
- But if the source of the conditions is vastly greater than the individual, are individual treatment strategies the right approach?

- Is substance abuse treatment essentially palliative?

- Treatment or recovery supports?
  - Recovery supports at least offer counter identity to help ward off negative stigma and status syndrome effects.
  - Recovery becomes a source of pride and self-validation.
  - Treatment removes symptoms.
3. Do evidence based practices address the problems?

• The administration of evidence based practices is dogmatic; that is, programs are told to apply them.

• Evidence based practices arise from:

  • Clinical trials under strict research conditions with well-trained, well-qualified providers, narrow subject eligibility criteria (usually ruling out co-occurring disorders), and under ‘watched’ conditions.

  • Effectiveness studies are usually conducted by the persons who develop the interventions and use data to sell their copyrighted approaches and materials.
3. Do evidence based practices address the problems?

• Evidence based practices are largely one-size-fits-all with a few notable exceptions (Motivational interviewing and MET).

• They also are usually targeted to a narrowly-defined problem, usually meeting DSM-IV criteria or not. Success can mean reduction in ASI score or dropping 1-2 DSM criteria.

• Or, they are smorgasbords or collages of a host of approaches bundled into a ‘practice’ (MATRIX, Seeking Safety).

• Others are boiled down 12-step ideas (Recovery Dynamics, Seven Challenges).
4. Can we arrest our way out of this?

• The nation has spent at least $3 trillion dollars on interdiction since Nixon initiated the war on drugs.

• 1% of the U.S. adult population is in prison and 2.7 million children have parents behind bars (1 in every 28 versus 1 in 125 25 years ago) (Pew Trust, 2010).

• It reduces men’s income by 40% and by age 48, the average former inmate has earned $179,000 less than if he had never been incarcerated (Pew Trust, 2010).

• Drug Courts have been touted as a great answer, but they routinely fail 70% of the clients who enter them. The consequences for failure vary, but are usually increased criminal justice sanctions and stigma of a record of failure.
5. What are the unintended effects of interventions?

- What are the effects of agency practices if viewed within a context of the status syndrome?
  - Professionals who have power and clients who do not....
  - How much freedom of choice in even defining service needs?
  - How much freedom of choice of providers?
  - Freedom of choice in times and places for services?
  - Opportunity for informed pursuit of alternative care (including medications)?
  - Ability to craft one’s own service plan?
  - The walk-away effects of being ‘disordered’ and consequences of this on feeling low on the status rank to begin with?
And what about trauma?

- Does the addition of a focus on PTSD advance or further disable people’s capabilities?

- Most who are labeled with trauma-related disorders have faced extremely stressful events whose natural response would include the factors that are noted in diagnoses.

- Have we pathologized natural responses to horrific environments? What are the unintended effects of these well-intentioned clinical instincts?
What to do? Think about it at three levels

• Micro level

• Mezzo level

• Macro level

What to do? Think about it at three levels
Micro level

• Carefully re-examine agency practices to see if they are genuinely crafted *with* clients (David Mee-Lee’s client-directed approach). This will usually put us at odds with evidence-based practices.

• Do assessment strategies begin in an open-ended way – that is asking *what is on the person’s mind, not what is on the form*?

• Do we describe *options* to see what the person selects as closest fit between what is available and what is desired.
• Do we make wrap-around available to address **basic needs**? Project ACLADDA at KRCC was great example – low number of clients, high intensity of wrap-around and **social inclusion**.

• Do we maximize individual choice in sessions? How often are sessions a variant of psycho-education – talking **to or even at** clients?
Mezzo level

- When we develop program ideas, do we build in flexibility or try to ‘tighten’ up services and eligibility?

- Do agency structures create dialogue around multiple and interactive co-occurring disorders?

- Can we do more with basic Maslovian needs? Housing? Food?

- Do staff have freedoms in order to extend them to clients?

- Are programs designed around rules? What about revising this dramatically? Residential programs are plagued with these. Clients can be ‘fired’ for their disorders.
EXAMPLE – A DRUG COURT SET OF PARTICIPANT RULES

Any infractions of the following rules will be reviewed by the team and may result in sanctions.

Appropriate clothing is expected at all times.

You must attend all scheduled counseling sessions, educational sessions, and Court sessions, unless you obtain prior approval. You must arrive on time and not leave until the meeting is over.

*If you are late, you may not be allowed to attend the session and may be considered absent.* You are responsible for making arrangements to make up missed sessions before your next Court appearance.

All participants must comply with curfew times set by the team.

You are expected to maintain appropriate behavior at all times during Drug Court sessions and while in the courthouse.

The Judge shall be addressed with respect. Unless prior approval is given, you must remain for the entire proceeding. There will be no talking while seated in the audience.

*You will be permitted to show support and encouragement to fellow participants by applause, but only during appropriate times.*
Macro level

- We may need to think of ourselves as *agents of justice*, not just an agency director or clinician or case manager.

- We might need to change the shape of our policy thinking away from just beating the treatment drum and more toward highlighting the need for people to have power and control of resources.
• Take as many liberties with funding structures as possible rather than toeing the straight line.

• The value placed on compliance is excessive and justifies doing nothing rather than doing something.
• Re-examine the degree to which staff can become part ‘owners’ of agencies rather than feeling themselves like cogs in a hierarchical system.

• Devoted effort is needed to network primary care and behavioral health care. The current divide is a Cartesian anachronism. Even tiny steps may prove valuable.

• Managed care poses a potential threat by behavioral health being overwhelmed by physical health care needs.
• We also need to educate policy makers about these larger effects of *income inequalities and their consequences for whole communities.*

• We need to understand and talk about the social equivalent of an endemic pollution – an effect of run-away freedom for those with top earning power - the license for unlimited greed.

• *It’s not just the poor who are harmed. The inequality equation draws all but the very top parties down.*
• Government pays the price – even the middle class ends up paying a price for the spill-out damages caused by inequality.

• Treatment pulls a few stragglers out of the river; inequality is dumping legions into the river.
Conclusion

• Inequality may be the engine that drives the entire process of limited capabilities and subsequent health problems.

• We may need to think more about enhancing capabilities and less about throwing services at people.

• Our worries about moral hazard need to be revised and placed in a different context.

• The so-called ‘accountable care’ model may be a more useful model for service thinking.