

Analysis of Health Workforce “ SUPPLY SIDE ”

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What is **SUPPLY side** in health workforce?

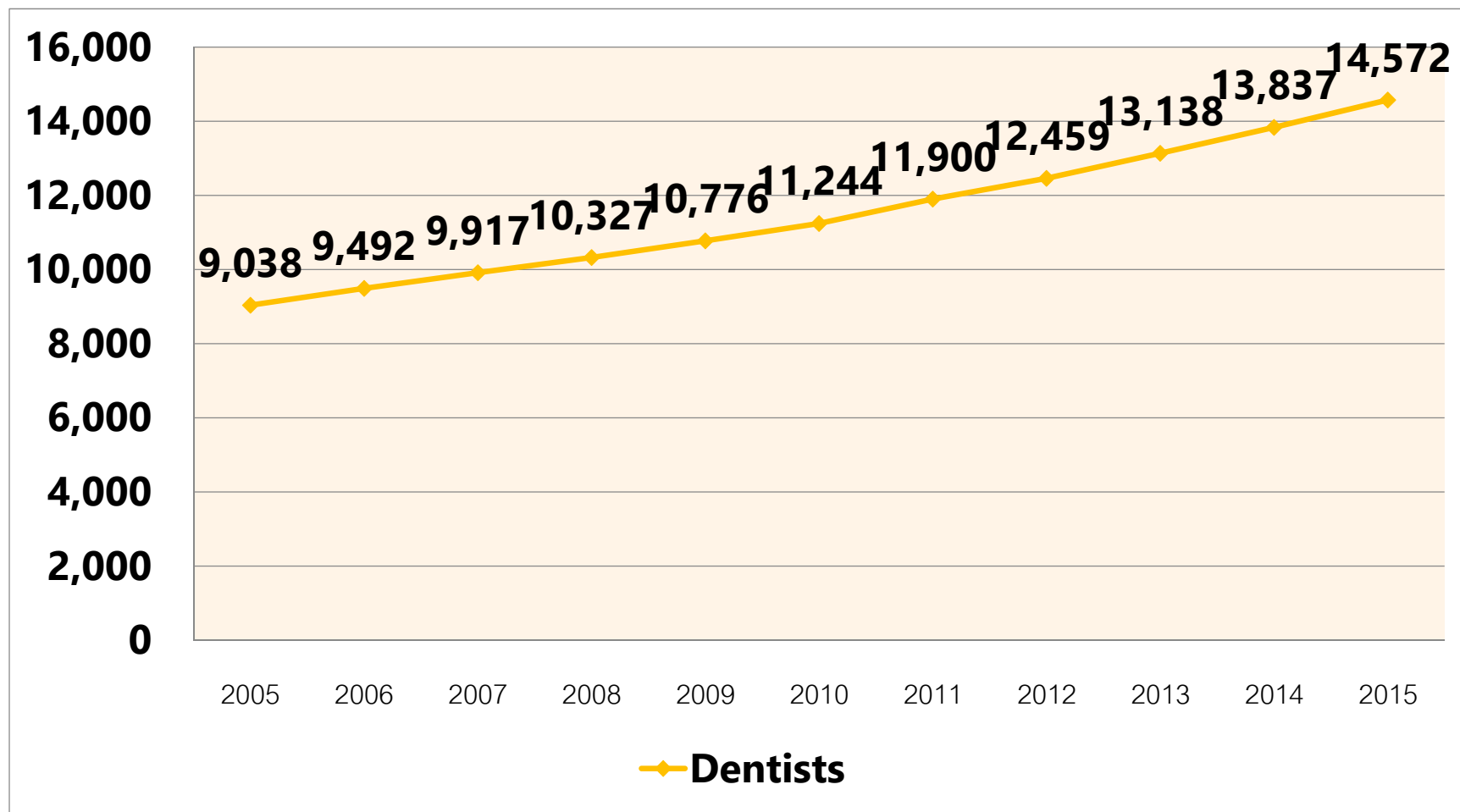
- Supply represents the numbers of personnel
- working or **available to work** in health care settings.
- **willing to work** at a particular compensation level.
- some supply estimates also incorporate specific adjustments that reflect **capacity for work and productivity**. For example FTE estimates are based on the number of hours that health workers devote to the provision of clinical services.

