### A History and a Future of FASD Prevention

#### Sterling K. Clarren MD



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## **Disclosure Declarations**

Sterling M. Clarren, MD, (Presenter)	Nothing to disclose
Kerry Mauger, (Planner)	Nothing to disclose
Karen Wolf-Branigin, (Manager)	Nothing to disclose
Leigh Ann Davis, (Manager)	Nothing to disclose



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# "Fetal alcohol syndrome" is more than anything a prevention term!





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## What Do We Know About FASD's

Common:Prevalence (FAS) is 1-3 to maybe 6/1000 in general<br/>populationsPrevalence (FAS) is 4-9/1000 in North American<br/>Native populations.

**Expensive:** Estimated cost 1 to 3 Million dollars per case lifetime

**Devastating:** Family disenfranchisement and dissolution

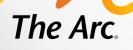
Prevention:Overall the use of alcohol has declined for women in<br/>their child bearing years over the last 2 decadesBUT no decline in the numbers of women who drink in<br/>a "high risk" fashion -5 to 6%



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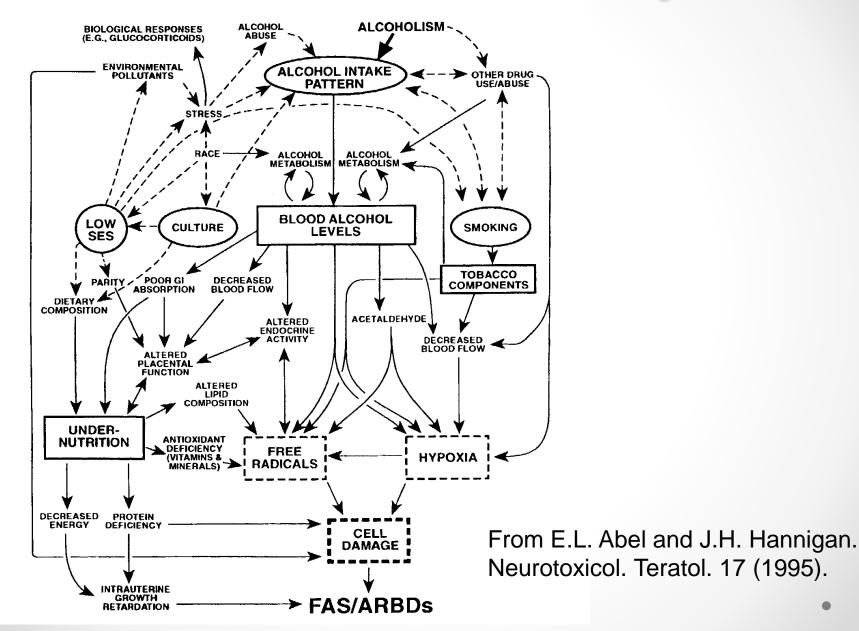
## The Medical Model Approach

- Understand causation and the mechanisms of disease.
- Use a diagnostic process to recognize the specific condition.
- Initiate treatment(s) that resolve the problem.



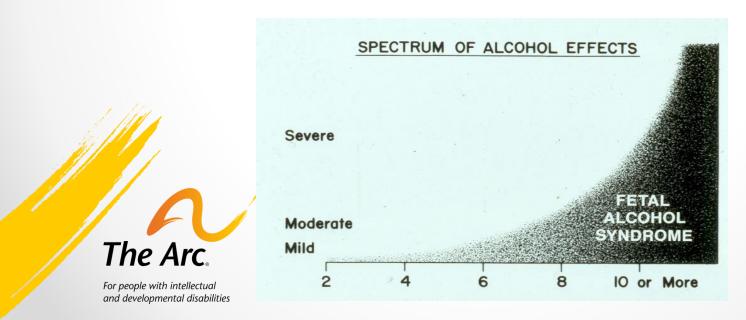
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#### Some Mechanisms of Ethanol Teratogenesis



#### Much Has Been Learned About Alcohol Teratogeneis and Dose Response

- No amount is absolutely safe
- No amount is absolutely dangerous
- There is a relative risk
- BUT there is no evidence that "High Risk" drinking in women of child bearing age has diminished!



#### So the Approach of the Medical Model to FAS Prevention

- Has not yet yielded a simple avenue to reduced alcohol use – rather it has revealed a perverse situation for prevention with very early drinking and binge drinking as the most dangerous situations
- Has not yet yielded a simple approach to mechanism that would offer an antidote or corrective to the teratogenic process
- The field of Epigenetics still holds out promise, but the time line for this approach is completely unknown



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## An Alternative Approach is Social Intervention

- 1. Provision of information that might effect individual change
- 2. Direct interactions with women deemed to be at high risk for having children with FASD
- 3. Embedding FASD Prevention within a social determinants of health context
- 4. Incorporation of concepts for FASD prevention into other types intervention programs for women who might be also at high risk for having children with FASD.



