Rural Education Action Plan: Advanced Skill and Training (AST) Program

Evaluation Part I – Database Analysis
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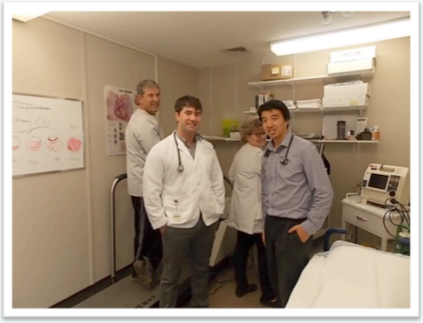
AST Program Overview



- A REAP (Rural Education and Action Plan) ongoing program established in 2001

- Purpose:
  - Increase opportunities to receive advanced training and skill enhancement
  - Improve rural physician retention and skills

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AST Program Overview

- Eligibility:
  - Physicians who have been living and practicing in an RSA community* for at least 9 months of the past year
  - Letter from the HA confirming that the skill is needed in the community

* RSA community: "Communities covered by the *Rural Practice Subsidiary Agreement* ("RSA") are subject to meeting the minimum point requirement under the Medical Isolation Point Assessment system, based on an annual assessment."

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Although there's no RoS obligation, the program is successful in improving rural retention.

AST Program Overview

- Benefits:
  - Up to 60 days of funding per fiscal year
    - Stipend to cover income loss during training and preceptor payment
    - Coverage of travel costs
    - Coverage of accommodation costs

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AST Program Overview

- Funding:
  - $919,539/year, on average, approved for 2001-2013
  - Since 2005, budget for AST was over $1million for each year
  - Approximately 42% of total REAP budget for each year

-Around $920,000/year, on average, was approved for AST in 2001-2013; esp. since 2005, the budget for AST was over $1million for each year.
-Budget for AST made up about 42% of total REAP budget for every year.

Evaluation Objectives

- Patterns and trends in characteristics of AST Recipients:
  - Who is accessing AST?
- Geographic distribution of AST recipients and trends over the years:
  - Where are they after training? Remain or leave RSAC?
  - How long have they stayed in RSAC since training?

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Evaluation Approach

- Database:
  - Physicians accessing AST in 2001 - 2013
  - Data abstracted from REAP AST records and CPSBC medical directories
- Analysis Method:
  - Descriptive analysis

* CPSBC – College of Physician and Surgeon of BC

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Overview of Evaluation Findings

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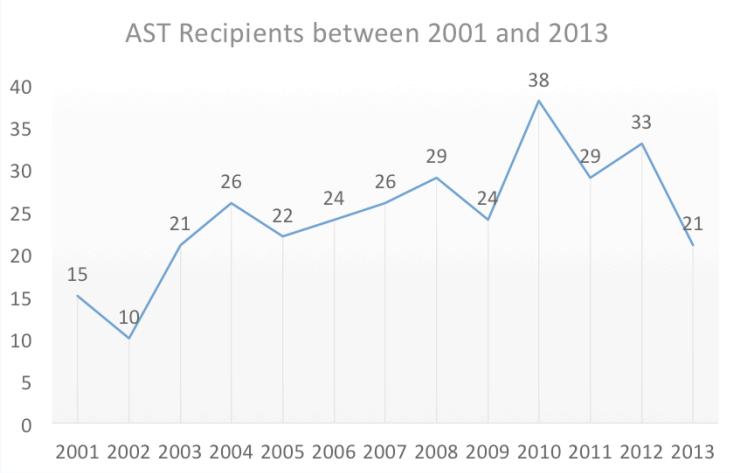
318 physicians were funded through AST in 2001-2013
(Average: 24 physicians/year)



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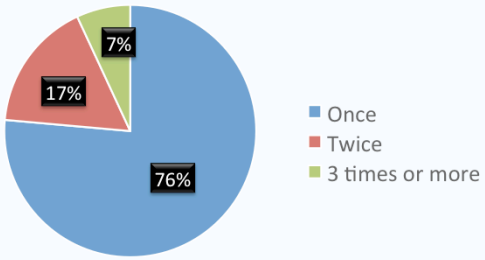
The physicians funded through AST showed an increasing trend over 2001-2013 from 10 physicians /year to 38 physicians /year, with the average of 24 physicians/year. (Note: there was a decrease in the budget for 2013, which may be the cause of the drop in number of AST participants in that year)

-showing that:

- more physicians were becoming aware of the AST and accessing it;
- more available funding
- possible positive experiences in AST from previous participants?
- effective communication/advertisement strategy?

243 (76%) accessed AST once; while 75 (24%) accessed AST 2-5 times



10,054 days of training were approved in total, with the average of 32.1 days/person

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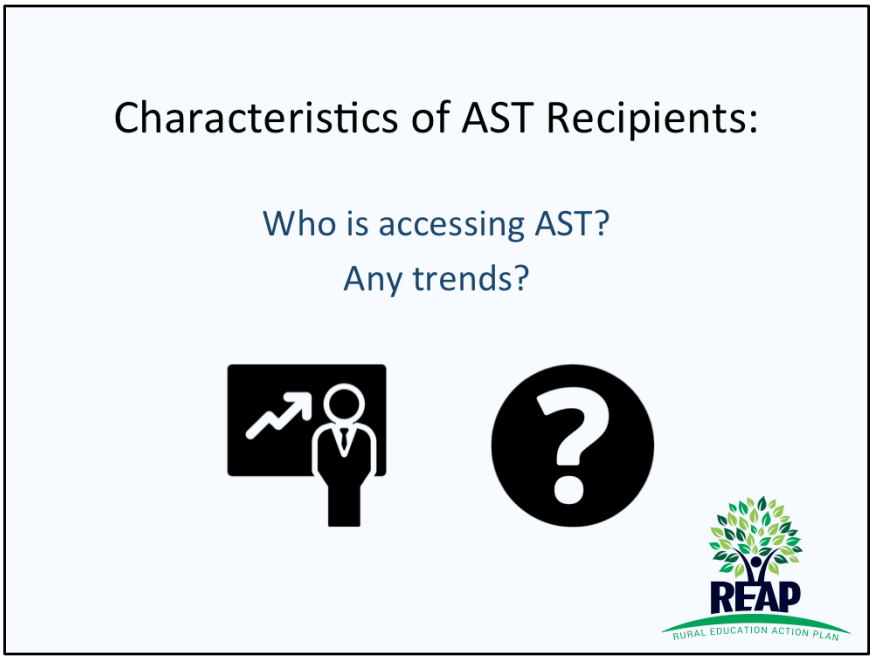
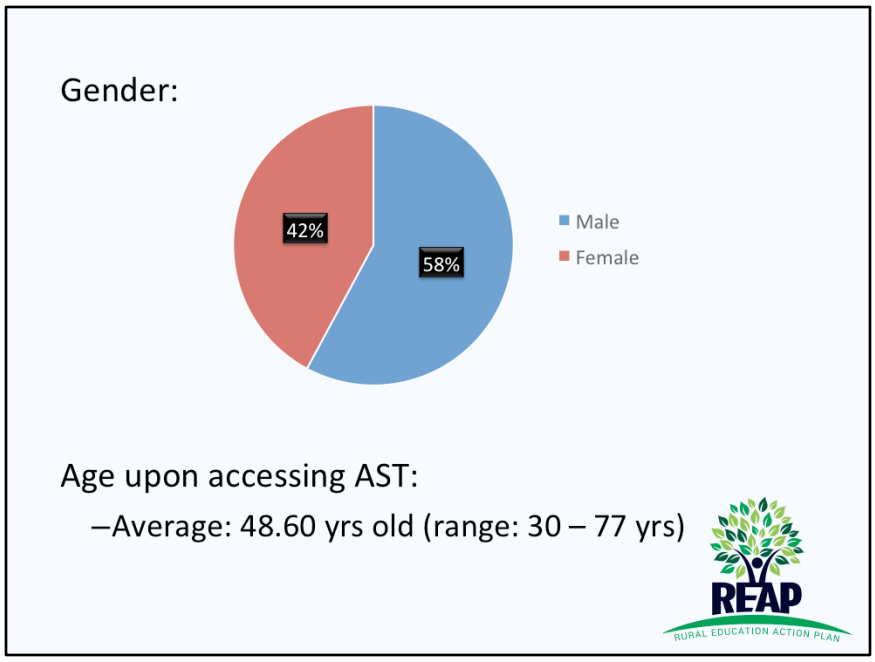
Around one quarter of AST recipients have accessed AST more than once.

