

Antibiotikaforbrug på offentlige sygehuse i Danmark

LKT Antibiotika

2019-03-13

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Indledning

Denne rapport præsenterer data for antibiotikaforbruget på offentlige hospitaler i Danmark i perioden januar 2015 til december 2018.

Indsamling og analyse af data indgår i arbejdet i det nationale lærings- og kvalitetsnetværk (LKT) for rationelt antibiotikaforbrug og knytter sig til de ønskede forbedringer og overordnede målsætninger for projektet:

1. Reduktion af det samlede antibiotikaforbrug
2. Reduktion af forbruget af kritisk vigtige antibiotika

Begge mål ønsket opnået inden juli 2019.

Indikatordefinitioner

Til at følge ovenstående målsætninger, beskriver projektet to indikatorer:

1. Det samlede antibiotikaforbrug per 100 sengedage (ATC2-gruppe J01).
2. Forbruget af de kritisk vigtige antibiotika per 100 sengedage (carbapenemer, fluroquinoloner og cefalosporiner).

Data stammer fra regionernes egne opørelser, som er fremsendt til projektledelsen.

Som et mål for eventuel uilsigtet underbehandling af patienter med alvorlige infektioner følger projektet desuden

3. 30-dages mortaliteten efter bakteriami på hospital.

Beregning af antibiotikaforbrug

Antibiotikaforbrug, tælleren i de to indikatorer, er opgjort i estimerede behandlingsdøgn (aDDD), der baserer sig på WHO's definerede døgndoser (DDD) for lægemidler, og er den mængde af et lægemiddel, der typisk gives til en voksen patient ved et døgn's behandling på lægemidlets hovedindikation. Men fordi dansk behandlingspraksis for udvalgte stoffer, særligt i penicillingruppen, afviger fra international praksis, omregner vi DDD til aDDD efter nedenstående tabel.

Stofnavn	ATC-kode	Administrationsvej	Justeringsfaktor
ampicillin	J01CA01	IV	0.25
pivampicillin	J01CA02	PO	0.50
amoxicillin	J01CA04	PO	0.67
pivmecillinam	J01CA08	PO	0.50
benzylpenicillin	J01CE01	IV	0.75
phenoxymethylpenicillin	J01CE02	PO	0.75
dicloxacillin	J01CF01	PO	0.50
flucloxacillin	J01CF05	PO	0.50
amoxicillin og enzym-inhibitor	J01CR02	PO	0.67
piperacillin og enzym-hæmmer	J01CR05	IV	1.17
cefuroxim	J01DC02	IV	0.67
meropenem	J01DH02	IV	0.67
clarithromycin	J01FA09	PO	0.50
azithromycin	J01FA10	PO	0.30
gentamicin	J01GB03	IV	0.69
ciprofloxacin	J01MA02	IV	0.63

Beregning af sengedage

Sengedage, nævneren i de to indikatorer, er opgjort per hospital per måned. Beregningen er "eksakt" og tager højde for delvise sengedage på indlæggelses- og udskrivelsesdage. Indlægges en patient fx kl. 13 den ene dag og udskrives kl. 16 den næste dag, har kontakten produceret $(24-13)/24 + 16/24 = 27/24 = 1,125$ sengedage.

30-dages dødelighed efter bakteræmi

Bakteræmidødeligheden opgøres af Serum instituttet som antal dødsfald inden for 30 dage efter påvisning af bakterier i blodet i procent af antallet af patienter med bakterier i blodet. Indikatoren benytter samme afgrænsning af bakterietyper som bakteræmiindikatoren i HAIBA-projektet, men medtager alle – ikke kun hospitalserhvervede – bakteræmier, som er påvist på hospital.

Det er vigtigt at være opmærksom på, at denne ulempeindikator kan påvirkes af mange andre faktorer end utilstrækkelig antibiotikabehandling. En eventuel stigning i bakteræmidødeligheden tjener således udelukkende som et signal til at undersøge årsagerne til stigningen.

