Gender differences in health (care use)

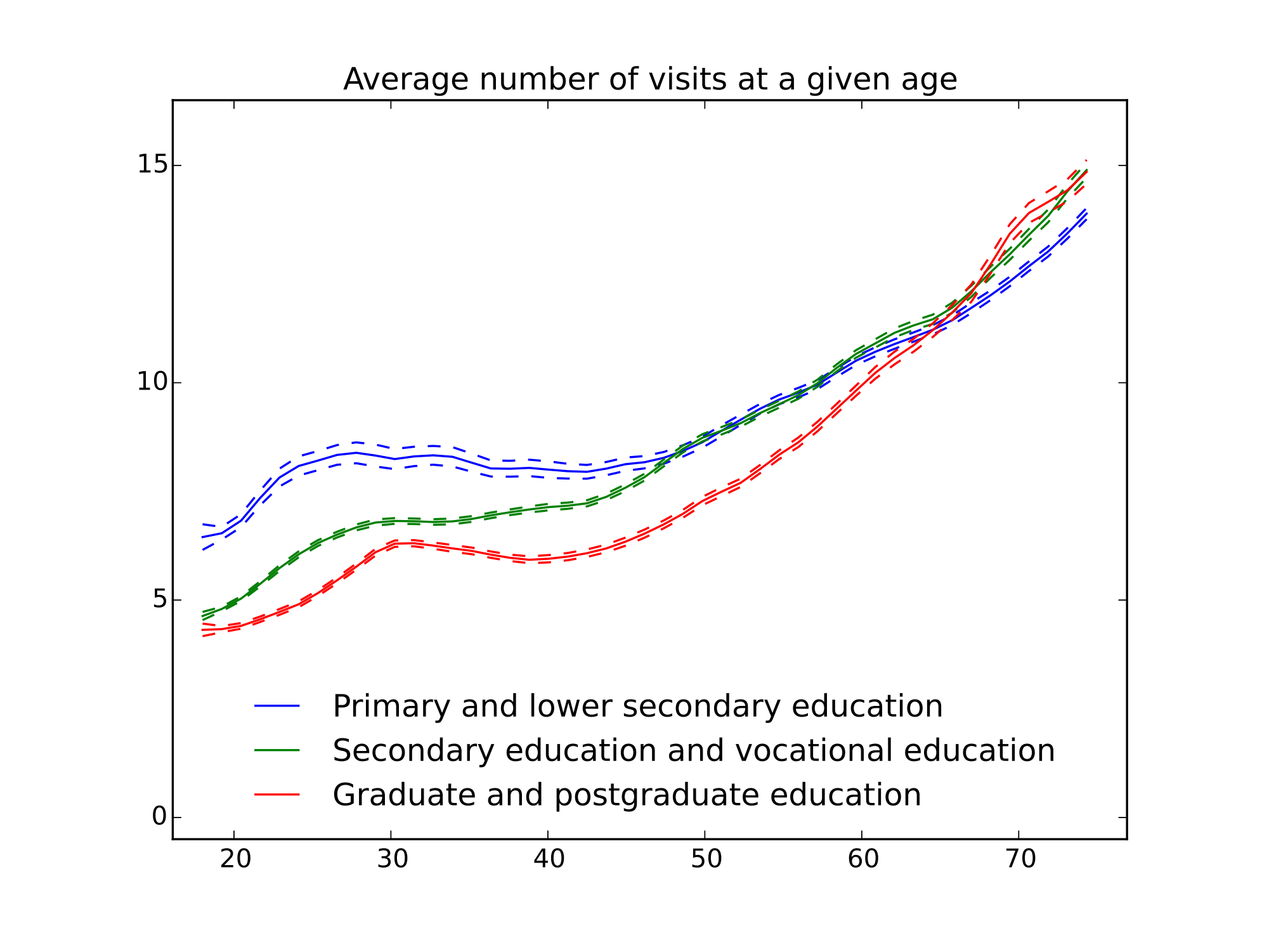
Hans-Martin von Gaudecker[1] Steven Lehrer[2]

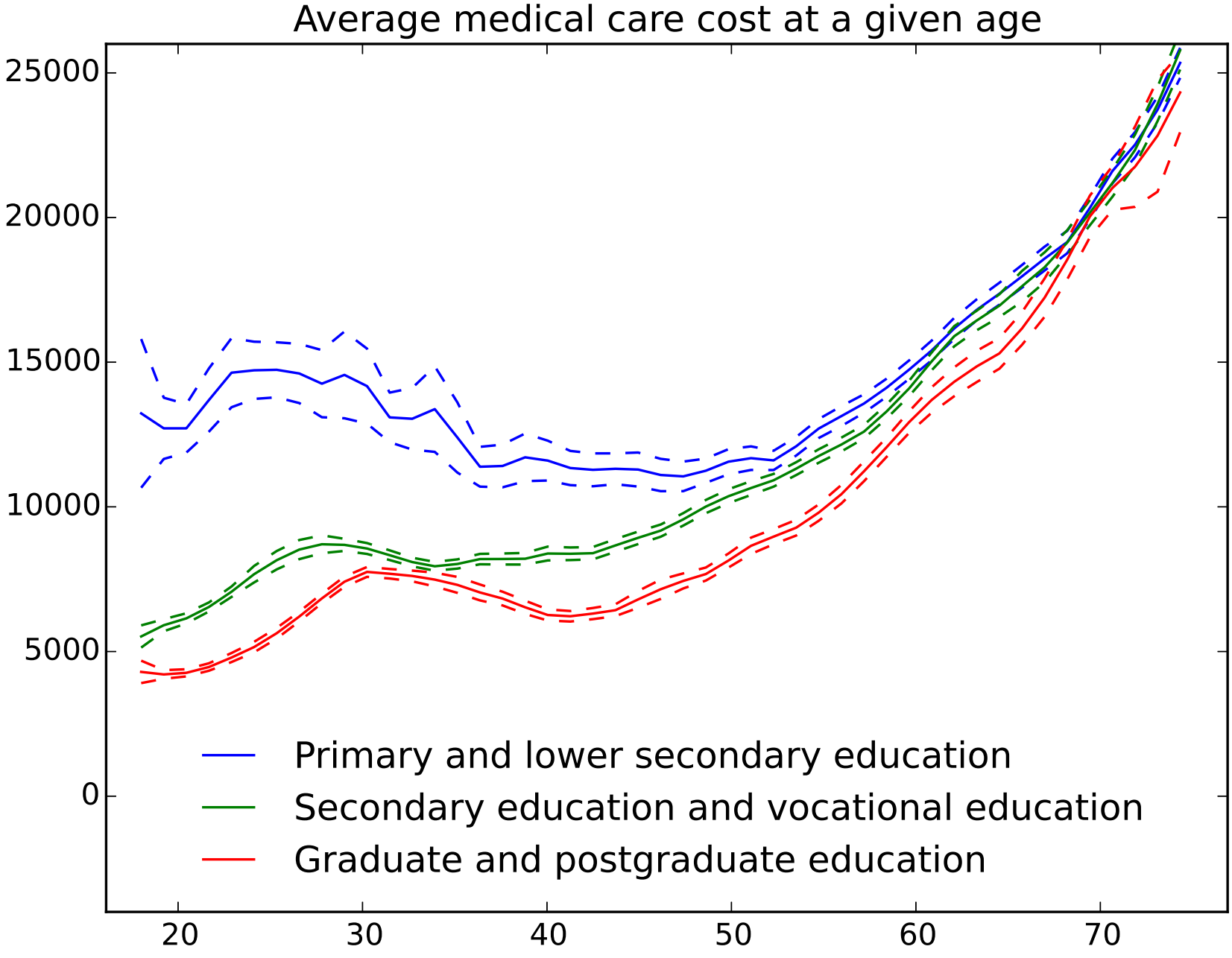
Universität Bonn[1]

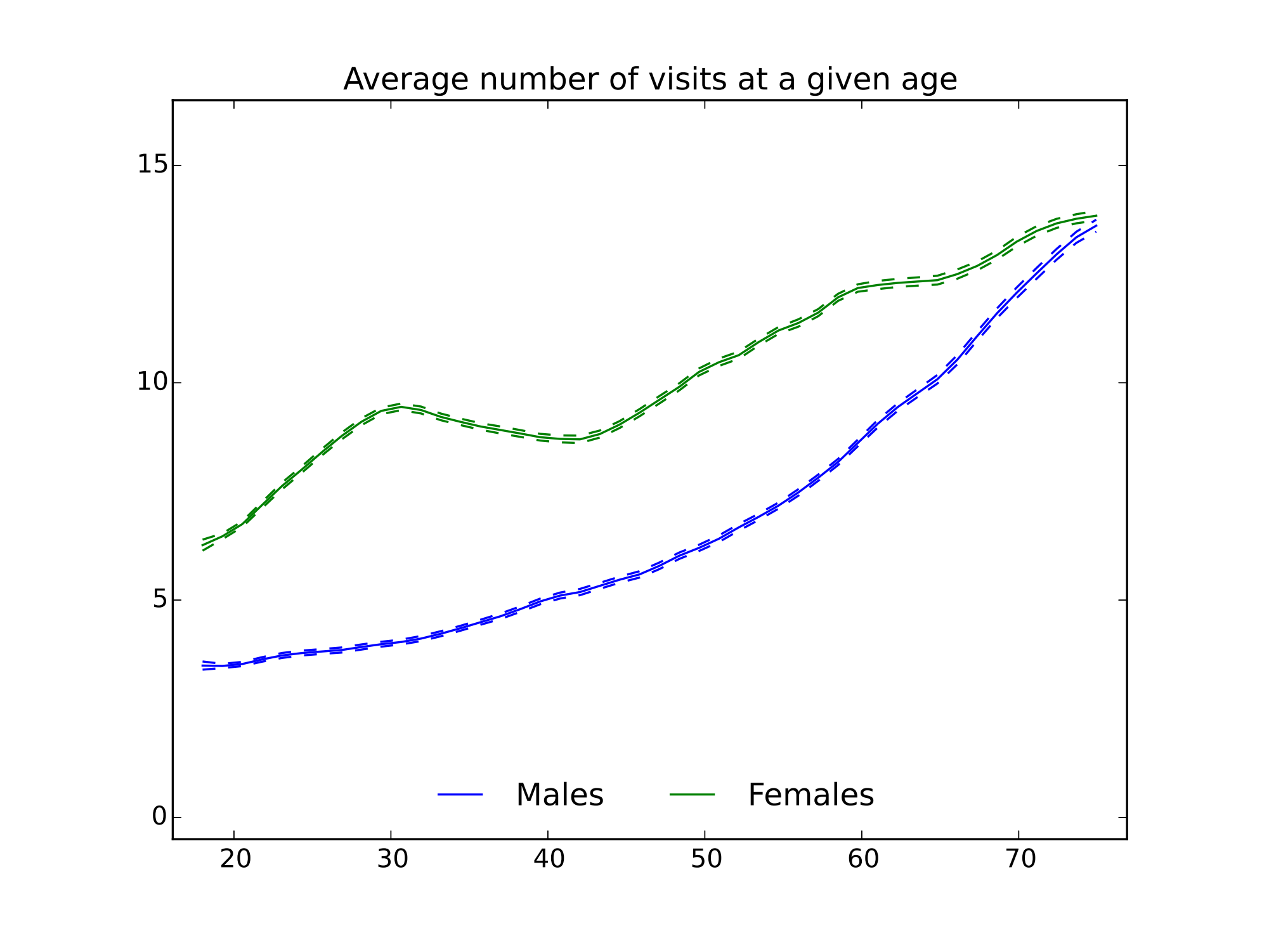
Queen's University[2]

