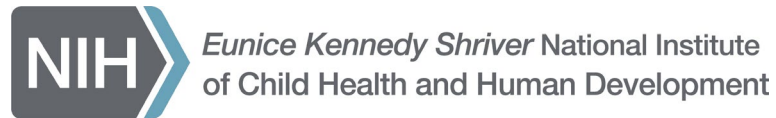


An evaluation of NICHD's K12 programs

Chris Belter and Amanda Sztein, Division of Extramural Research, NICHD

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Motivations

- 2015 training and career development task force report to Council
- 2023 extramural training workgroup recommendations to Council
- Field-specific concerns about the future of the biomedical workforce



About the K12 mechanism

Mechanism title: Physician Scientist Award Program / Clinical Scientist Institutional Career Development Program Award

Purpose: “For support to a newly trained clinician appointed by an institution for development of independent research skills and experience in a fundamental science within the framework of an interdisciplinary research and development program.”

“The purpose of [the K12] program is to support institutional career development awards designed to prepare newly-trained clinicians who have made a commitment to independent research careers, and to facilitate their transition to more advanced support mechanisms, e.g., K08 and K23.”

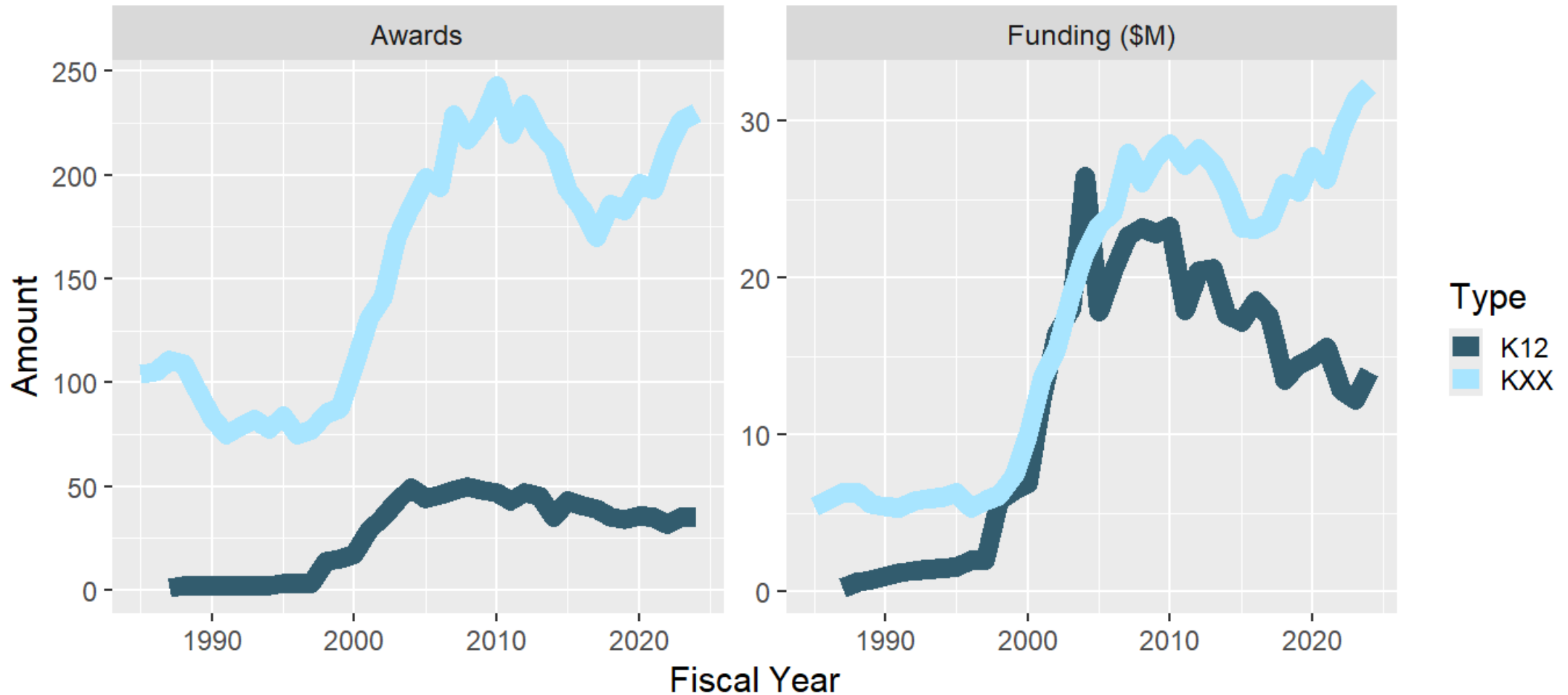


NICHD K12 programs

Program name	Acronym	Discipline	Active years
Pediatric Scientist Development Program	PSDP	Pediatrics	1987-2025
Child Health Research Career Development Award	CHRCDA	Pediatrics	2001-2025
Pediatric Critical Care and Trauma Scientist Development Program	PCCTSDP	Pediatrics	2004-2025
Pediatric Clinical Pharmacology Research Career Development Award	PCDPTN	Pediatrics	2023-2025
Rehabilitation Research Career Development Programs	RRCD	Rehabilitation	1995-2021
Reproductive Scientist Development Program	RSDP	Reproductive health	1988-2025
Women's Reproductive Health Research Career Development Programs	WRHR	Reproductive health	1998-2025
Building Interdisciplinary Research Careers in Women's Health	BIRCWH	Reproductive health	2000-2023
Male Reproductive Health Research Career Development Program	MRHR	Reproductive health	2006-2016



Non-BIRCWH awards and funding by training type



Goals of NICHD K12s

NICHD supports K12 programs to:

- Maintain the pipeline of skilled investigators
- Draw clinicians into research careers
- Create community among trainees and established investigators
- Signal NICHD's ongoing commitment to certain fields



Evaluation question

Are NICHD K12s more successful at sustaining these four goals than matched individual Ks?





