

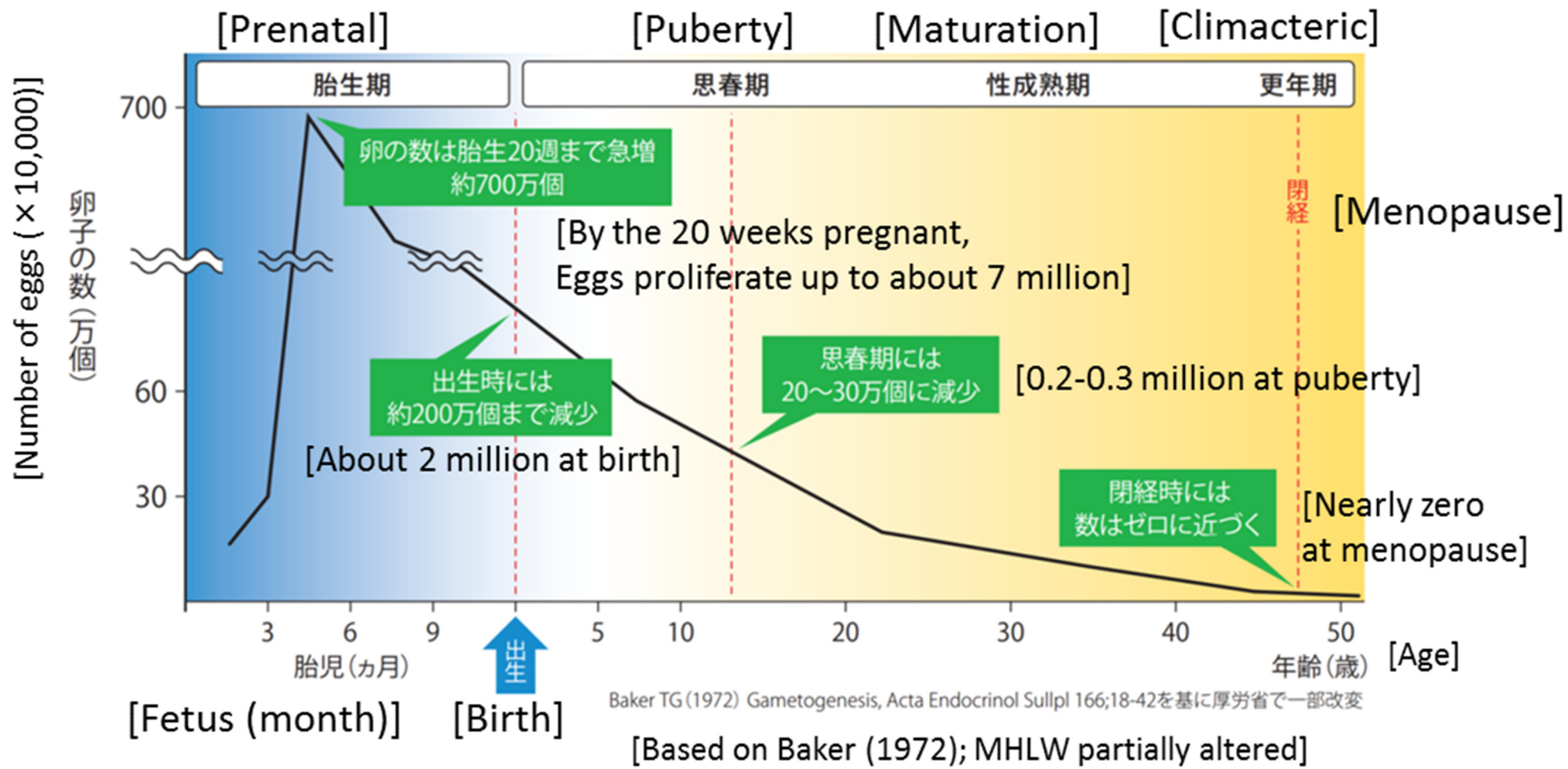
Fake Information for the “Egg Aging” Propaganda

**The role of experts and journalists in its
emergence, authorization, and radicalization**

TANAKA Sigeto (Tohoku University)

<http://tsigeto.info/18w>





Mistry of Health, Labour and Welfare (MHLW) (2013) http://www.mhlw.go.jp/seisakunitsuite/bunya/kodomo/kodomo_kosodate/boshi-hoken/dl/gyousei-01-01.pdf

What is “egg aging”?

卵子

老化

egg

aging

ovum
oocyte
follicle

senescence
progeria
overripeness

In 1970s

4

Degeneration of eggs by delayed meiosis

日本医学会 (1975) 第 36 回日本医学会シンポジウム: 初期発生(II). 日本医師会雑誌
74(8): 891-946 <<http://dl.ndl.go.jp/info:ndljp/pid/3356047>>

Suzuki S (1979) 卵子の異常. 代謝 16(202): 1463-1467.
<<http://dl.ndl.go.jp/info:ndljp/pid/1791852>>

Currently

Any change in female body

- due to age
- affecting reproduction

Masuda M (2017) 卵子の老化は 30 代からスタートし、30 代後半には加速する!

あなたの卵巣力は?. *Mylohas* 2017.08.08.

