

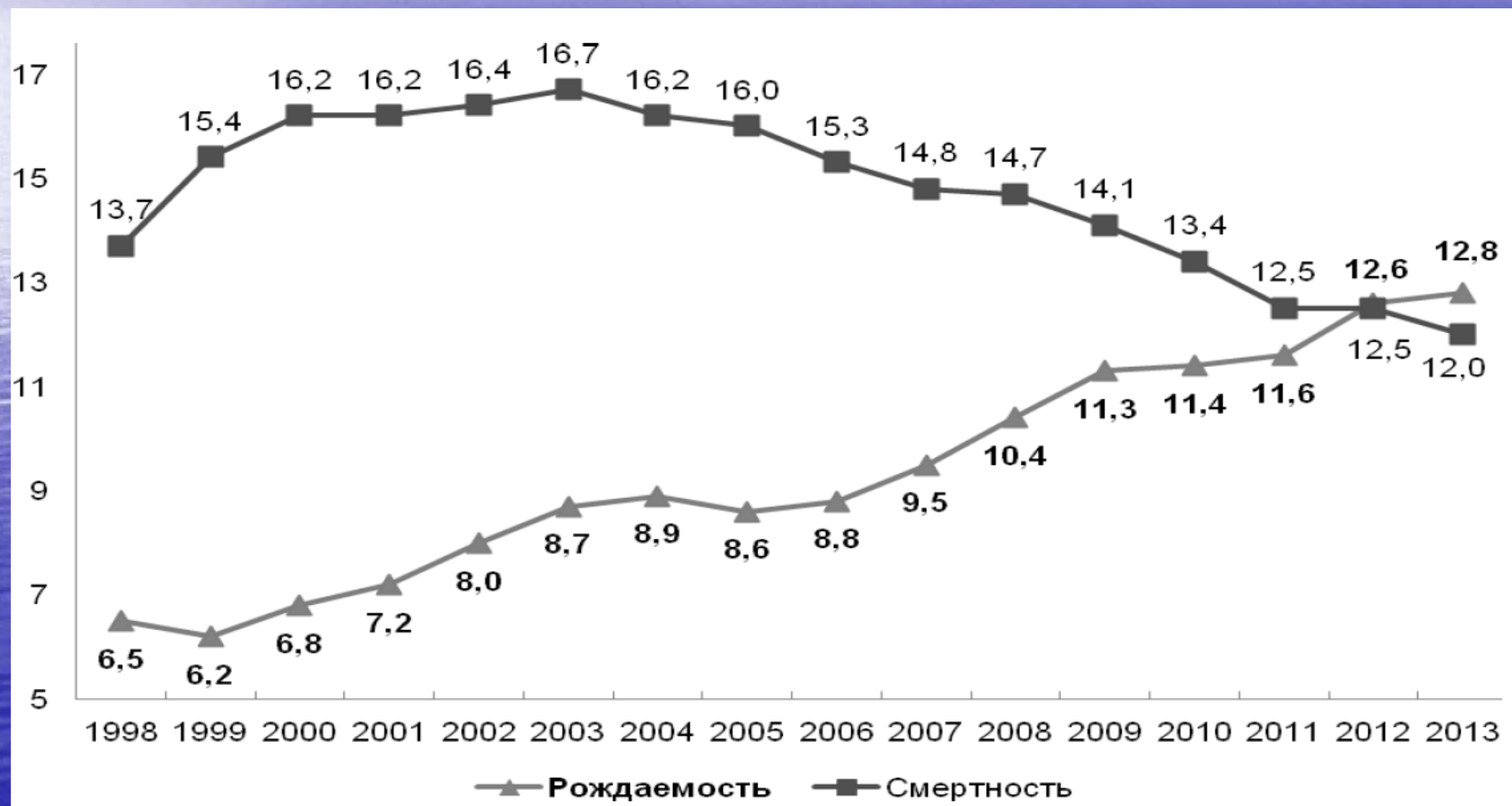


# Myelomeningocele: Prenatal diagnosis, prenatal counselling, and current management in Russia

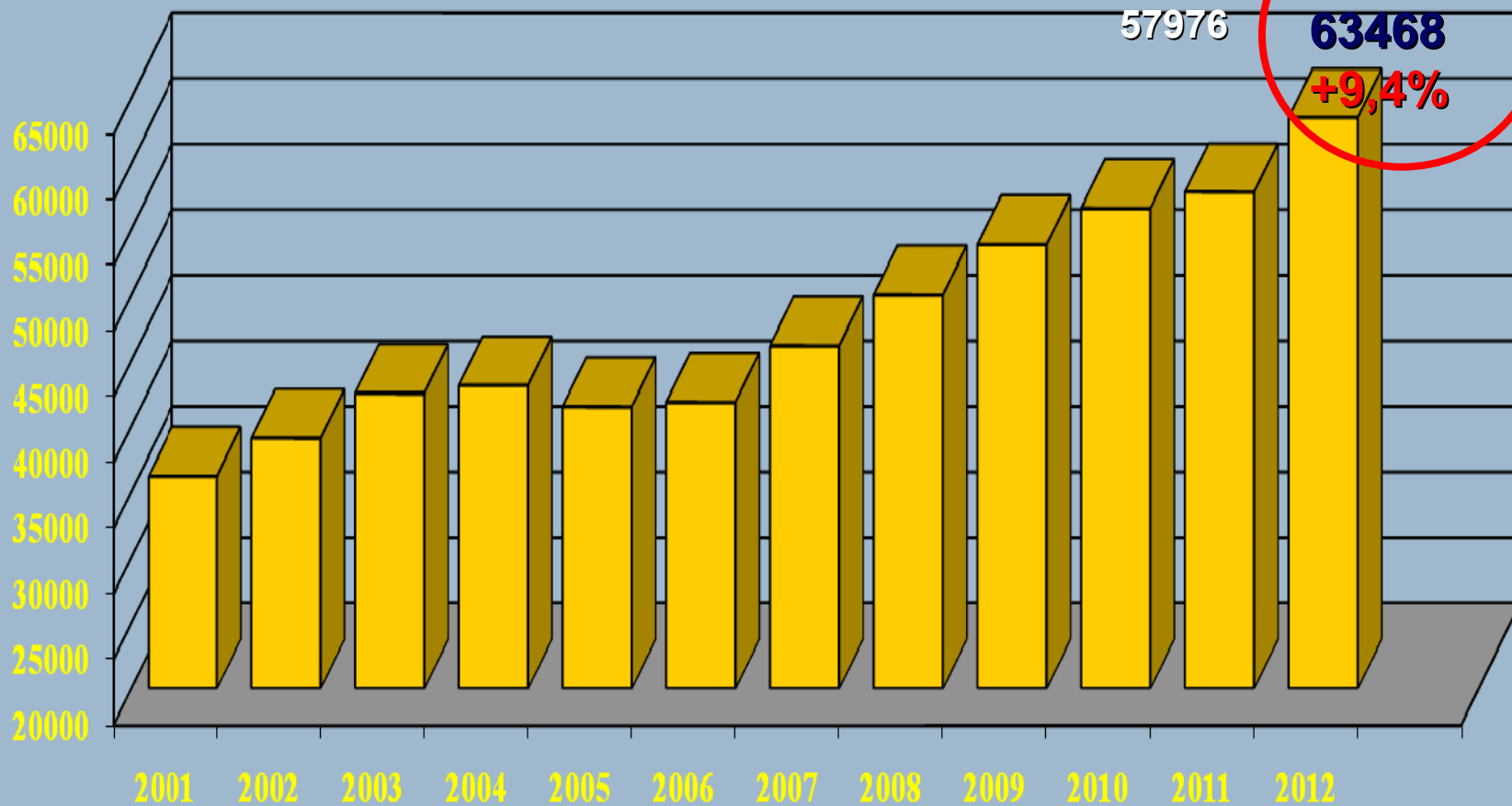


**Anton Mikhailov**  
**St.-Petersburg, Russia**

# Demographic dynamic in St.-Petersburg

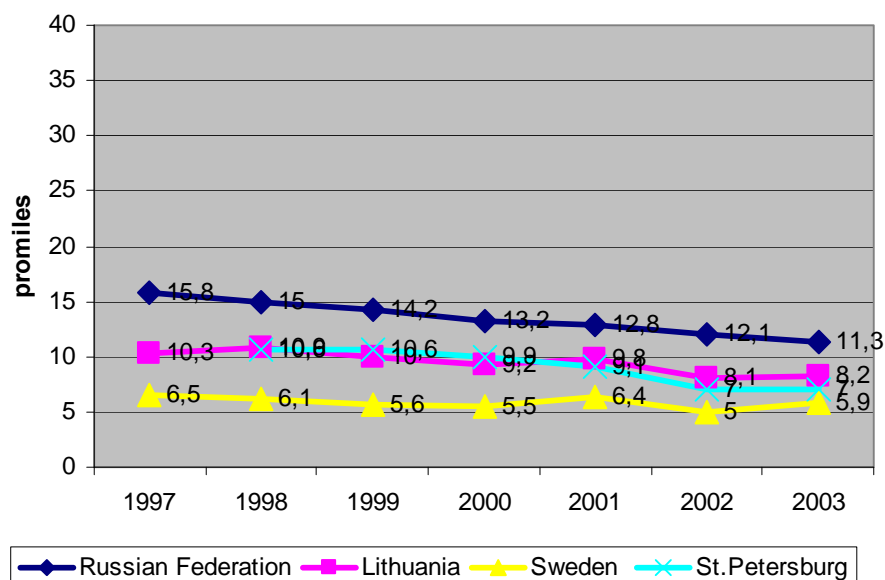


