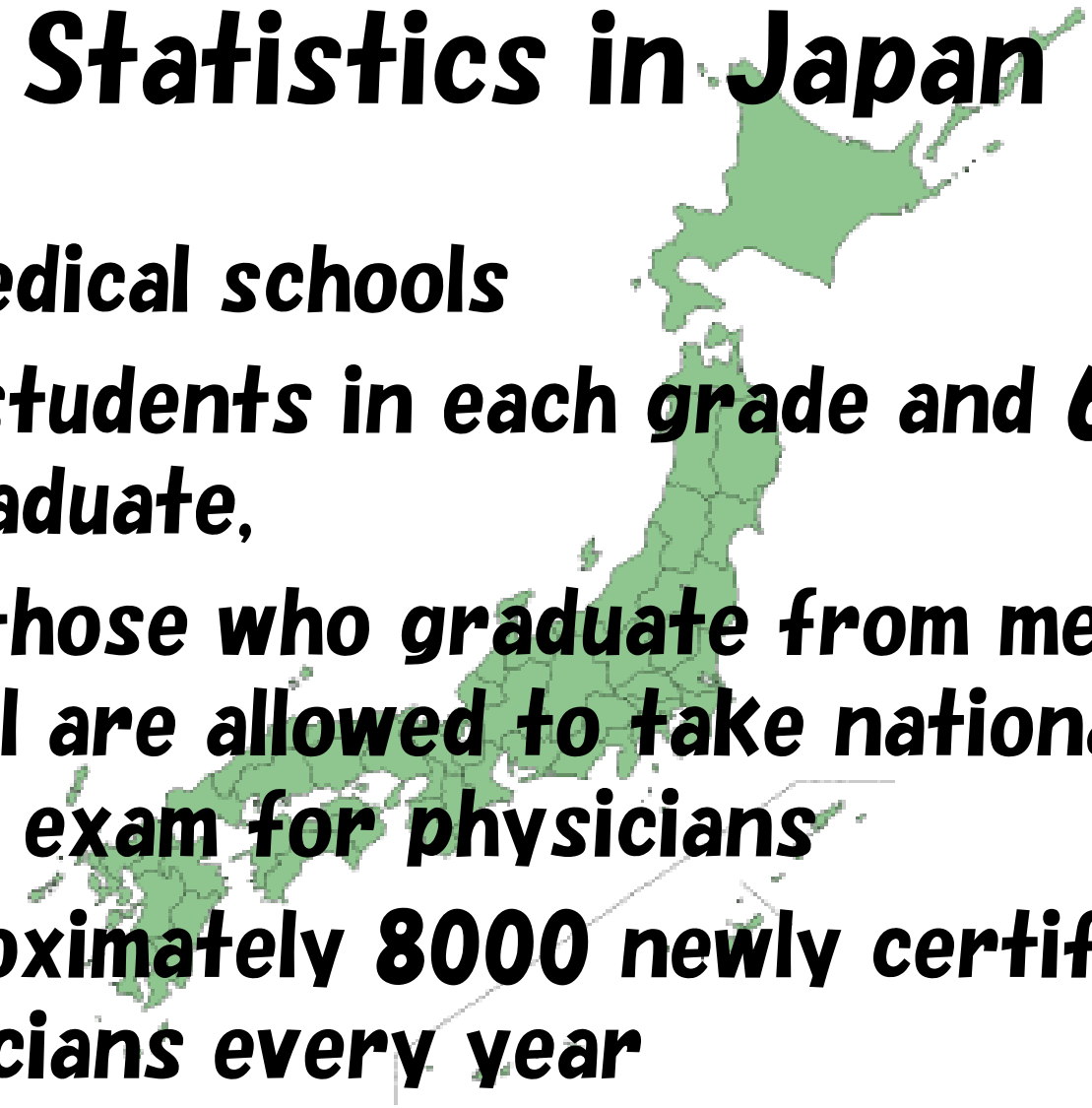
H25.10.15 Teikyo-Durham mini symposium on physician shortage