- indicating a possible positive initial experience.

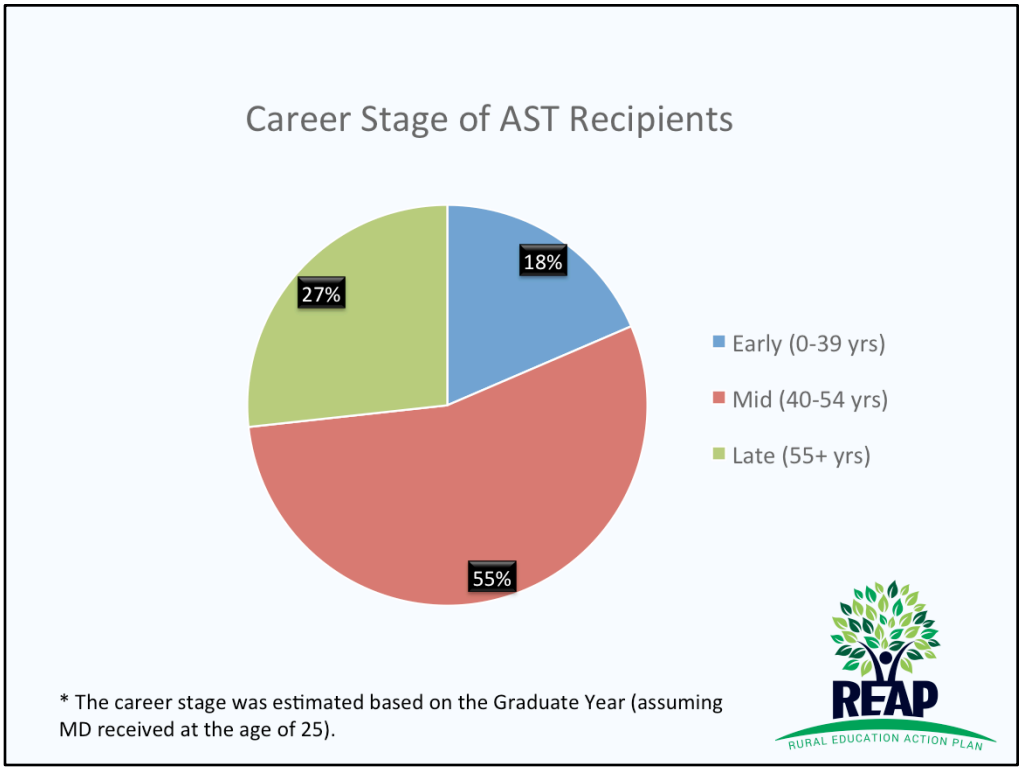


To identify those who may be more interested in the AST;

To identify trends of physicians who are accessing AST over the years.

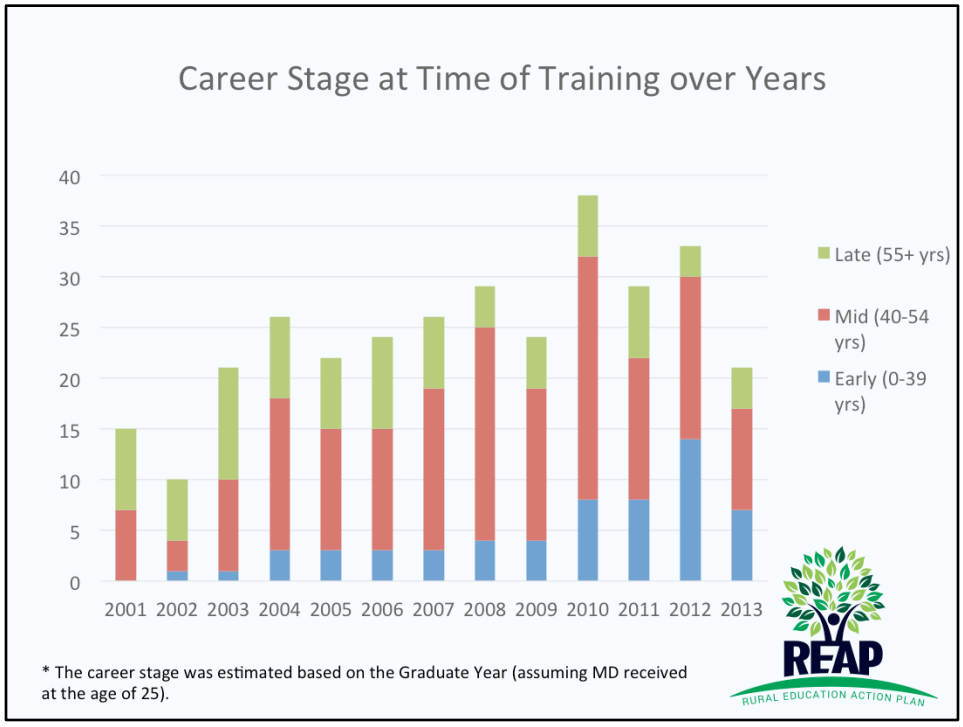


More male physicians accessed AST than female physicians in 2001-2013.



Over half of the AST recipients were at their mid-career stage when they completed their training, followed by late-career stage 27% and early-career stage 18%.

- showing that young physicians were less likely to access AST
- implying more work may be needed on advertising the AST program to young physicians.



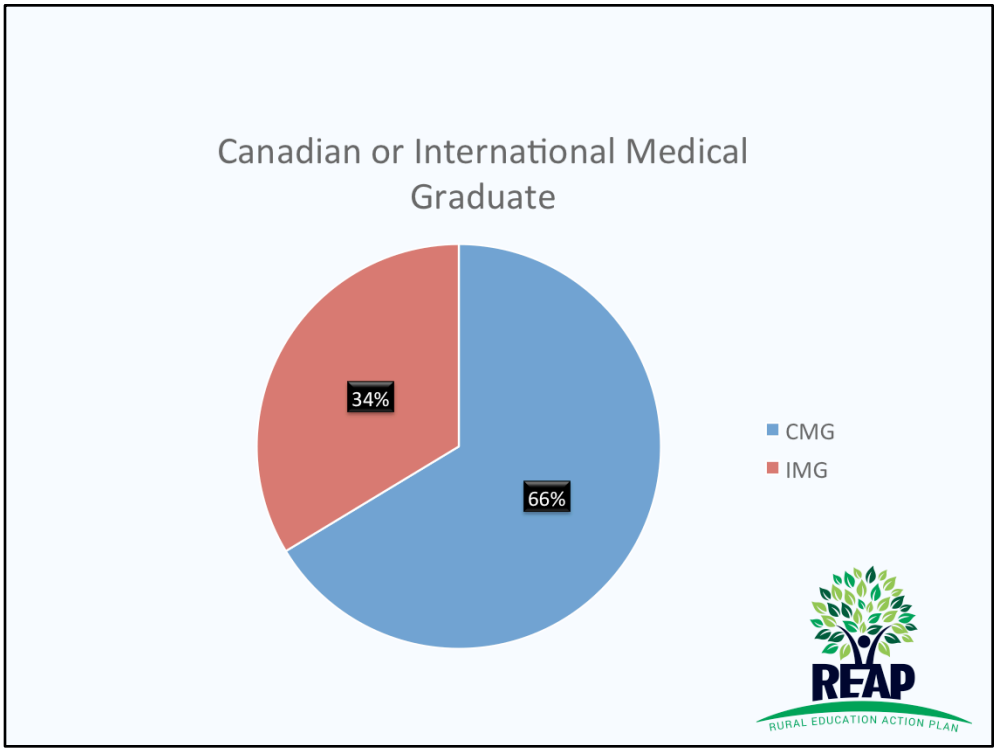
In general, over half (55%) of the AST recipients were at their mid-career stage when they completed their training, followed by late-career stage 27% and early-career stage 18%.

AST recipients at their mid-career stage remained predominant over the years.