Dataanalyse og -præsentation

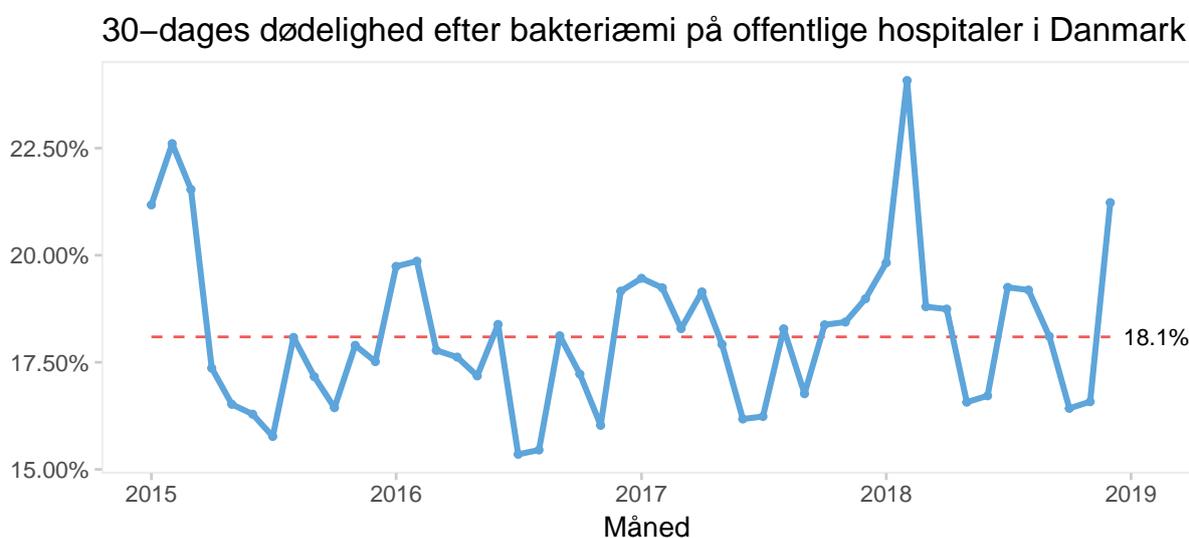
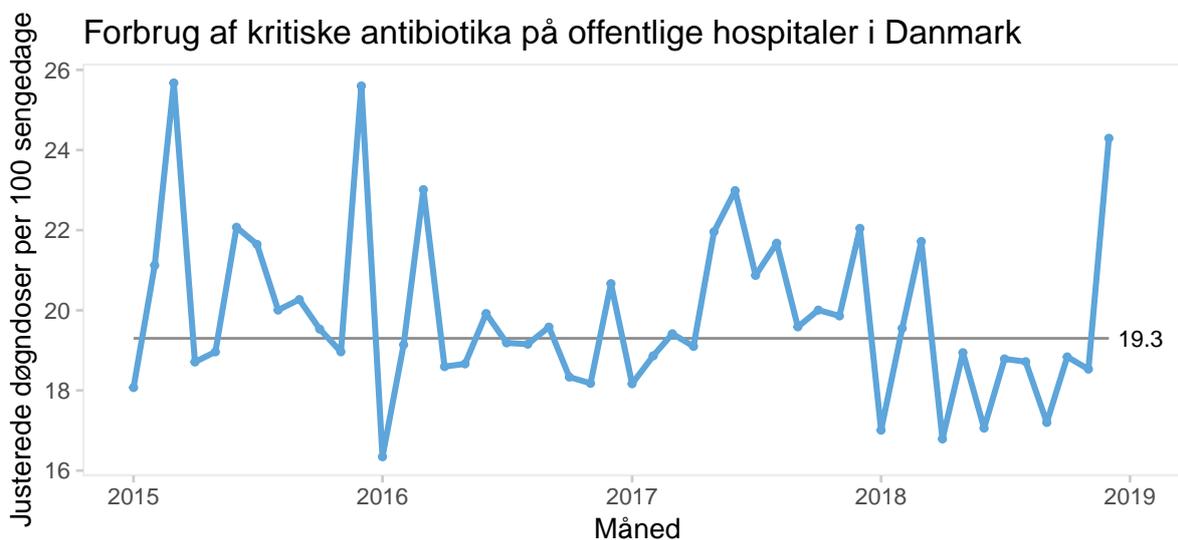
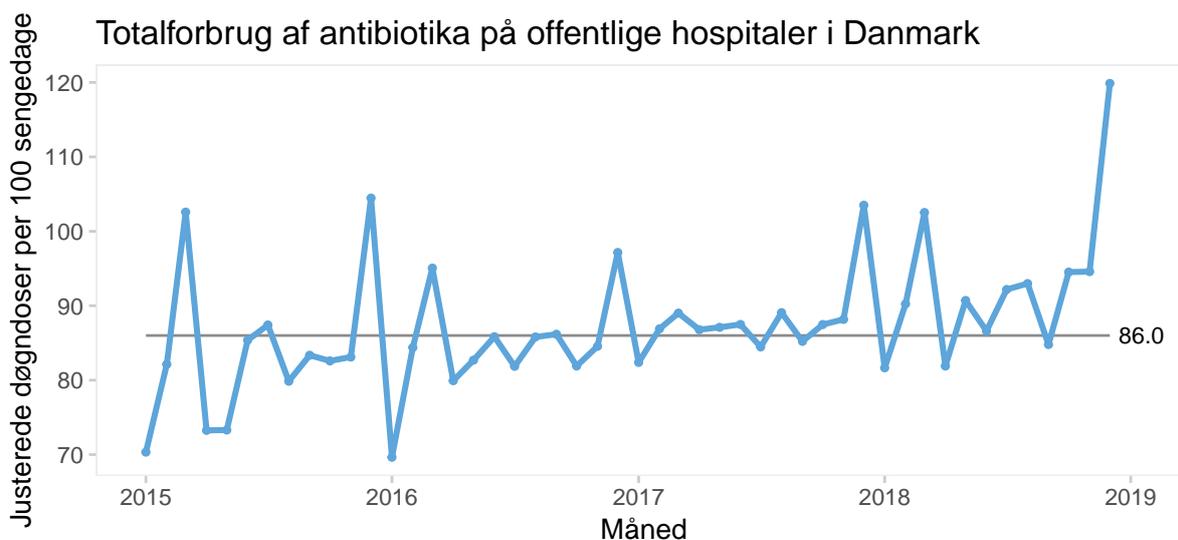
Vi præsenterer indikatorerne i seriediagrammer, der viser data over tid som kurvediagram sammen med datapunkternes midtlinje (median). På baggrund af punkternes fordeling omkring midtlinjen kan statistiske test afgøre, om der er tegn på ikke-tilfældig variation som udtryk for en systematisk bevægelse i data over tid. Ikke-tilfældig variation bliver vist ved en rød, stiplede midtlinje. Modsat, hvis midtlinjen er grå, er der ingen sikre tegn til vedvarende ændringer over tid.