Physician shortage and the use of women physicians

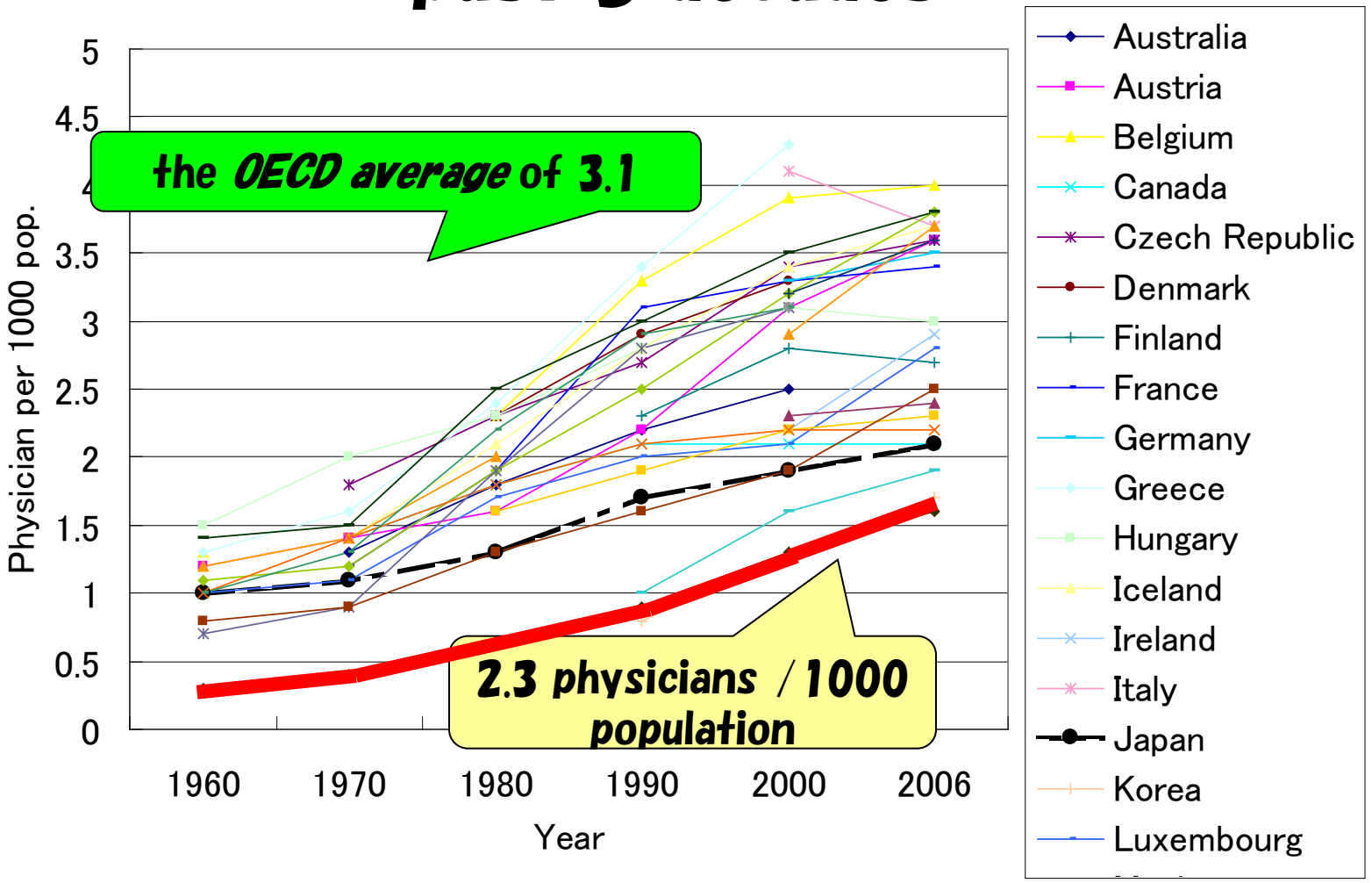
Kyoko Nomura, MD, MPH, DMSc
Teikyo University Support Center for women physicians and researchers/
Department of Hygiene and Public Health, School of Medicine/
Teikyo School of Public Health

Statistics in Japan



- 80 medical schools
- 100 students in each grade and 6 year to graduate,