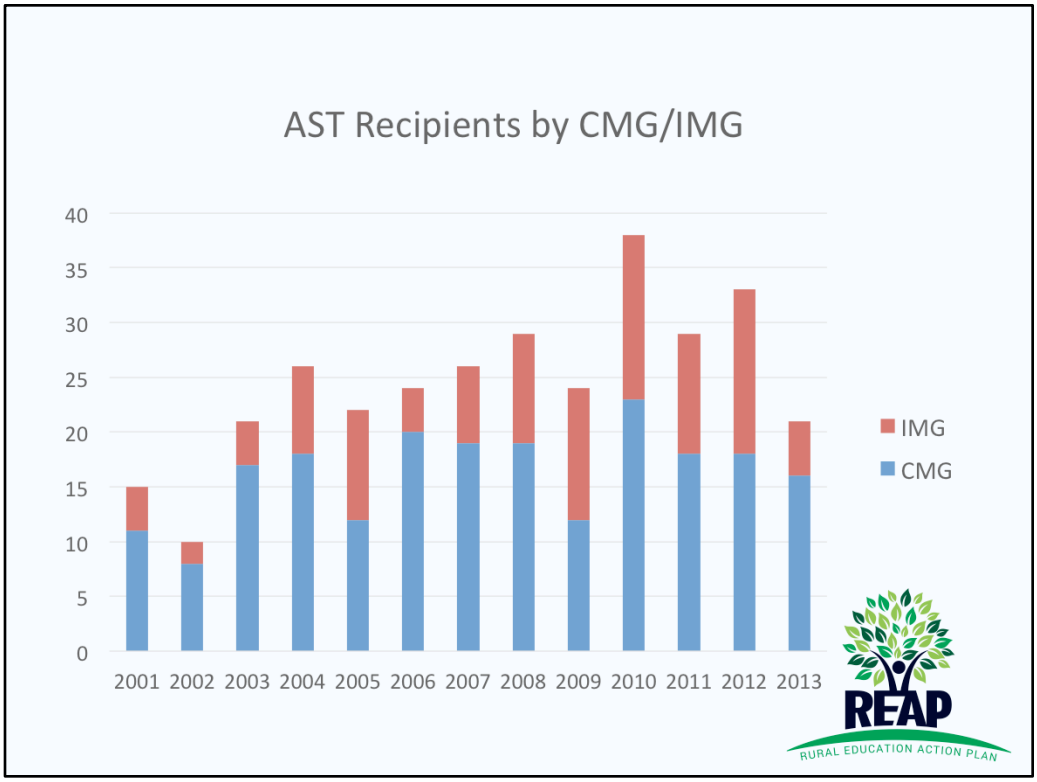
However, there was an increasing trend in physicians doing their AST at their early career stage, esp. with a significant growth since 2010.

-implying that:

- ➢young physicians were less likely to access AST compared to their counterparts in other career stages
- ➢more young physicians became aware of and interested in the AST
  - ✓some success in strategy of engaging young rural physicians since 2010?



One third of AST recipients completed their medical education abroad.

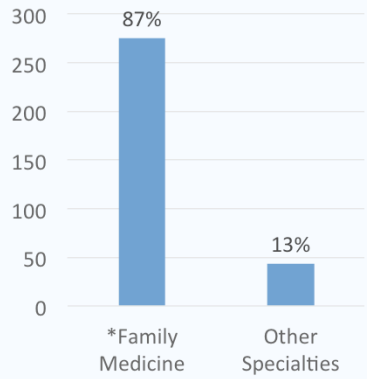


In general, around one third (34%) of AST recipients completed their medical education abroad.

Since 2008, more IMGs accessed AST. IMGs made up almost half the AST recipients for each year.

- Showing that the AST has become more widely known, and more appealing to, rural IMGs since 2008.
- Is this a preferable format of training/funding rural IMGs?

Specialty designation distribution of AST recipients



Top 5 specialty designations of AST recipients

Specialty Designation	# Physicians	%
Family Medicine	275	86.6%
Diagnostic Radiology	7	2.2%
Obstetrics and Gynecology	6	1.9%
Psychiatry	5	1.6%
General Surgery	5	1.6%

Note: *Some AST recipients practiced FM but did not earn CCFP designation, esp. those in late career stage.

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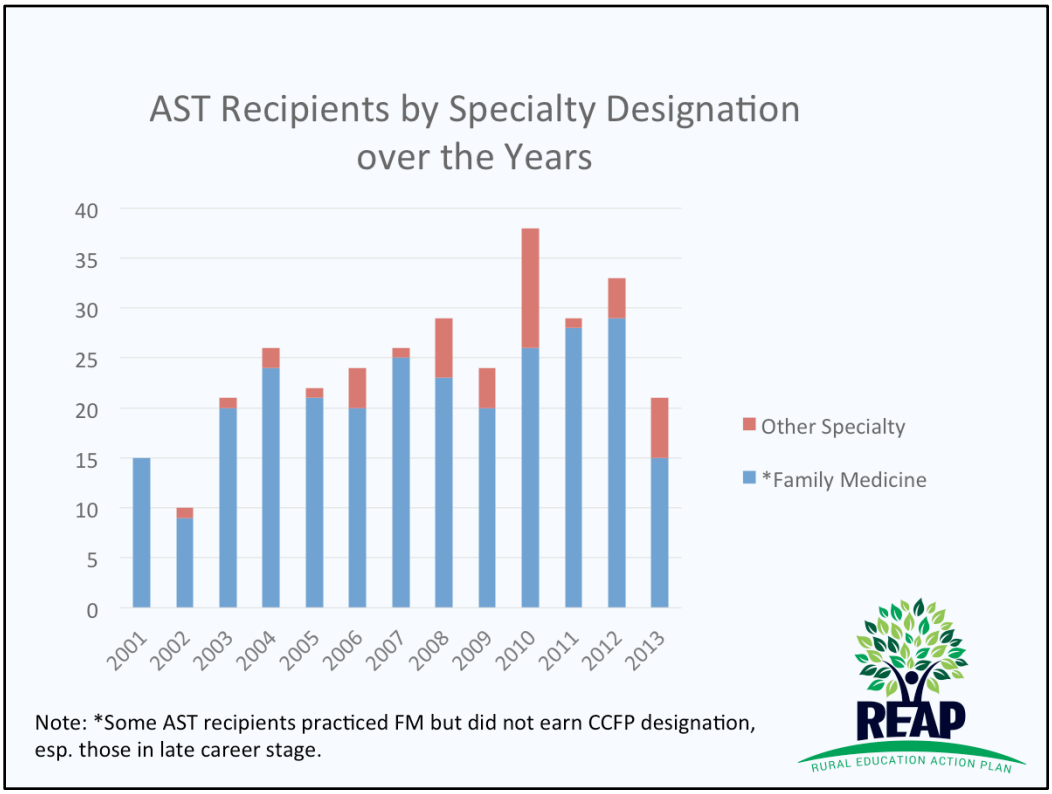
Some GPs, especially those in the late career stage, did not earn the CCFP designation.

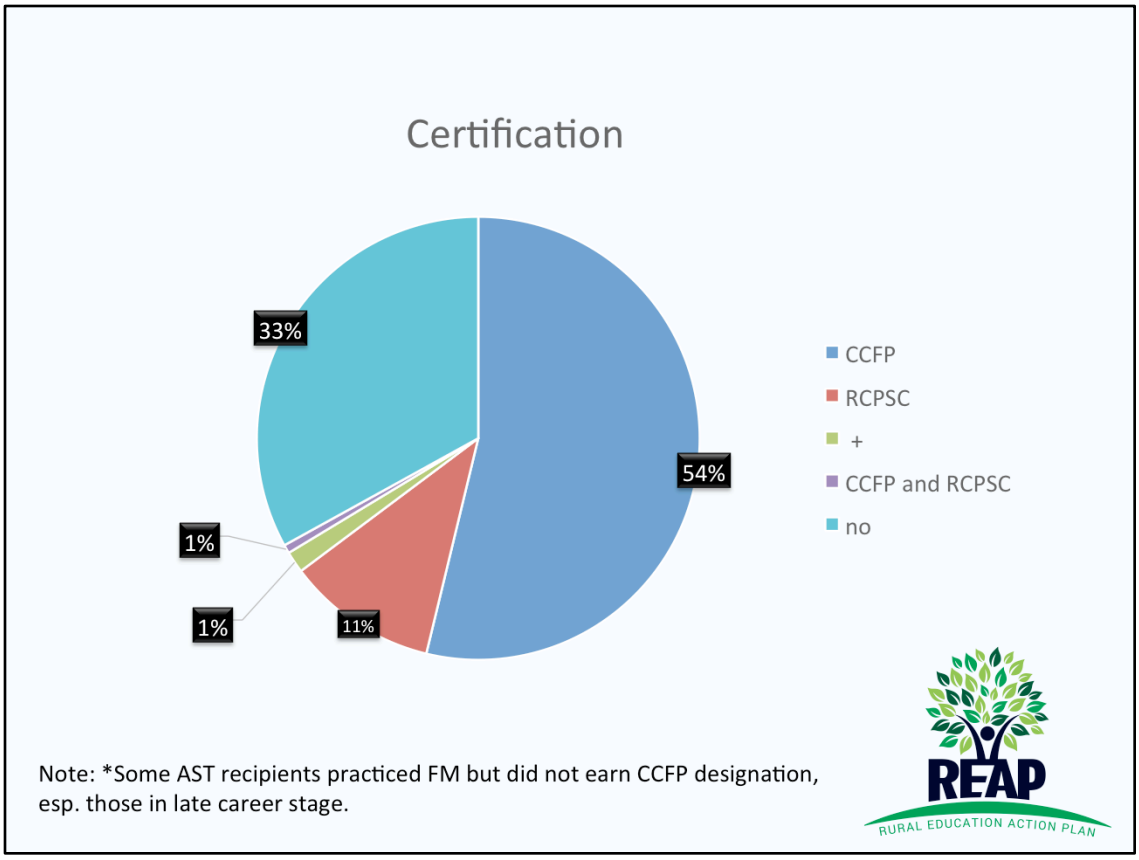
The majority (275, 87%) of the AST recipients were GPs. (- it is consistent with the fact that rural doctors are mostly GPs).