<<https://www.mylohas.net/2017/08/063996bodystrategy05.html>>

Egg aging propaganda in 2010s

- Rapid decline in fertility with age
- Poor knowledge about it
- Main cause of low birth rate
- Sex education reform is needed

Fassbender I (2016) Enhancing autonomy in reproductive decisions?.
Contemporary Japan. 28(2), 123-144. <doi:10.1515/cj-2016-0007>

Nishiyama C & Tsuge A (ed.) (2017). 文科省／高校「妊活」教材の嘘.
論創社. <isbn:9784846016265>

Public opinion and policy

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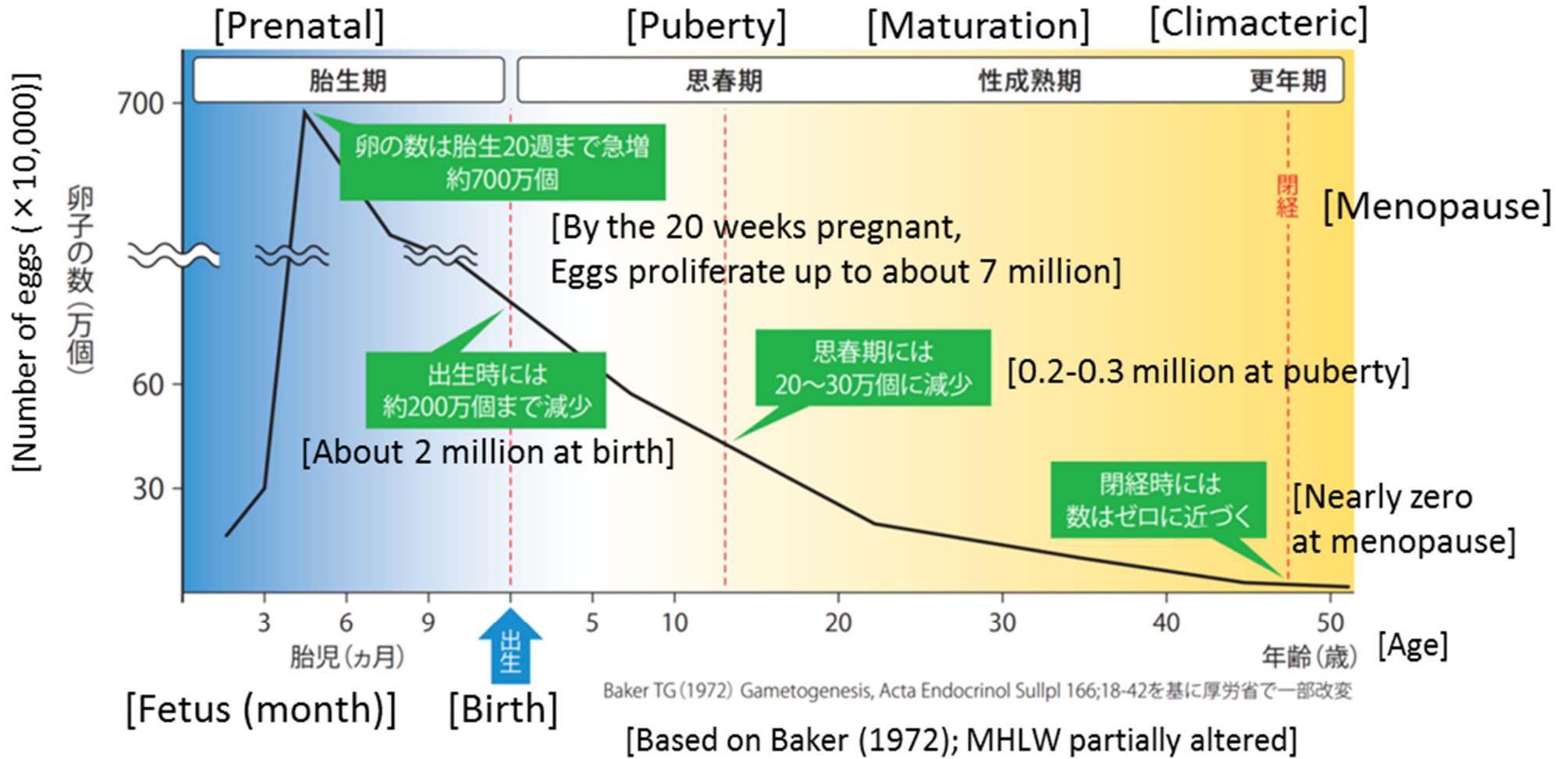
2012: TV program

2013: Task force against low fertility

2015: New pronatalist policy

Tanaka S (2018) Unscientific visual representations used for the “egg aging” campaign in 2010s Japan (Project “Unscientific Knowledge and the Egg Aging Panic” Research Report I) (Draft) <<http://tsigeto.info/18k>>

MHLW (2013)



Original (Baker 1971)

Baker TG (1971)
Radiosensitivity of
mammalian oocytes
with particular
reference to the
human female.
*American Journal of
Obstetrics &
Gynecology*. 110:
746-761.
<doi:10.1016/0002-
9378(71)90271-7>