3 Levels of Supply Analysis

1. Basic analysis

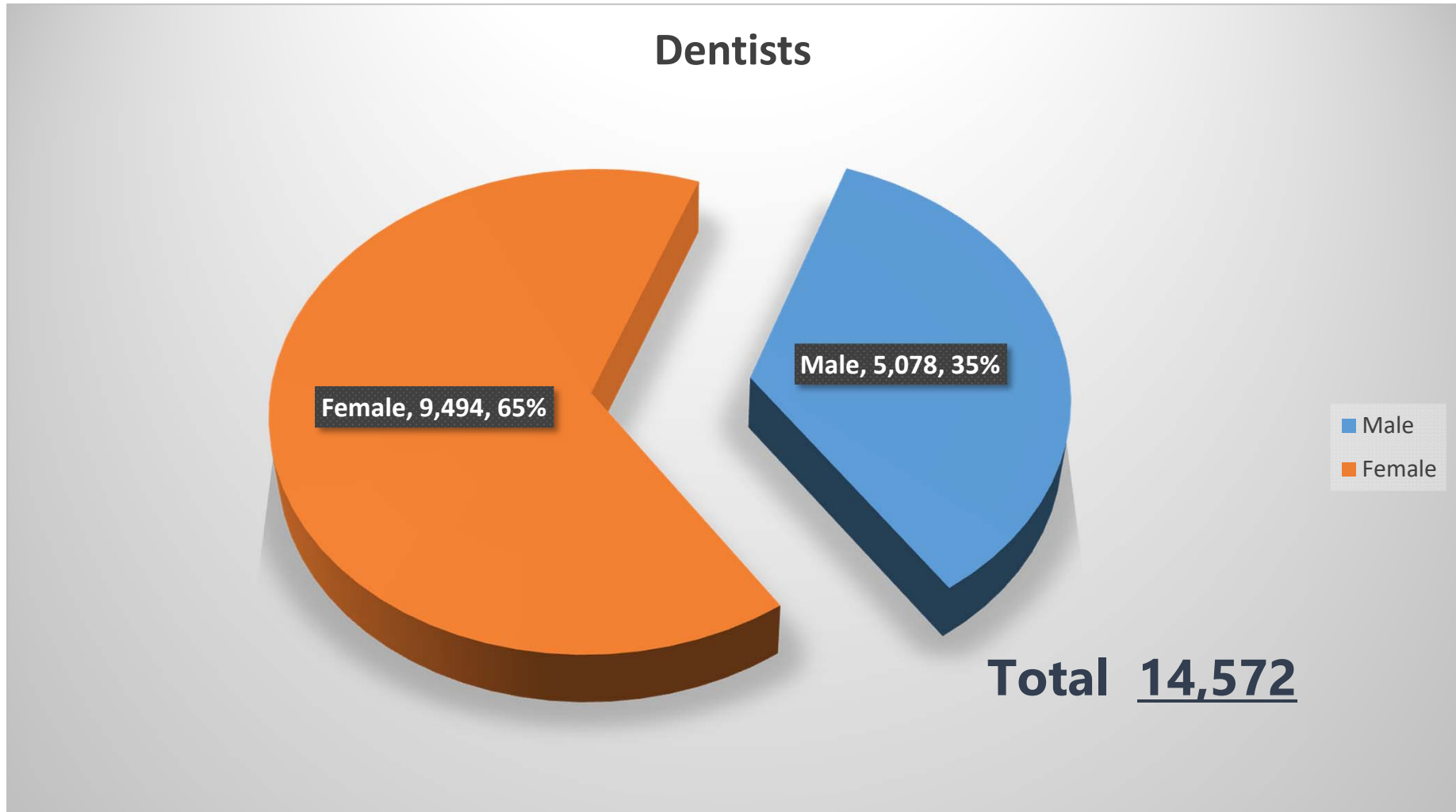
- **Simple counts** and comparisons of averages of health professionals and occupations
- E.g. Licensees and employment
 - Ratios and baselines
 - Region and province counts
 - New entrants and exits

Total Number of Dentists (2005-2015)