- Only those who graduate from med school are allowed to take national board exam for physicians
- Approximately 8000 newly certified physicians every year

Number of physicians in Japan has been the lowest among OECD countries for past 3 decades



Ref:OECD Health Data

Now Japan faces severe physician shortage especially in underserved areas

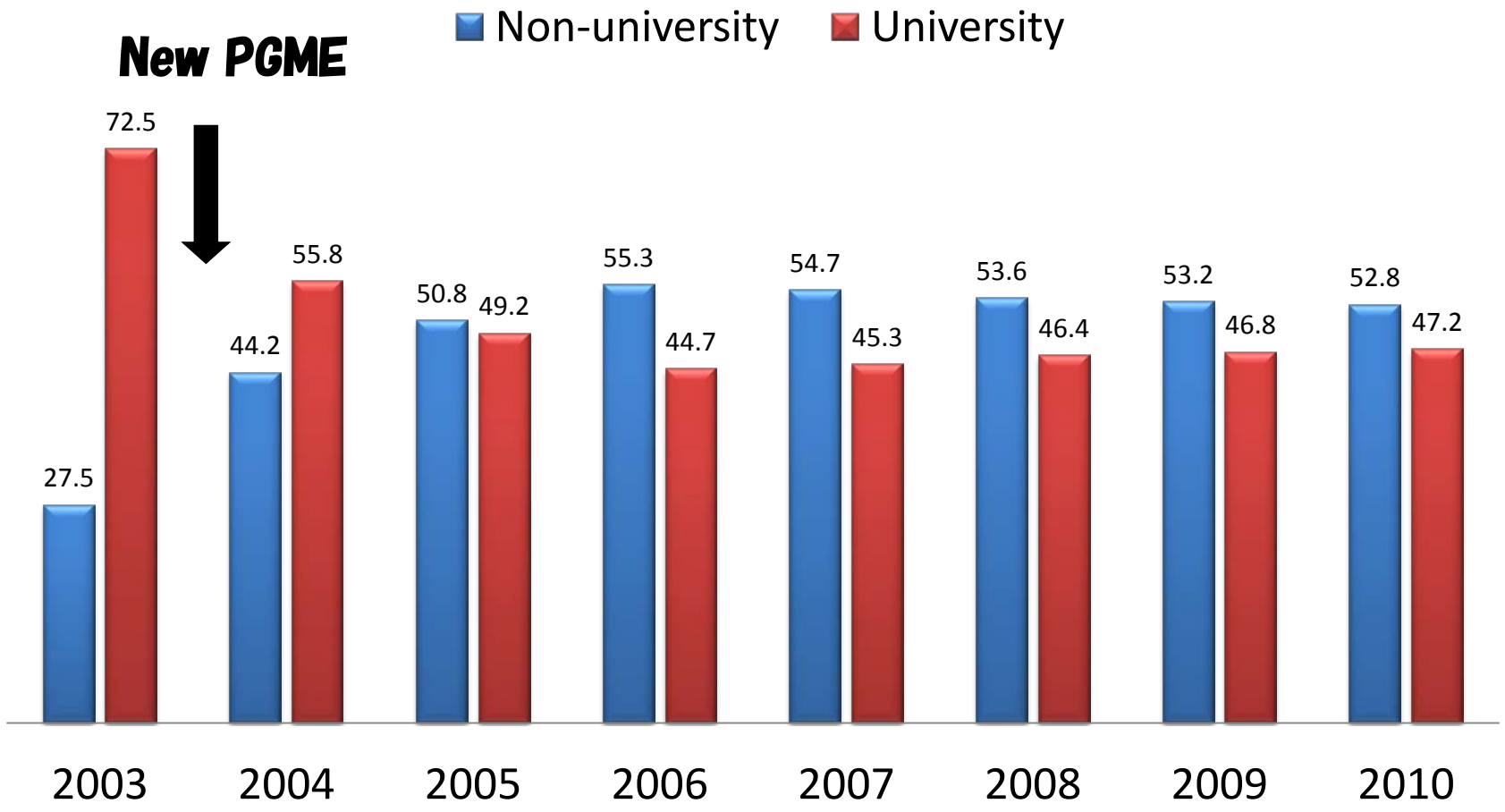
What happened ?

