

## 3 types of Down syndrome 1

**95**%

Trisomy 21

4-5%

**Translocation** Down syndrome

Mosaic Down syndrome



### Prevalence

- Occurs in 1 in every 830 babies born in United States <sup>2</sup>
- Approximately **6,000 births each year** in the United States <sup>2</sup>
- About 250,000 people in the United States live with Down syndrome 2



## Health risks for people with Down syndrome



Congenital heart conditions



**Gastrointestinal** problems, such as obstructions



Celiac disease



Problems with memory, concentration, and judgment





Hearing conditions such as sensorineural hearing loss



as cataracts or far-sightedness



conditions

## Cognitive characteristics for some children with Down syndrome

- Mild to moderate intellectual disability
- Difficulty navigating social situations
- **Short attention span**
- **Impulsivity**
- **Angry outbursts**

Stubbornness, a desire for routine & order

- Self talk (talking out loud to him/herself) as a way of understanding and processing information

### Life expectancy for people with Down syndrome



## Support systems that help people with Down syndrome live fulfilling lives

- **Quality educational** programs that augment natural learning
- High-quality, specialized health care, like Down syndrome clinics
- home environment Positive family members

Stimulating and supportive

and friends



## Risk factors





Chance increases every year, especially after

**Advanced maternal age** is the only known risk factor <sup>3</sup>

the mother is 35 years of age <sup>3</sup>





born to women younger than 35 years of age 3

Because younger women are more likely to have babies than

older women, about 80% of babies with Down syndrome are

## Old recommendation

Prenatal testing for Down syndrome

#### All pregnant women over the age of 35 be offered an amniocentesis 5



#### available to all women... regardless of age 6

**New Recommendation** 

All forms of testing should be



#### 45% of ACOG fellows and junior fellows rated their residency 28% of ACOG fellows felt "well qualified" in general prenatal genetic counseling 7 training regarding prenatal testing

for fetal aneuploidy as "barely

adequate or nonexistent" 7 Important education for clinicians about prenatal Down syndrome testing

Free, one-hour webinar that provides guidance for provides

#### Prenatal Diagnoses of Down Syndrome: Delivering Results in Our New Age of Genetic Testing

#### physicians, nurses, and other healthcare professionals on communicating with expectant parents about a prenatal diagnosis of Down syndrome.

Watch the Webinar at www.mghacademy.org/downsyndrome Partners HealthCare System designates this enduring Accreditation: Partners HealthCare System is accredited by the Accreditation Council for Continuing Medical Education material for a maximum of 1 AMA PRA Category 1 Credit™ to provide continuing medical education for physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



**Down Syndrome** 

**International** 

www.ds-int.org

# Other important Down syndrome organizations

**National Down Syndrome** Society

www.ndss.org

**Massachusetts Department of** 

www.mass.gov/dph/downsyndrome

**Public Health** 

www.ndsccenter.org

Congress

www.mdsc.org

**Massachusetts Down** 

**Syndrome Congress** 

**National Down Syndrome** 

## **MASSACHUSETTS** GENERAL HOSPITAL

## **ACADEMY**

**About Massachusetts General Hospital Academy** 

For physicians and healthcare professionals who value the highest standards of clinical care, the Massachusetts General Hospital (MGH) Academy is dedicated to providing world-renowned postgraduate education that improves clinical practice and leads to better lives for patients and their families.

Advanced teaching methods, an interactive learning format, and focus on solving real-world, practice-related challenges give the MGH Academy international recognition for helping providers effectively diagnose and treat a compendium of diseases and illnesses.

1 National Down Syndrome Society

- **SOURCES / REFERENCES**
- 2 Centers for Disease Control and Prevention 3 Centers for Disease Control and Prevention
- 5 National Institutes of Health, 1978; American Academy of Pediatrics, American Congress of Obstetricians and Gynecologists, 1983

4 Centers for Disease Control and Prevention

- 6 American Congress of Obstetricians and Gynecologists, 2007; American College of Medical Genetics and Genomics, 2008
- 7 Cleary-Goldman, et al. Screening for Down syndrome: Practice patterns and knowledge of obstetricians and gynecologists. Obstet Gyncol 2006;107:11-17