# Birthrate in St.-Petersburg (2000-2012)

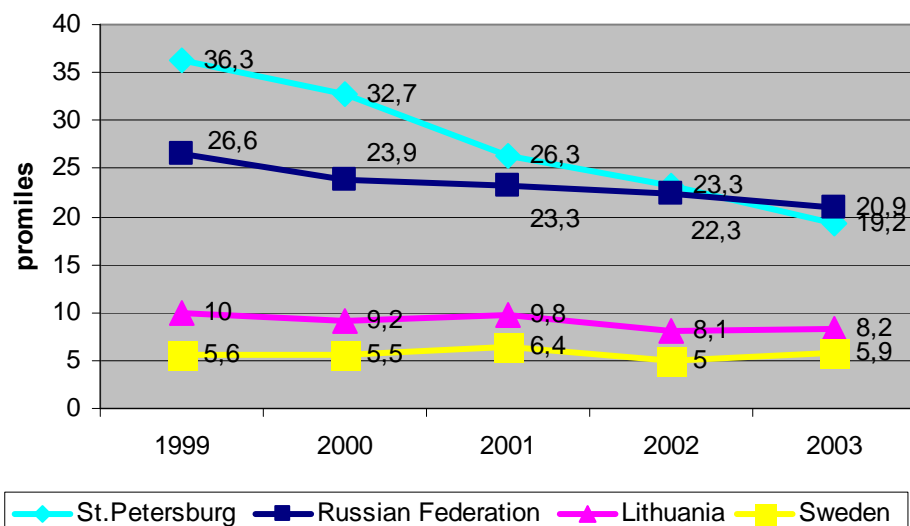


# Old and WHO recommendation for perinatal mortality calculation 10 years ago

Perinatal mortality rate

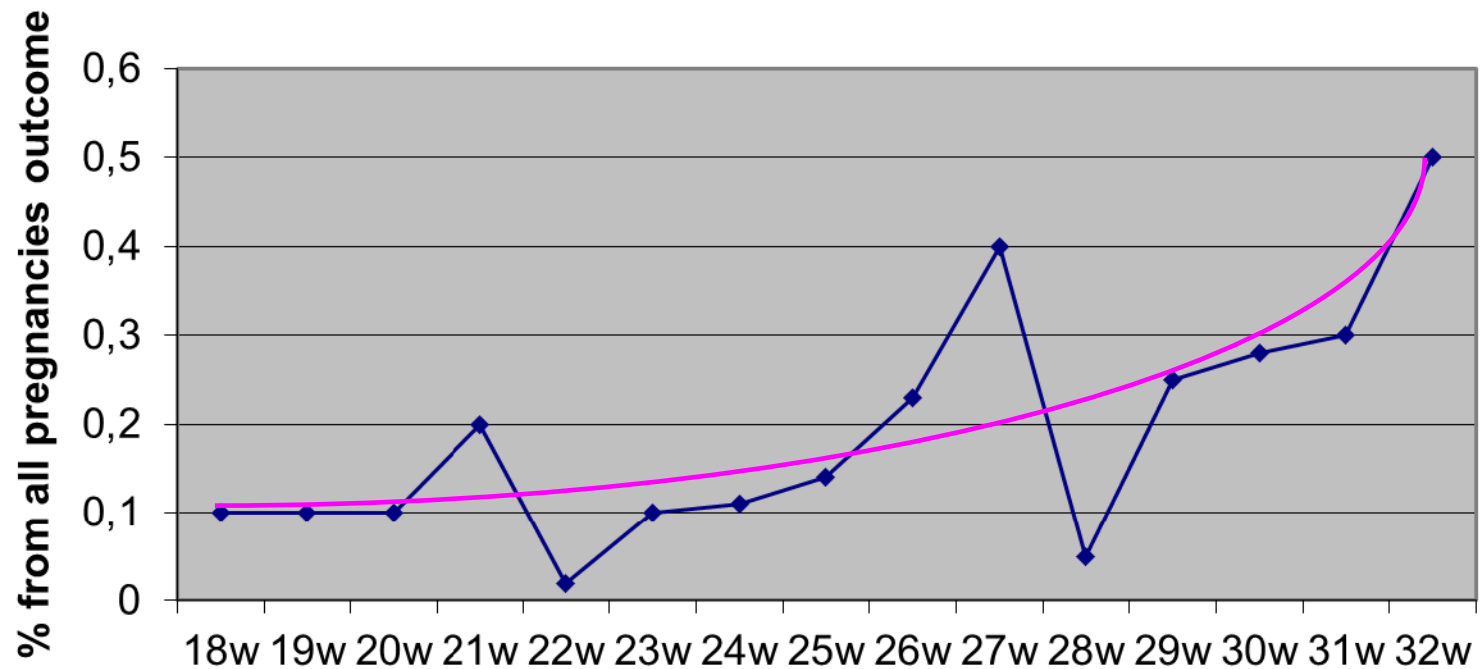


Corrected perinatal mortality rate according to WHO recommendation



# WHY actually we in Russia were not so Good as could be?!

**Dynamics of the rates of late abortion and preterm birth depending on of pregnancy age (unofficial data extracted from official statistic)**





## St.-Petersburg 2011-2012

	<b>2011 РФ</b>	<b>2011 СПб</b>	<b>2012 СПб</b>
N Birth	1753587	57976	63468
Birthrate/1000 citizen	13,3	11,7	13,0
Perinatal mortality,‰	6,78	4,1	7,34
Maternal mortality/100000 live birth)	16,0	21,4	22,8