Det er vigtigt at understrege, at fortolkning af kurverne – uanset tilstedeværelse af tilfældig eller ikke-tilfældig variation – er en opgave, som kræver indgående forståelse for lokale forhold, strukturer og arbejdsgange af betydning for antibiotikaforbruget det pågældende sted.

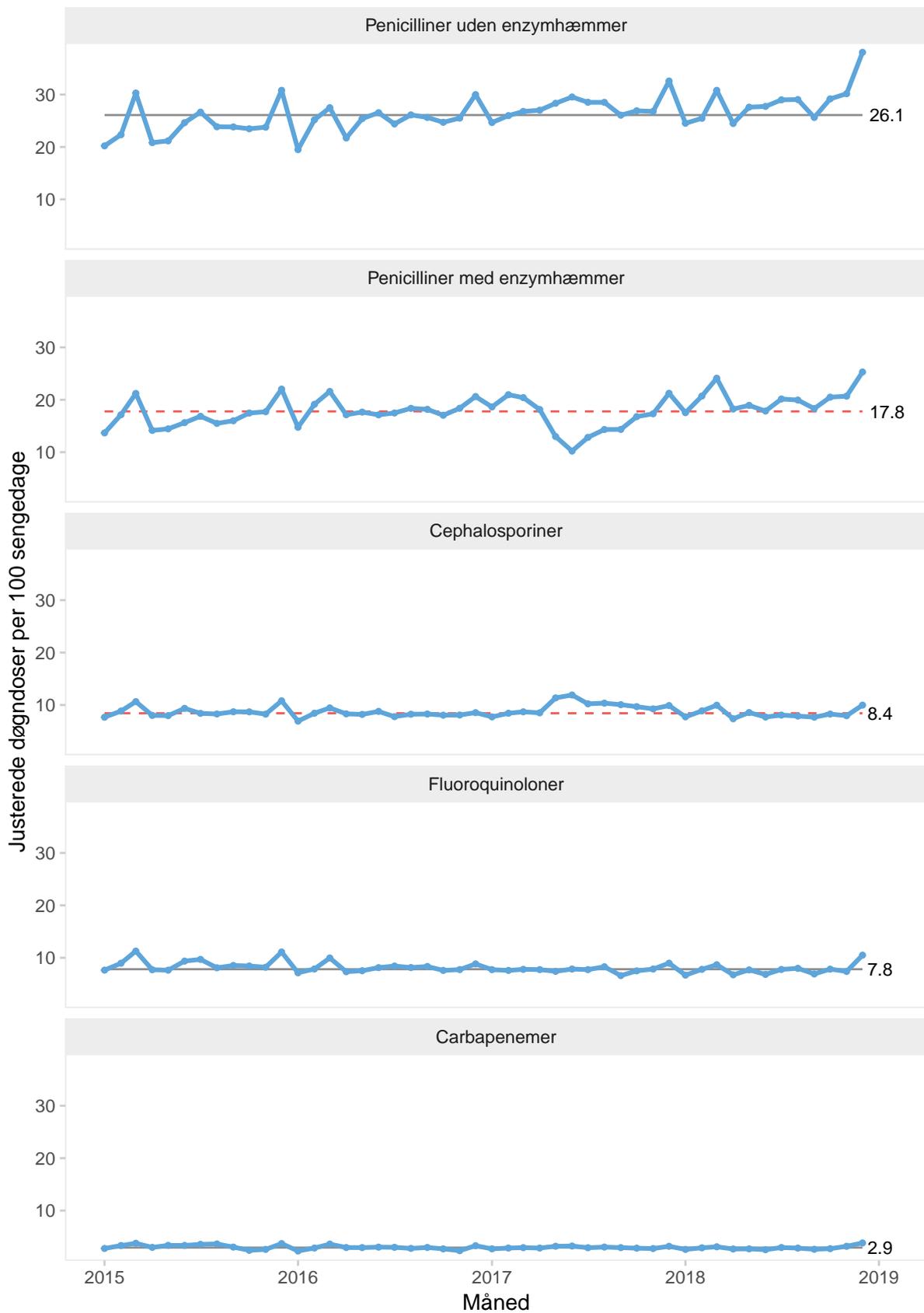
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- Region Syddanmark: Peter Dalhøj, peter.dalhoj@rsyd.dk