Goal 1: Maintain the investigator pipeline

About the data

Data sources: QVR, RePORTER, Scopus (as of 6 February 2026)

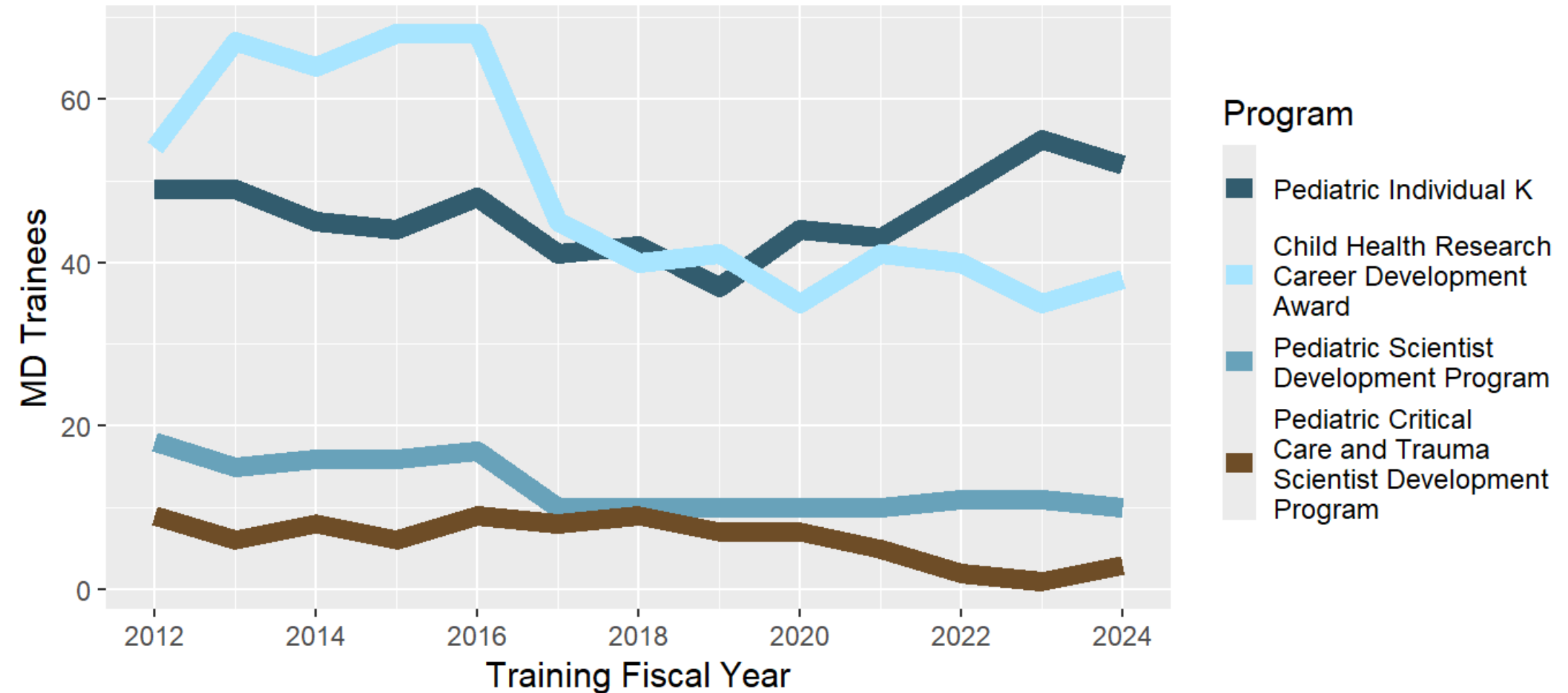
Inclusion criteria: Trainees on all NICHD-administered K awards, excluding K24s, from 2012-2024 (N = 1,881)

Data processing:

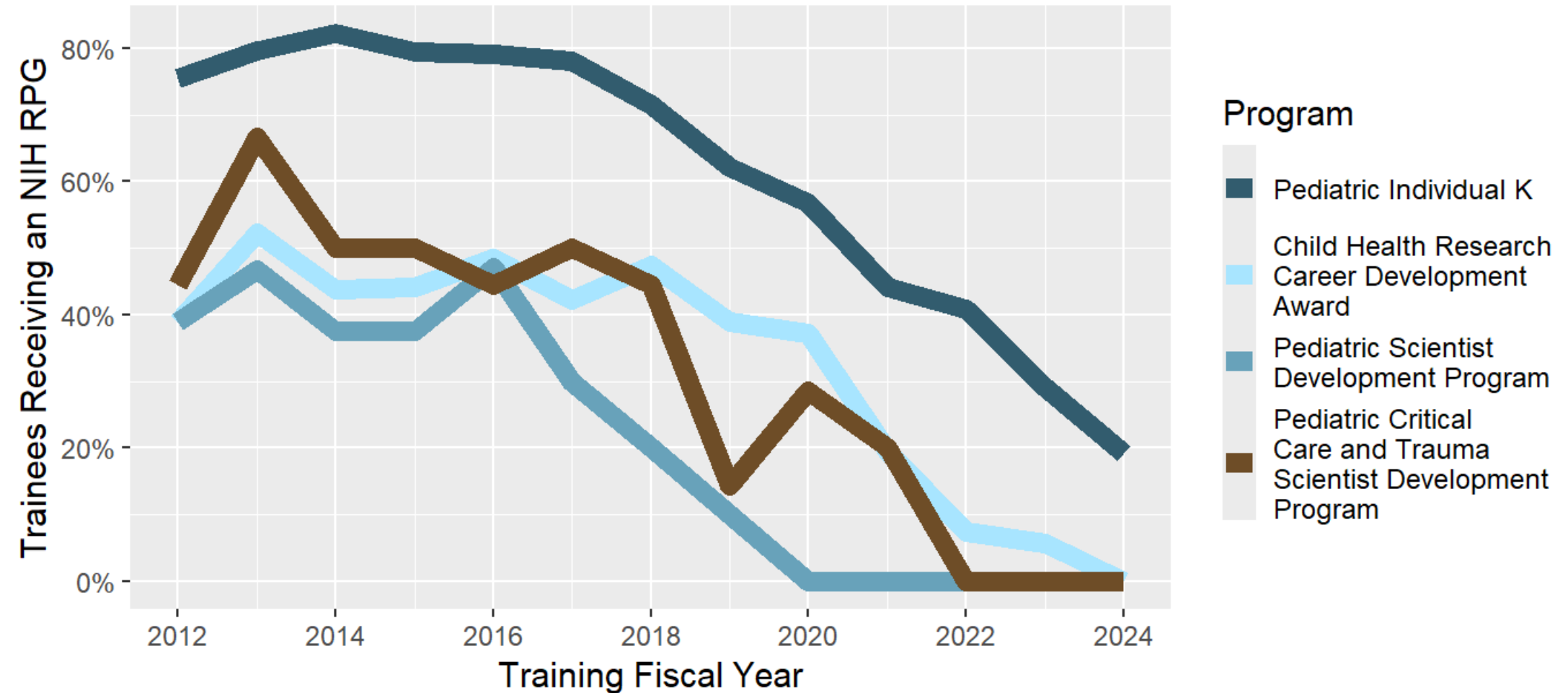
- Trainees algorithmically assigned to disciplines based on training award texts
- Trainees grouped by K12 programs or into discipline-specific individual Ks
- Trainees' subsequent NIH RPG award rates derived from QVR data
- Trainees' active publication rates derived from algorithmically matched Scopus author profiles