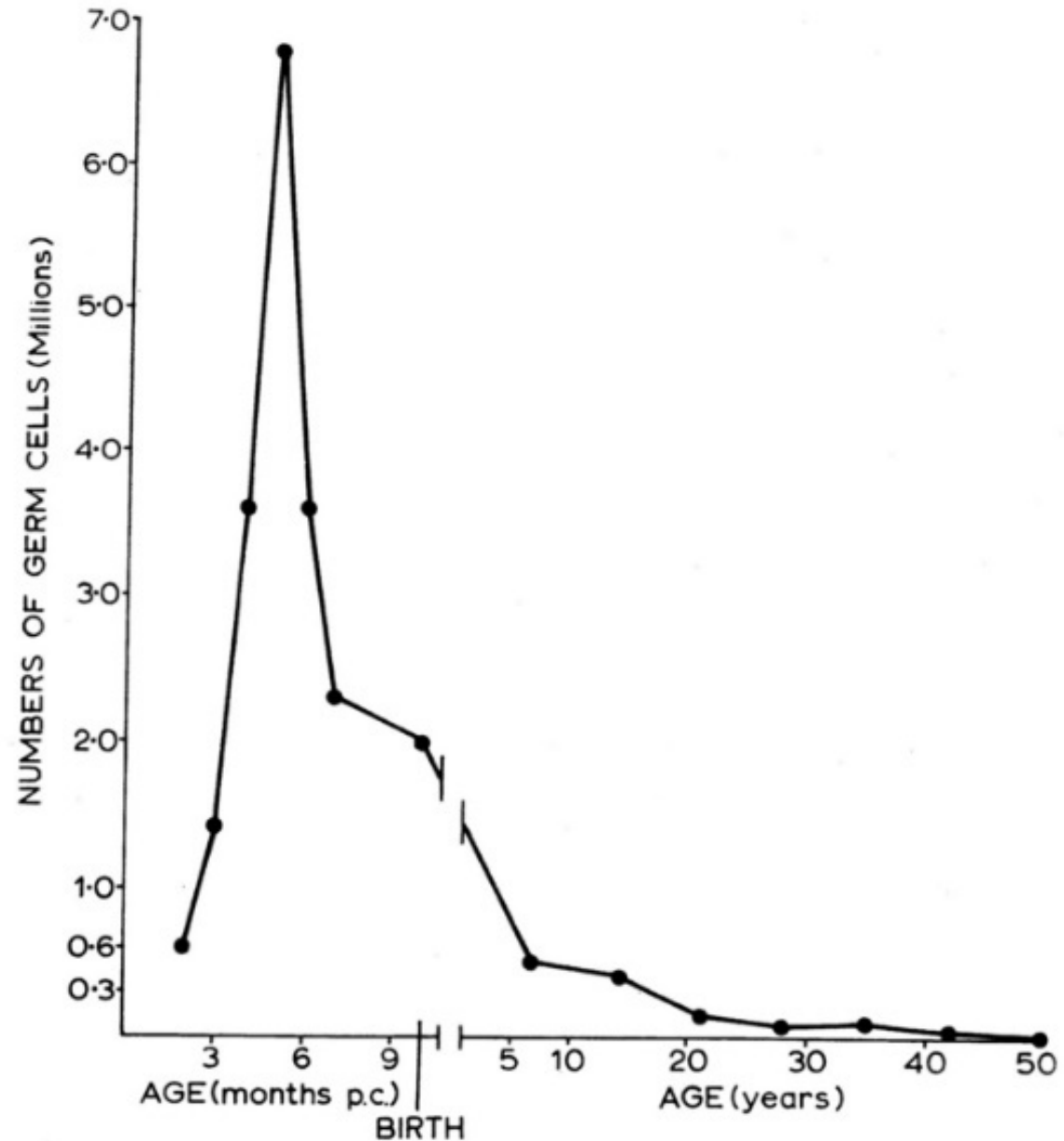


Fig. 1. Fluctuations in the total population of germ cells in the human ovary during reproductive life. Data for prenatal period derived from Baker³ and for children and adults from Block.²⁴

Data (Block 1952)

Table 1.

Age in years	Case	Number of follicles					
		Prim. f. (approx.)		Growing f. (approx.) including 100 μ		Graafian f. > 1 mm.	
		V. H.	V.+H.	V. H.	V.+H.	V. H.	V.+H.
6	1	196 000	318 000	4 200	7 700	10	24
		121 000		3 500		14	
7	2	213 000	405 000	6 600	11 200	7	13
		192 000		4 600		6	
7	3	425 000	755 000	4 200	9 600		
		330 000		5 400			
8	4	138 000	258 000	7 200	13 000		
		120 000		5 800			
9	5	392 000	684 000	18 400	34 600	45	97
		292 000		16 200		52	

(First 5 from total of 43 cases)

Block E (1952) Quantitative morphological investigations of the follicular system in women: variations at different ages. *Acta Anatomica* 14: 108-123. <doi:10.1159/000140595> p. 113