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### Provision of Information that Might Effect Individual Change

- Awareness campaigns directed at all women
- Awareness campaigns directed a specific subgroups by age, ethnic group, social profile, etc
- Awareness campaigns directed to professionals of any and all types
- Awareness campaigns directed towards mates, family or friends for directed action



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#### For Example: In Canada Our Team Discovered

- Over 400 stop FASD campaigns used in Western and Northern Canada since 2000
- Only 4 were evaluated in any way
- None were evaluated for effectiveness
- The Social Marketing of FASD awareness/prevention campaigns is a field that needs to be developed and rigorously studied



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### Alcohol is sold with..... Glamour, romance, sex





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#### It all leads to babies!

#### The Field of FASD's Approach to the Media is Mostly More Modest:

#### THE WALL STREET JOURNAL. HEALTH JOURNAL

HEALTH JOURNAL JANUARY 24, 2012

#### Stricter Thinking on Alcohol During

Pregnancy

YAHOO! LIFESTYLE

#### Prenatal alcohol exposure can lead to abnormalities in offspring

By ANI | ANI – Tue 17 Jan, 2012 10:23 AM IST



No amount of alcohol during pregnancy is safe, study says

NCWSMax health Total wellness for a better life

Health Wire

Alcohol With Pregnancy Unsafe In Any Amount

Wednesday, January 18, 2012 4:14 Medscape Today



#### Moms Warned Drinking During 7th to 12th Weeks of Pregnancy Puts Babies at Highest Risk of Fetal Alcohol Syndrom

By Julie Kent: Published on 01/18/2012 - 11:20am

#### No Safe Level of Alcohol Use in Pregnancy

Megan Brooks

## Public Health Warning as of Now

- "No alcohol = No risk"
- "Early exposure to alcohol may not be reversed by later abstinence"
- "If you want to drink don't get pregnant, if you want to get pregnant don't drink"

• BUT: apparently obstetricians and their patients don't fully agree and various other messages circulate leading to confusion.



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### Robinson study, Australia, 2010

MEDIA = OK to drink in pregnancy

• **Study name**: Low-moderate prenatal alcohol exposure and risk to child behavioural development: a prospective cohort study

Published in: BJOG, International Journal of Obstetrics and Gynaecology

Focus: Effects of alcohol during pregnancy on children's behavior
 Sample size: 2,370 children
 Evaluation period: Children age 2 through 14, evaluated every two or three years
 Definition of "light drinking": 2 to 6 drinks per week



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### Robinson study, Australia, 2010

- Children of light drinkers actually had fewer behavioural and emotional problems than non- drinkers or heavy drinkers!
- Yeah, BUT, results possibly confounded by SES, better health of mothers and lack of other potential teratogens



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### Kelly study, England, 2011

MEDIA: OK to drink in pregnancy

- Study name: Light drinking during pregnancy: still no increased risk for socioemotional difficulties or cognitive deficits at 5 years of age?
   <u>Published in</u>: Journal of Epidemiology and Community Health
- Focus: Effects of alcohol during pregnancy on children's behavioral, emotional, and intellectual development
  Sample size: 11,513 children
  Evaluation period: Children from birth to age 5, evaluated at regular intervals
  Definition of "light drinking": No more than two drinks per week



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### Kelly study, England, 2011

- No cognitive effects found in the light drinking group
- Better controlled for education and SES
- Yeah, BUT, Children only followed to age 5 at this point – too soon for many neurocognitive difficulties to be detected



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### Feldman study, California, 2012

MEDIA = not safe to drink in pregnancy

- Study name: Prenatal Alcohol Exposure Patterns and Alcohol-Related Birth Defects and Growth Deficiencies: A Prospective Study <u>Published in</u>: Alcoholism: Clinical & Experimental Research
- Focus: Physical abnormalities in infants related to alcohol consumption during pregnancy
  Sample size: 992 children
  Evaluation period: Children evaluated shortly after birth
  Definition of "light drinking": Less than six drinks per week



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### Feldman study, California, 2012

- Finds that highest risk for FASD occurs with heavier drinking in last half of first trimester
- Yeah, BUT, this paper claims to support abstinence in pregnancy, but careful analysis of paper does not support this one way or the other



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### Kesmodel and Mortensen Study, Denmark, 2012

- Find that alcohol exposed children have same IQ scores and ADHD scores as controls
- Yeah, BUT, didn't measure other aspects of performance and really too young to detect problems in this general exposure group



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#### Emily Oster <u>Expecting Better: Why the Conventional</u> <u>Pregnancy Wisdom Is Wrong</u>— and What You Really Need <u>to Know. 2013</u>

- It is fine to drink moderately in pregnancy
- "Imagine my surprise, then, after reading Expecting Better and following Oster media blitz this past week. It turns out Oster isn't relying on interviews with medical professionals or public-health experts. She doesn't reach her conclusions after tons of conferences or meetings with scientists. She's combed through and "debunked" the pregnancy research—personally, as an economist. And that's a problem. "

Review on line in Women in the World



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### So What are Women Being Told About Healthy Pregnancy?