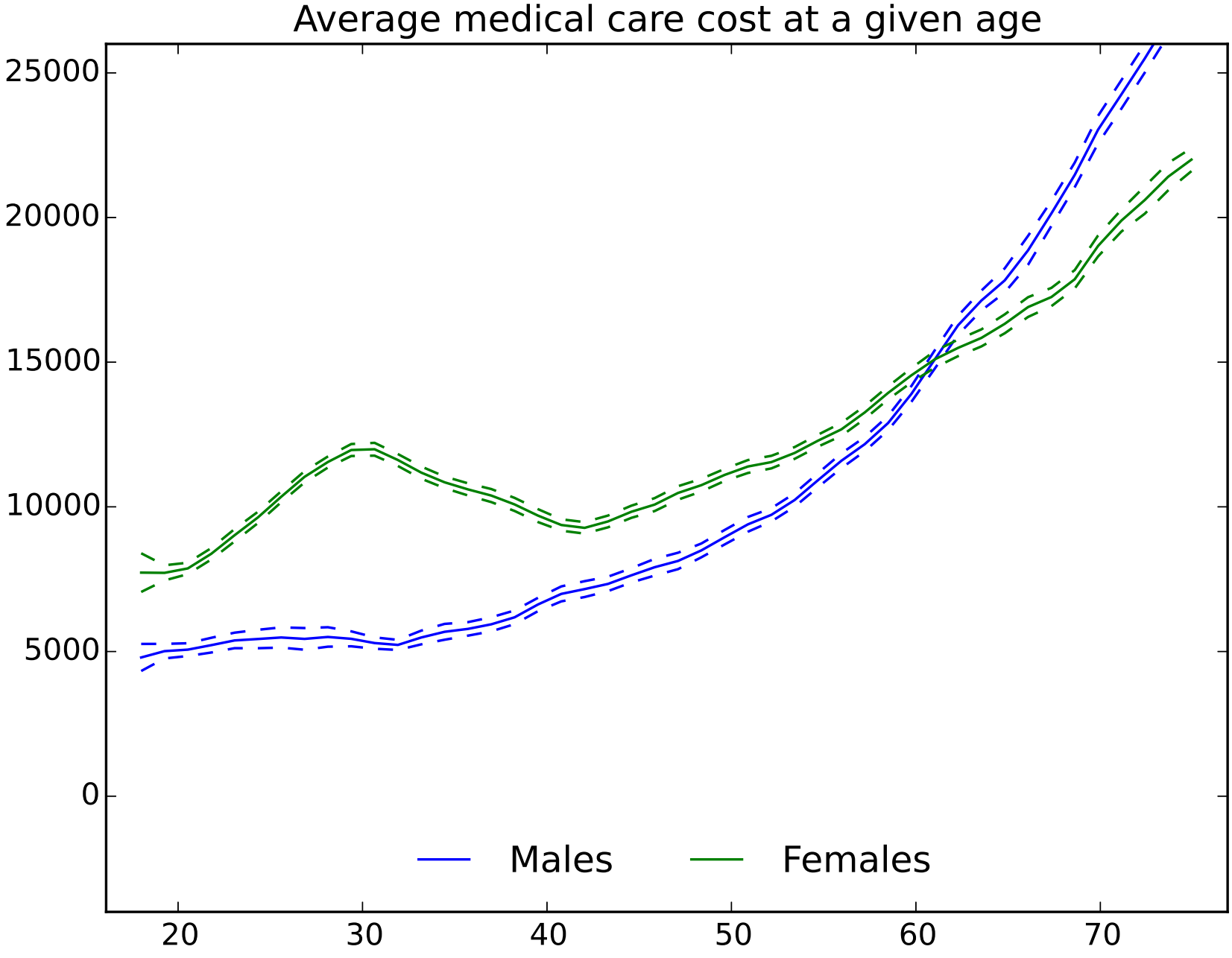
Health economics workshop, Lausanne

19 March 2013


Average number of visits at a given age
15
10
5
0
20
30
40
50
60
70
Primary and lower secondary education
Secondary education and vocational education
Graduate and postgraduate education


Average medical care cost at a given age
25000
20000
15000
10000
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Females


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Males
Females

Origins of the gender gap – Some stories

1. Parents' sex preferences?

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7. . . . ?

Health care in Sweden (Skåne, 1999–2006)

- Patients: Universal coverage.
  - Very small copayments, per visit, max. 900 Kronors / year.
  - Total expenditure: 85% public, 14% OOP.
  - No strict gatekeeping, but copayments rise for direct visits.

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  - Total expenditure: 85% public, 14% OOP.
  - No strict gatekeeping, but copayments rise for direct visits.
- Providers: Organised by counties (states)
  - Outpatient: 70% public provision, 30% contracted private providers.
  - Inpatient: Public provision.

Data: Socio-economics

- Backbone:
  - Comprehensive register of all Swedes and immigrants born between 1940 and 1985.
  - Links to parents and children.
  - Income, education, work, migration, vital statistics.
  - Period: 1990-2006.
- Incredible (too much?) detail in several respects.
  - E.g. more than 2,000 different education categories.

Data: Health care

- The PASiS and Priva registers in Skåne.
  - All inpatient and outpatient care visits 1999-2008 . . .
  - . . . for a million individuals.
- Lots of detail:
  - Patient and institution identifiers.
  - Diagnoses, treatments, costs.
  - Referrals.

Story # 1: Sex preferences of parents

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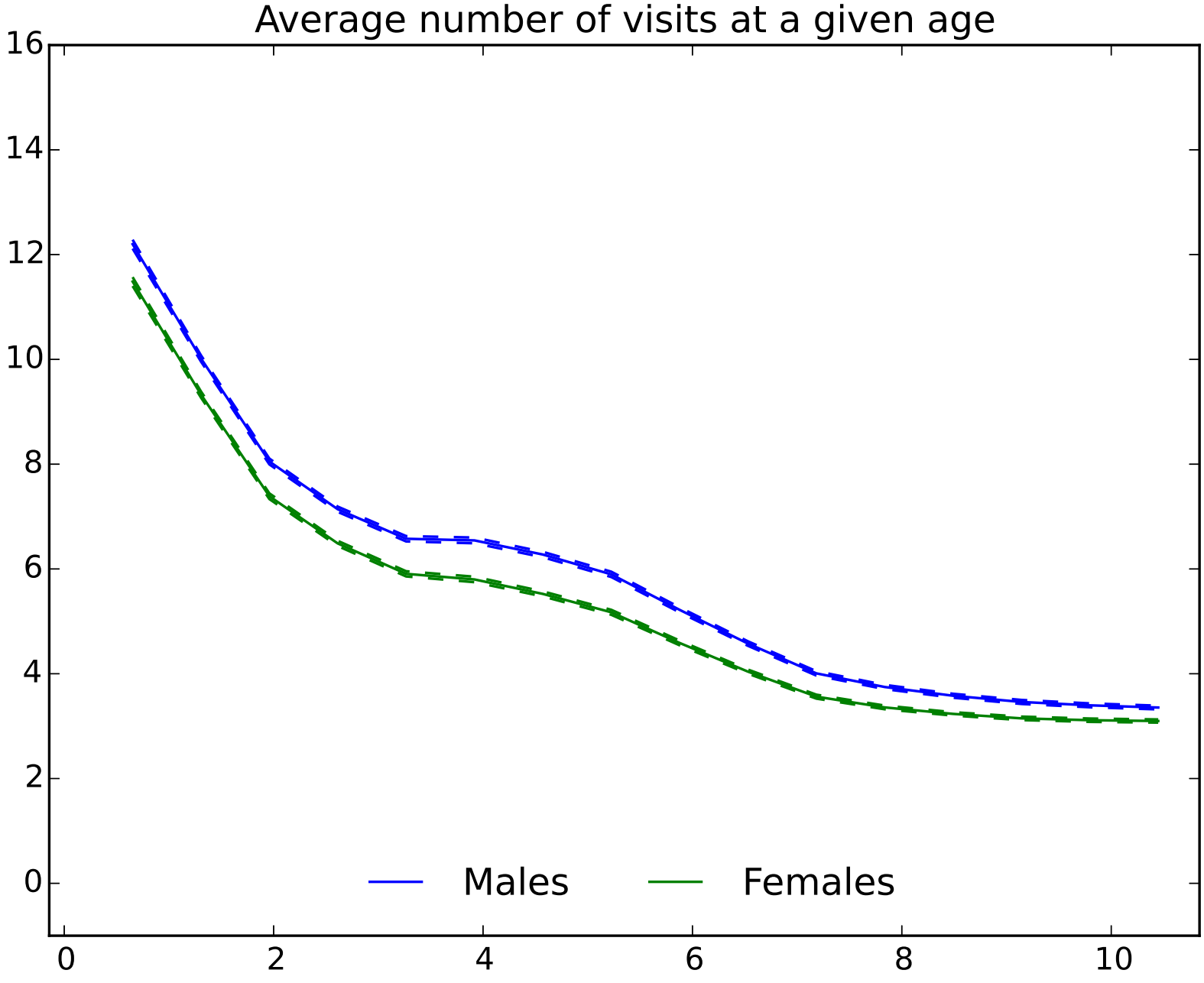
- Parents might have sex preferences
- If they prefer sons over daugthers: More likely to take sons to the doctor
- In Sweden?
- For immigrants from countries like India and China?