The trend indicates that over the years, more specialists are using the AST Program. These are the top 4 specialties but there are others who were accessing AST funding.



After 2008, increasing numbers of specialists accessed the AST, although GPs still made up the largest portion of AST recipients.

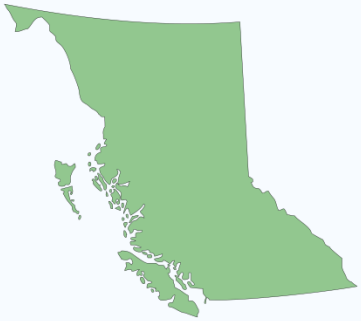
- reflect that:
  - more specialists were aware of the AST
  - more funding available
  - better communication/ advertisement of AST to specialists?



This is consistent with the distribution of GP vs. Specialist in AST recipients.

Geographic Distribution of AST Recipients

Where are they?



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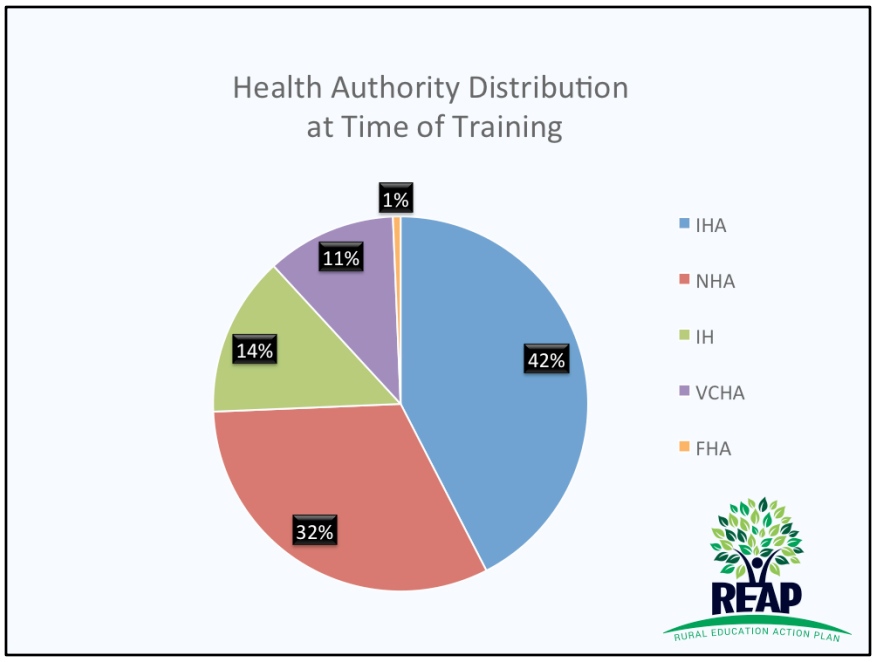
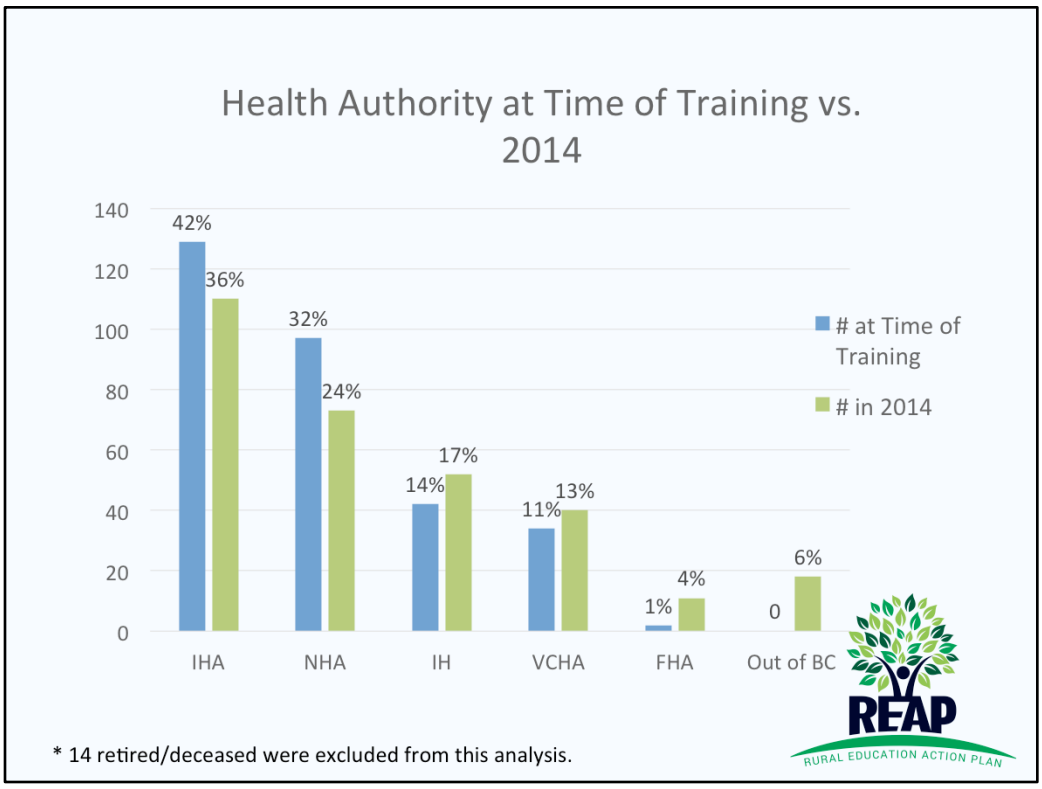
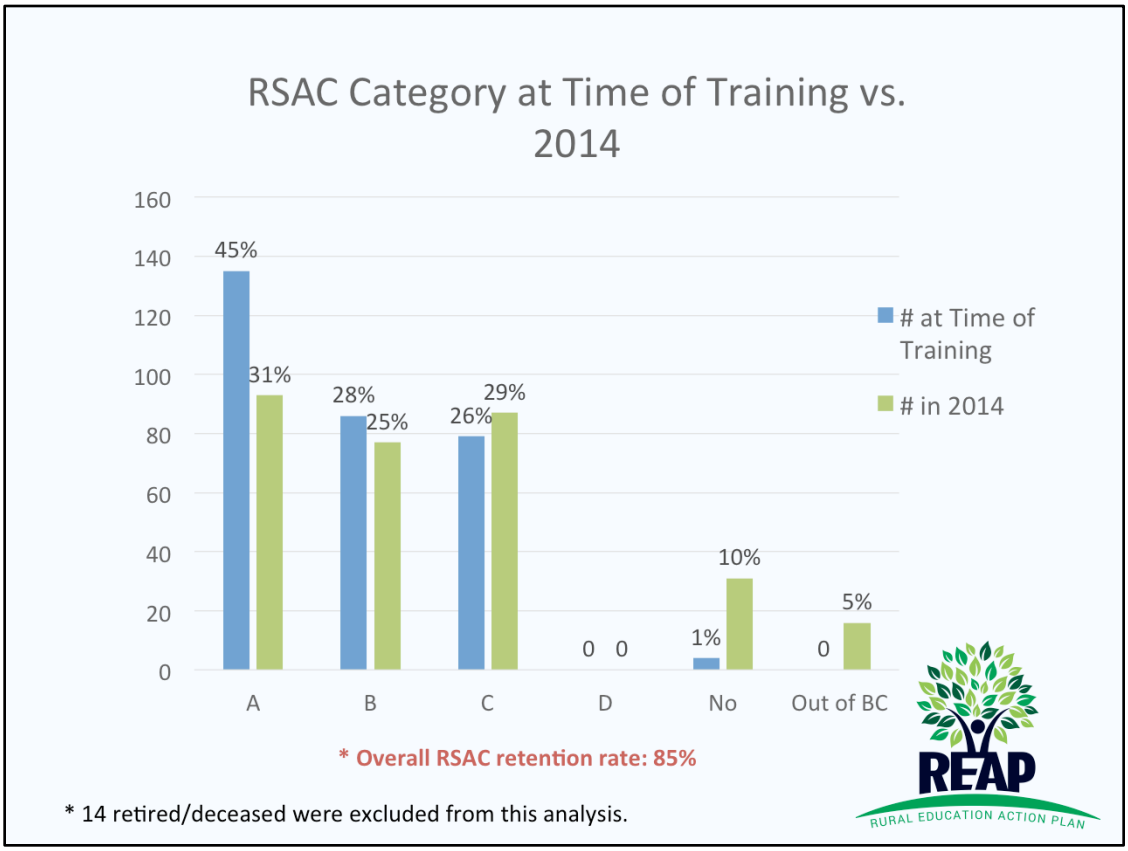