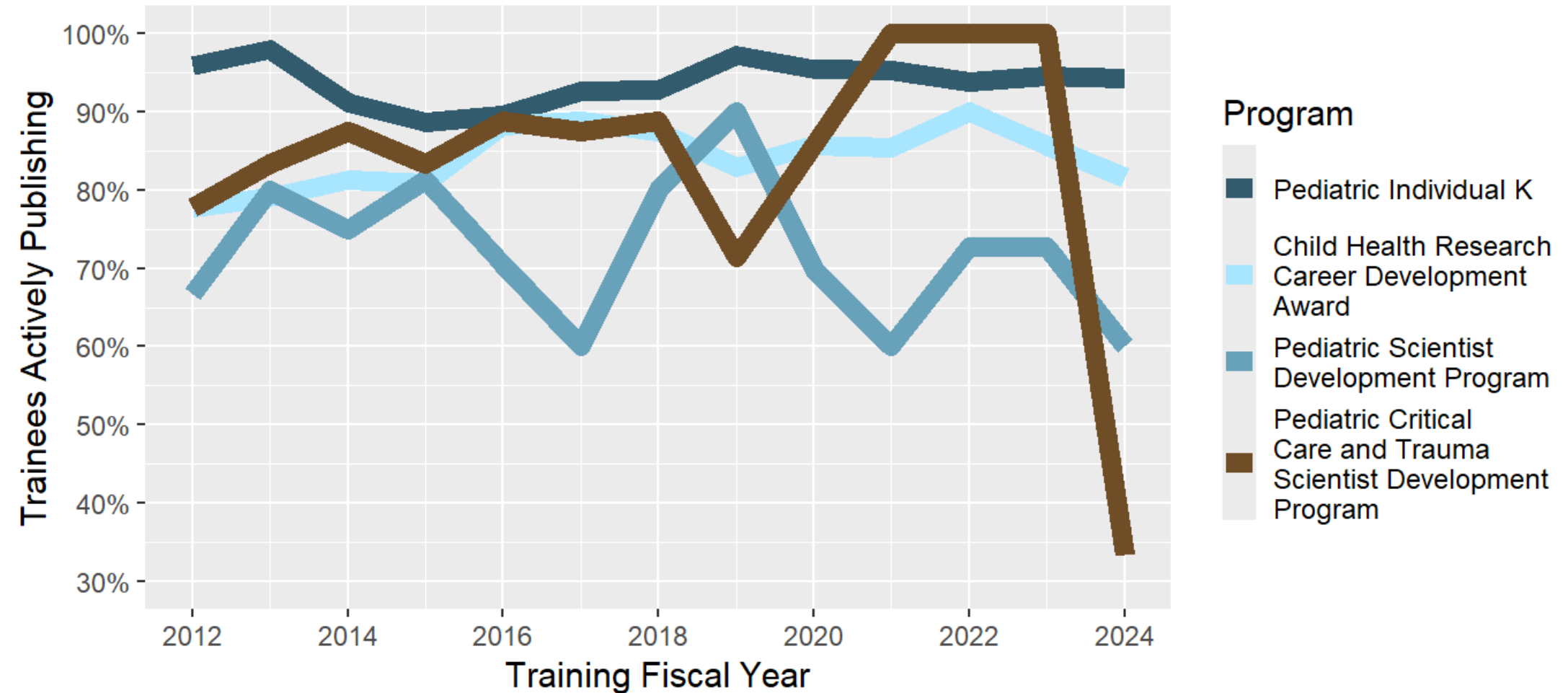
MD trainees per program: Pediatrics



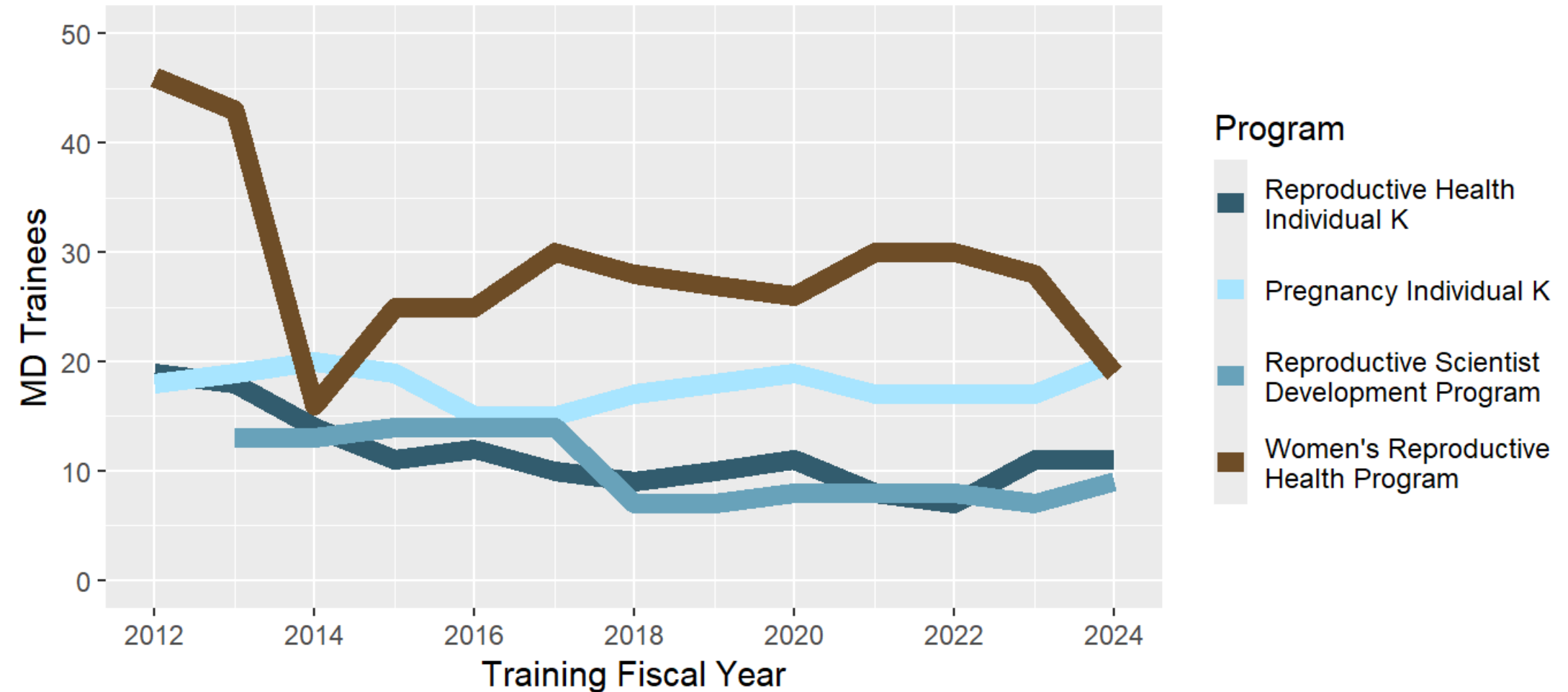
MD trainees receiving an NIH RPG: Pediatrics