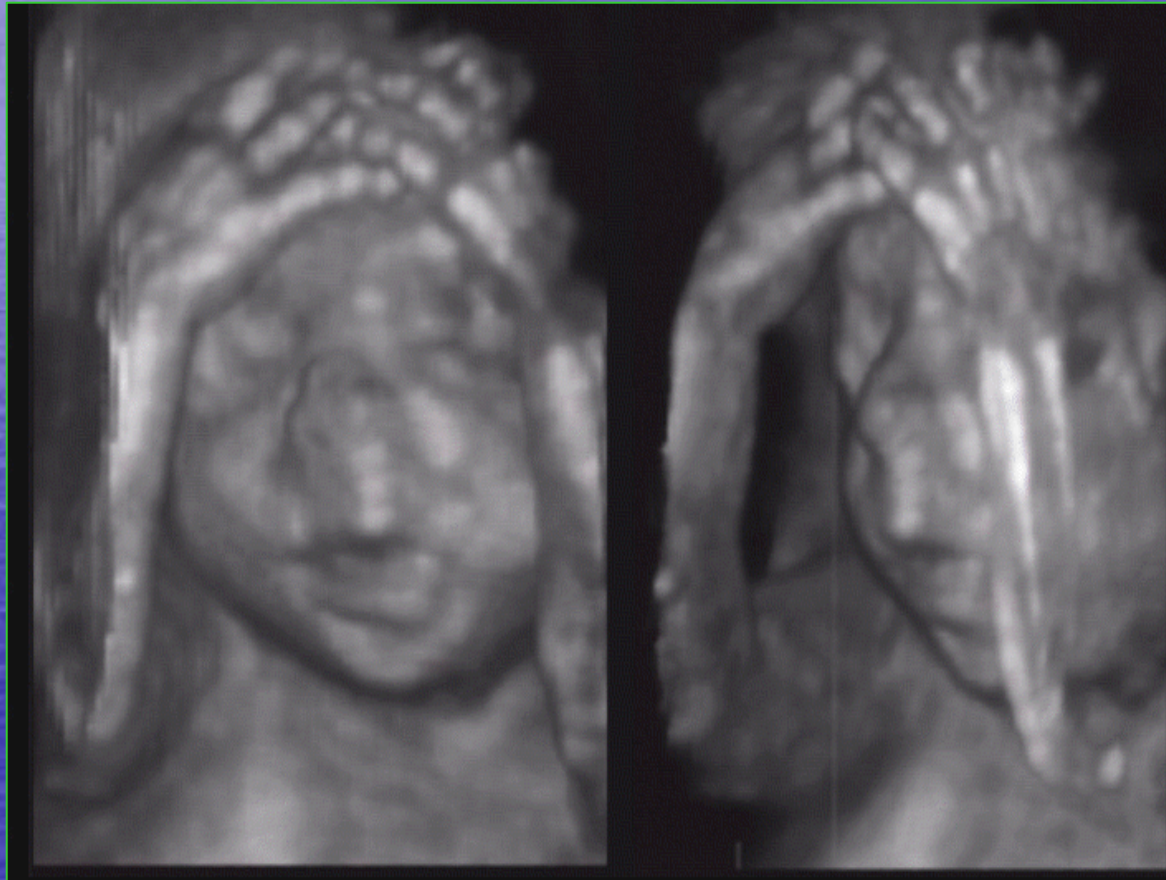
# Improvements in Perinatal care

- “Fetus as a Patient” concept

Ultrasound

# Improvements in Perinatal care

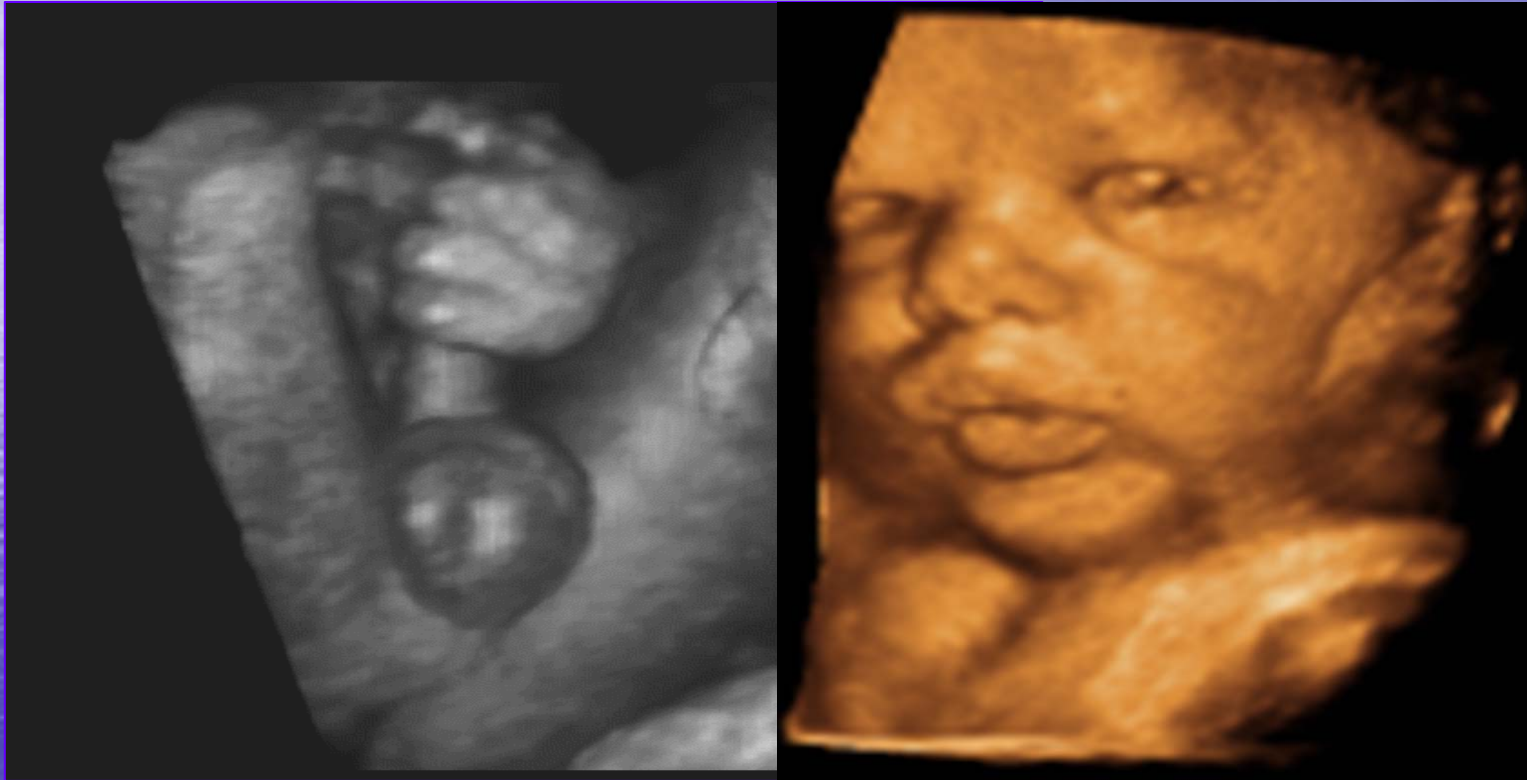
- "Fetus as a Patient" concept





# Improvements in Perinatal care

- "Fetus as a Patient" concept



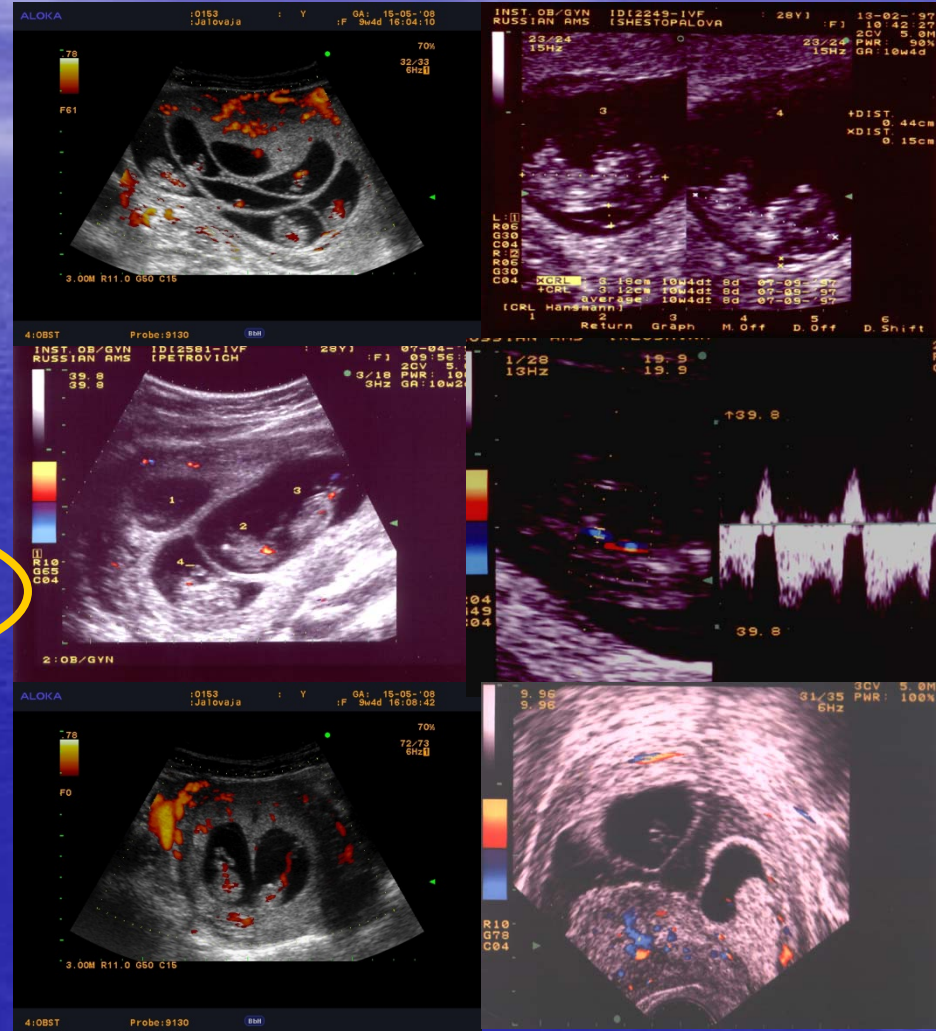
# III levels of Perinatal care in St.-Petersburg

- First trimester ultrasound 11-14 w – 89%
- First trimester biochemistry - 78%
- Second trimester US 18-20 w - 94%
- Third Trimester US 32-34 w – 92%
- Ultrasound in Pregnancy - 99%



# III-d level of prenatal care - to define the High-High Risk MP to the end of I-st trimester

- N of gestational sacs
- N of fetuses
- N of alive fetuses
- Chorionicity
- Amnionicity
- Fetal abnormalities
- NT, NB, DV, TrR, FAng
- Gestational sacs localization
- Umbilical cord insertion and AFV



Pregnancy age determination !!!!