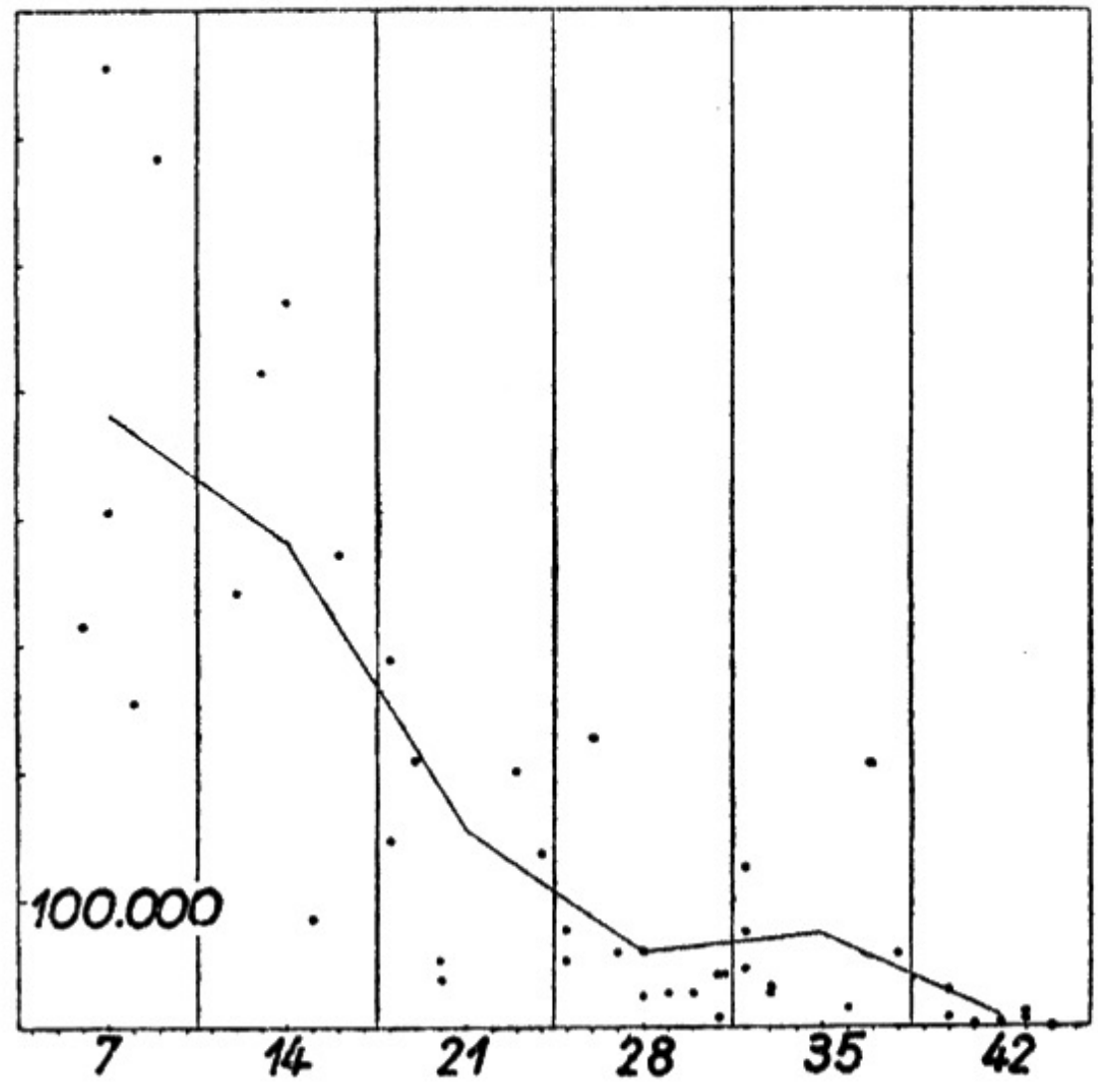


Diagram 1. The Combined Number of Primordial Follicles in Both Ovaries at Different Ages.

Suzuki (1982)