Source: Thai Dental Council

Registered Dentists, 2015



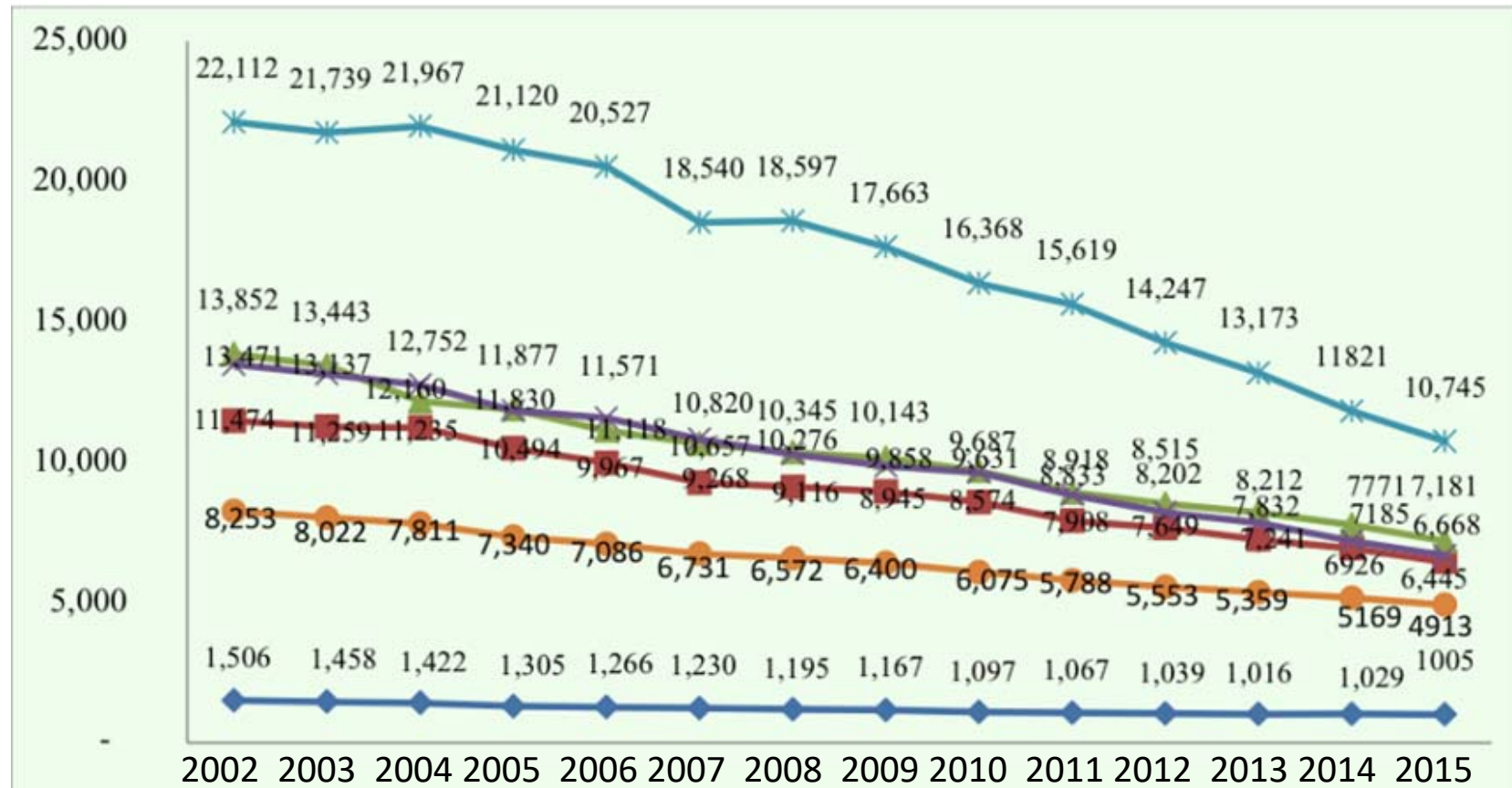
Source: Thai Dental Council

3 Levels of Supply Analysis

2. Intermediate analysis

- more detailed or using statistics for **comparisons**
- E.g. comparisons covering multiple years
 - comparison among geographic regions
 - Historical trends
 - Distributions by practice types and settings
 - Distributions by populations served