# III levels of Perinatal care in St.-Petersburg

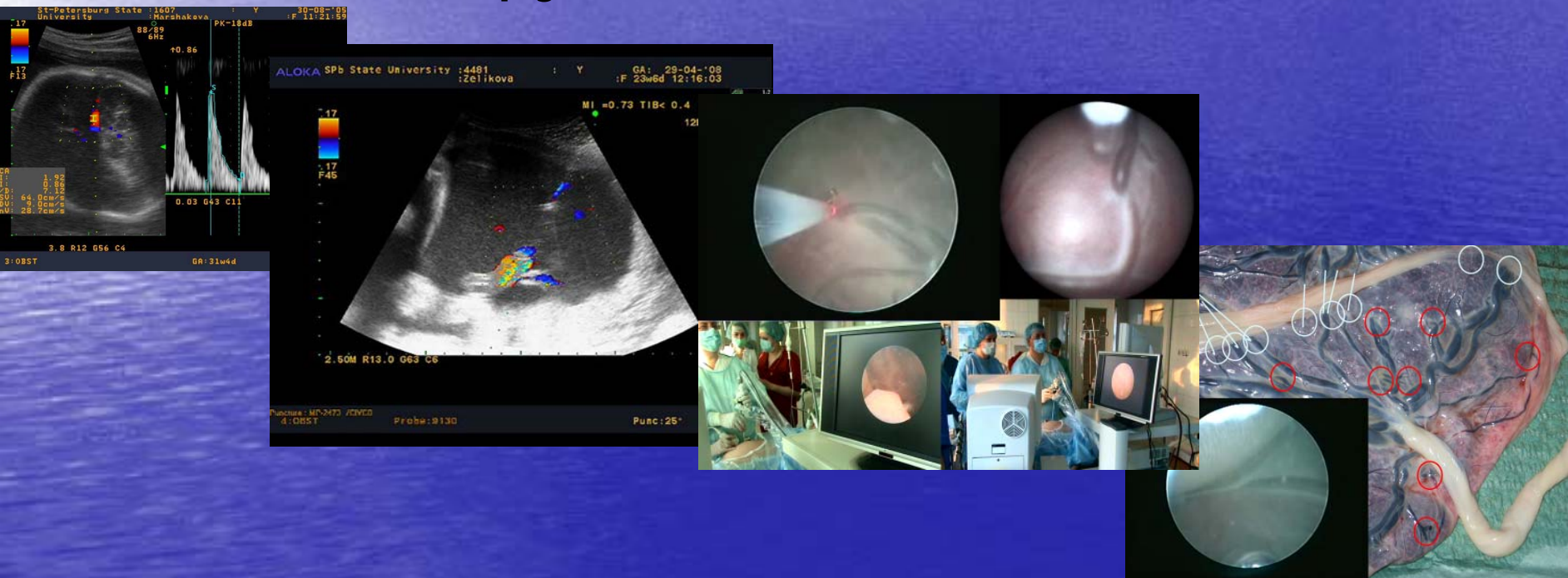
- Invasive PD - 60 -70% detection rate of Tr21 in St.Pet. Population (including migrants)