Suzuki S (1982)
ヒトの受精のタイミング.
講談社. <isbn:4061394789>
p. 14

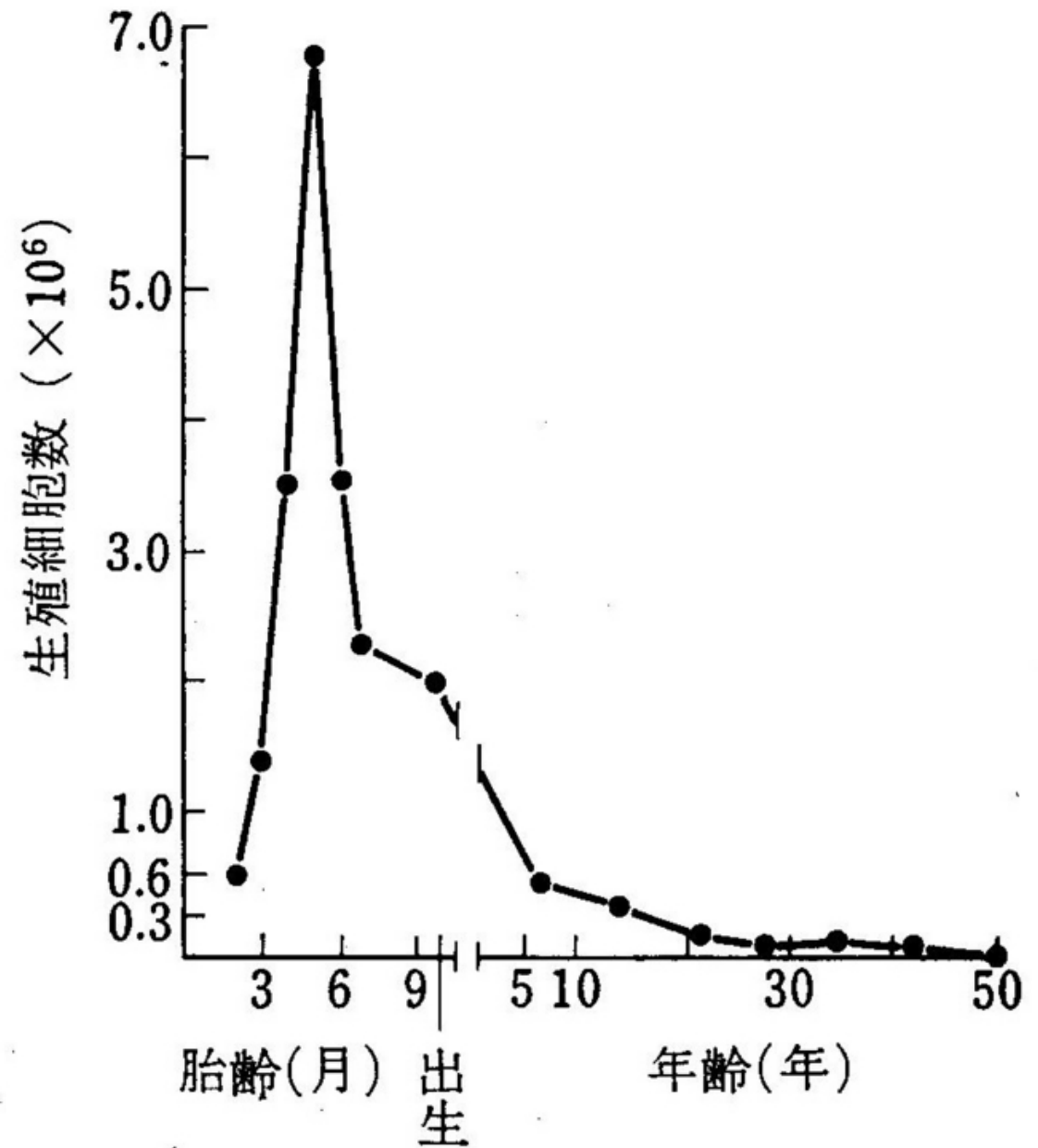


図 1.11 ヒトの卵子数の年齢的推移

Asada (2009)

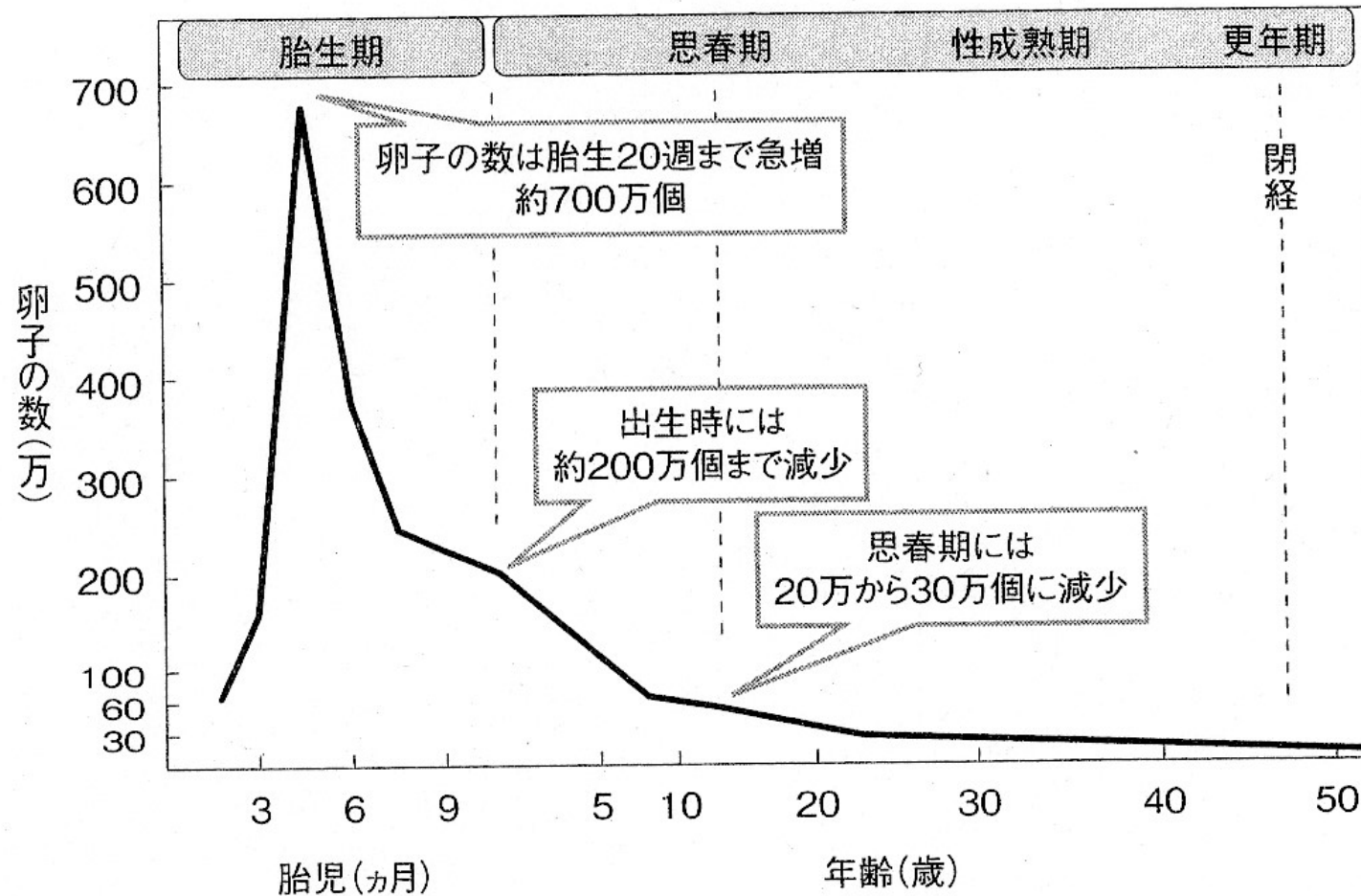
12 years old woman has 300000 eggs.