Notorious 3 conditions

1. # of physicians has been the lowest for three decades.
2. Ministry limits medical enrollment for the fear of expanded medical expense.
3. In 2004 the ministry introduced new postgraduate medical education program and matching scheme where residents can choose teaching hospitals freely.

Nomura K, et al Improvement of residents 'clinical competency after the introduction of new postgraduate medical education program in Japan. Medical Teacher 30:e161-9, 2008.

Proportion of residents between university and non-university hospitals



Source: Postgraduate Medical Education home page

Nomura K, et al The shift of residents from university to non-university hospitals in Japan: a survey study. J Gen Intern Med 23:1105-9, 2008.

Universities have played a pivotal role to send physicians to remote and underserved areas

Number of residents at university hospitals ↓

⬇

Universities can no longer send physicians to remote and underserved areas

⬇

Physicians shortage in these areas

Nomura K, et al The supply of pediatrician workforce in rural areas of Japan. Tohoku J Exp Med 217(4):299-305, 2009.

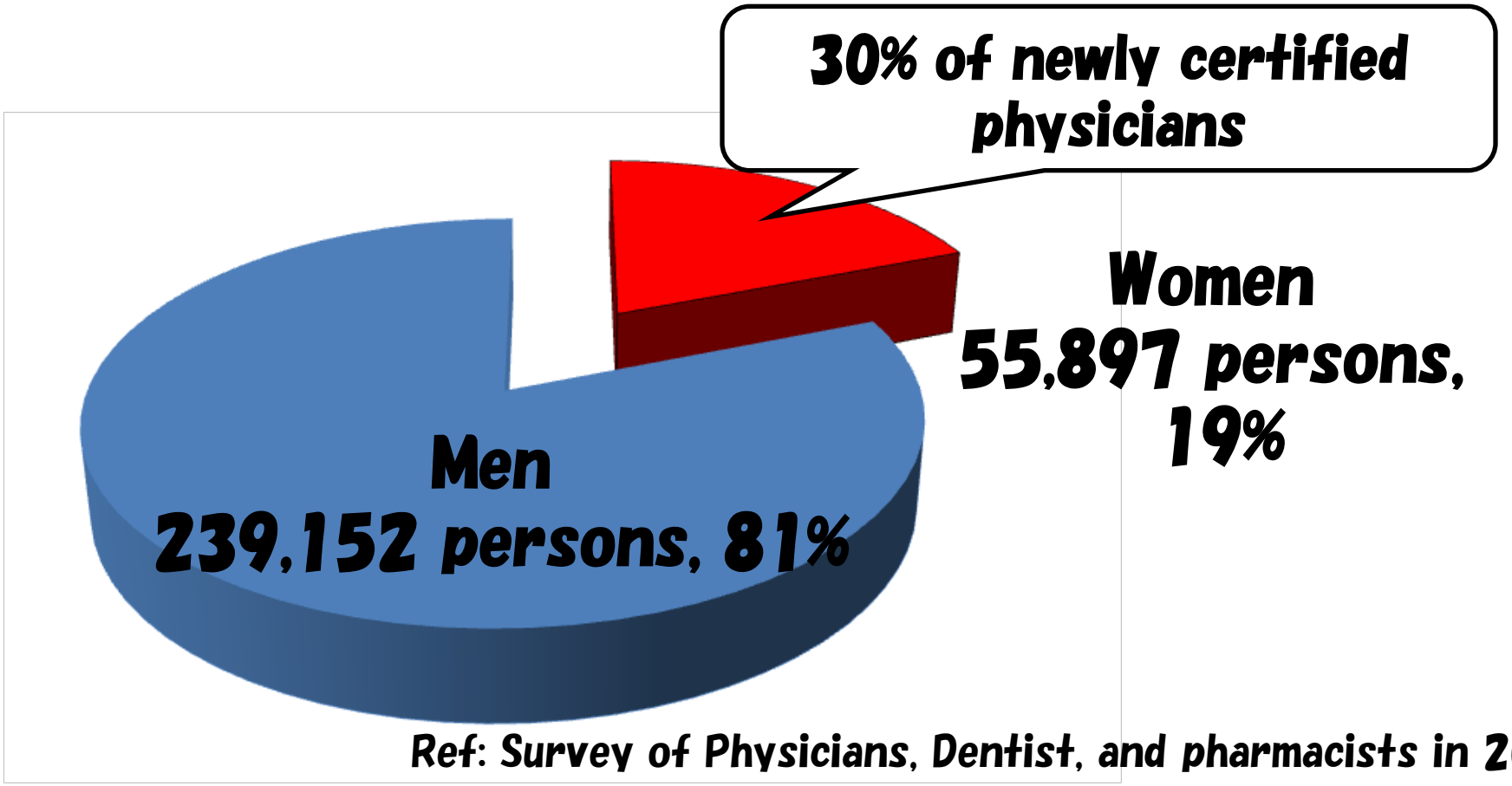
Key point of physician shortage

1. Absolute shortage in number
2. Mal-distribution

- Geographical mal-distribution
  Urban vs. remote and underserved areas
- Clinic department mal-distribution
  Internal Medicine vs. OBGY, Surgery…
- Gender mal-distribution
  Men vs. Women

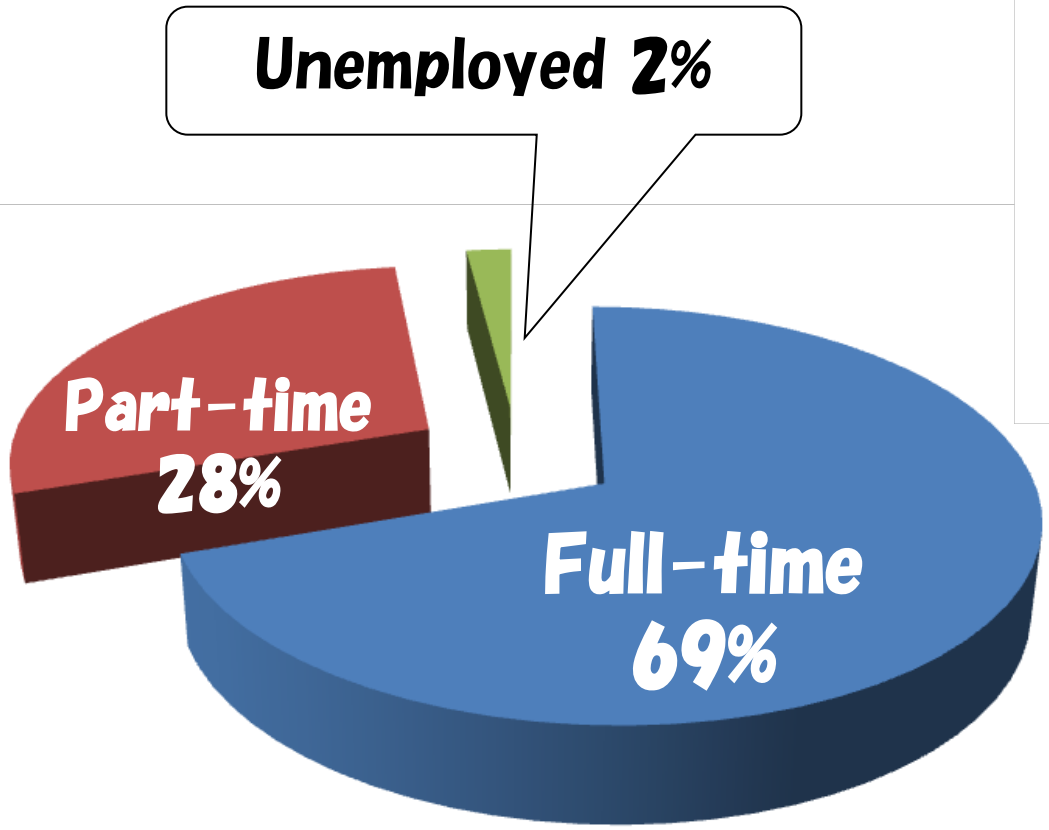
Nomura K, Yano E, Fukui T: Gender differences in clinical confidence: A nationwide survey of resident physicians in Japan. Acad Med 2010

The use of women physicians in physician labour as cost-effective countermeasure against physician shortage