The physicians who accessed AST were most often from the IHA (42%) and NHA (32%), followed by IH (Island Health) and VCHA.

- consistent with the fact that IHA and NHA make up the largest portion of rural health care services.



By 2014, the majority of the AST recipients remained in the IHA and NHA, but relocation occurred with around 14% of AST recipients moving from IHA & NHA to IH (Island Health), VCHA, FHA or out of BC.



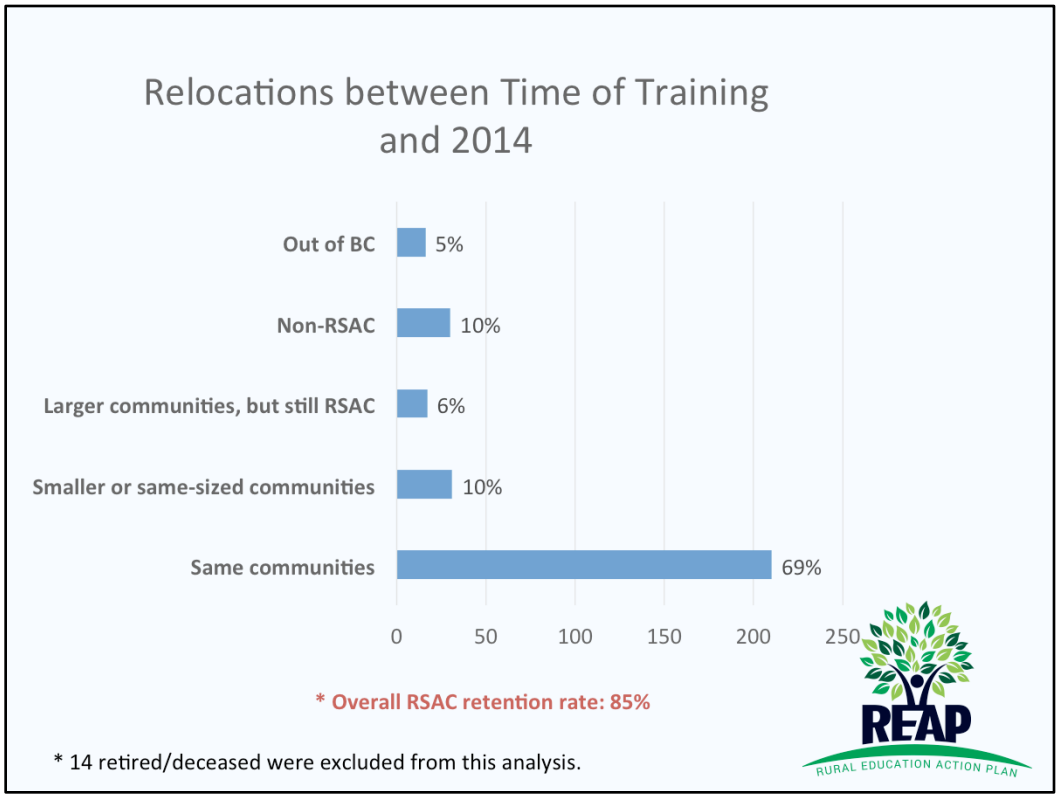
Almost half of AST participants were from RSA-A while the rest of them were evenly split in RSA-B and RSA-C.

- More physicians from RSA-A accessed the AST:
  - they had a greater need of advanced training;
  - they were granted preferential access to the AST approval??

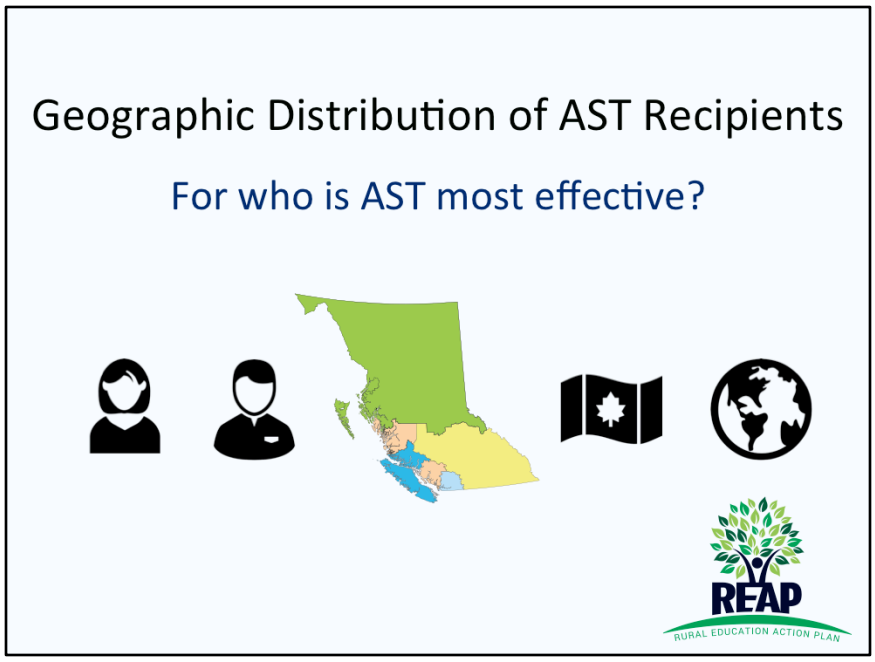
By 2014, the number of AST recipients experienced a significant drop in RSA-A (from 135 to 93); but the number of physicians staying in RSA-B and RSA-C remained similar.

Around 10% of AST recipients moved from RSA communities to non-RSA communities.

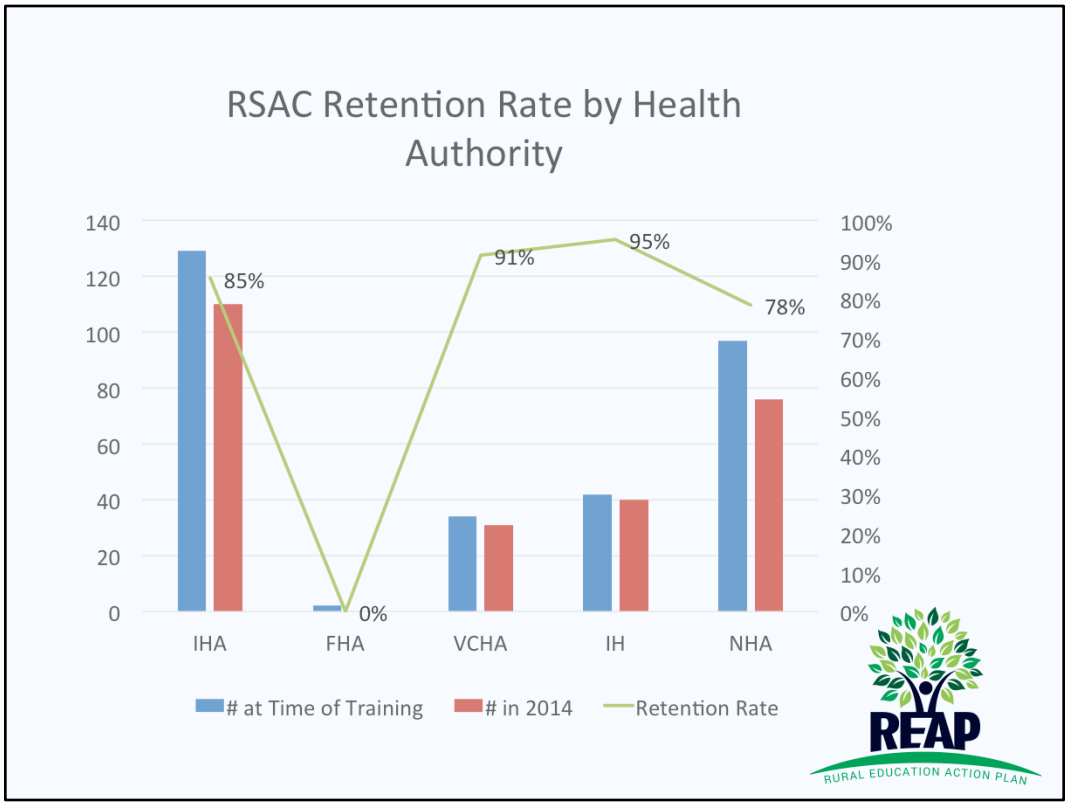
- The RSAC retention rate amongst AST recipients by 2014 was higher than the statistics from previous study (85% vs. 79%). But the attrition rate in RSA-A was comparatively high (from 45% to 31%). Thus, AST strategy might not be as effective for physician retention in extremely rural areas.
- For physician retention in RSA-B and RSA-C communities, the AST strategy seemed to work well.