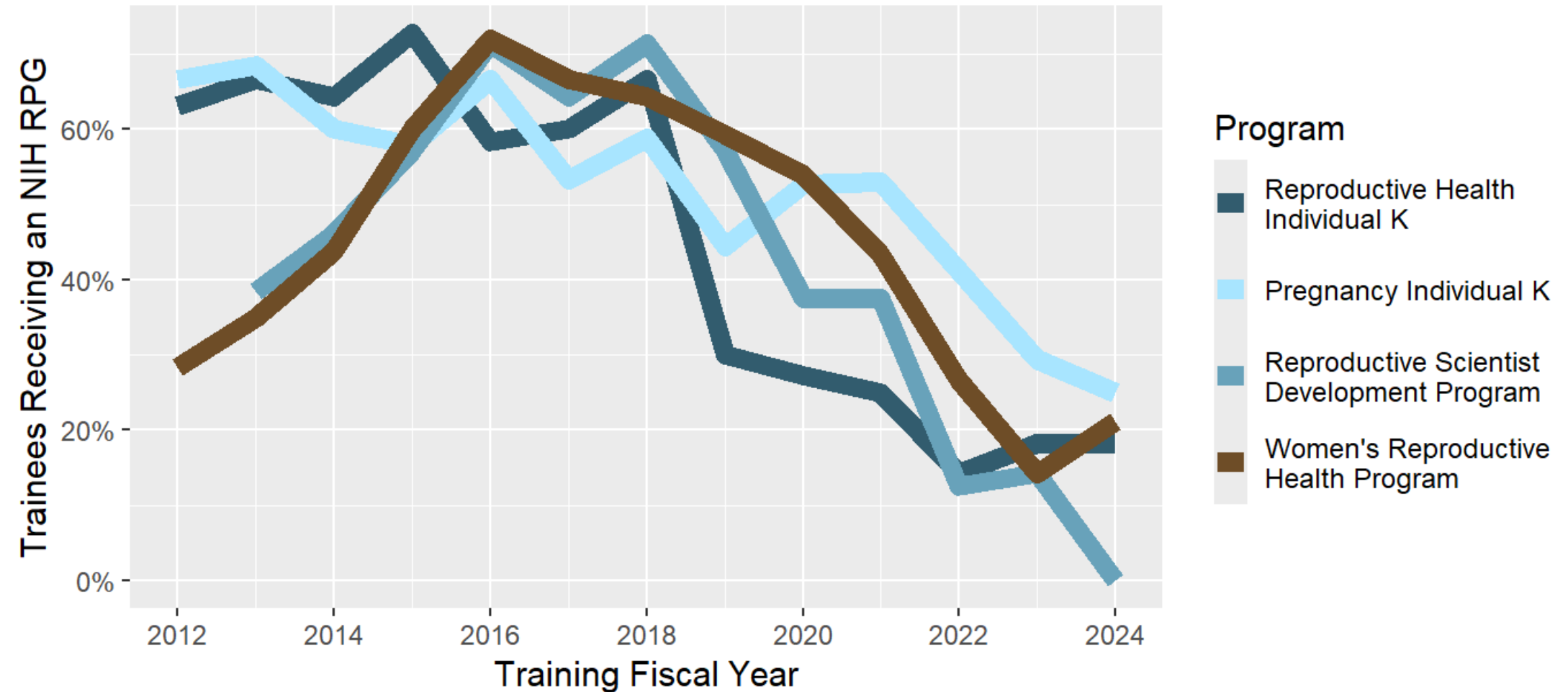
MD trainees actively publishing: Pediatrics



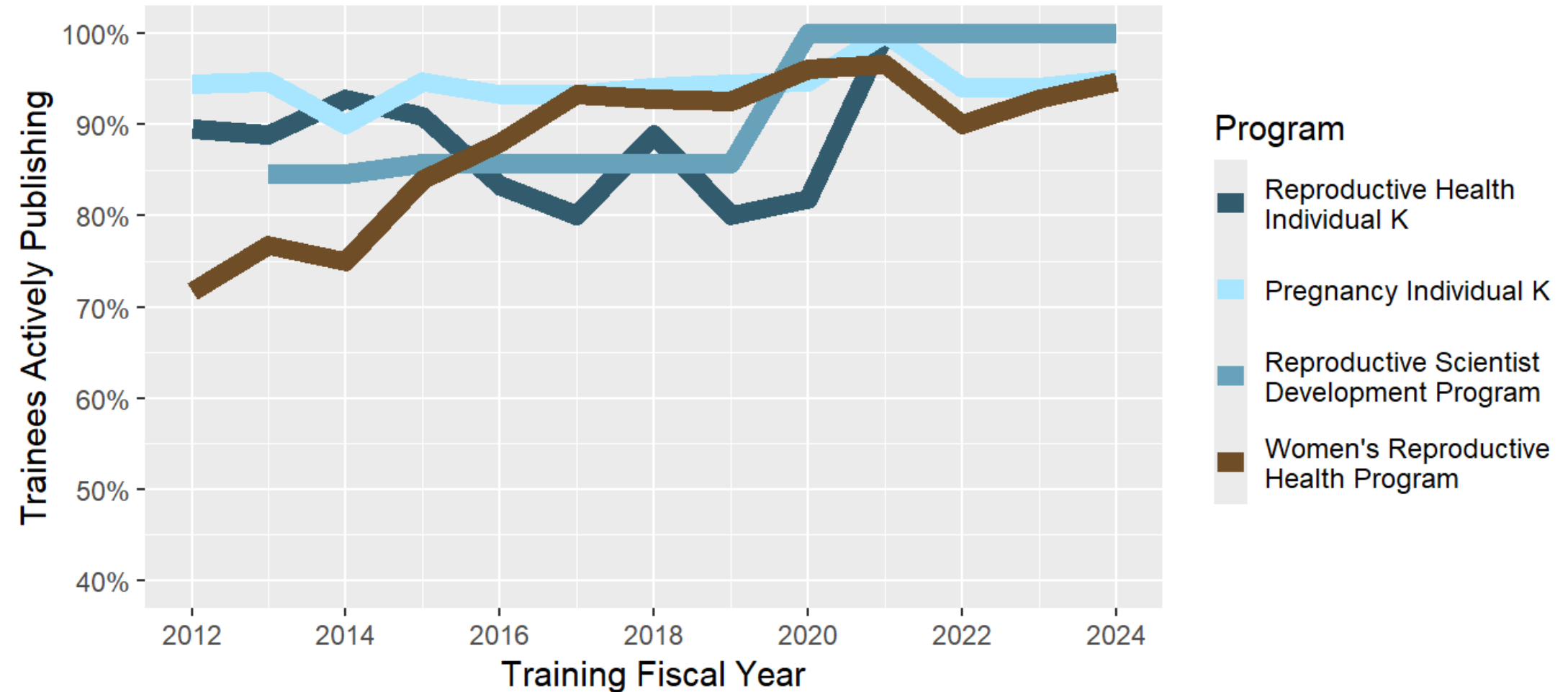
MD trainees per program: Reproductive Health