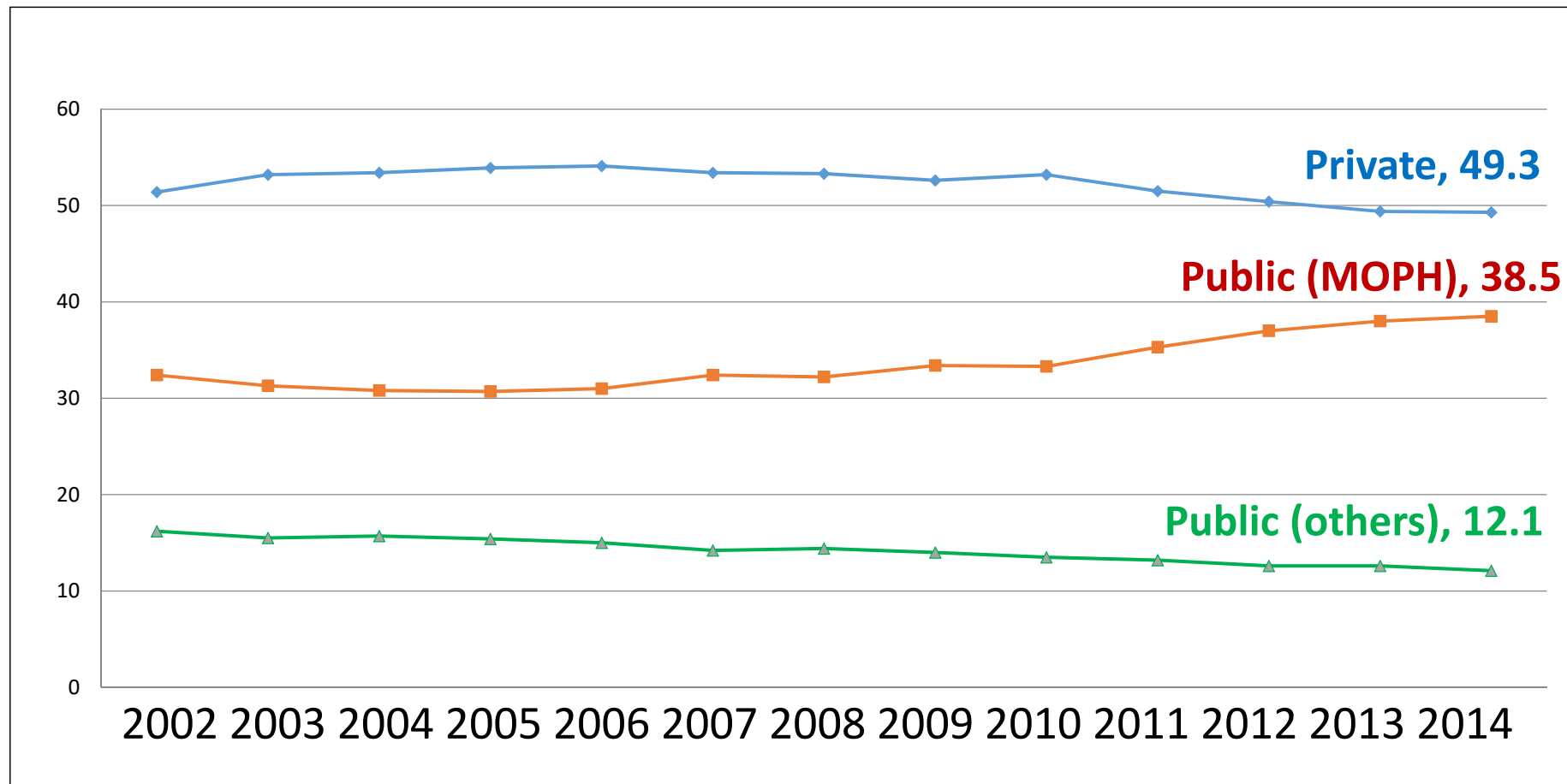
Populations per dentist by regions (2002–2015)