In comparison to the original location/community where the physicians applied for the AST, more details on relocation occurring in 2014 has been assessed.



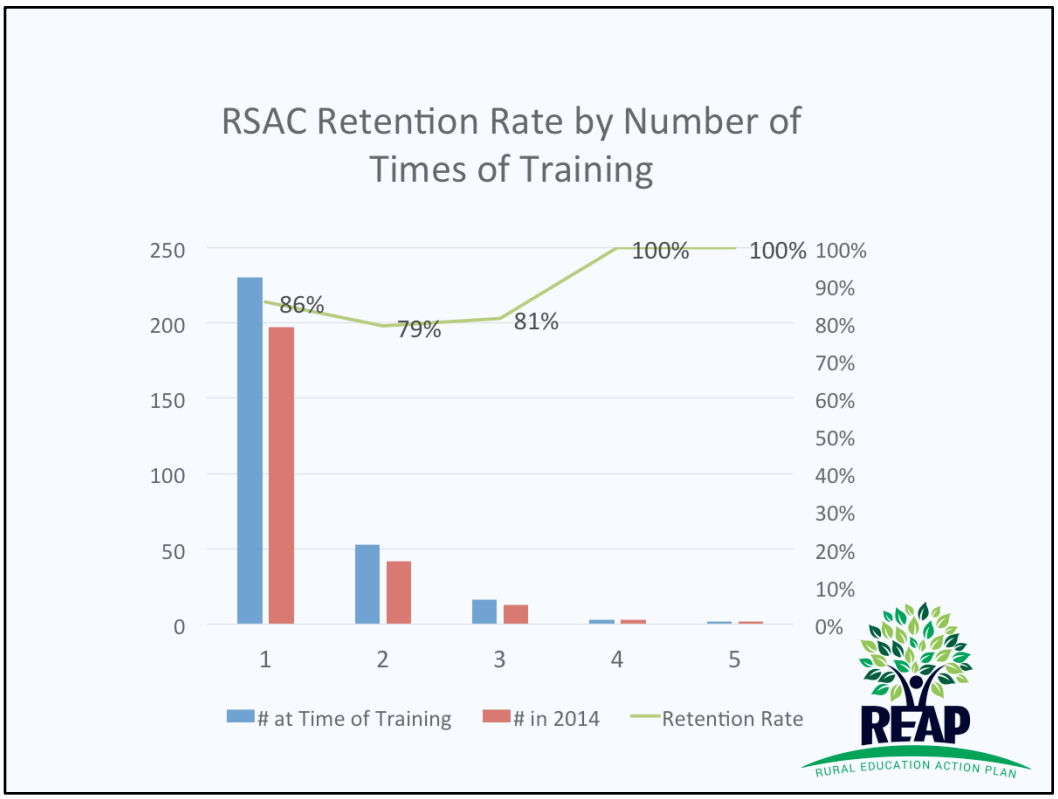
To see what proportion of AST recipients remained in the RSAC's as of 2014 – broken down by different characteristics of AST participants.



Of those accessing AST in certain HAs, how many remained in the same HA in 2014?

IHA and NHA had more physicians funded via AST; however, VCHA and IH (Island Health) had higher RSAC retention rates by 2014.

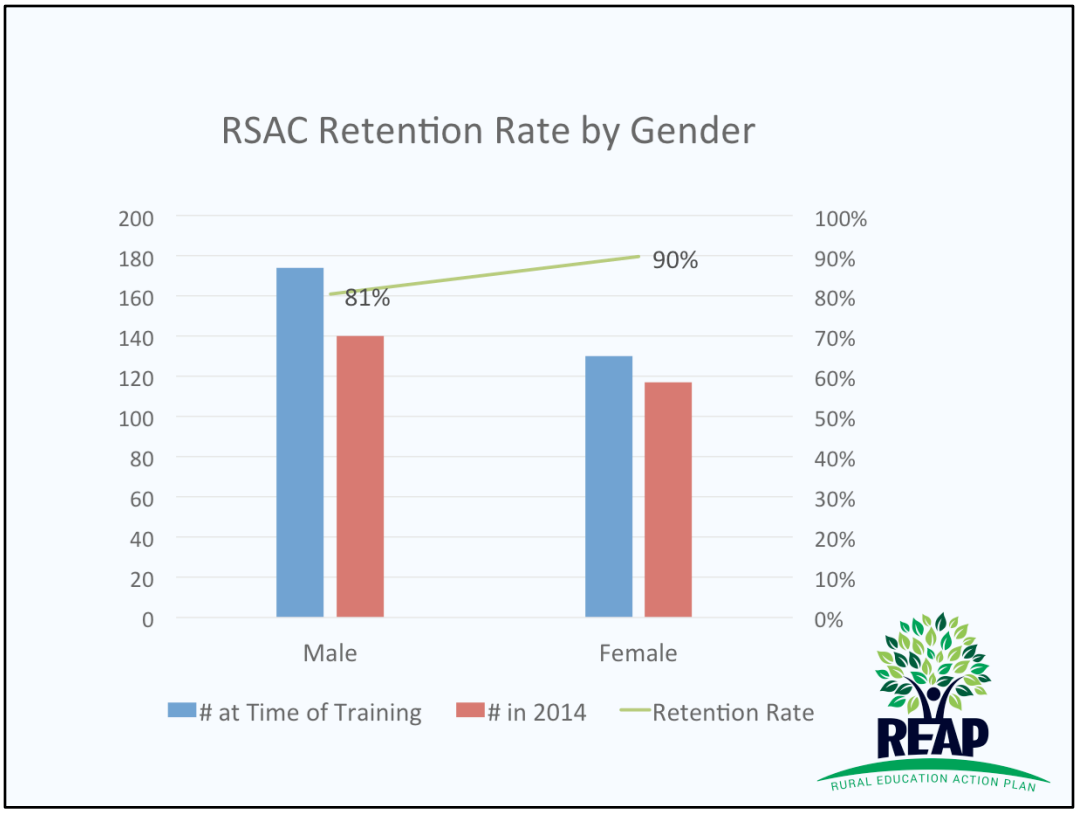
- AST's impact on improving retention seemed more noticeable in VCHA and IH (Island Health);
- Perhaps due to the high proportion of RSA-A communities (extremely rural communities) in NHA and IHA, the retention rates were comparatively low;
- Perhaps this phenomenon was due to some HA specific factors, such as natural or social environments of different communities, etc.