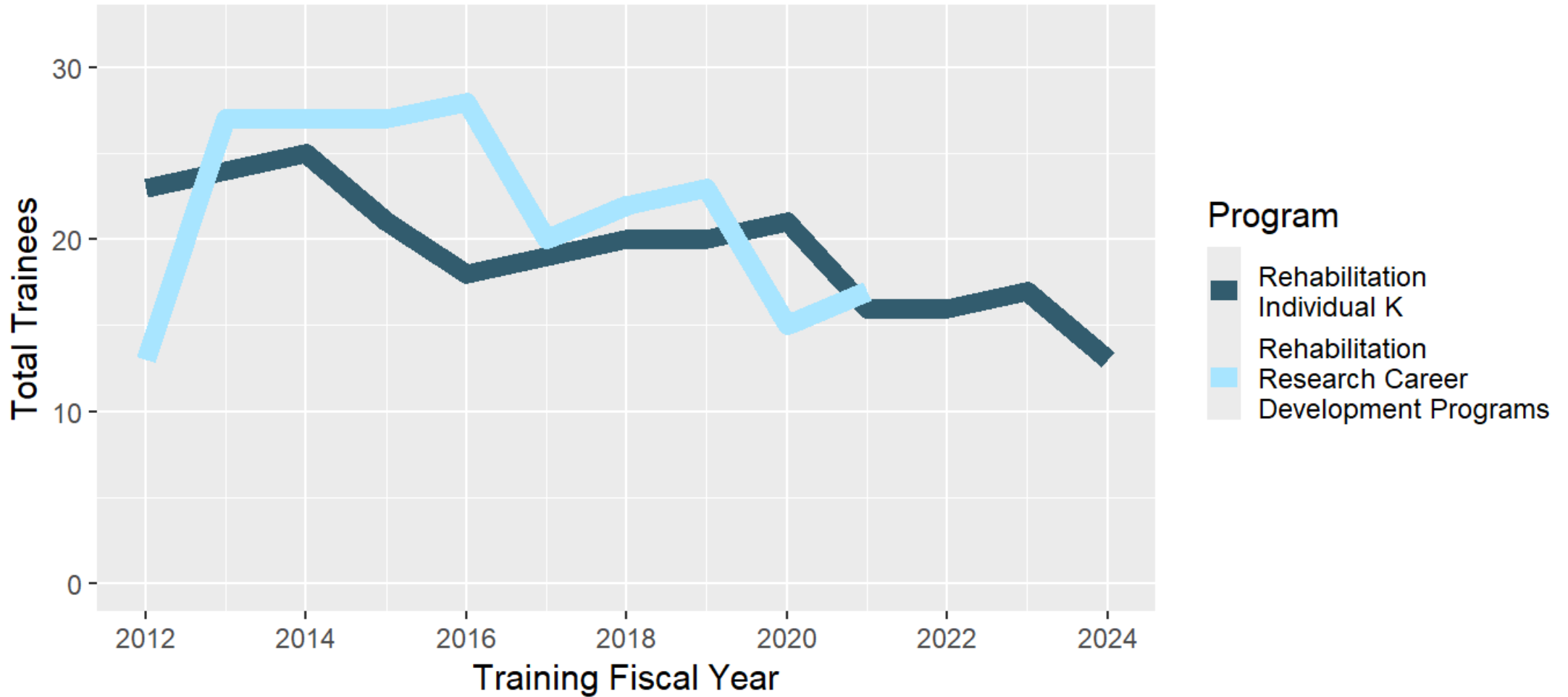
MD trainees receiving an NIH RPG: Reproductive Health



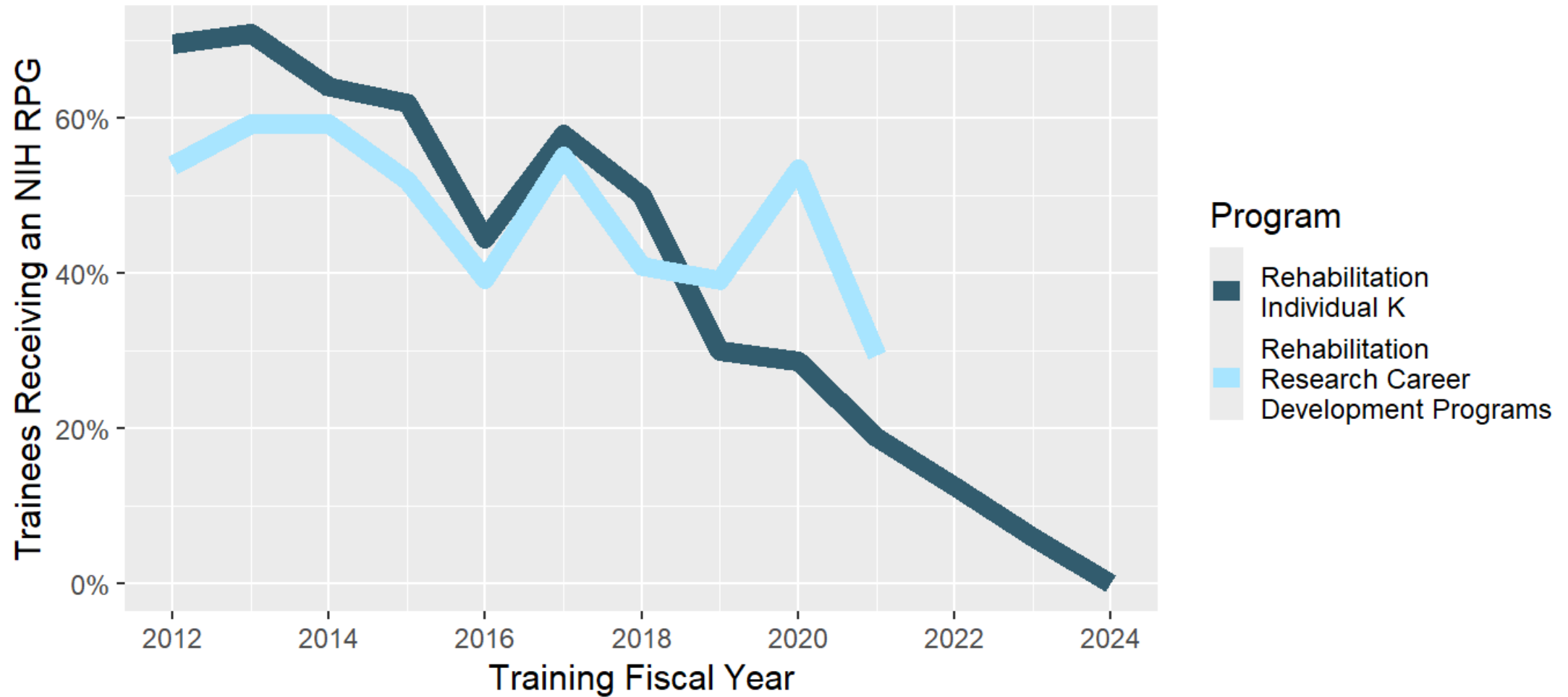
MD trainees actively publishing: Reproductive Health