Ref: Survey of Physicians, Dentist, and pharmacists in 2012

Work status between men and women

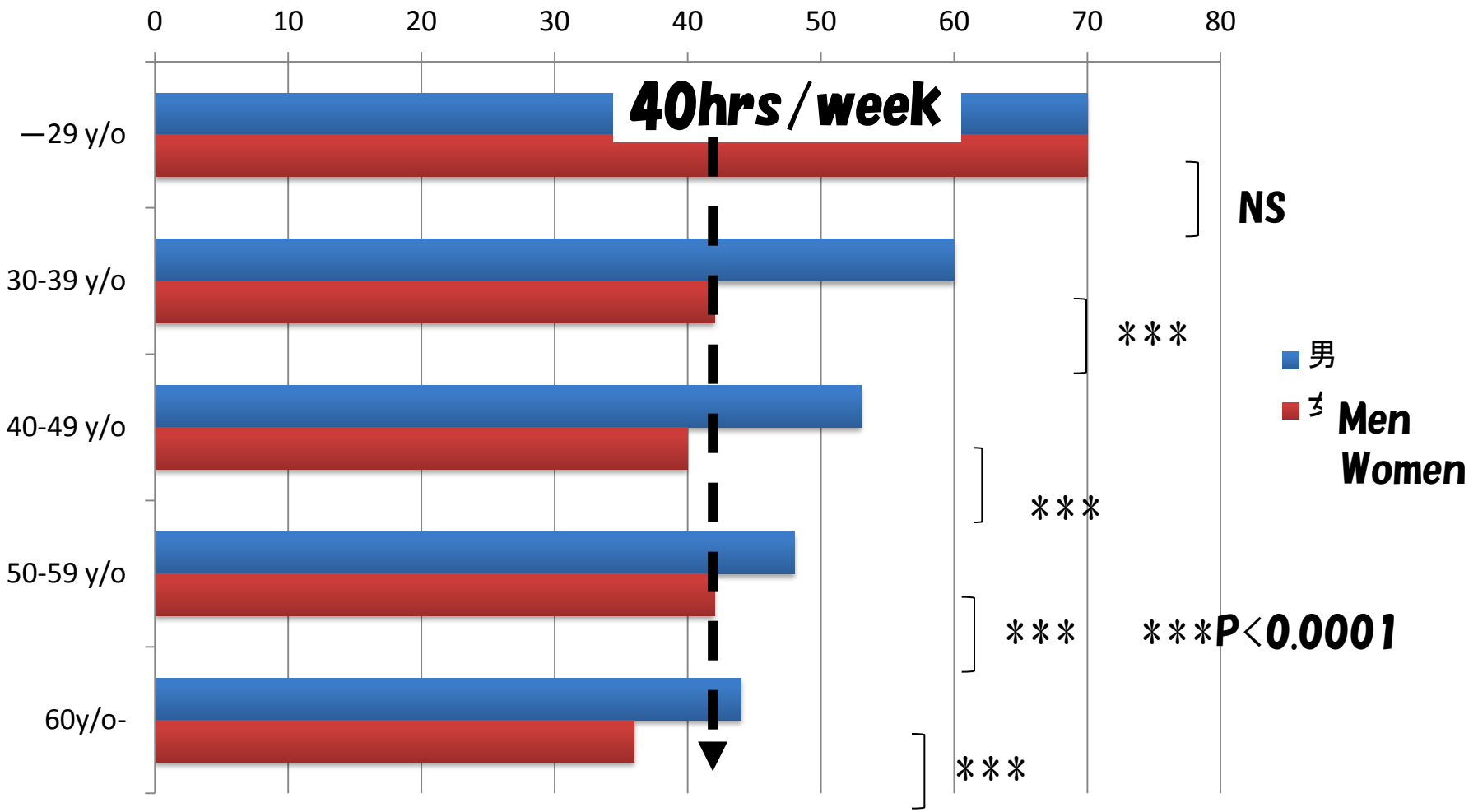


Women

Men

Ref: Alumnae survey of 14 private medical schools
http://homepage3.nifty.com/dzb/index.html