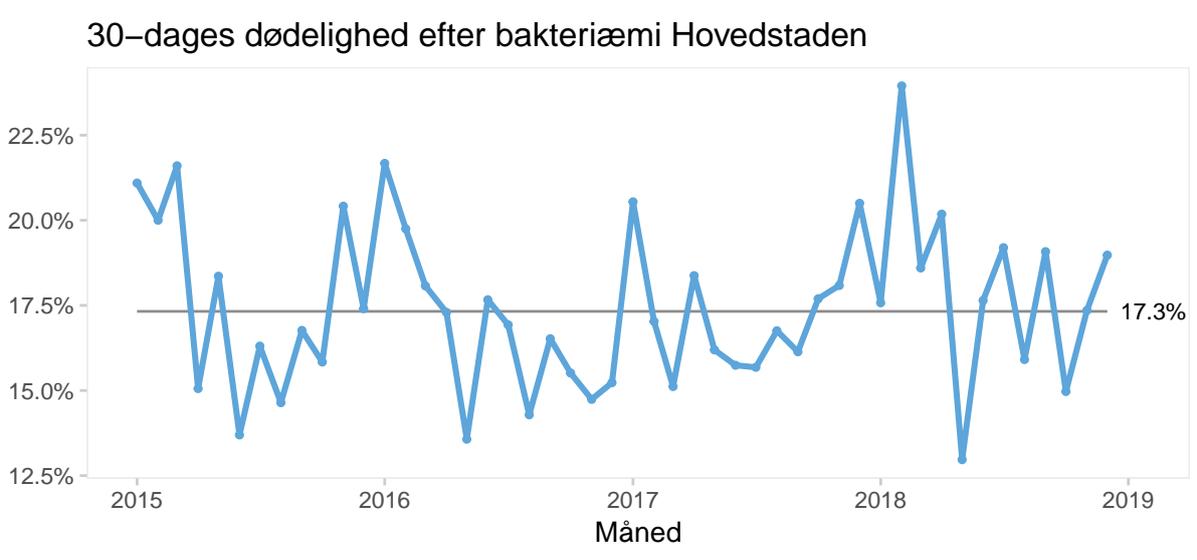
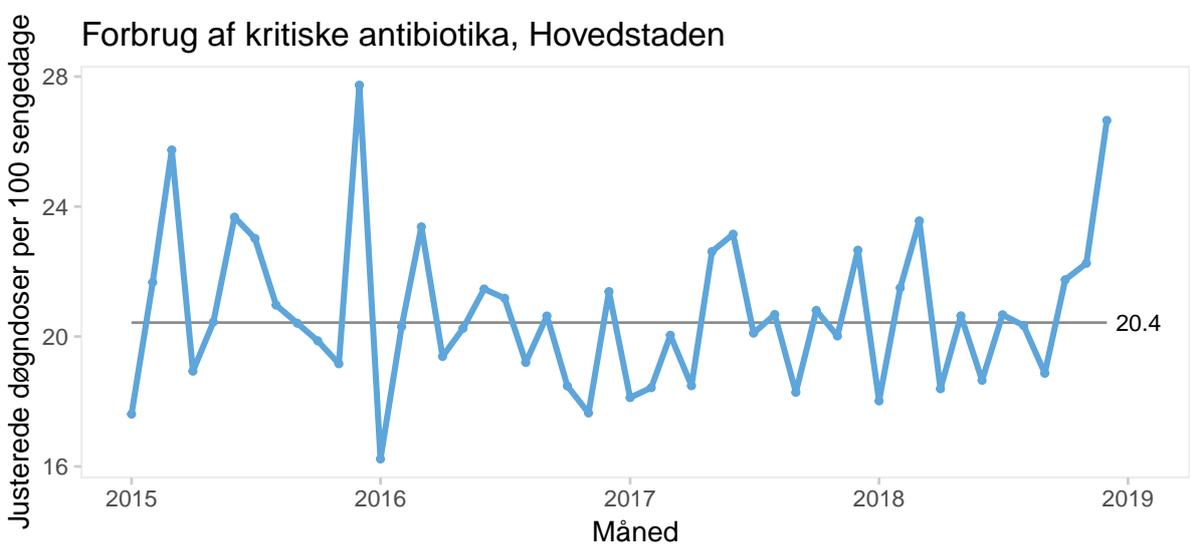
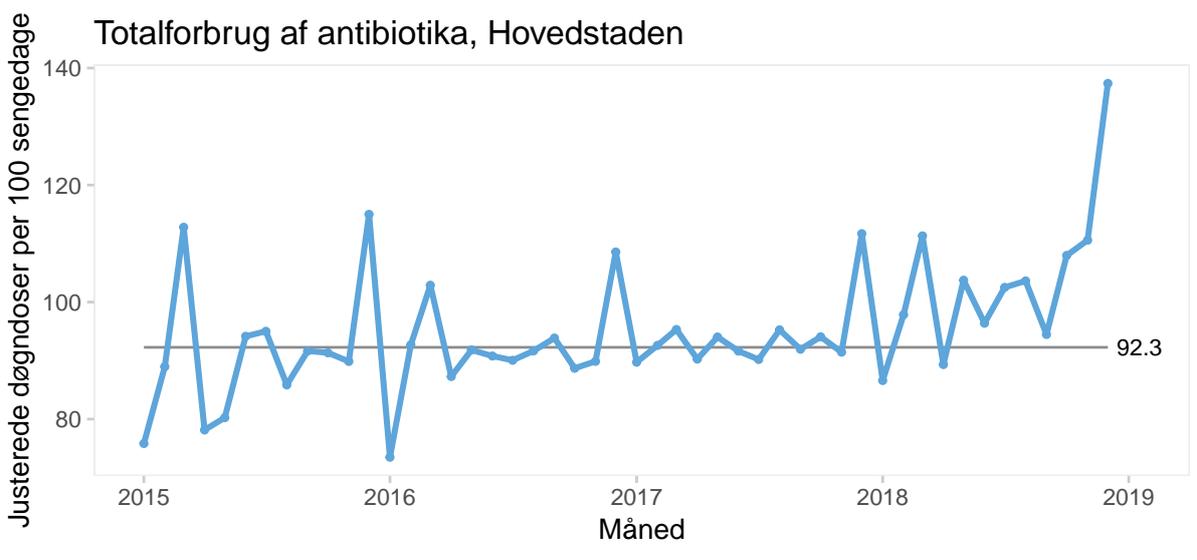
Danmark