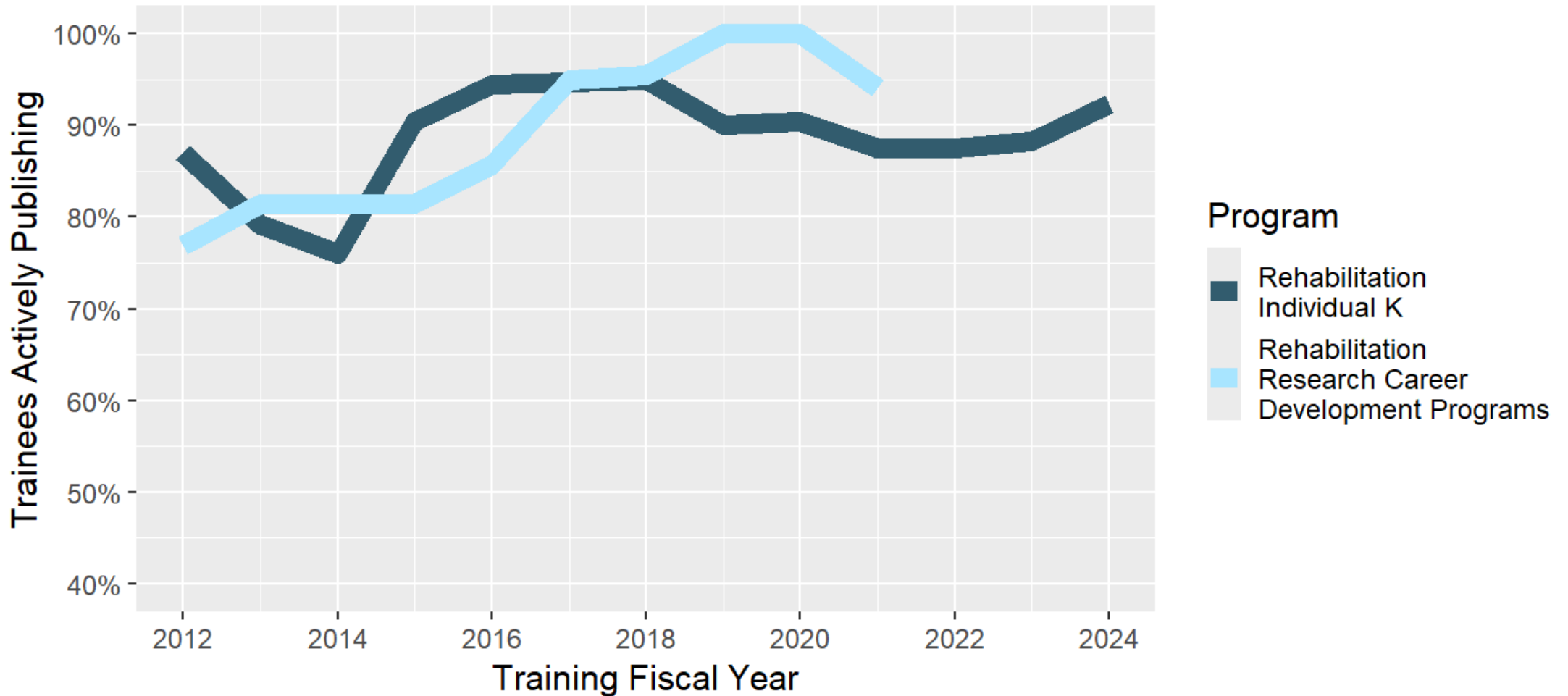
All trainees per program: Rehabilitation



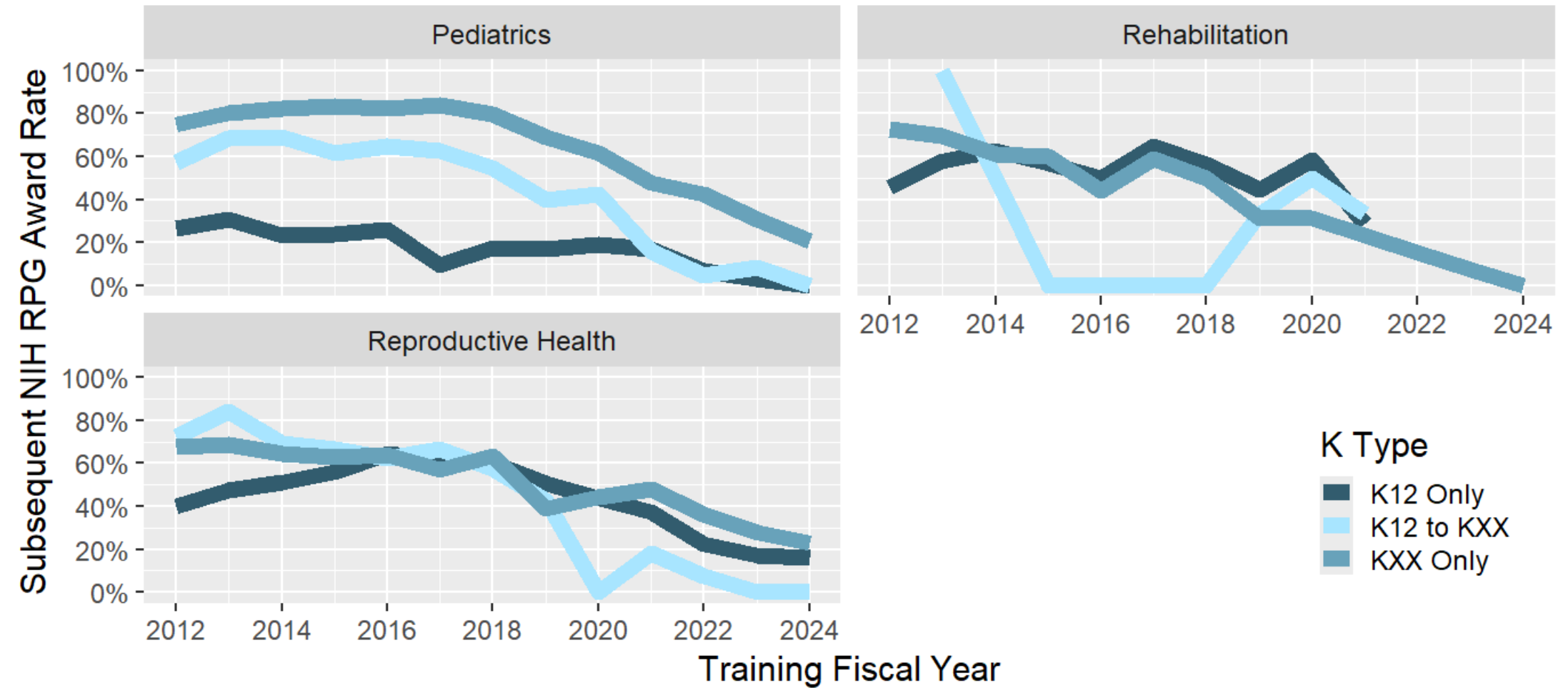
All trainees receiving an NIH RPG: Rehabilitation