Weekly working hours between men and women

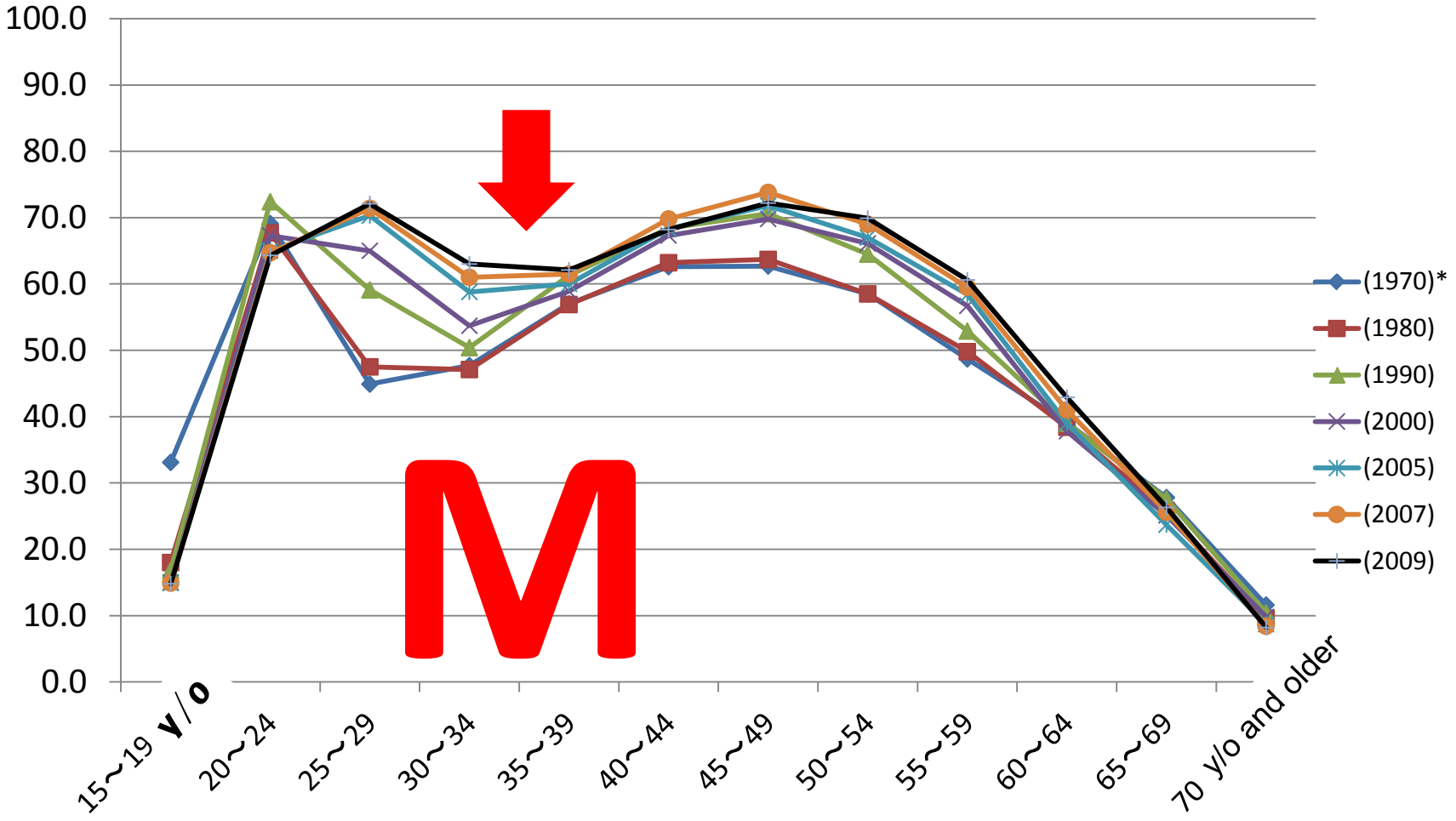


[a]based on Wilcoxon rank sum test : [b]Those who were unemployed were excluded.

Ref: Alumnae survey of 14 private medical schools

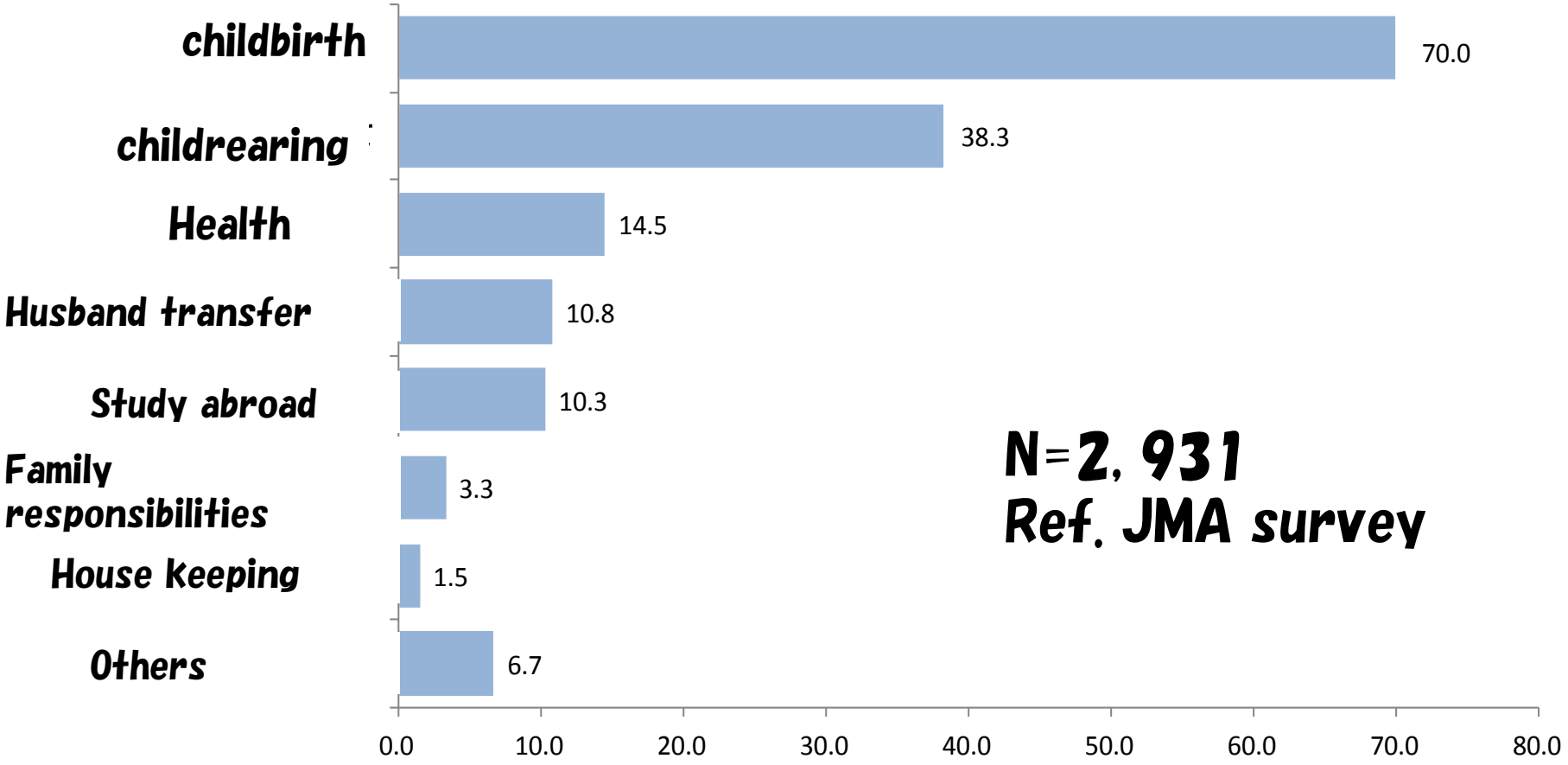
http://homepage3.nifty.com/dzb/index.html

