FASD: SO WHAT IS PRACTICAL?
I want to help her, but she won't listen. She wouldn't stop drinking.
81 YEAR OLD DIAGNOSED WITH ARND

- Dear Larry Buyrd

- Thank you for seeing me. All my life I have knew something was wrong. When you explain FAS to me I knew it was good. My life would be better if I knew earlier. My whole family died from FAS my mother her sisters all my brothers. They had bad livers from alcohol. I cry when I think of all the babys who died.

- I am sad an happy that at 81 I no.
I feel sad because I want the blinds and the purple collar.
I’m scared because I feel on comfortable in the kitchen.
I want to go away
And I rip my shorts because I was mad.
Dear reachers members,

Why do you only do reacher on littler kids like my sitter Cheyenne? Because it upsets me because I to have adhd and I when’t to the same school as my sitter Cheyenne. I when’t to the Baxter elementary school for 4Th and 5Th grade and I didn’t get to have even tests! I go to Middle School.

Sincerely,
• SAF bad in Congo needs helps.

• Nurse
PROBLEM 1: EXPOSURE ASSESSMENTS

EXPOSURE ENVIROMICS

• Detection
• Dispersion
• Dosimetry
ARCHITECTURE OF EXPOSURE EPISODES

- Drinking days
- Drinks per day
- Cumulative exposure
- Polysubstance exposure
- Multiplicative effect of combined exposure

Dosimetry and cumulative exposure effects

- Smoking days
- Cigarettes per day
- Cumulative exposure
Time under exposure curve

First In to Last Out
Blood Alcohol Concentration

First Visit; r = .513
Second Visit; r = .434
Third Visit; r = .069
Average; r = .266
PROBLEM 2: GLOBAL DIAGNOSTIC CAPACITY

- Children 200-400 day
- Adults 100
- Corrections 30
- Juvenile Corrections 30-50
- NICU 30
Global Annual Births
\( n = 130,000,000 \) (353,000/day)

<table>
<thead>
<tr>
<th>FASD Rate</th>
<th>FASD</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>1,300,000</td>
<td>3,562</td>
</tr>
<tr>
<td>5%</td>
<td>6,500,000</td>
<td>17,810</td>
</tr>
<tr>
<td>10%</td>
<td>13,000,000</td>
<td>35,620</td>
</tr>
</tbody>
</table>
# Global Demand for FASD Diagnosis

<table>
<thead>
<tr>
<th>Rate</th>
<th>Birth -18</th>
<th>Per day (250)</th>
<th>10 Years (2,500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>23,400,000</td>
<td>93,600</td>
<td>9,360</td>
</tr>
<tr>
<td>5%</td>
<td>117,000,000</td>
<td>468,000</td>
<td>46,800</td>
</tr>
</tbody>
</table>

NO Additional People
New and Existing (birth-18)

1% prevalence = 23,400,000 People

To see them in 10 years:
23,400,000 + 1,300,000 yr = 36,400,000 people

÷ 2,500 days =

14,560 cases/day for 10 years
(1,820 hr)
# FASD: Cost of Diagnosis

## Annual Per Person Health Care Expenditures

<table>
<thead>
<tr>
<th>Cost*</th>
<th>&lt;$500</th>
<th>&lt;$200</th>
<th>&lt;$100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>119</td>
<td>75</td>
<td>51</td>
</tr>
</tbody>
</table>

Optimal Cost of Diagnosis = $1-2

*Inflation adjusted to 2011 US Dollars*
Current Global FASD Diagnostic Capacity 200-400 per day Children

- 1% (increase capacity 36-72 times)
- 5% (180 to 360) times

3,000-4,000 NEW CLINICS NEEDED
## PROBLEM 3: GETTING IT DONE

### FASD Workforce Development

<table>
<thead>
<tr>
<th>Specialty capacity</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatricians</td>
<td>250</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>300-500</td>
</tr>
<tr>
<td>Neurologists</td>
<td>50-100</td>
</tr>
<tr>
<td>Family Practice</td>
<td>500</td>
</tr>
<tr>
<td>Social workers</td>
<td>1,000</td>
</tr>
<tr>
<td>Psychologists</td>
<td>300-500</td>
</tr>
</tbody>
</table>

- Low end = 1 (one hour) lecture per year
- High end = course content and board questions
WHAT’S PRACTICAL?

- ICD and DSM codes/Leads to $$$
  - Screening
  - Diagnosis
- Standardized Exposure Assessments
- ARND or Similar Phenotype
- How can we do 14,000 cases per day?

FAS would be a low frequency diagnosis.