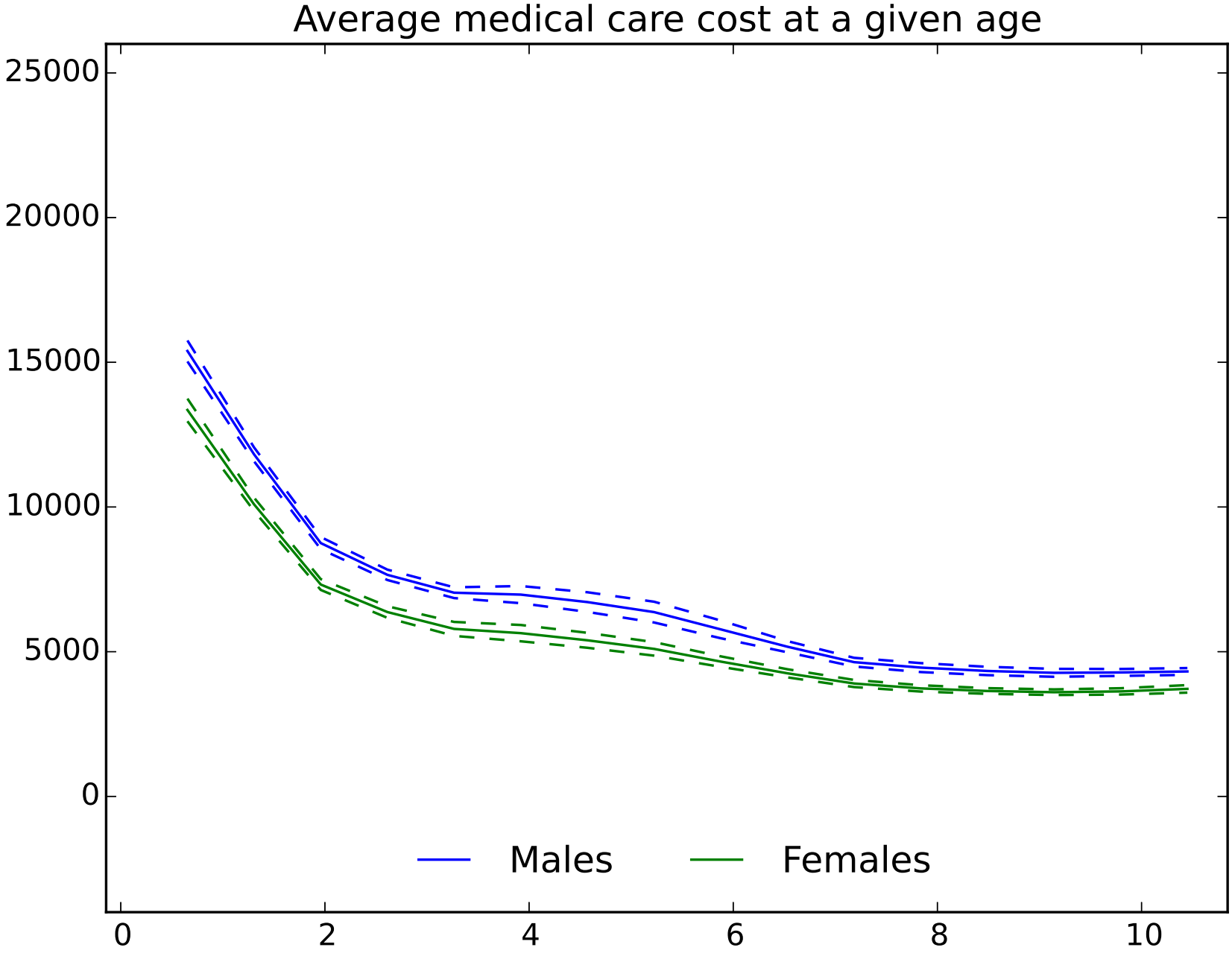
Story # 2: Rougher play of boys

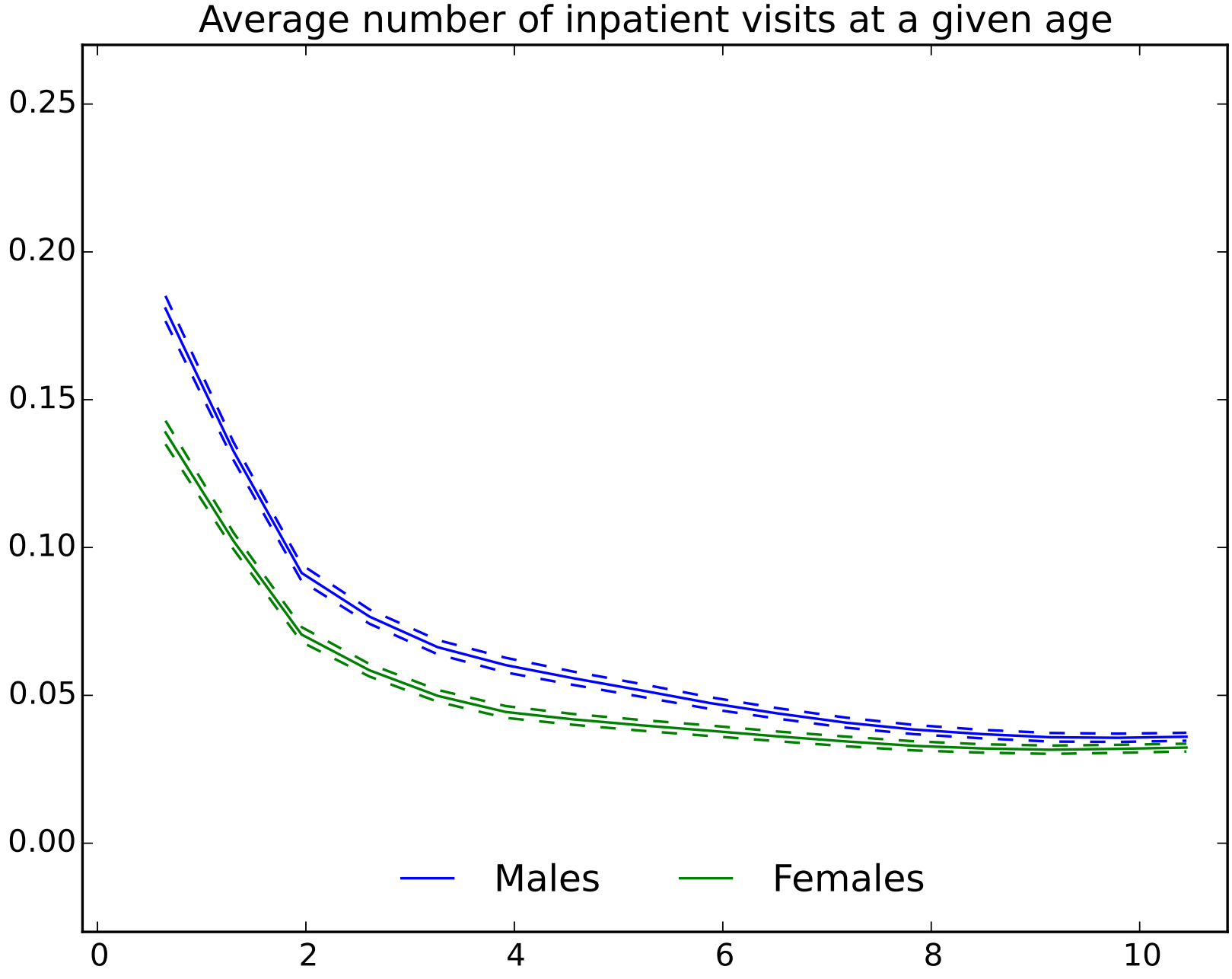
- Expect more broken bones

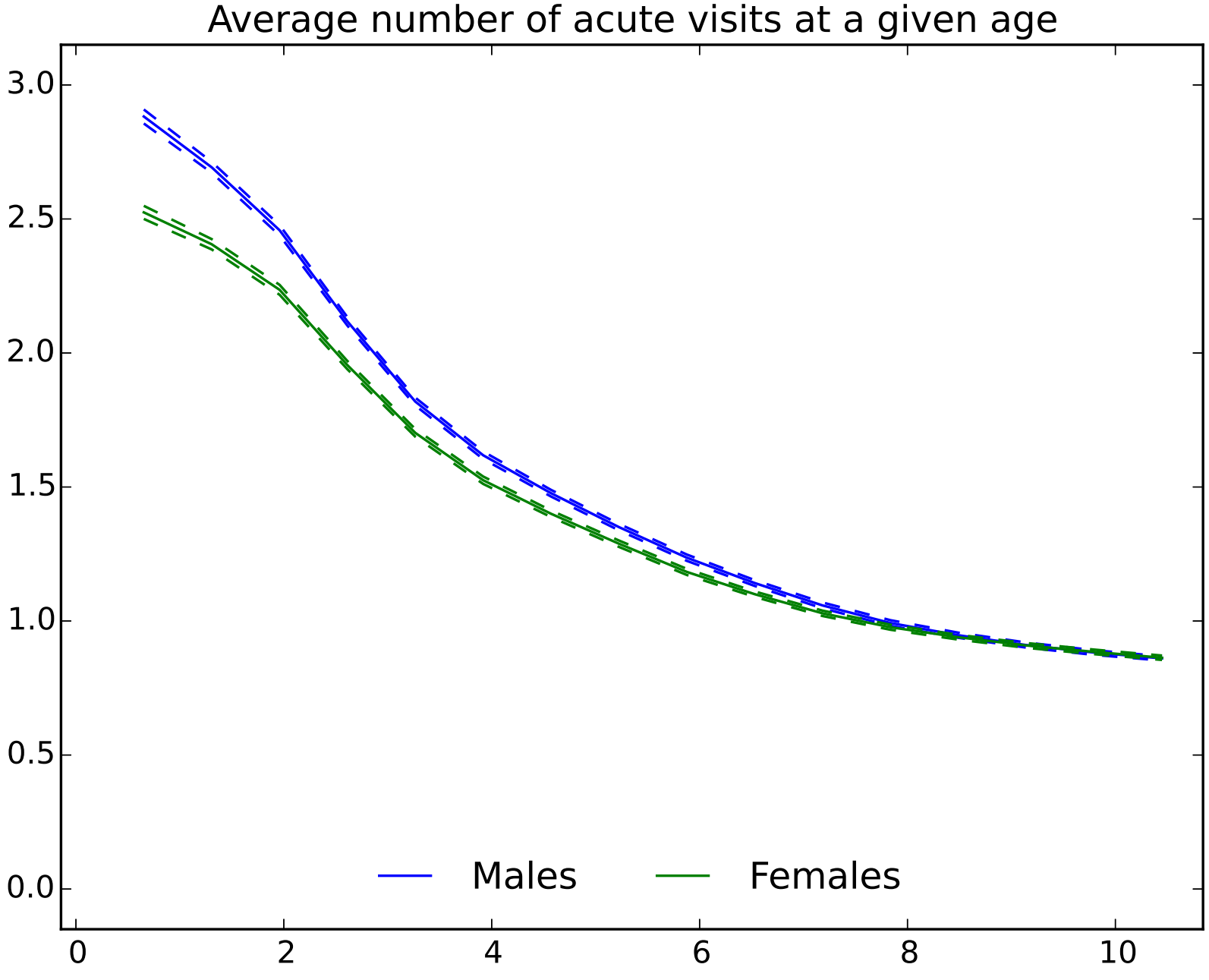
Story # 2: Rougher play of boys

- Expect more broken bones
- More acute visits


Average number of visits at a given age
16
14
12
10
8
6
4
2
0
0
2
4
6
8
10
Males
Females


Average medical care cost at a given age
25000
20000
15000
10000
5000
0
0
2
4
6
8
10
Males
Females


Average number of inpatient visits at a given age
0.25
0.20
0.15
0.10
0.05
0.00
0
2
4
6
8
10
Males
Females


Average number of acute visits at a given age