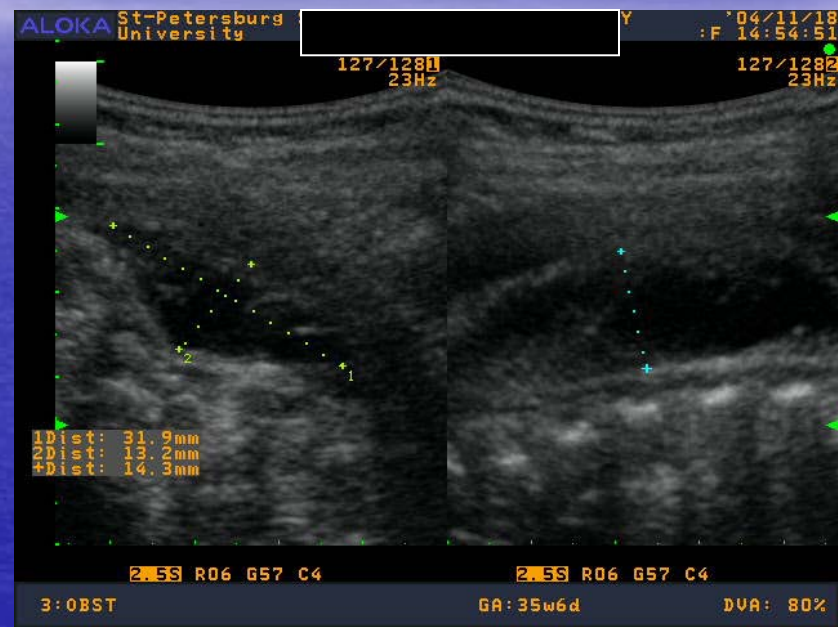


# III levels of Perinatal care in St.-Petersburg

- Fetal therapy – from IUBT to Laser

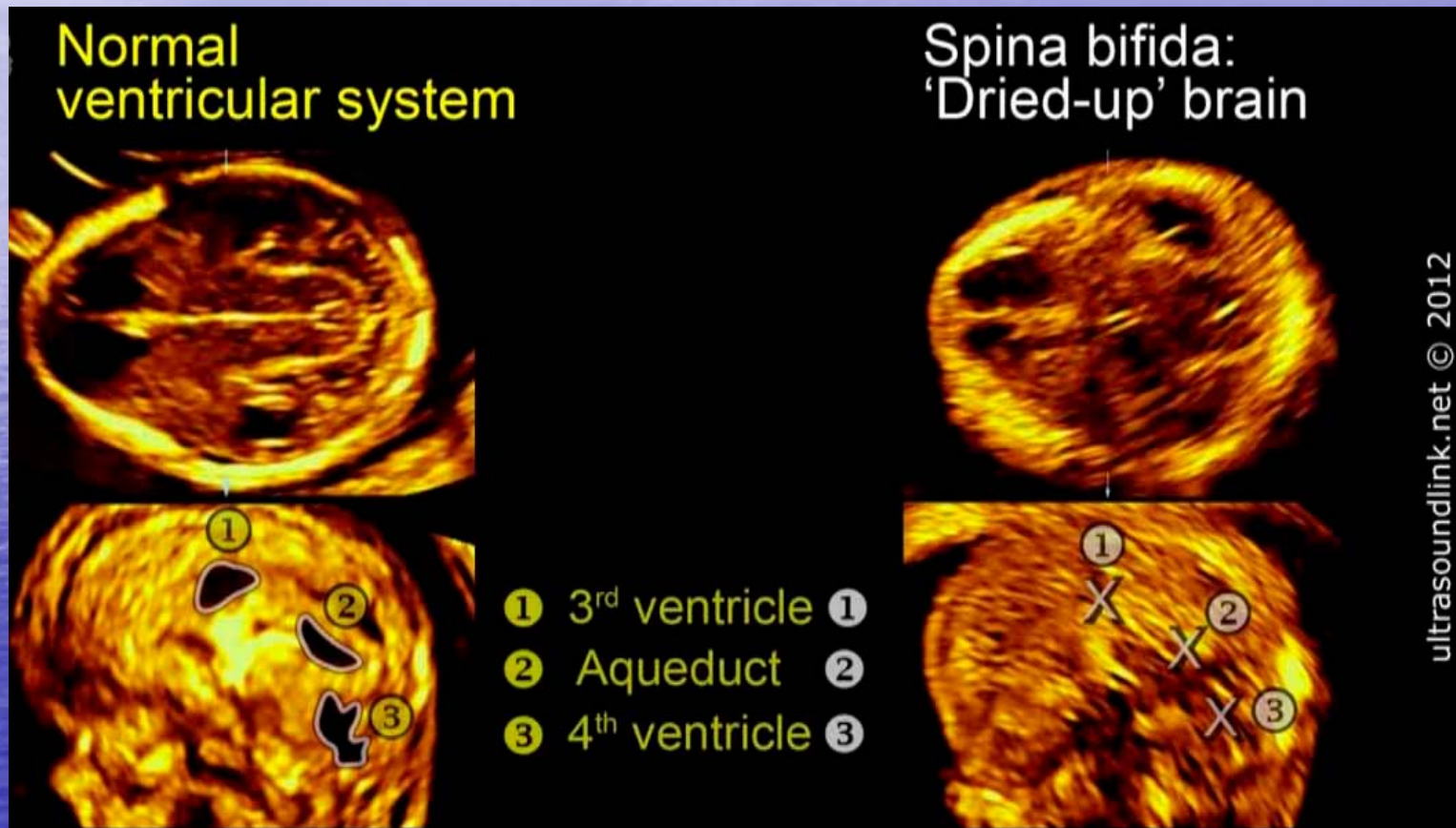


# Fetal Myelomeningocele St.-Petersburg





# First trimester spina bifida detection



# SB and MMC in St.-Petersburg

- During last ten years in St-Petersburg 652 fetuses with congenital CNS abnormality were detected prenately, 275 fetuses of them had severe vertebrae and spinal cord abnormality. The last group contained 175 cases of spina bifida – 100 cases with protrusion of spinal cord and meninges. During the time 67 neonates with spina bifida were born.



# SB and MMC in St.-Petersburg

- Vast majority prenataly pregnancies complicated by fetal myelomeningocele diagnosed before border of fetal viability were interrupted. The rate of neonates with such defect in St.-Petersburg reduced twice from 15 to 8/100000 deliveries. After border of fetal viability (22gw) multi-disciplinary prenatal counseling is obligatory to determine an optimal care, time and method of delivery and plan for neonatal care.

# Late Pregnancy fetocide





?



# Spina Bifida in Neonates were born in St/Petersburg

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Q00-Q07	22	25	32	34	30	41	37	31	32	32	316
Spina bifida	5	6	4	10	5	4	7	9	12	5	67



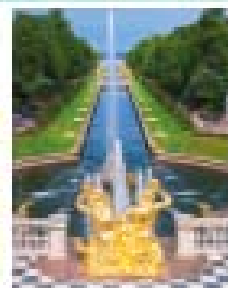
What are the next steps





31<sup>st</sup> edition  
**FETUS** as  
**aPATIENT**

Presidents: Anton Mikhailov  
Dmitry Ivanov



SAINT PETERSBURG  
JUNE, 11<sup>th</sup> - 13<sup>th</sup>, 2015

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