◆ BKK
 ■ Central
 ▲ Southern
 ✕ Northern
 ✱ North-East
 ● Total

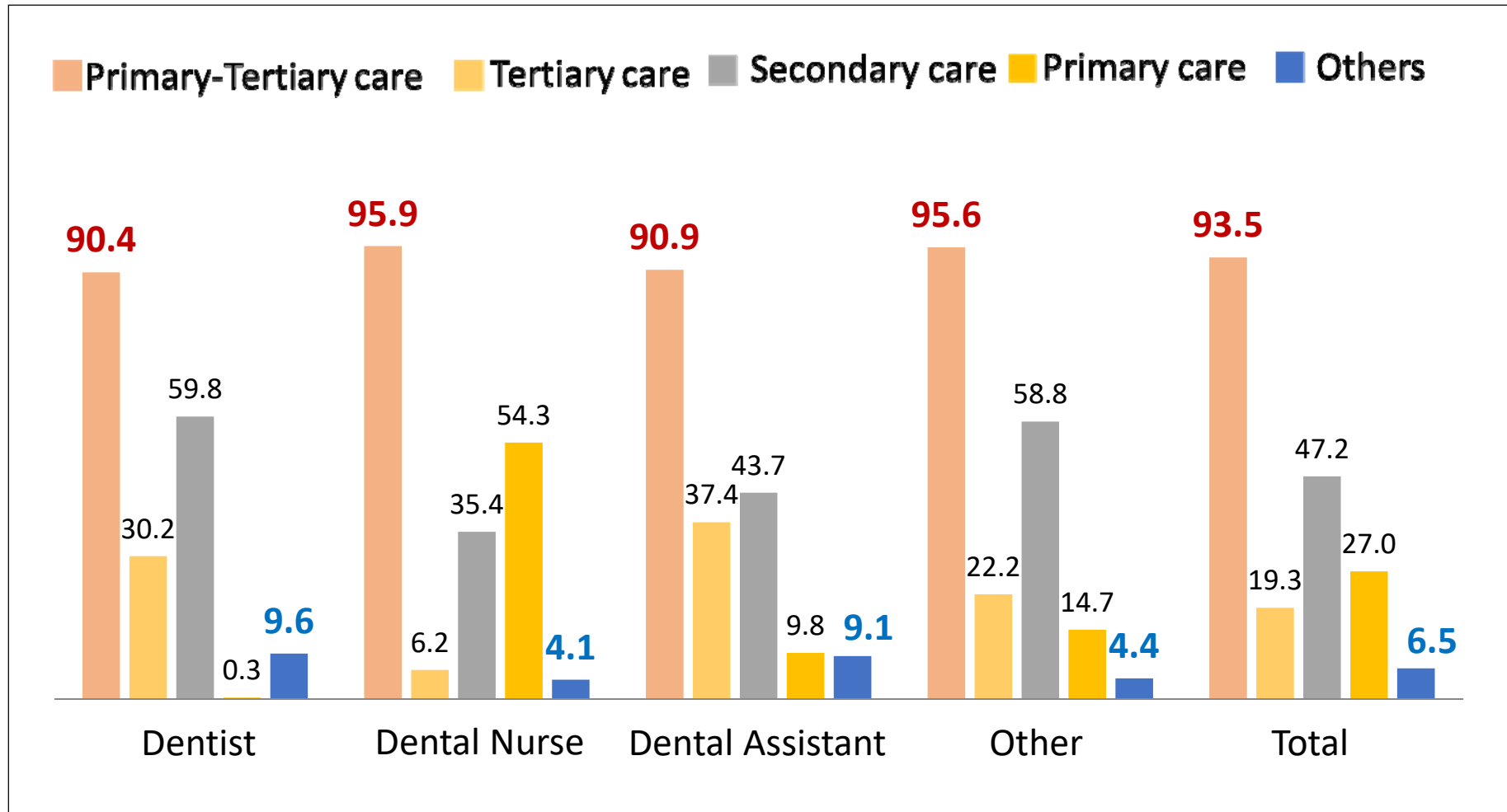
Source: Bureau of Dental Health

Dentist by employment (2002 – 2014)