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
2
4
6
8
10
Males
Females

Story # 3: All starts with menarche

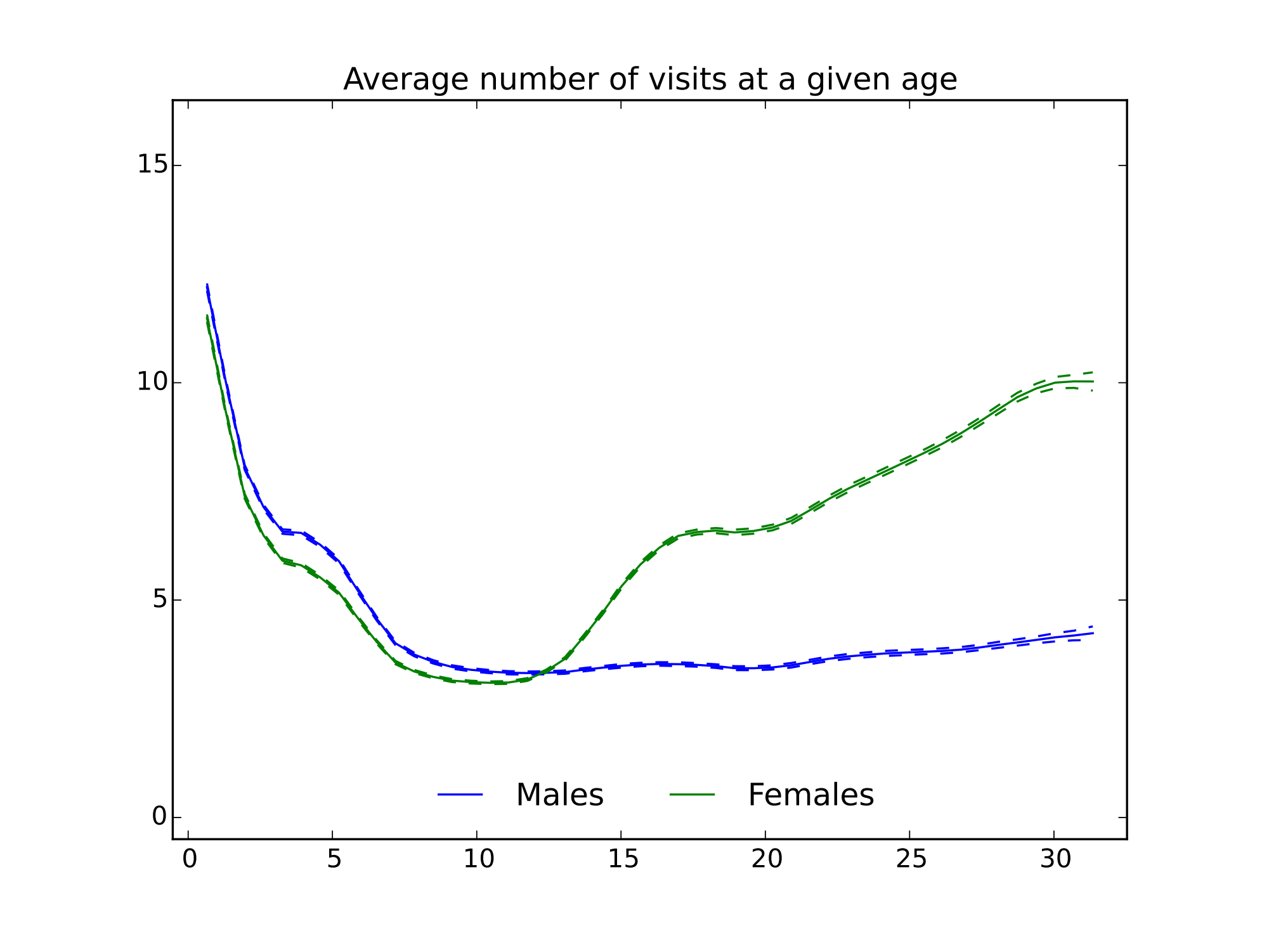
- Do girls still have an advance after accounting for obstetric / gynaecological visits?
  - No clean data yet

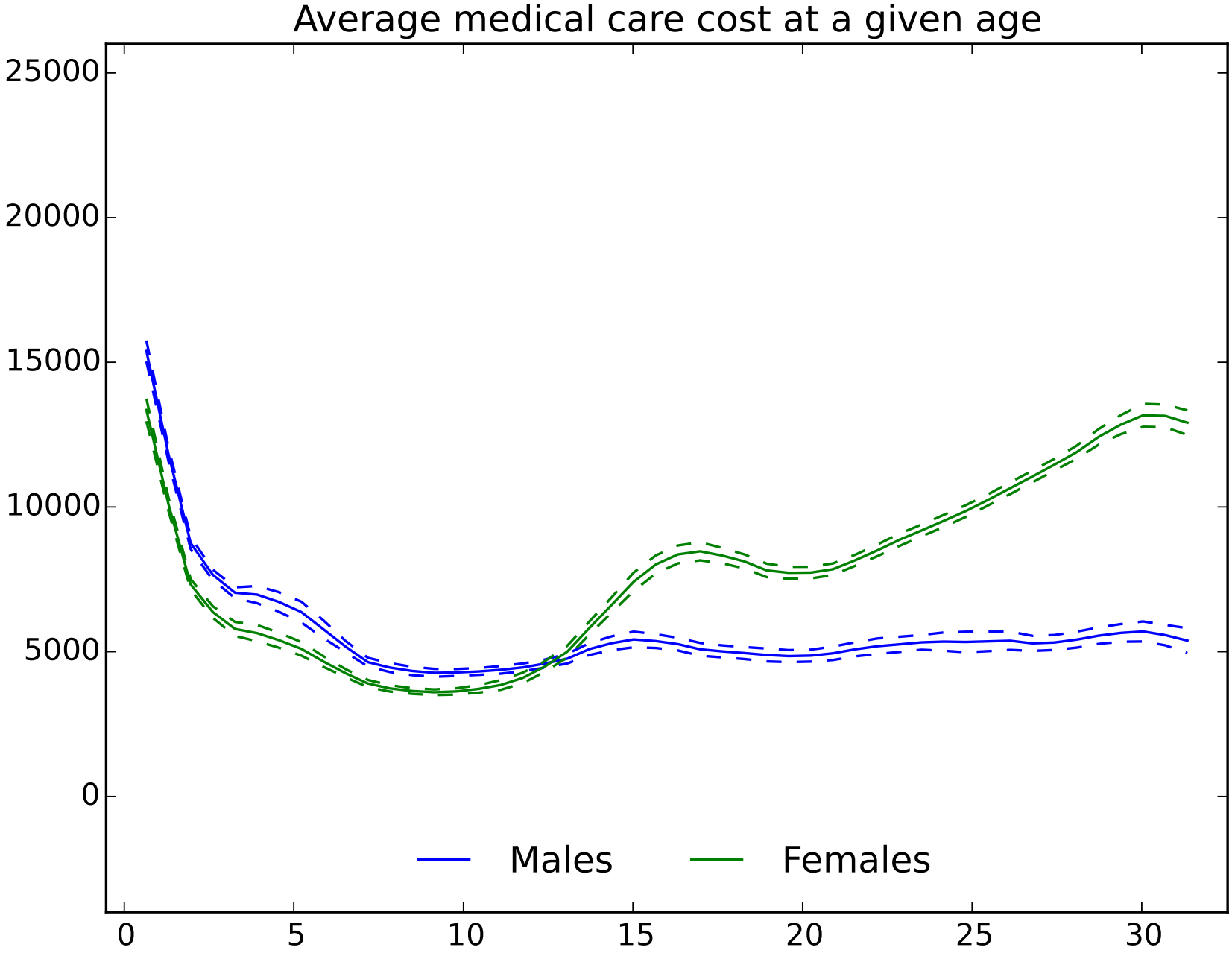
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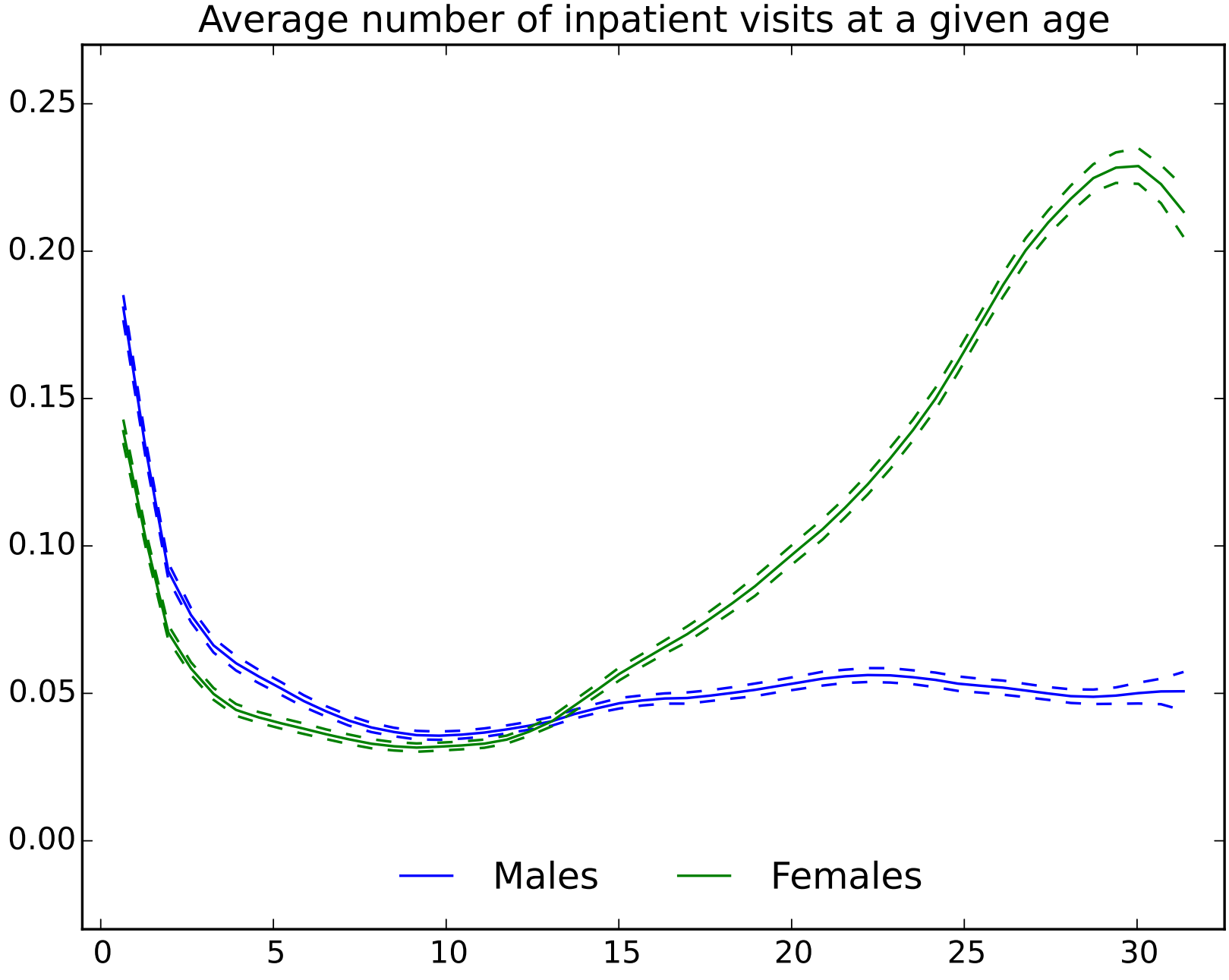
- Do girls still have an advance after accounting for obstetric / gynaecological visits?
  - No clean data yet
- We know age of menarche is delayed for smaller babies