1000 disappear per month

$$(\mathbf{age} - 12) \times 12 \times 1000 = A$$

$$300000 - A = \mathbf{eggs\ remained}$$

〈図表1〉卵子の数の変化



(鈴木秋悦『ヒトの受精のタイミング』講談社)

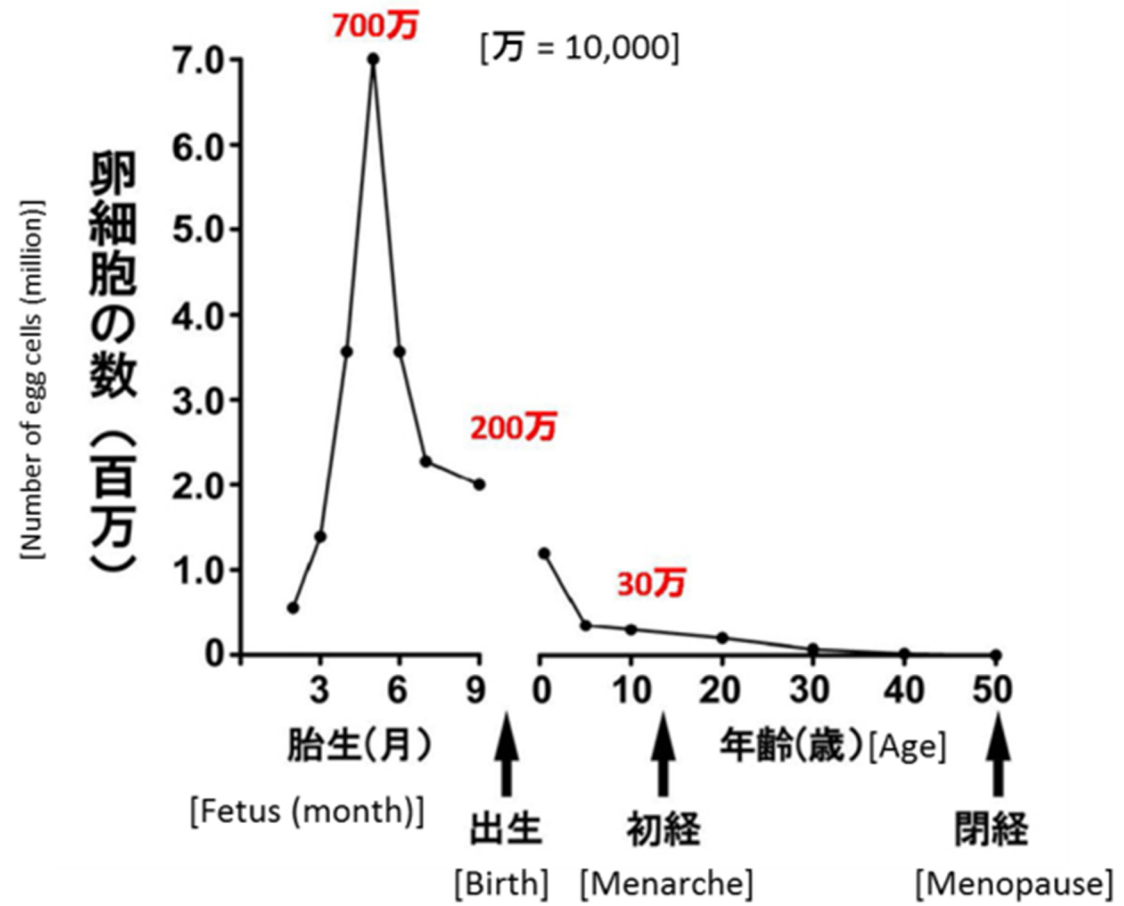
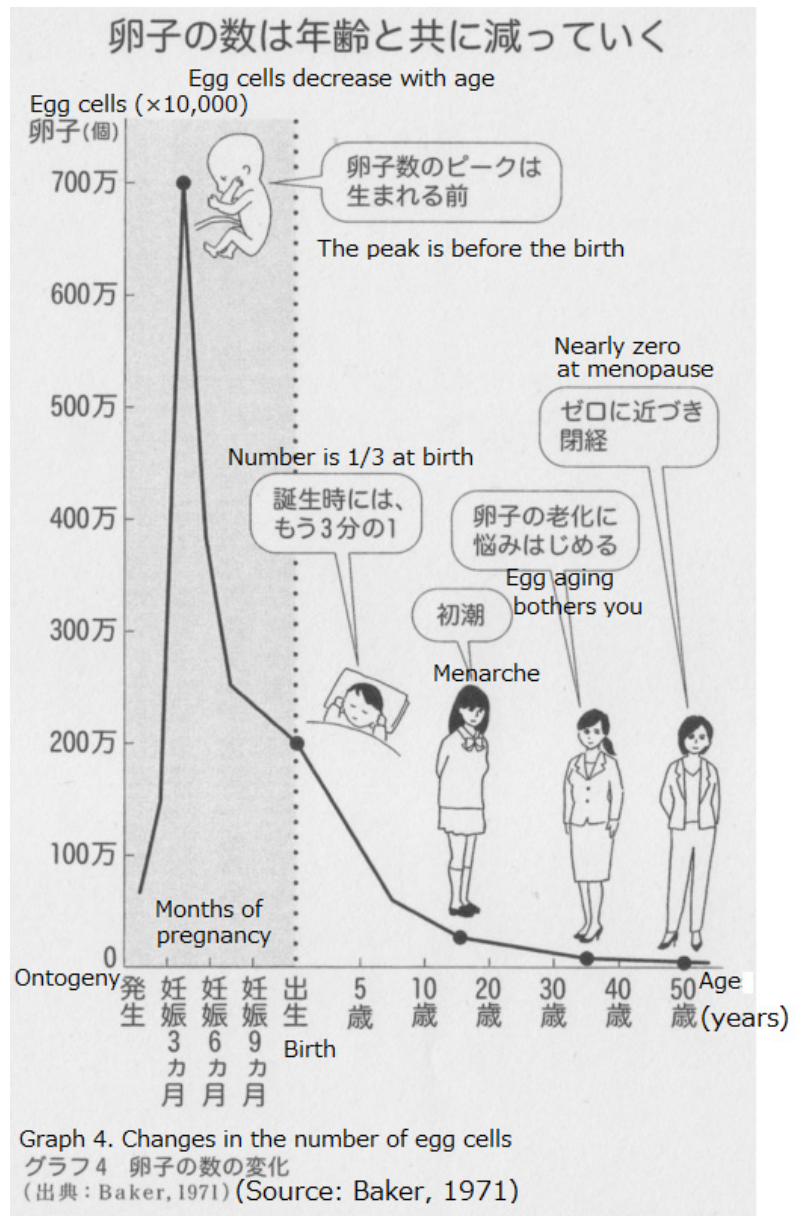