Source: Bureau of Dental Health

Dental personnel by service settings, 2015



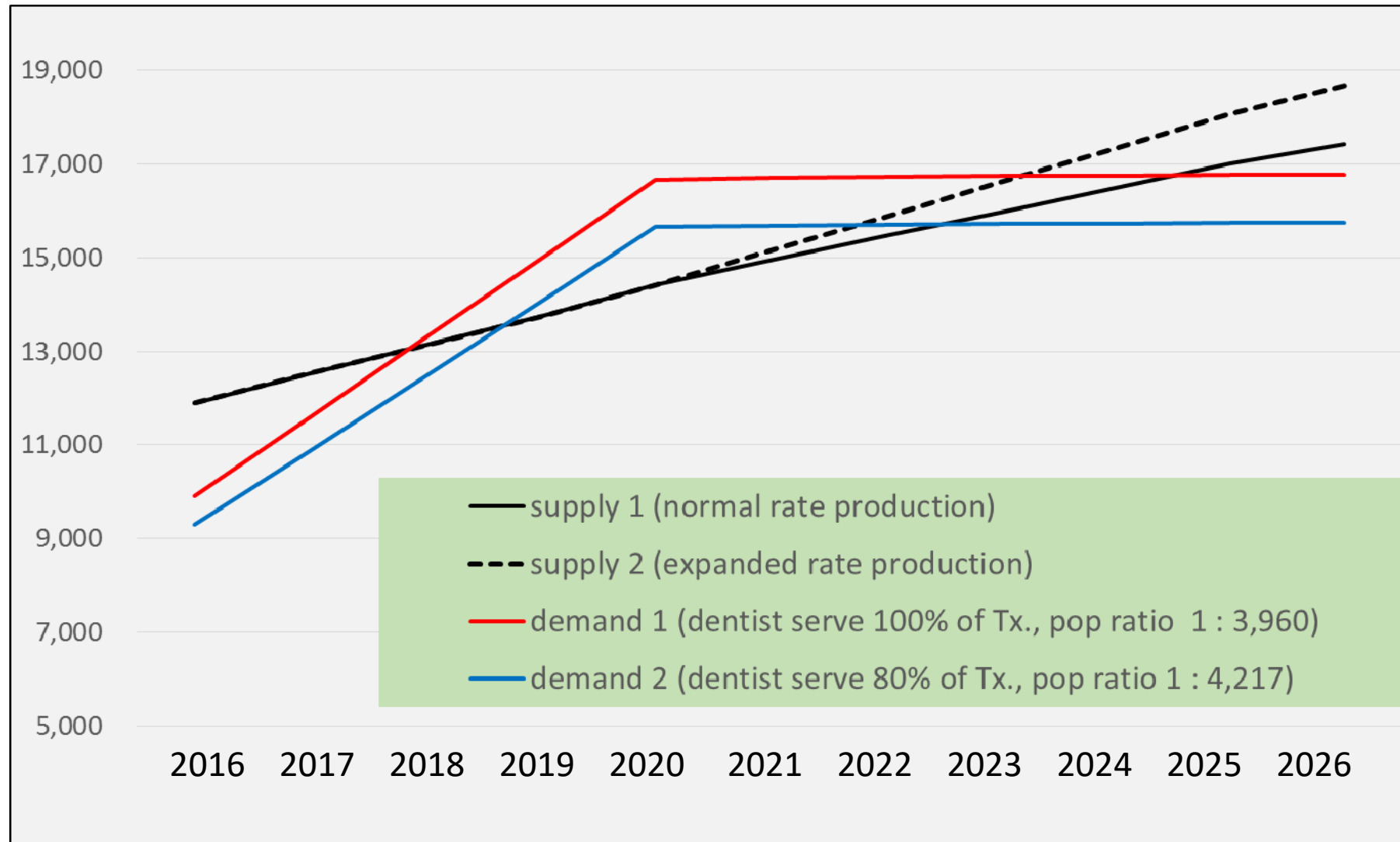
Source: Bureau of Dental Health

3 Levels of Supply Analysis

3. Advance analysis

- involve more advanced statistical techniques, more data manipulation, aim for projection
- E.g. **Projections of supply**
Multivariate analyses of aspects of supply

Supply Projection for Dentist (2016-2026)



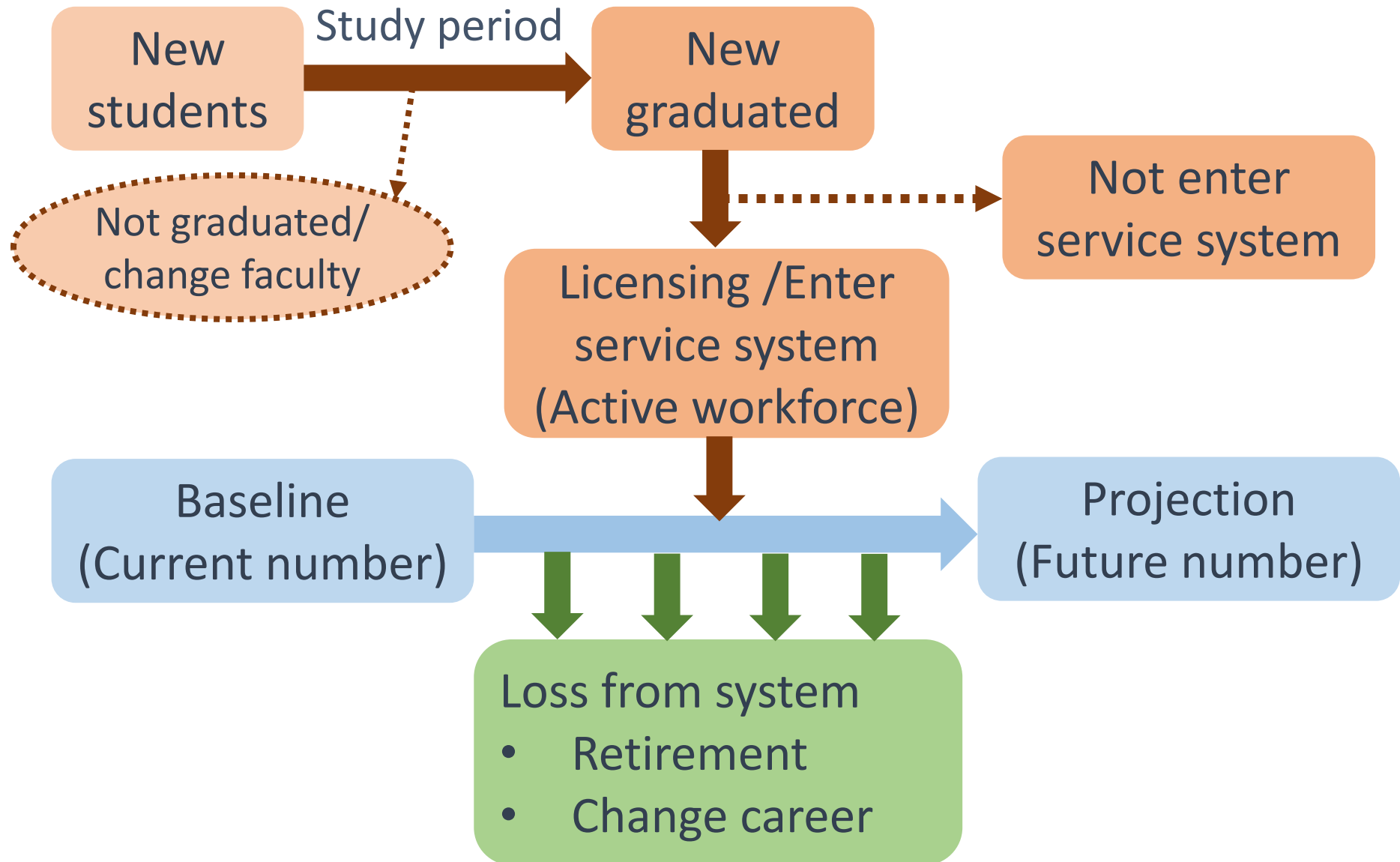
Source: The Projection of Dentist and Dental Nurse for Thailand in the next 10 years (2016 – 2026)