Those who have undertaken AST 4 times or more all remained in the RSA communities since they finished their most recent training. (5 physicians in total)

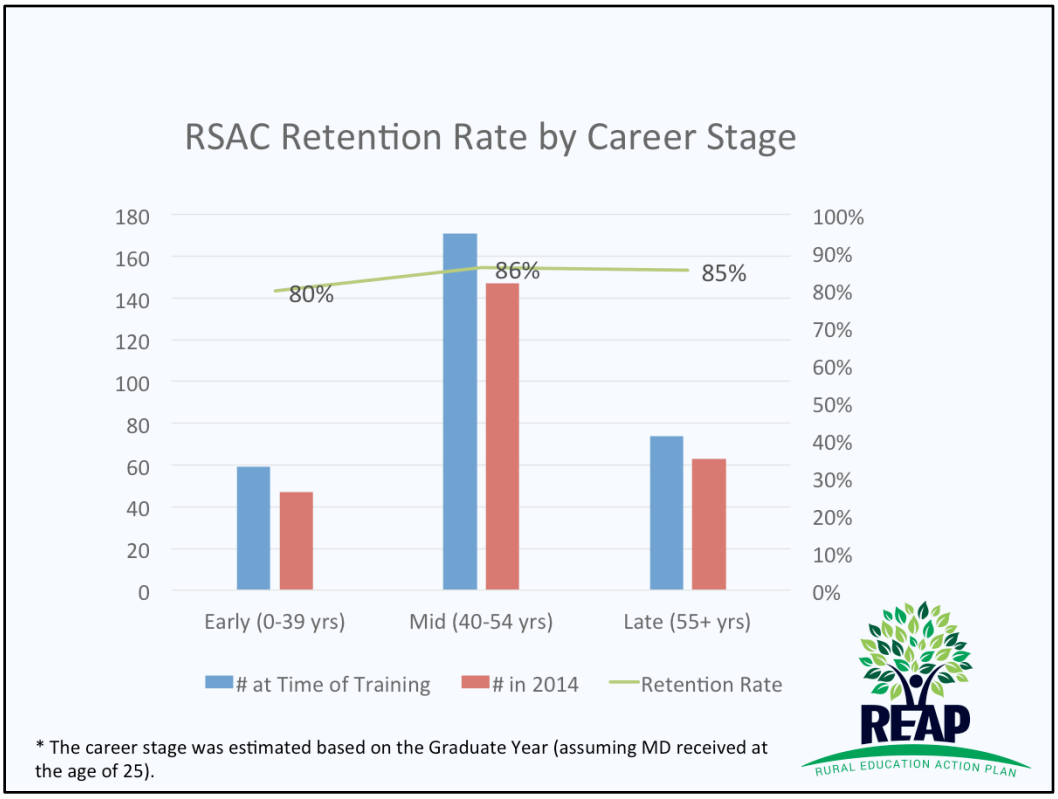
- there may be an association between the number of times accessing training (4 times or more) and retention.

Those taking AST 1-3 times had similar retention rates.



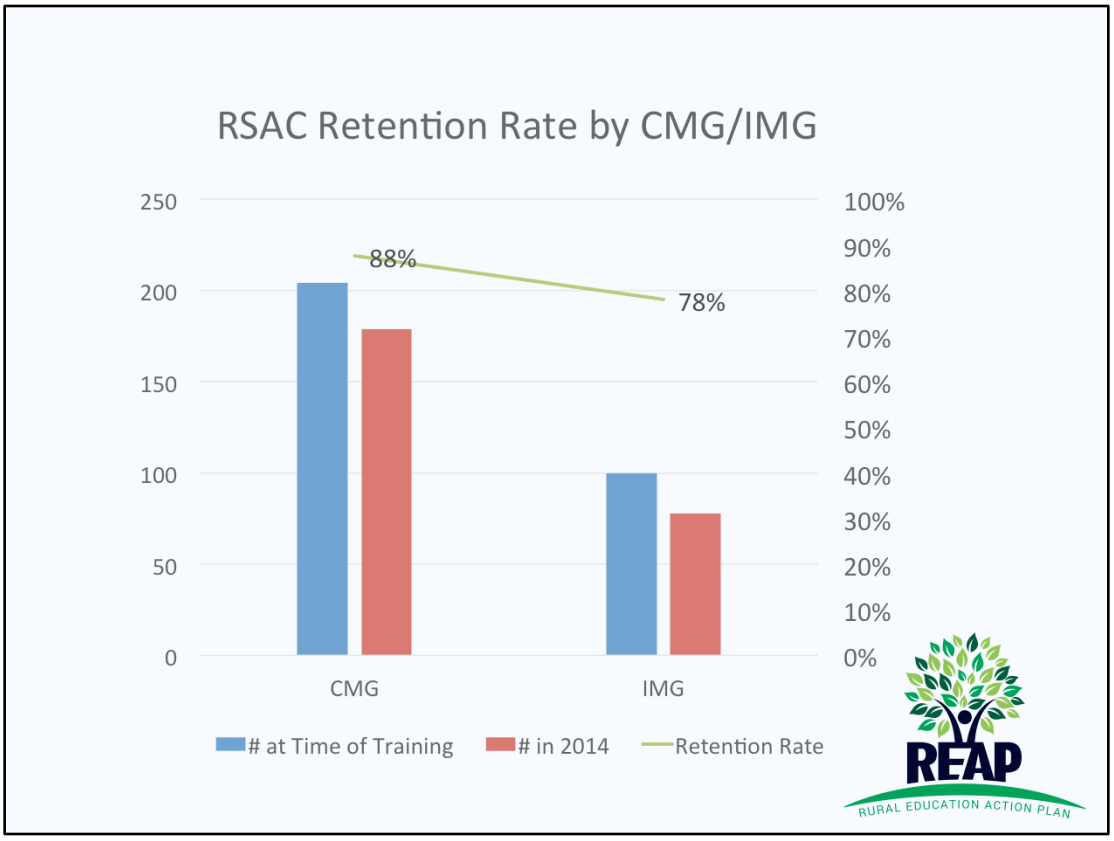
Although more male physicians applied for the AST, female AST recipients were more likely to stay in RSA communities since they finished training.

- this type of retention strategy may work better to females compared to males
- suggests further exploration of how this strategy worked for females
- guide developing similar strategy targeted towards female physicians



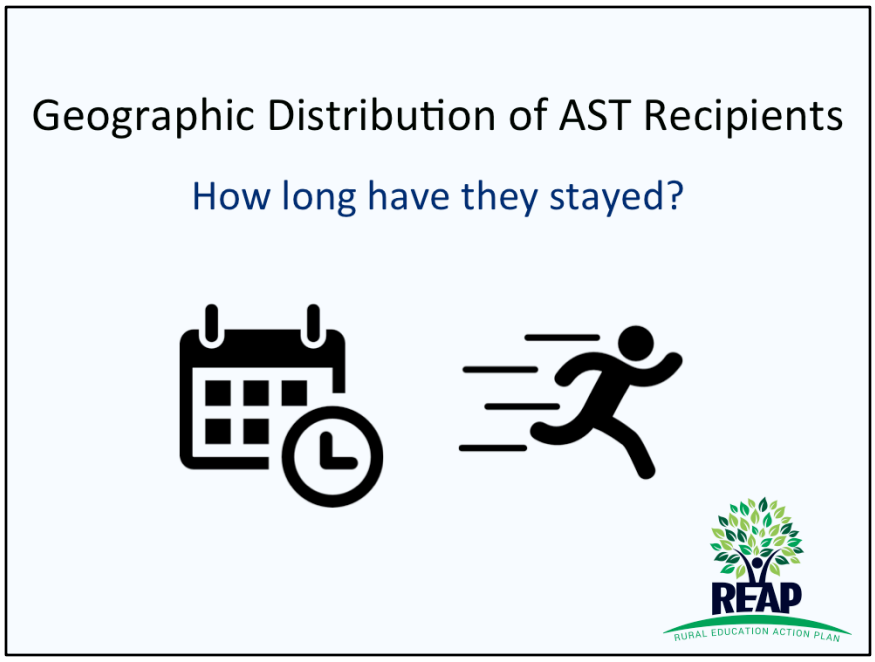
AST physicians at their mid- or late- career stages were more likely to remain in RSAC's since their training.