Workforce participation rate among women in Japan



Ref: Labor Force Survey in 2009

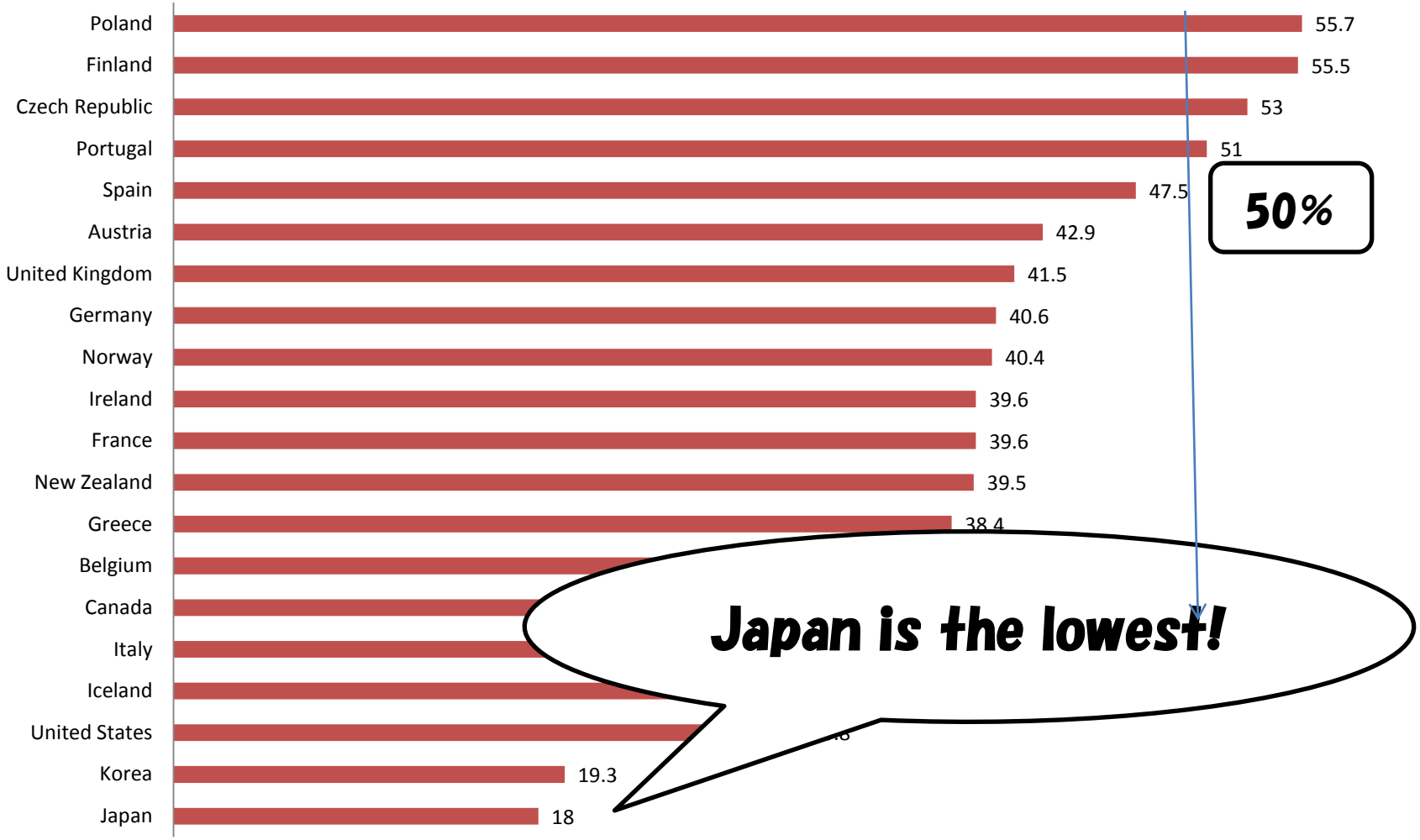
Reasons why women physicians retire or absent from work.



N=2,931
Ref. JMA survey

Once women retire from full-time positions, only one third returns to full-time workers.

Women among total # of physicians (%)



Ref: OECD Health data2010

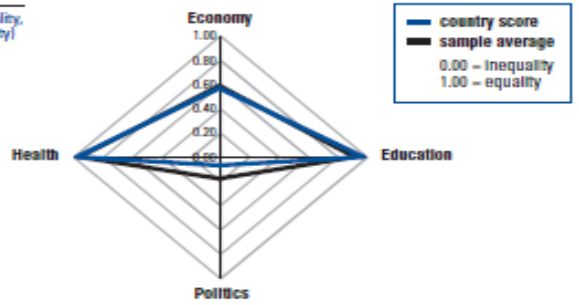
Gender gap index of Japan: 101st of 135 total countries

Japan 2012

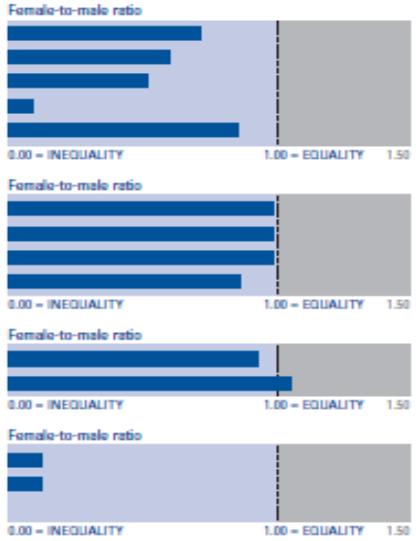
Gender Gap Index 2010	94 (out of 134 countries)	0.652 (0.00 = inequality, 1.00 = equality)

Key Indicators

Total population (millions)	127.70
Population growth (%)	-0.05
GDP (US$ billions)	5,166.28
GDP (PPP) per capita	29,688
Mean age of marriage for women (years)	29
Fertility rate (births per woman)	1.30
Year women received right to vote	1945, 1947
Overall population sex ratio (male/female)	0.95