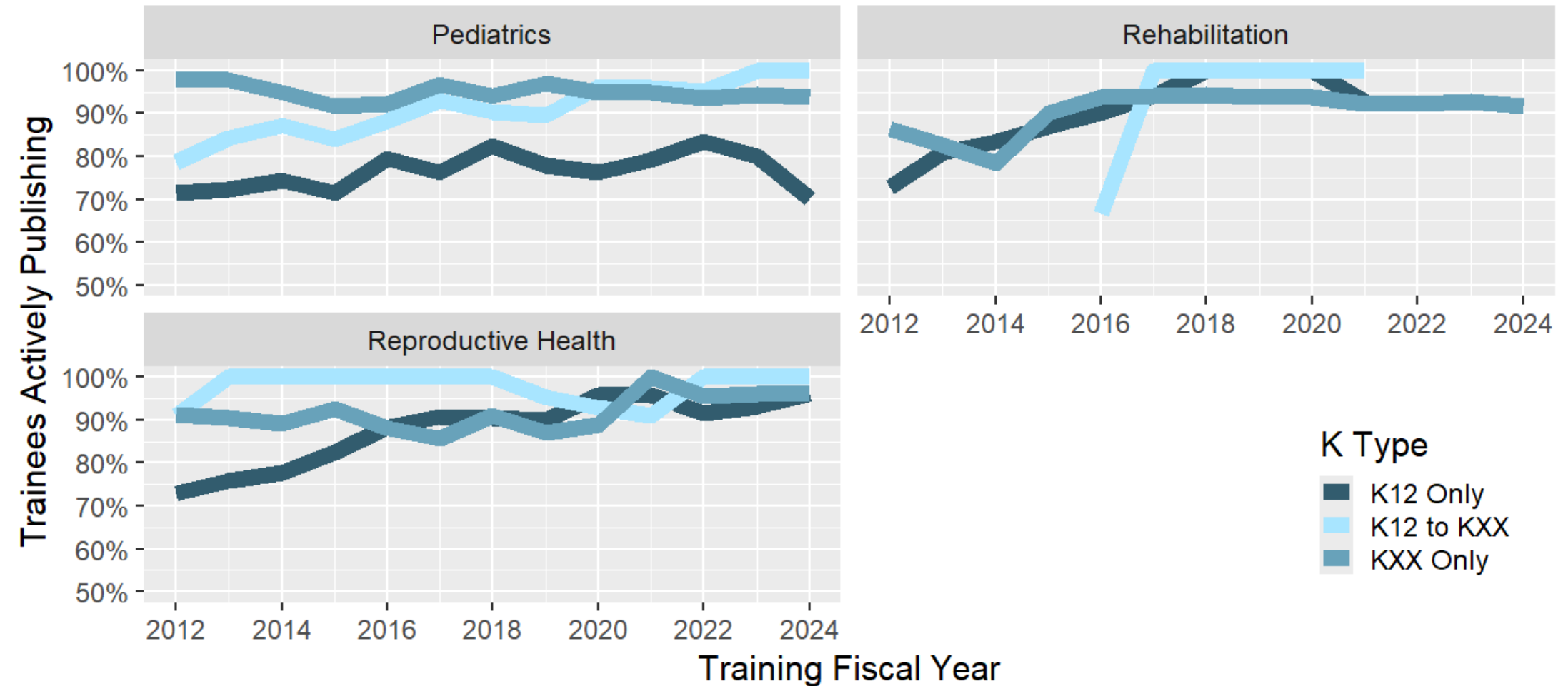
All trainees actively publishing: Rehabilitation