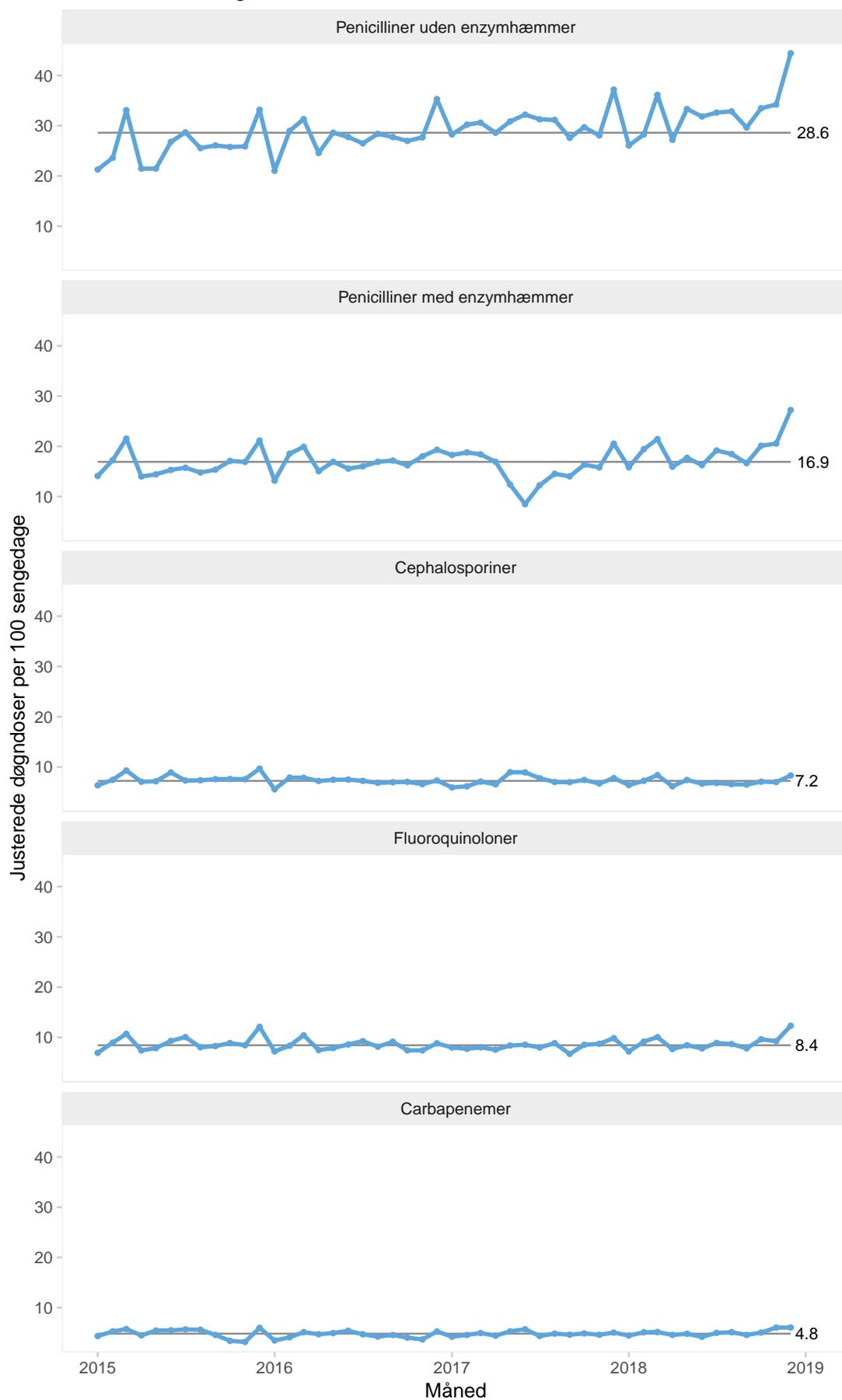
Antibiotikaforbrug på offentlige hospitaler i Danmark