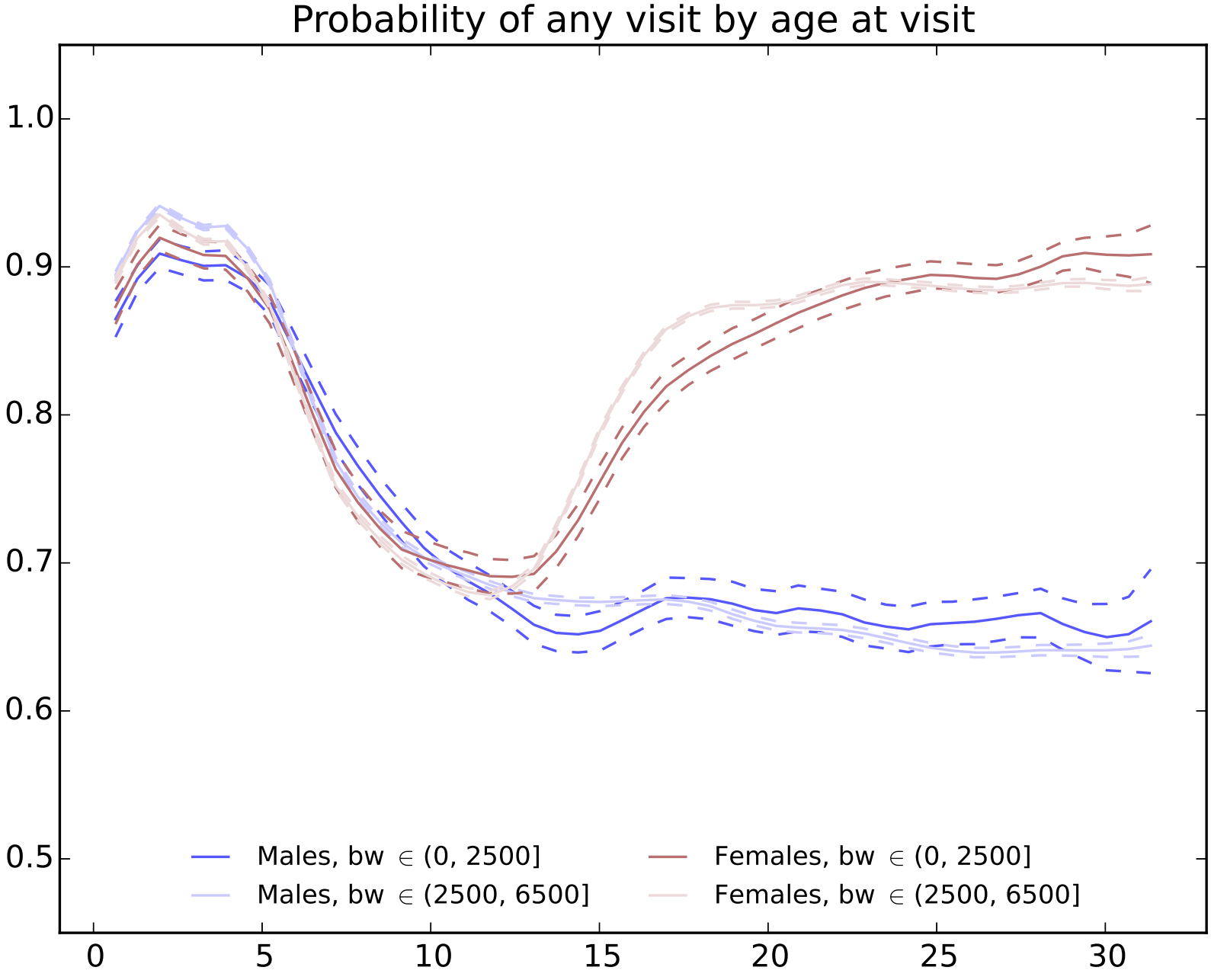
Story # 3: All starts with menarche

- Do girls still have an advance after accounting for obstetric / gynaecological visits?
  - No clean data yet
- We know age of menarche is delayed for smaller babies
- Split birthweight distribution, does gender gap emerge later for smaller babies?


Average number of visits at a given age
15
10
5
0
0
5
10
15
20
25
30
Males
Females


Average medical care cost at a given age
25000
20000
15000
10000
5000
0
0
5
10
15
20
25
30
Males
Females


Average number of inpatient visits at a given age
0.25
0.20
0.15
0.10
0.05
0.00
0
5
10
15
20
25
30
Males
Females


Probability of any visit by age at visit
1.0
0.9
0.8
0.7
0.6
0.5
0
5
10
15
20
25
30
Males, bw ∈ (0, 2500]
Males, bw ∈ (2500, 6500]
Females, bw ∈ (0, 2500]
Females, bw ∈ (2500, 6500]