Steps of thinking- supply projection

1. Which profession will be projected? And what are their competency?
2. What is current number?
3. Entering rate
4. Loss rate

*** Step 3,4 have more in detail and depend on context of each profession in each country*

Conceptual Framework for Supply projection



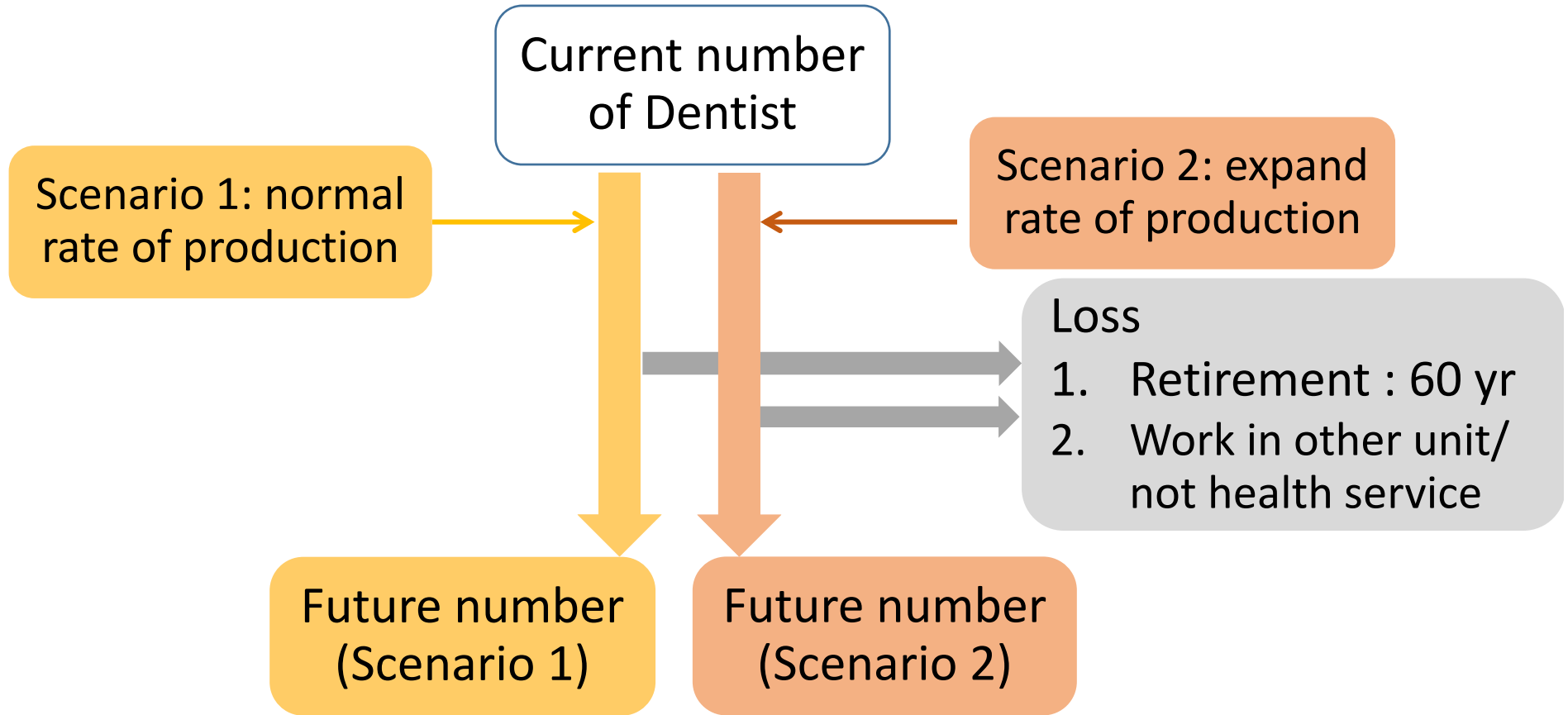
What are your sources of data?

Do you have “**Health workforce account**”?

Is it complete?

Is it update?