Gender Gap Subindexes	Rank	Score	Sample average	Female	Male	Female-to-male ratio
Economic Participation and Opportunity	**101**	**0.572**	**0.590**			
Labour force participation	79	0.73	0.69	62	84	0.73
Wage equality for similar work (survey)	95	0.61	0.65	—	—	0.61
Estimated earned income (PPP US$)	86	0.53	0.53	21,143	40,000	0.53
Legislators, senior officials, and managers	113	0.10	0.27	9	91	0.10
Professional and technical workers	74	0.87	0.64	47	53	0.87
Educational Attainment	**82**	**0.986**	**0.929**			
Literacy rate	1	1.00	0.86	99	99	1.00
Enrolment in primary education	1	1.00	0.98	100	100	1.00
Enrolment in secondary education	1	1.00	0.92	98	98	1.00
Enrolment in tertiary education	97	0.88	0.86	54	62	0.88
Health and Survival	**1**	**0.980**	**0.955**			
Sex ratio at birth (female/male)	1	0.94	0.92	—	—	0.95
Healthy life expectancy	1	1.06	1.04	78	73	1.07
Political Empowerment	**101**	**0.072**	**0.179**			
Women in parliament	94	0.13	0.22	11	89	0.13
Women in ministerial positions	78	0.13	0.18	12	88	0.13
Years with female head of state (last 50)	44	0.00	0.15	0	50	0.00



出典：OECD Health Data

#(%) of women in decision making positions in medicine

Medical school

	Dean			Professor		
	Total	Women	(%)	Total	Women	(%)
Total	80	2	**2.5%**	3962	103	**2.6**
National	51	1	**2.0%**	2318	51	**2.2**
Private	29	1	**3.4%**	1677	52	**3.1**

Ref : Kosuke Yasukawa. Medical Teacher. 2013.

Japanese Association of Medical Science

	Board			Executive director		
	Total	Women	(%)	Total	Women	(%)
105societies	32583	2228	**6.8%**	2140	78	**3.6%**

Ref : Tomizawa, 2012

Japan Medical Association

	Board			Executive director		
	Total	Women	(%)	Total	Women	(%)
	27	1	**3.7%**	10	1	**10%**

Ref : JMA 2012

Survey of almunae from 14 med schools

Have you ever been left out professional opportunities such us promotion or salaried position based on gender?

	Women (n = 1684)		Men (n = 808)		P
	N	%	N	%	
					<0.0001
Yes	332	21	21	3	
No	881	55	665	83	
Unsure	381	24	115	14	

*Based on Chi-square test.

Yasukawa & Nomura. Experience of gender-based discrimination and perception of gender-based career obstacles among Japanese physicians. In submission

Difference in perception of gender-based career obstacles for women (1684 women vs. 808 men)

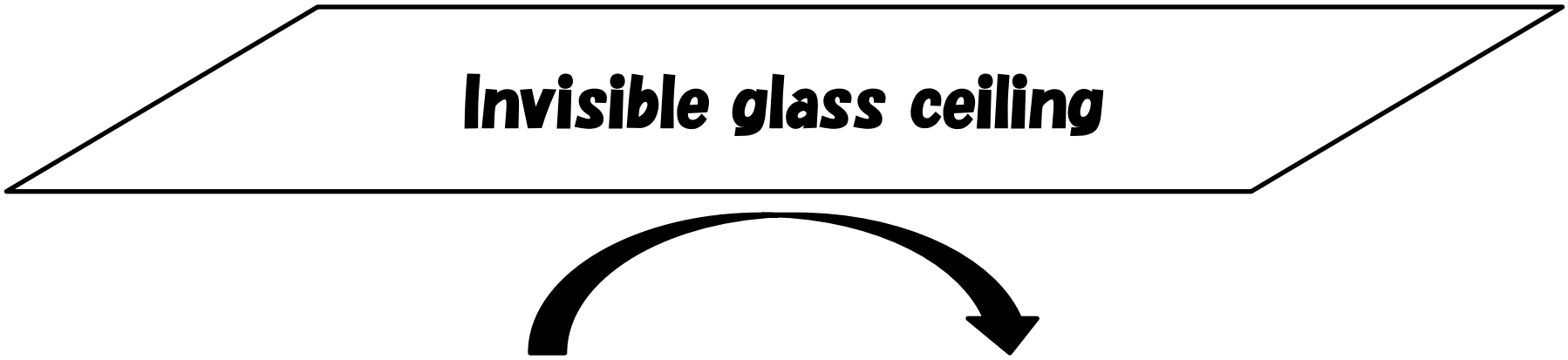
	Women		Men		*P**
	N	%	N	%	
Women physicians are less likely to be:					
1) promoted to a management position in medicine.	1014	63	330	41	<0.0001
2) promoted to board member of a medical society.	815	51	225	28	<0.0001
3) employed in a salaried position in a teaching hospital.	791	50	258	33	<0.0001
4) employed in a salaried position in academic medicine.	707	44	195	25	<0.0001
5) promoted in academic medicine.	810	51	210	27	<0.0001
positive response to any of the 5 statements	1224	77	436	55	<0.0001

[a]Each question was rated on a five-point Likert scale, where 1 = strongly disagree and 5 = strongly agree.

*Based on Chi-square test.

Yasukawa & Nomura. Experience of gender-based discrimination and perception of gender-based career obstacles among Japanese physicians. In submission

Women who had strong perception of gender based obstacles were less likely to work full-time



Motivation of work and professional career

personal life

Any gender inequality must be rectified.

Nomura K, Gohchi K. The impact of gender-based obstacle on working status among women physicians in Japan. Soc Sci Med 75(9):1612-1616, 2012.

Conclusion

In order to work for women as much as men,

- Working conditions need to be improved to balance work and gender role responsibilities.
- Support for career development both in clinic and academia
- Career opportunities offered as much as men
- Any gender inequality must be rectified.