Story # 4: Supplier-induced demand

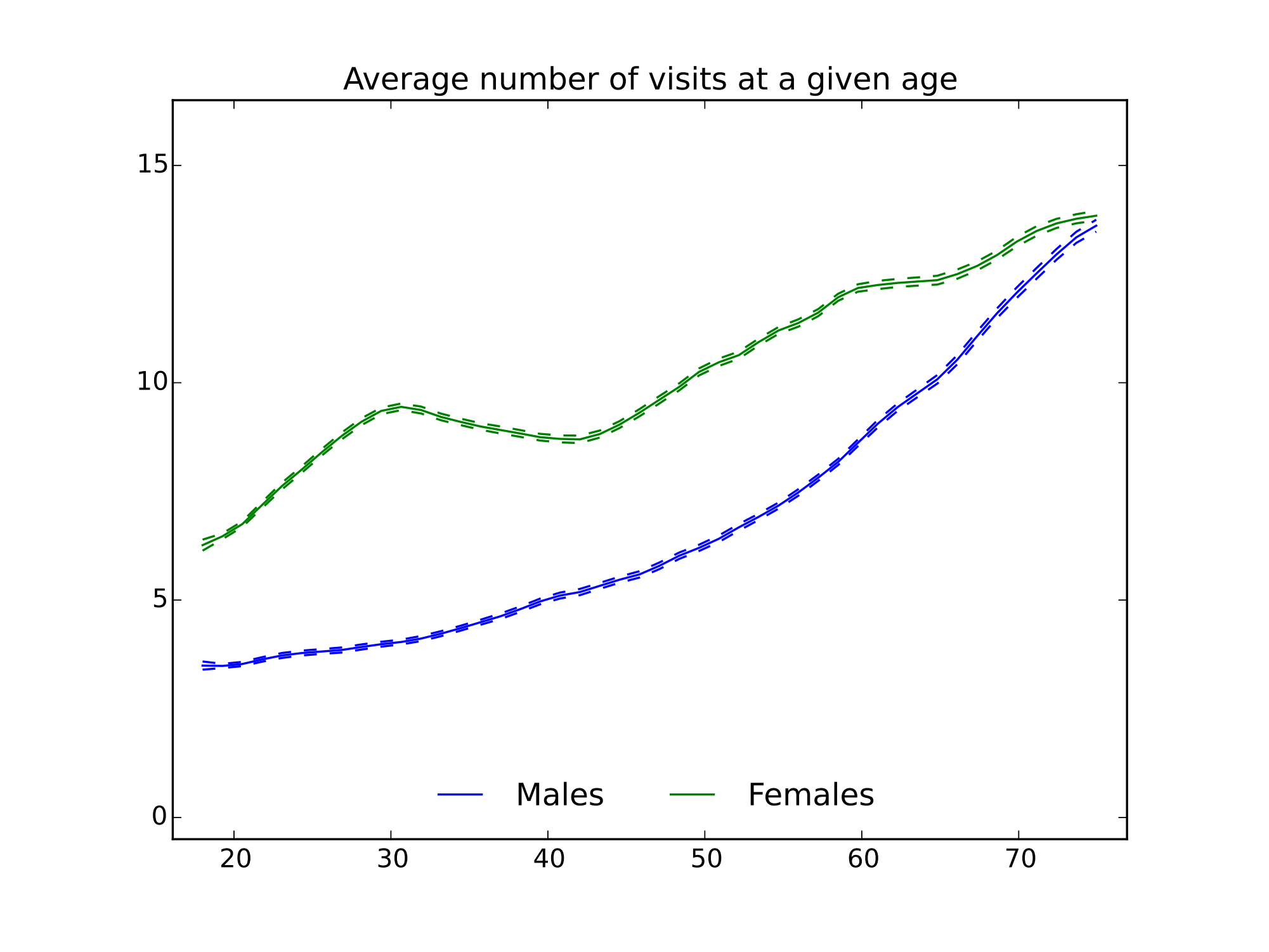
- Anecdotal evidence: (Some) guys can't be bothered to go to a doctor
  - Policymakers act on this in the U.S.

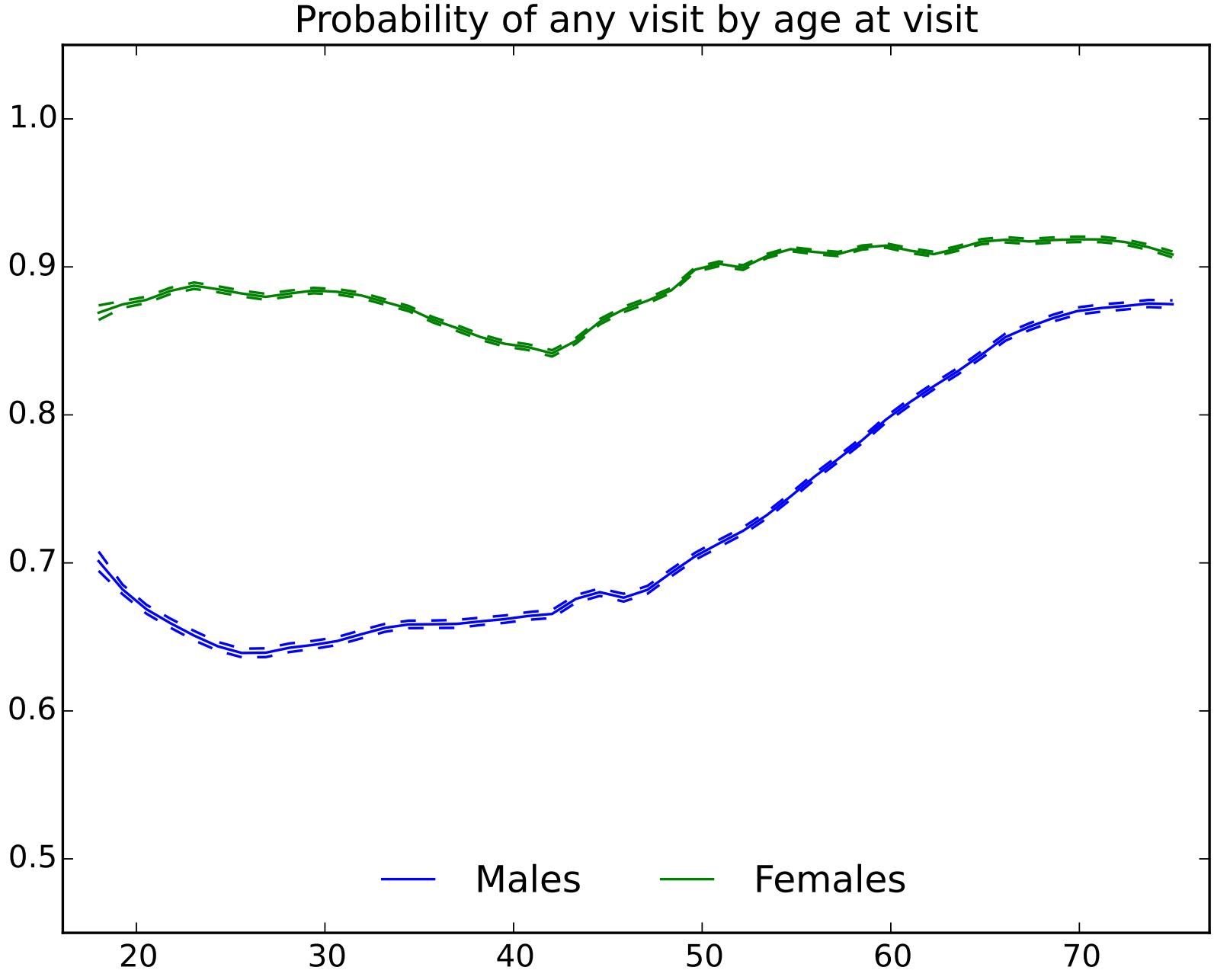
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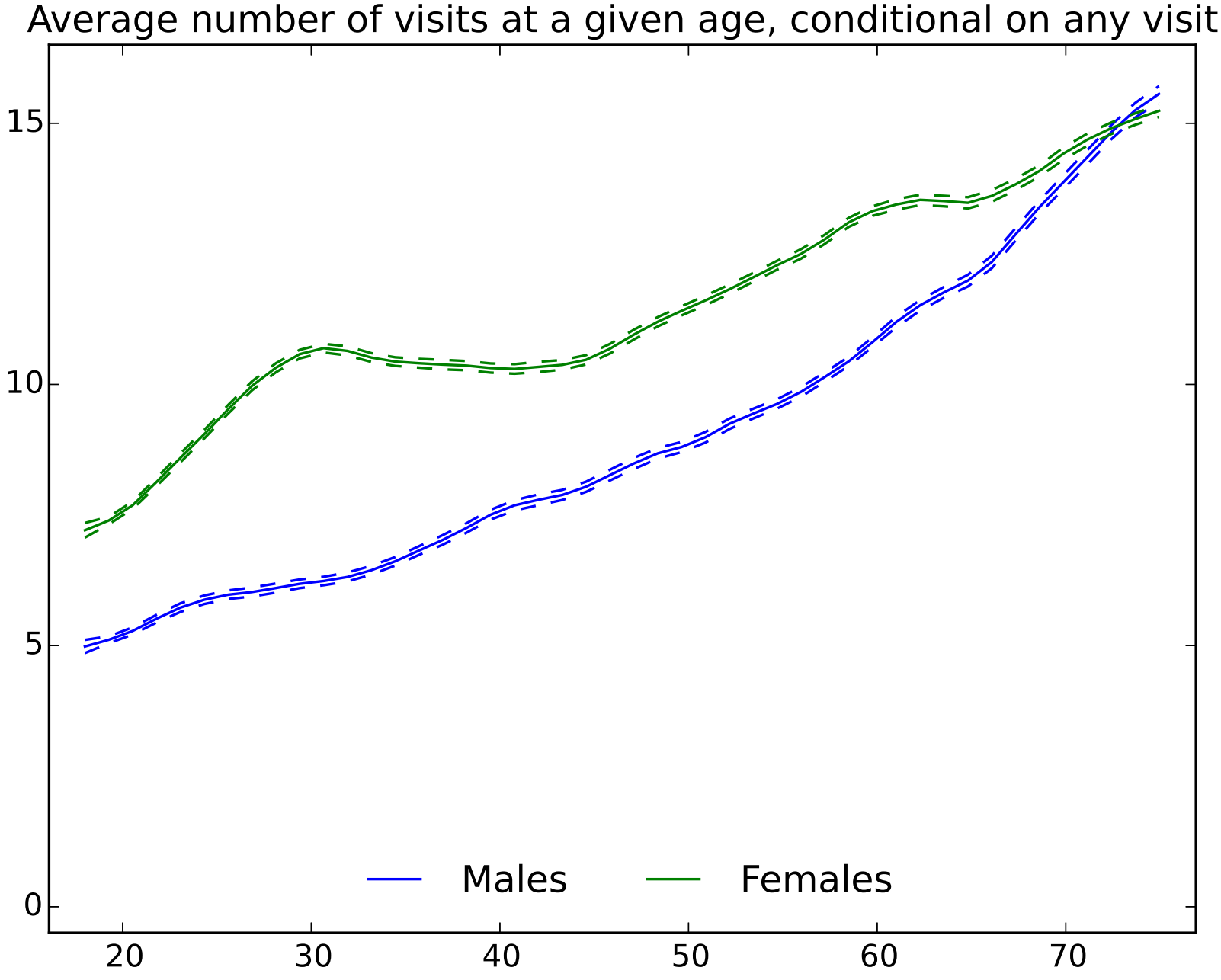
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- So no scope for follow-up visits