Supply Projection for Dentist in Thailand (2016-2026)

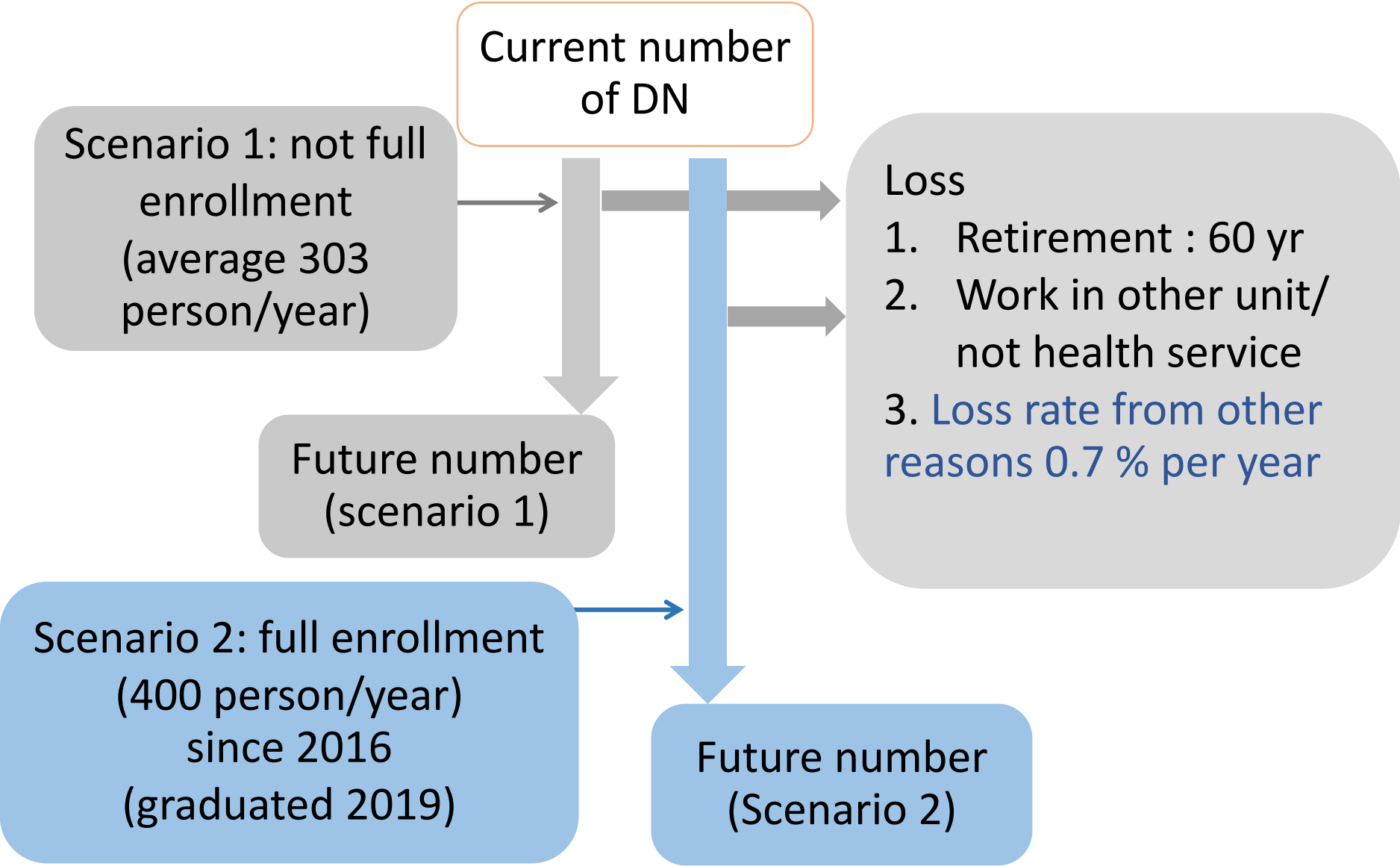


Sources of data: Thai Dental Council

Bureau of Dental Health

Dental Faculty Consortium of Thailand

Supply Projection for Dental Nurse (2016-2026)



Example: Supply projection for DN in scenario 1

Year	Scenario 1				
	DN at the beginning of year	Retire	Loss rate 0.7% per year	New graduated	DN at the end of year
2016	6,699	3	Actual number in pipeline	261	6,910
2017	6,910	13		328	7,177
2018	7,177	22	50	278	7,382
2019	7,382	29	52	303	7,605
2020	7,605	51	53	303	7,804
2021	7,804	63	Number from assumption	303	7,989
2022	7,989	55		303	8,181
2023	8,181	80		57	303
2024	8,347	71	58	303	8,520
2025	8,520	70	60	303	8,694
2026	8,694	81	61	303	8,855

References

- Wing P, Armstrong DP, Forte GJ, Moore J. Health **Workforce Analysis Guide, 2016 Edition**. Rensselaer, NY: Health Workforce Technical Assistance Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; October 2016.

PLAN the right man
for the right job ”