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#### **STOP** - There is Danger for <u>your</u> baby – everywhere!









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Terneve with us.







### Does Pregnancy Counseling Really Look Like This?





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### Or more like this: "Do you feel lucky?"



"Well, do ya?"

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### How Can We Initiate and Evaluate Programs for Success?

- Warning campaigns are too separated from the outcome of concern (FASD)
- Can we measure drinking patterns
- Should we be targeting specific groups
- If so, how does warning vary by age, ethnicity, region, drink norms, etc
- How much information should be directed at women per se vs family and professionals?
- Should we not engage women much more in helping us to develop appropriate messaging??
- THIS IS NOT A MATTER FOR OPINION- THIS IS RESEARCH THAT IS UPGENTLY NEEDED!



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## **Urgently Needed**

- A Summit on Prevention with all needed experts and decision makers
- A commitment from government, outside funders and organizations like ours to start immediately on identifying programs, targeting opportunities, and initiating projects with evaluations.
- Rapid assessment and refinements in approach.
- In what kind of political climate could this happen?



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## But the Women at "High Risk" for Having Children with FASD Not Likely Swayed by Information Alone.

- Research finds that the mothers of children with FASD are patients too
- High levels of mental health and substance abuse problems
- Social isolation
- Likely to have FASD
  themselves





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#### Speaking Directly to Women at Risk for Alcoholism and Births of Children with FASD

- Brief interventions have been advanced as a technique by the FAS Prevention program at the CDC.
- The technique has shown proximate reductions in alcohol use by women who are alcohol abusers, but not necessarily alcoholics.



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#### The NAT Working with Women at High Risk

- Has found that the P-CAP model developed in Seattle, Washington has been embraced in Western Canada
- Approximately 40 sites funded through Health Canada for First Nations communities
- Approximately 20 sites in Manitoba, Alberta and British Columbia for general communities
- In addition PCAP has been replicated at "numerous sites" in the United States (funded by SAMHSA and HRSA's Tribal Maternal, Infant, and Early Childhood Home Visiting program)



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## We Have Found

- Data describing the organizational form of any program, the selection criteria, the training for mentors, and any other aspect of program development.
- Limited data at this time that supports the value of these programs in reducing affected births.
- The program reports difficulty in accessing funding for the collection of this kind of information.



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## We Need

- Proof that these programs are as effective as we believe
- We urgently need a business plan presented to governments so that consideration of program expansion and support is at hand
- We need to monitor and support these programs to encourage quality improvement and prevent "clinical drift"



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# Embedding FASD Prevention Within the Social Determinants of Health

- The Sheway/Herway Models in British Columbia
- Provides a complete walk-in environment for life change and family care for women who have been marginalized in society
- The program show great promise, but again has not been studied itself as a business model for replication.



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### Incorporation of FASD Prevention into Any Intervention System

- Homelessness
- Violence against women
- Drunk driving programs
- Criminal justice in broad definition
- Mental Health
- Substance abuse
- Foster care/child advocacy



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### Incorporation of FASD Prevention Into Any Intervention System

- We have found that many programs informally state that they do consider FASD as an issue in their systems.
- We have found no published reports or studies that suggest that this has been evaluated.
- We have found little evidence of active FASD intervention when this diagnosis has been discerned.
- Pilot projects in this area are needed and are being encouraged at this time



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## SAMHSA has taken an important step

#### • SAMHSA is:

the Substance Abuse Mental Health Service Administration of the US Public Health Service

They periodically issue:
 Treatment Improvement Protocols (TIPs)



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#### Incorporating FASD Thinking Into Larger Programs of Care

- SAMHSA is now published the first TIP on FASD!
- TIP 58: Addressing Fetal Alcohol Spectrum Disorders
- The goal is to alert and encourage those in the Mental Health and Substance Abuse programs to:
  - consider all female patients as potentially at risk for having future children with FASD
  - consider that all patients might have FASD as a component of their condition.
- The program is being operationalized in Alberta at this time
- I have received no feed back as yet on the actual use of the TIP in the United States



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## In Summary

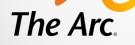
- Prevention of FASD should be seen as a continuous priority by government
- Data is required that will stimulate governmental approaches and funding
- The lack of both leads to inaction
- We hope this meeting will set the stage for improved funding and commitment to this epidemic.



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# Questions??

Thank you.



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## The Arc's FASD Prevention Project

- For more information contact Kerry Mauger: <u>mauger@thearc.org</u>
- Check out our website for more information, resources, vides, etc., at: <u>www.thearc.org/FASD-Prevention-Project</u>
- Download our FASD Toolkit at: <u>www.thearc.org/FASD-</u>
  Prevention-Project/resources/toolkit



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