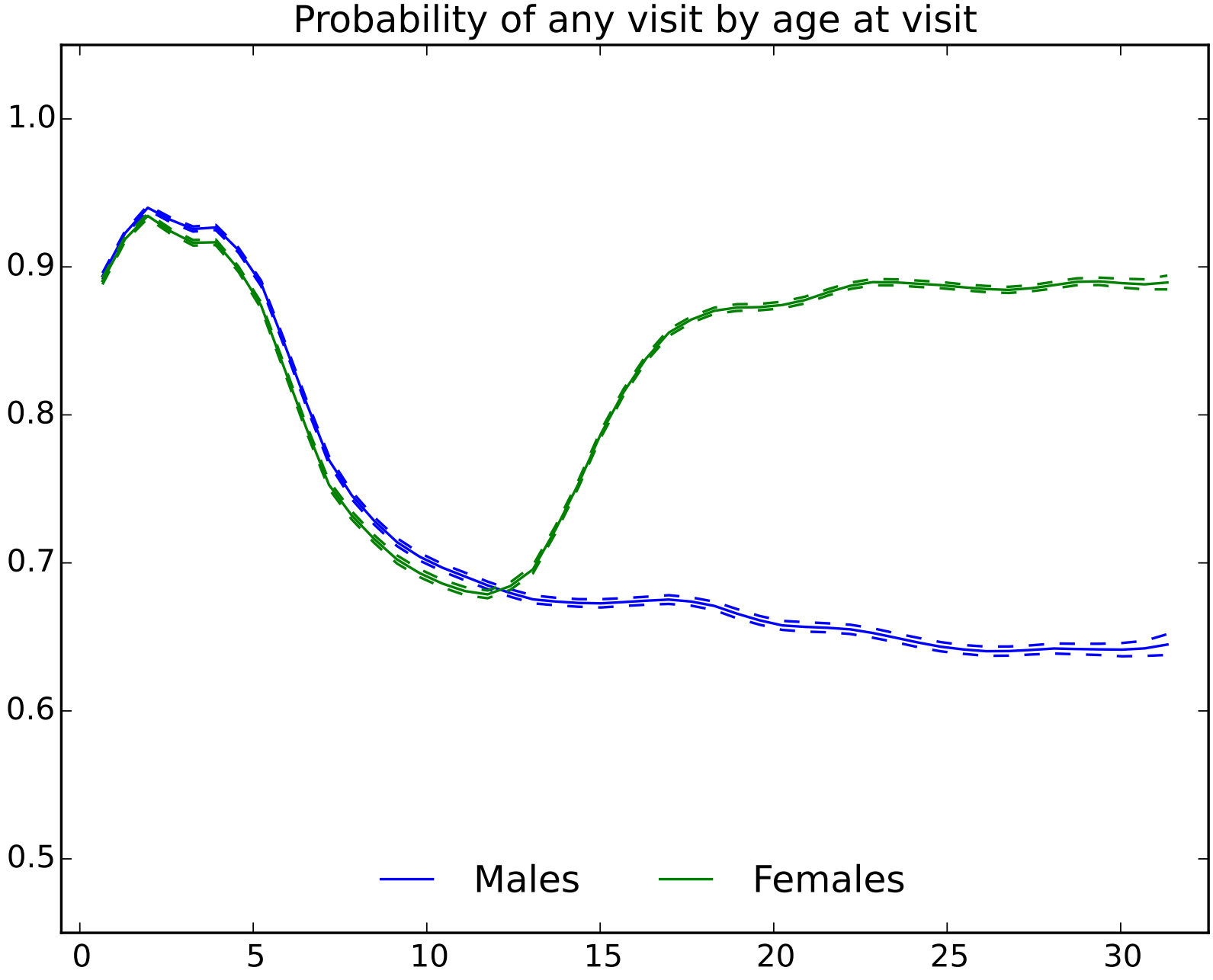
Story # 4: Supplier-induced demand

- Anecdotal evidence: (Some) guys can't be bothered to go to a doctor
  - Policymakers act on this in the U.S.
- So no scope for follow-up visits
- (SID without negative connotation)


Average number of visits at a given age
15
10
5
0
20
30
40
50
60
70
Males
Females


Probability of any visit by age at visit
1.0
0.9
0.8
0.7
0.6
0.5
20
30
40
50
60
70
Males
Females


Average number of visits at a given age, conditional on any visit
15
10
5
0
20
30
40
50
60
70
Males
Females

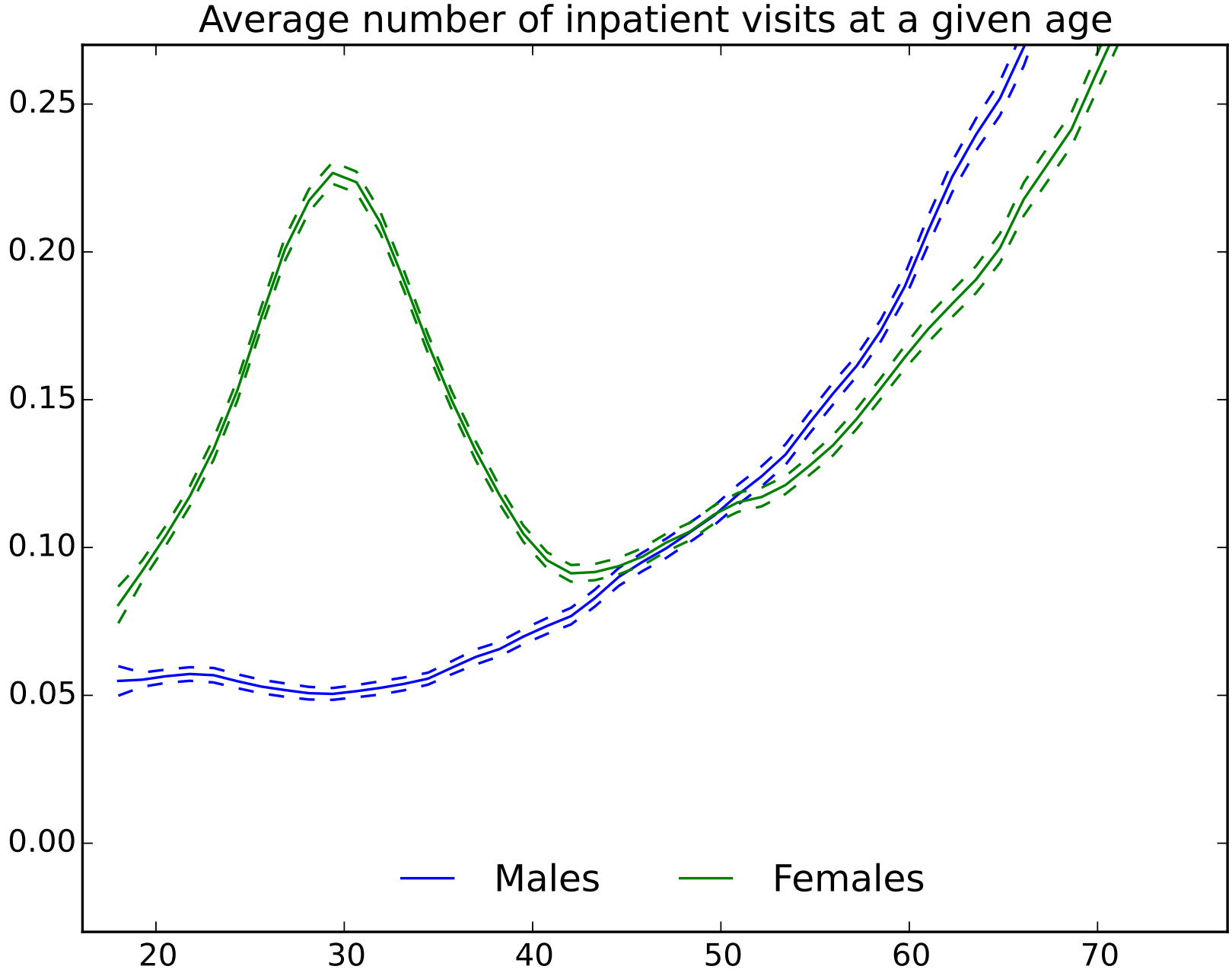

Probability of any visit by age at visit
1.0
0.9
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0.7
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0
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25
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Males
Females

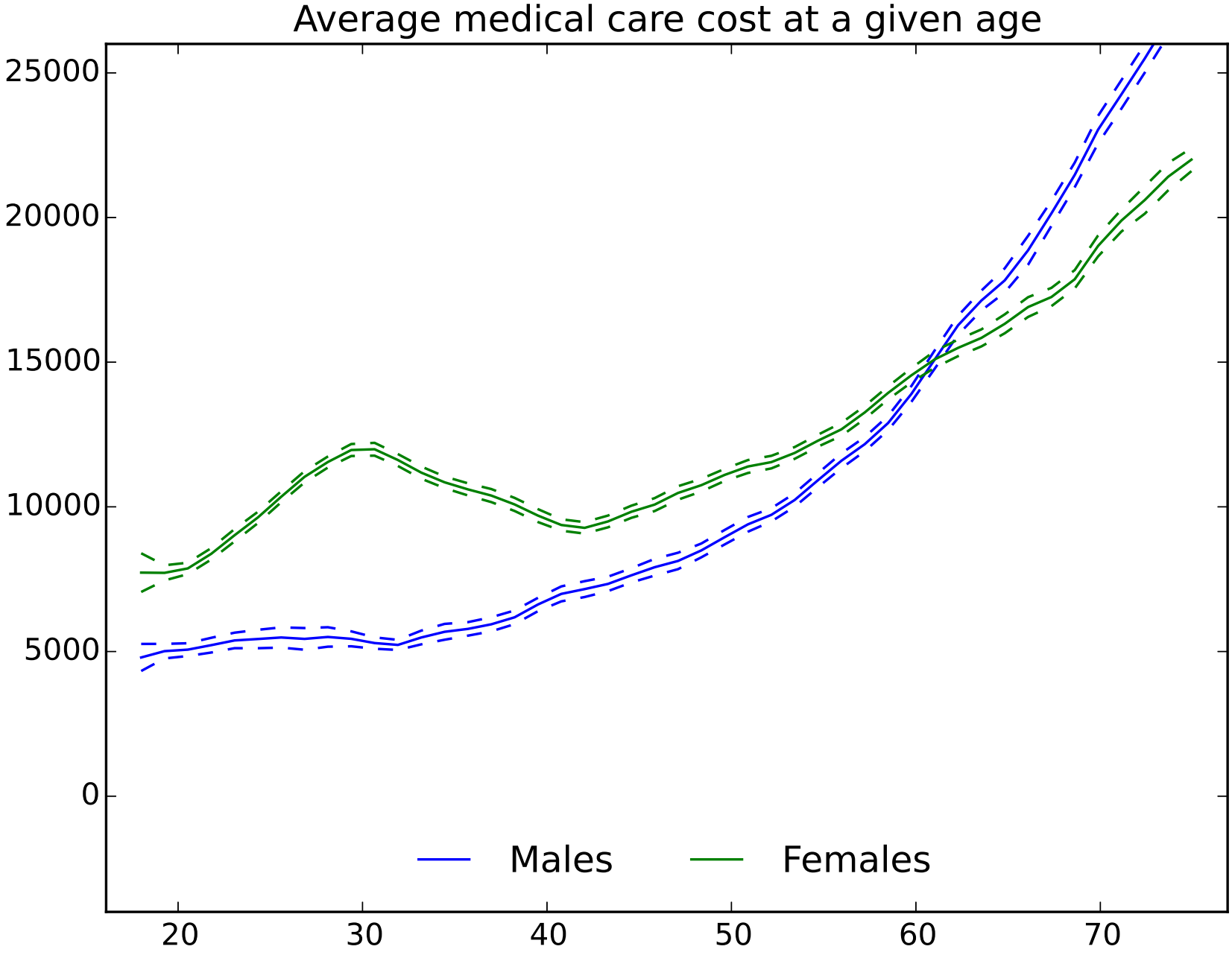
Stories # 6 and # 7 – preferences and morbidity