MD RPG rates by K training type



MD active publishing rates by K type





Goals 2, 3, and 4

Goals 2-4

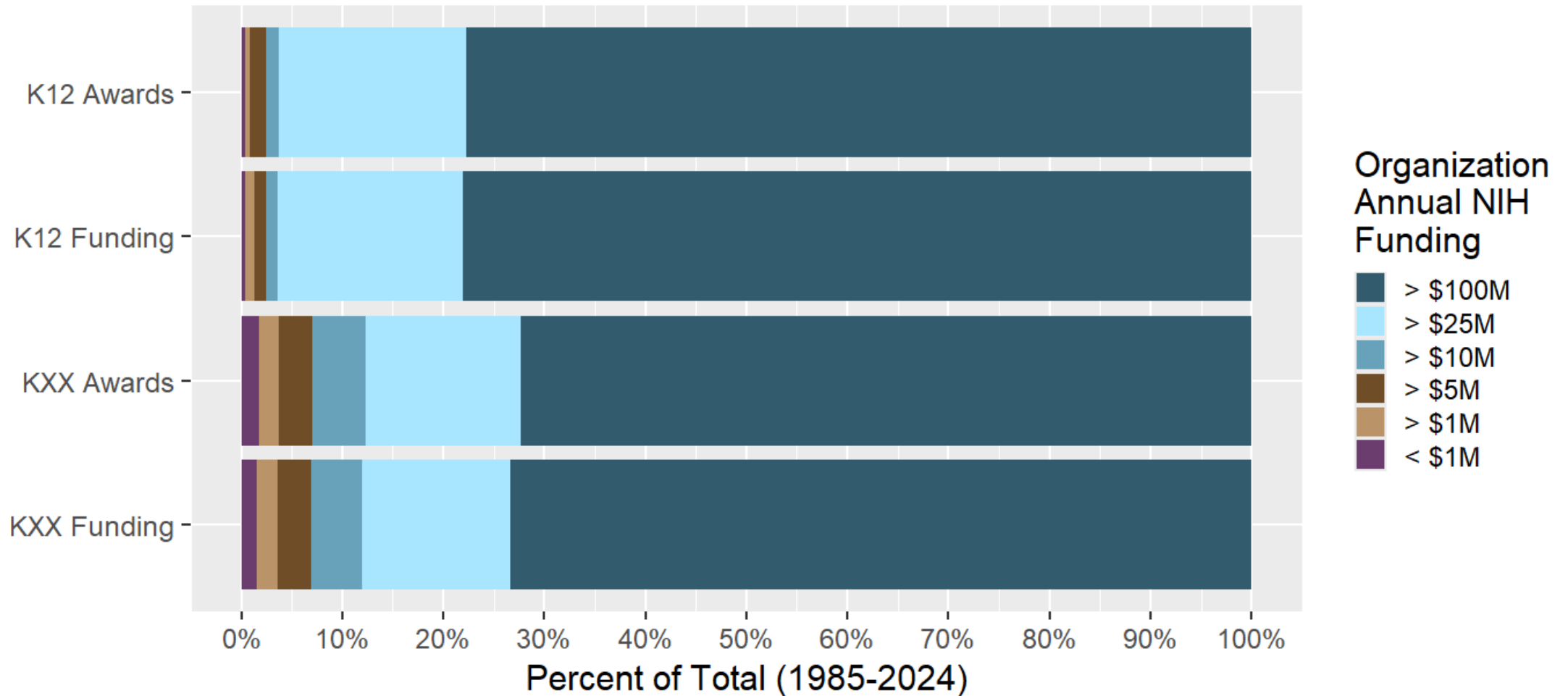
Goal	Notes
2. Draw clinicians into research careers	Important to all the K12 POs Wages are a driving factor Unclear how the K12 achieves this beyond the KXX
3. Create community among trainees and investigators	Clear advantage of the K12 programs Clear disadvantage of the KXX programs
4. Signal NICHD support for certain fields	Guaranteed RFA funding for career development



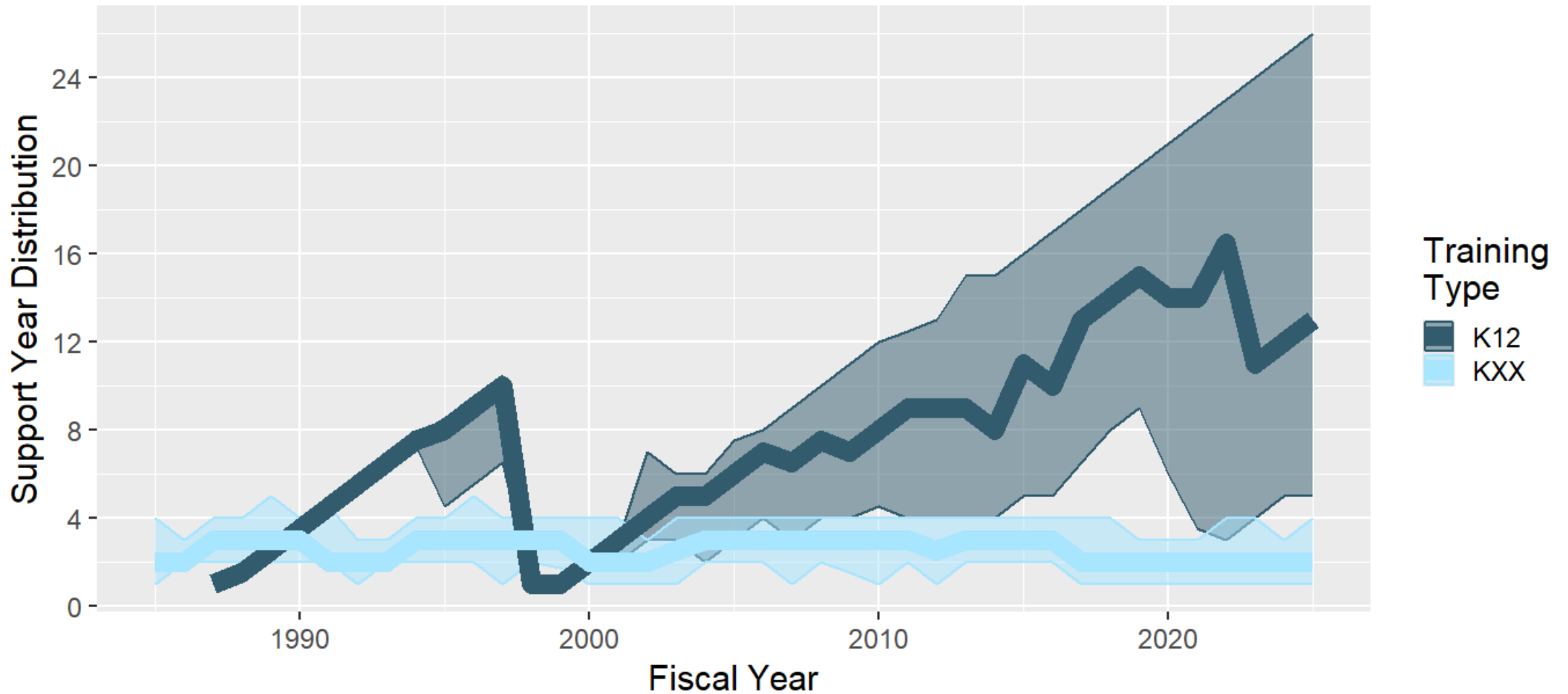


Additional considerations about K12s

Recipient organization funding levels



Award longevity (non-BIRCWH programs)





Summary of major findings

Conclusions

As compared to individual K awards, K12 programs:

- Are better at community-building
- Have equivalent or lower trainee success rates
- Are available to fewer potential trainees and have less award turnover
- Provide less direct funding to trainees





Next steps

Next steps for this analysis

- Presentation to the branch chiefs (done)
- Presentation to the EC (done)
- Presentation to NICHD extramural staff (done)
- Presentation to the NICHD Advisory Council (Today)
- Academic publication (in preparation)
- Synthesize feedback and decide on a course of action



Possible actions to take

1. Maintain the current K12 structure, but
 - Investigate and potentially rework the pediatric K12s, and
 - Ensure more diversity and turnover in funded institutions
2. Shift K12 funding to individual Ks, but
 - Institute minimum funding guarantees for each discipline, and
 - Institute community-building activities and resources for trainees
3. Do something else