- consistent with the finding from previous studies

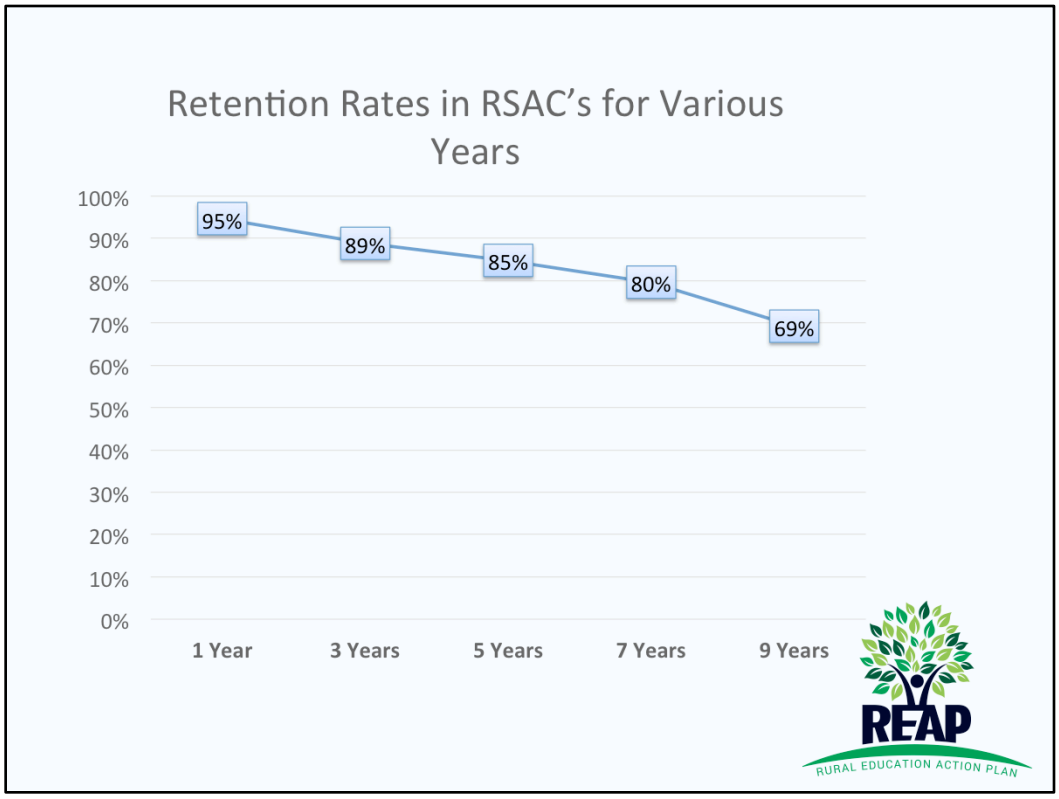


AST recipients with CMG were more likely to stay in RSAC after training.

- AST's impact on improving retention seemed more noticeable for CMG's.



What is the proportion of the AST recipients remaining in the RSAC's for at least a certain number years?



Retention rate was negatively associated with the number of years since training. But the RSAC retention rates were higher compared to the rates from other studies.

- this may suggest: a short- or mid-term impact on improving retention of AST is more noticeable.

It may imply a further exploration on identifying which indicator (the duration of retention) could be used and what rate could be expected to inform an acceptable retention status. This could be set as a more quantified/clarified goal for AST or other similar programs.

Comparison on Rural Retention Rates: AST vs. Other Studies

Retention Rates	AST	A Canadian National Survey	A BC Study with CPSBC Medical Directory 1978-1999	A USA National Incentive Program: the NHSC
Overall	85%	79%		
1-year	95%		64-74%	81%
3-year	89%		30-50%	
5-year	85%		18-40%	
7-year	80%		12-35%	
9-year	69%		10-30%	55% (10-year)

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Notes:

1. The overall rural physician retention rate for 2 years was 79% based on a Canada national survey. Reference: https://www.srpc.ca/PDF/nrhsB.pdf

2. In a study examining the rural physician retention rates at BC from 1978-1999 (- also based on the CPSBC medical directory data), the 1-year retention rates by communities with different sizes ranged from 64%-74%, 3-year retention rates 30%-50%, 5-year retention rates 18%-40%, 7-year retention rates 12-35%, and 9-year retention rates 10%-30%. Reference: http://www.bcmj.org/articles/physician-retention-and-recruitment-outside-urban-british-columbia#a15

3. In a USA national incentive program - the National Health Service Corps' (NHSC) scholarship and loan repayment programs, where clinicians receive scholarships and loan repayment in return for committing to practice in underserved areas for a defined period of time – by the year of 2012, the 1-year retention rate among the participants is 81% (vs. 95% in AST), while the 10-year retention rate is 55% (vs. 69% for a 9-year retention rate in AST). Reference: https://nhsc.hrsa.gov/currentmembers/membersites/retainproviders/retentionbrief.pdf

Summary of Key Findings

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Summary

1. The number of physicians accessing AST has increased over 2001-2013, with ¼ of them accessing AST more than once.
   - **AST has been well received.**

2. Diversity has been observed in the demographics and medical training among physicians accessing AST, but AST seemed to be accessed more widely by physicians who are
   - male
   - at mid-career stage
   - GPs
   - CMG

   - **The AST has been accessed by RSAC physicians in wide spectrum in terms of different characteristics.**

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Summary

3. A significant increase has been found in recent years, among physicians accessing AST who were:
   - at early-career stage
   - IMG
   - specialists

   – **These groups have become more aware of and interested in the AST.**

4. In geographical distribution, physicians from IHA and NHA made up the majority (74%) of AST recipients; almost half of physicians accessing AST were from RSA-A communities, while the rest were evenly split between RSA-B and RSA-C communities.

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Summary

5. As for the relocation of AST recipients by 2014:
   - Most remained in the IHA and NHA, but around 14% have relocated to IH, VCHA, FHA & out of BC.
   - A significant number of relocations were witnessed in RSA-A (from 135 to 93); but the numbers staying in RSA-B and RSA-C remained fairly constant.
   - Around 10% of AST recipients moved from RSAC's to non-RSAC's.

   – **In improving physician retention in rural communities, the AST strategy seemed to work better in RSA-B and RSA-C communities.**

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Summary

6. The overall retention rate was 85% by 2014. Of these AST recipients, 89%, 85% and 80% remained in RSAC's for at least 3, 5 and 7 years, respectively.

   - **AST recipients had a higher rural retention rate compared to statistics from the previous study.**
   - **The AST strategy seems to have a better short- or mid-term impact on improving rural physician retention.**
   - **The effectiveness of AST in rural physician retention may be assumed. AST was not used as a springboard for rural physicians to move to urban areas, from a short- or mid-term perspective.**

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Summary

7. The retention rate by 2014 seems higher for AST recipients who were:
   - taking AST 4 times or more
   - female
   - at mid- or late- career stage
   - CMG

   – **AST's impact on improving rural physician retention was more noticeable in these groups. This may suggest further refining the AST strategy to target these groups.**

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Take Home Messages…

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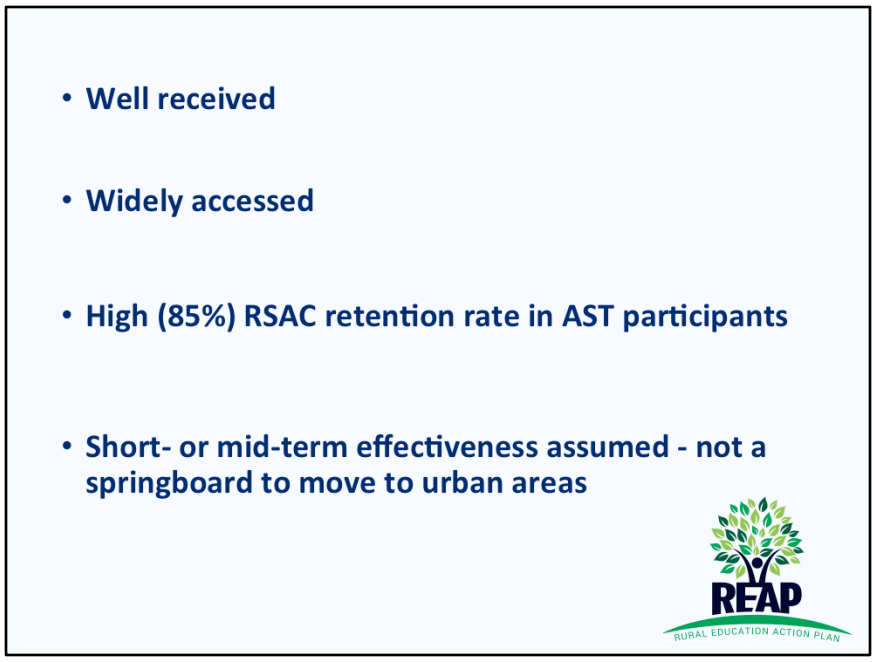

- Well received - based on the data showing increasing number participants and that some access the program multiple times.

- Widely accessed
  - ➢ Esp. in RSAC physicians who were:
    - ✓ male
    - ✓ at mid-career stage
    - ✓ GPs
    - ✓ CMG
    - ✓ from IHA and NHA
    - ✓ from RSA-A communities

- Short- or mid-term effectiveness assumed - not a springboard to move to urban areas
  - ➢ Esp. more noticeable in RSAC physicians who were:
    - ✓ in RSA-B and RSA-C communities;

Thank you!

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