図 2. 年齢による卵細胞数の変化
[Changes in the number of egg cells by age]

卵細胞は妊娠 5 ヶ月まで 700 万個(両側卵巢)と著しく増加するが、その後減少し、出生時には約 200 万個となる。さらに、初経の時期には 30 万個まで減少する。Baker の論文(Baker TG. A Quantitative and Cytological Study of Germ Cells in Human Ovaries. Proc R Soc Lond B Biol Sci. 158: 417-433, 1963)を改変し図を作成。

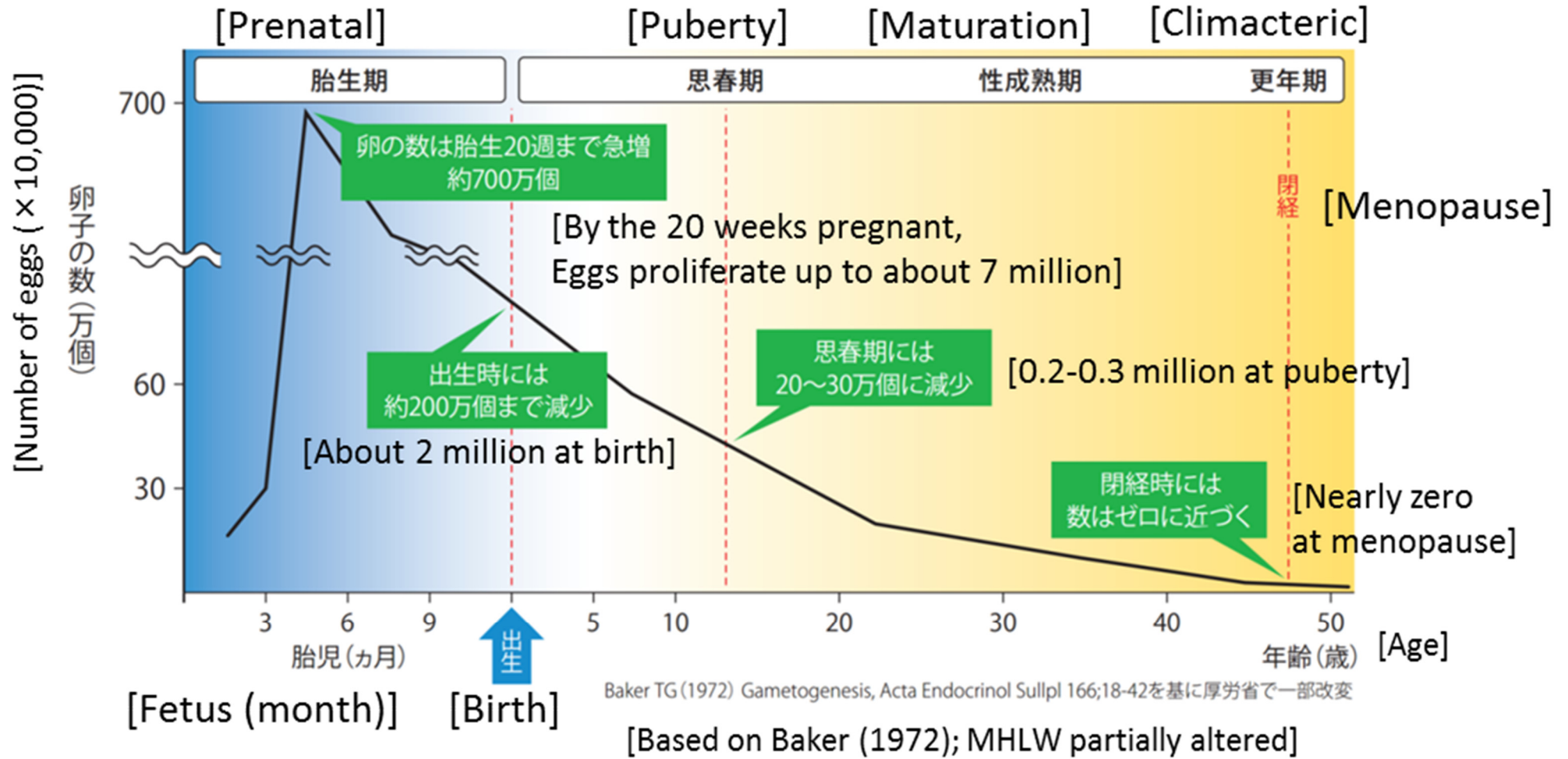
Japan Society for Reproductive Medicine (2013) 不妊症 Q&A.
<http://www.jsrm.or.jp/document/funinshou_qa.pdf> as in 2013-04-13.