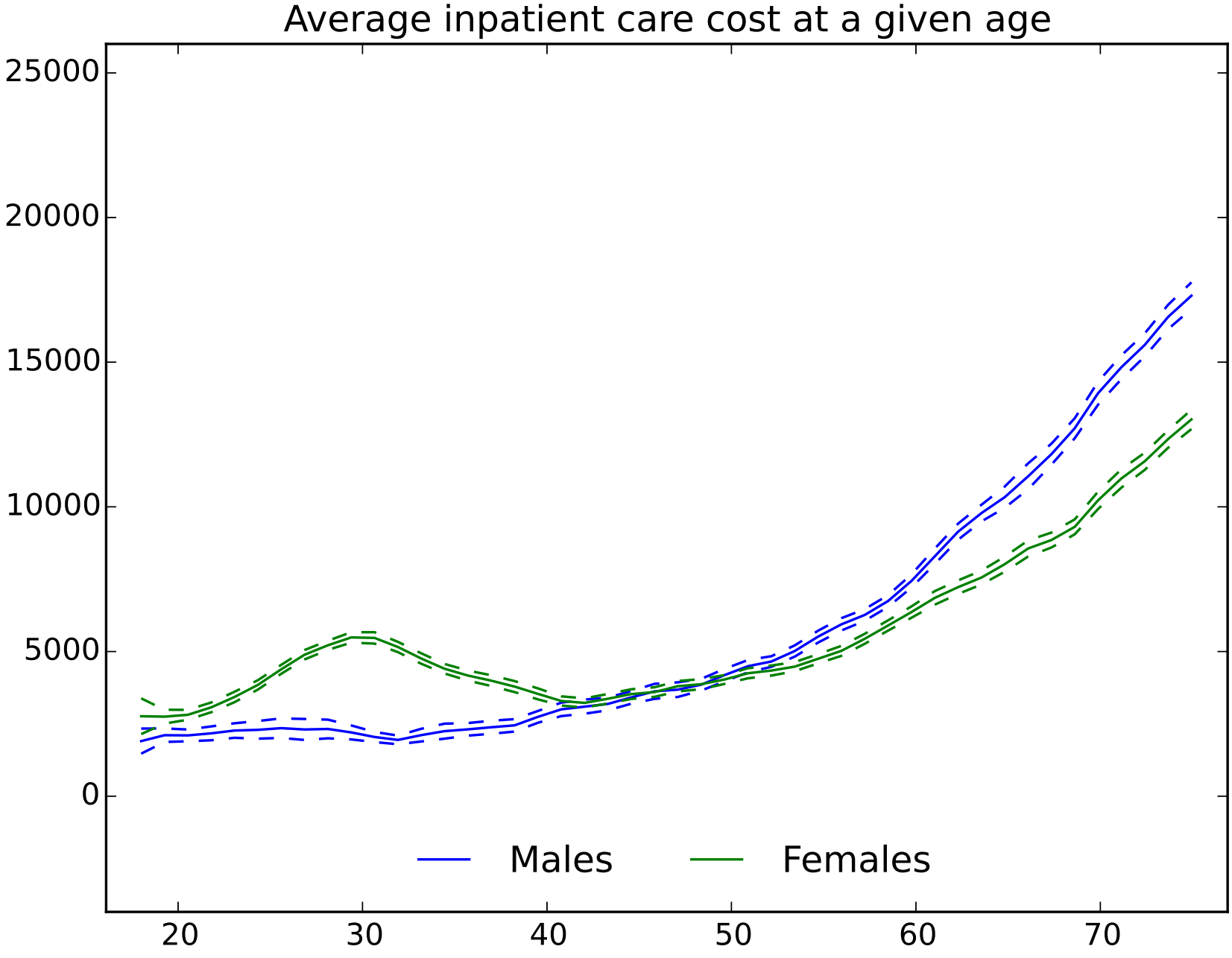
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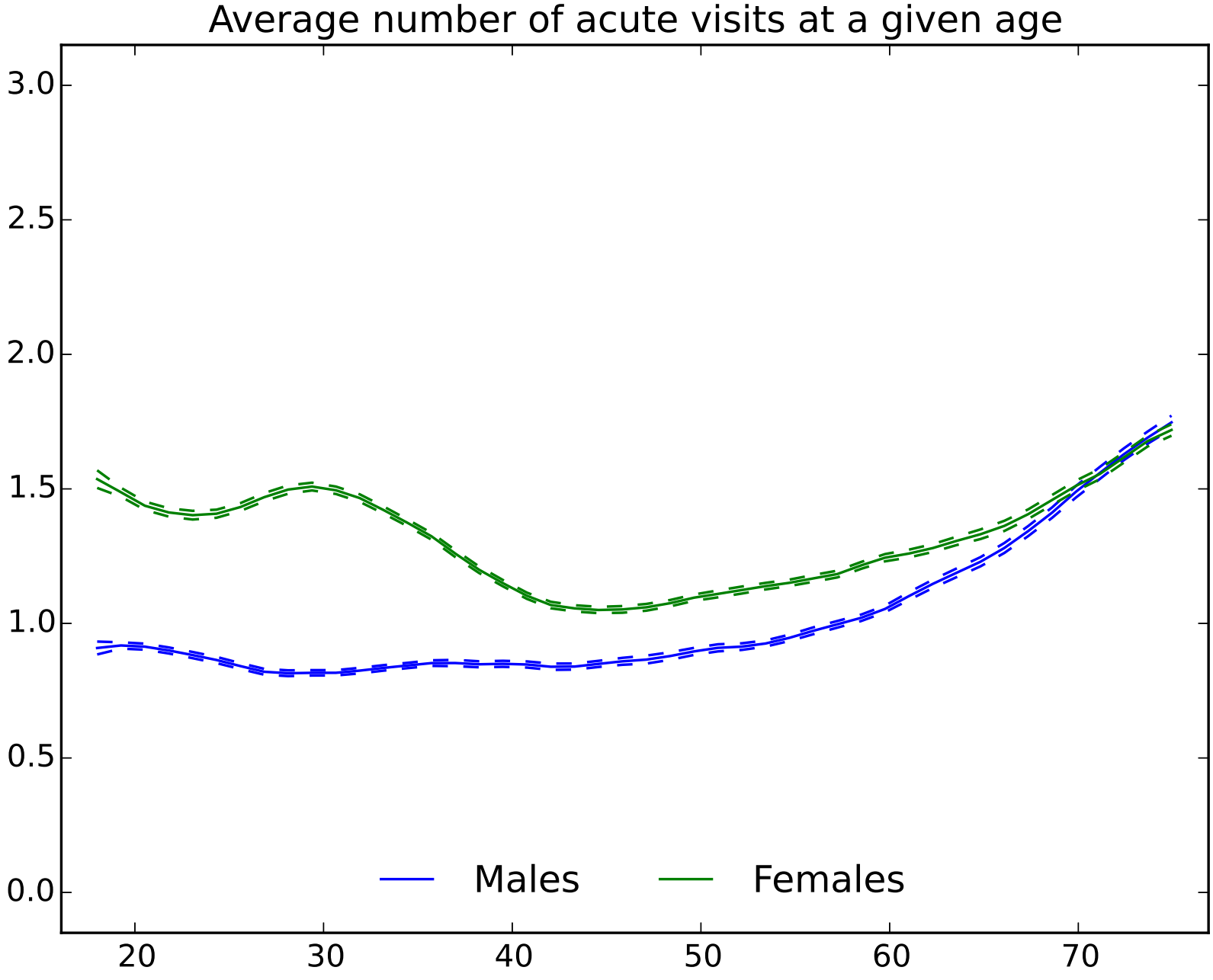
Stories # 6 and # 7 – preferences and morbidity

- Can't say much with current state of the data
- But look at inpatient & acute visits by age to get an idea
  - Would expect higher inpatient care costs fairly early for lower prevalence + higher severity among men
  - Would expect more unscheduled visits if men never go for checkups


Average number of inpatient visits at a given age
0.25
0.20
0.15
0.10
0.05
0.00
20
30
40
50
60
70
Males
Females


Average medical care cost at a given age
25000
20000
15000
10000
5000
0
20
30
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50
60
70
Males
Females


Average inpatient care cost at a given age
25000
20000
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10000
5000
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Average number of acute visits at a given age
3.0
2.5
2.0
1.5
1.0
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Discussion

- Got started looking at gender differences in health (care use)

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- So far, leave out the brackets . . .

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  - Do the sick get sicker quickly?
  - What happens to male visits once they're used to going to the doctor?

Discussion

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- So far, leave out the brackets . . .
- Did not exploit panel nature of the data so far
  - Do the sick get sicker quickly?
  - What happens to male visits once they're used to going to the doctor?
- Need to get at types of visits & diagnoses to distinguish between / quantify different stories