

Situation of professional development of the medical physicist in P.R.China

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Present Status of Medical Physics in China

- Numbers of MPs being involved in doing research, teaching and working on different areas relating to medicine.

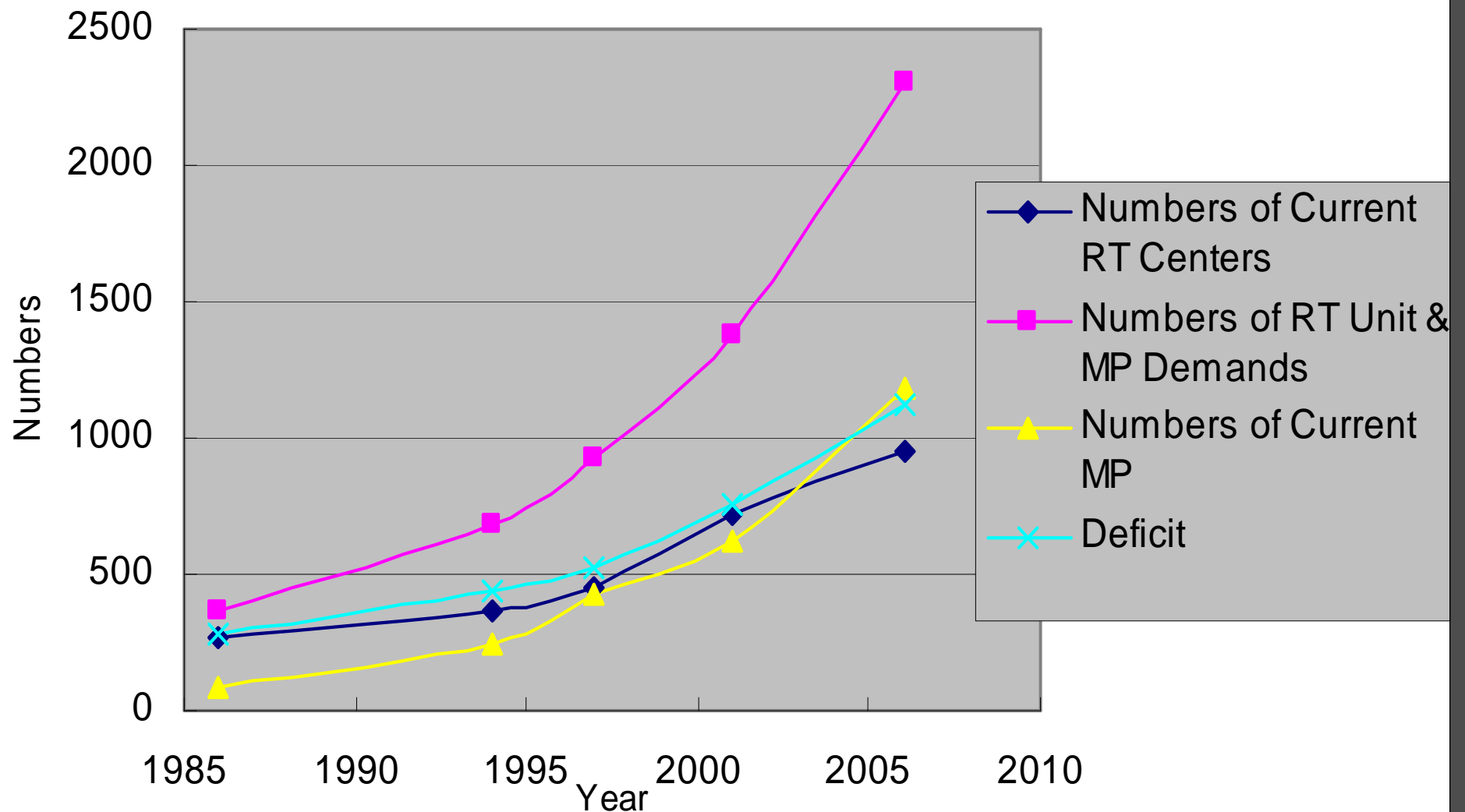
Areas	Subjects	Numbers
Medical Universities and Colleges	<ul style="list-style-type: none">■ Teaching Medical Physics to Medical Students■ Medicinal-oriented Project Research	Over 1500
Universities and Colleges	<ul style="list-style-type: none">■ Project-based Research related to Medicine	Approx 400
Hospitals and Clinics	<ul style="list-style-type: none">■ Working as an clinical Physicist in Radiology, Nuclear Medicine, and Radiation Oncology■ Clinical-Oriented Project Research■ Manufactural-Oriented Project Development	Over 1400

Total: Approx 3300

- Professional Body: **Chinese Society of Medical Physics**

- **Founded in 1981**
- **Member of IOMP since 1986**
- **Publish Chinese Journal of Medical Physics since 1986**

Example: Big Demands of Medical Physicists in Chinese Radiation Oncology Community



The big gap between the market demands and the available numbers of qualified medical physicists is due to the following reasons:

- Not enough number of graduate programs
- Current programs do not meet common standards
 - Lack qualified lecturers
 - Do not have a complete set of courses
 - Lack clinical practice opportunities
- For the existing MPs the professional competency for some is questionable because of poor educational background and training.
- Promotion is difficult for some MPs, as they can not pass examinations that belongs to other professions.
- No mp resident program
- Medical physics has not been recognized as a discipline equal to biomedical engineering

Solutions

- Try to seek **policy support** and to get **professional recognition** of medical physicist from authorities.
- **Demand-driven motivation**
More universities/colleges are interested in Medical Physics programs, as the students easily find satisfactory job
- Efforts should be done to enhance education and training by **setting up Medical Physics residency programs** and more graduate programs in big centers, and for that a strict **accreditation system** needs to be set up.

Accreditation(I)

- There is a Shang Gang examination system administered by the Public Health Ministry since 1996 and executed yearly by the academic societies affiliated with the Chinese Medical Association.
- This examination system is designed only for those people including physicians, medical physicists, technologists, medical engineers who are involved in using and operating LA (Linear Accelerator), CT/MRI, PET, etc.
- In Xiangshan meeting held in 2004 in Beijing, we intended to set up in China a profession system for medical physicist working in hospitals and clinical-oriented research institutes as a four-level system:

Accreditation (II)

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Accreditation (III)

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Accreditation(IV)

- In Xiangshan meeting held in 2004 in Beijing, we intended to set up in China a profession system for medical physicist working in hospitals and clinical-oriented research institutes as a **four-level system**:

Assistant Medical Physicist

Medical Physicist

Associate Professor of Medical Physicist

Professor of Medical Physicist

Accreditation(V)

- To qualify, one has to meet certain entrance academic requirements:

To have BS, MS, PhD degrees of physics
or related science

To have a minimum period of time working
in clinics and to get a minimum score
by paper examinations before promotion
to one of the four qualified professional
levels of medical physicist.

Suggestions for MP Accreditation

- We intend to set up in China a profession system for medical physicist working in hospitals as a

four-level system:

Assistant Medical Physicist (BS+ 4Year's working)

Medical Physicist (MS + 2 Year's working, or Ph.D)

Associate Professor of Medical Physicist (by paper exams)

Professor of Medical Physicist (by paper examinations)

The DTT program sponsored by Varian
is going on in Mainland China
(81 students plus 12 tutors)



Thank you !