Kawai (2013)

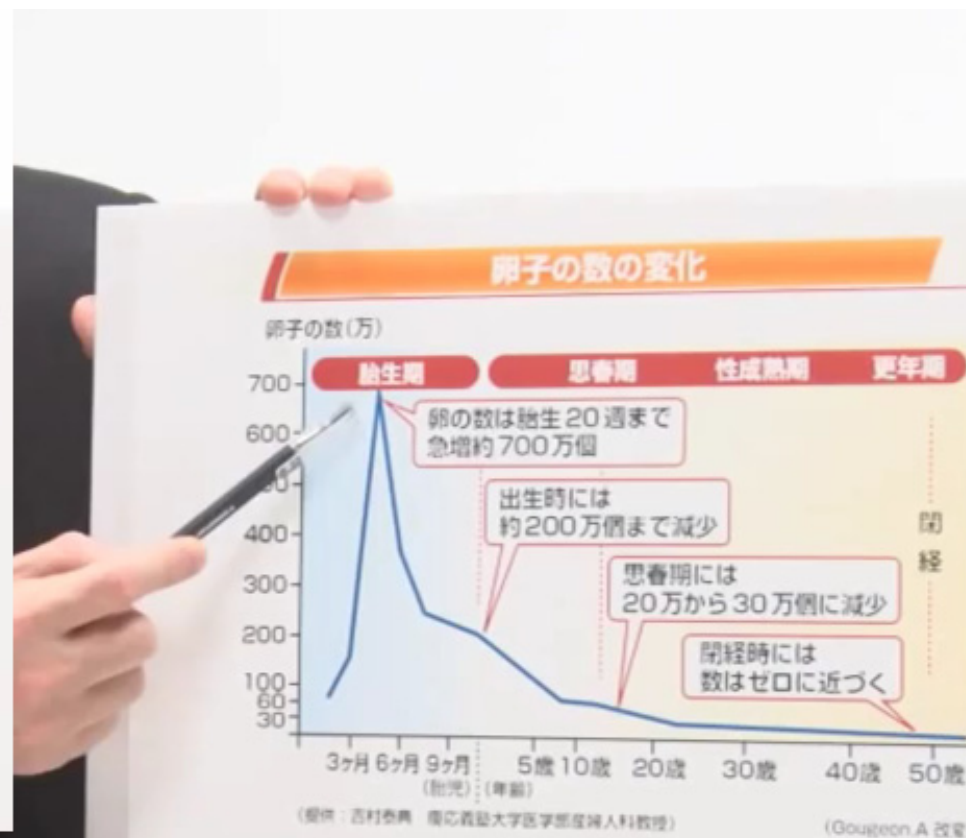


河合 蘭 (2013) 卵子老化の真実. 文藝春秋. <isbn:9784166609062> p. 32

MHLW (2013)



MHLW movie (2014)



Ministry of Health, Labour and Welfare (MHLW) (2014) 妊娠と不妊について. <<http://tsigeto.info/misconduct/yoshimura-2014-mhlw/>> (Original: Youtube MHLW Channel)

Effect on media

Popularized discourse on fertility



主婦の友社 (2017-2018) 赤ちゃんが欲しい. <isbn:9784074250530>
<isbn:9784074250608> <isbn:9784074316168>

Effect on government

Pronatalist policy in 2015

- Medical knowledge on pregnancy in school education
- Life planning scheme
- To support marriage matching industry

Cabinet Office (2015) 少子化社会対策大綱.

<<http://www8.cao.go.jp/shoushi/shoushika/law/taikou2.html>>

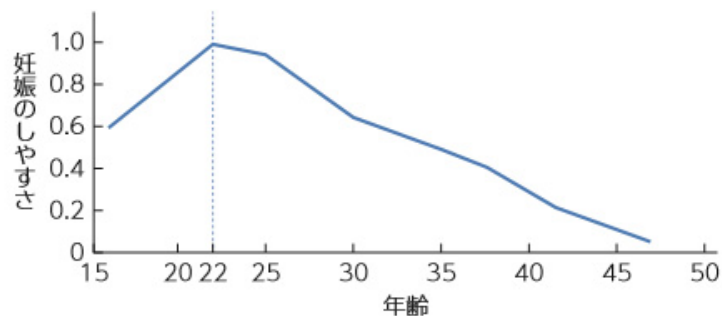
Effect on school

2015 high school textbook

20 健やかな妊娠・出産のために

妊娠のしやすさと年齢

女性の妊娠のしやすさの年齢による変化



22歳時の妊娠のしやすさを1.0とする

(O'Connor et al. 1998)

医学的に、女性にとって妊娠に適した時期は20代であり、30代から徐々に妊娠する力が下がり始め、一般に、40歳を過ぎると妊娠は難しくなります。

一方、男性も、年齢が高くなると妊娠に関わる精子の数や運動性が下がり始めます。

<http://www.mext.go.jp/component/a_menu/education/detail/__icsFiles/afieldfile/2015/08/17/1360938_09.pdf> as in 2015-08-22

Making of fake knowledge

- **Manipulated graph**
(Saito & Shirakawa 2012)
- **Unreachable citation** (Suzuki 1982)
- **Distorted explanation** (Asada 2009)

Who contributed

- **Prepared by experts**
- **Broadcast by journalists**
- **No scrutiny**

More information

- **Visit** <http://tsigeto.info/misconduct/>
- **Brochure:** <http://tsigeto.info/18k>



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