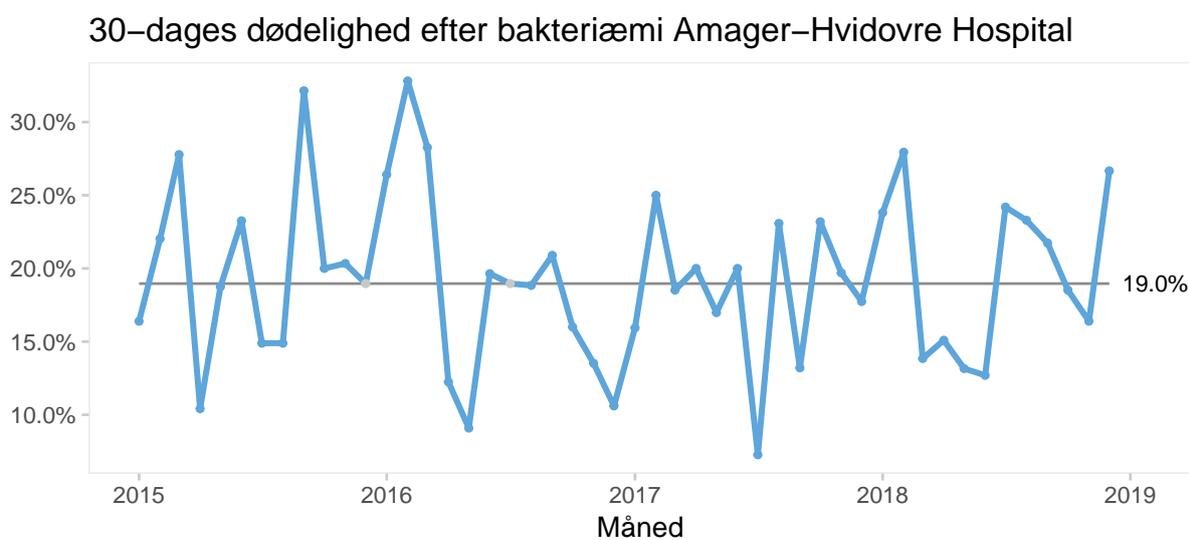
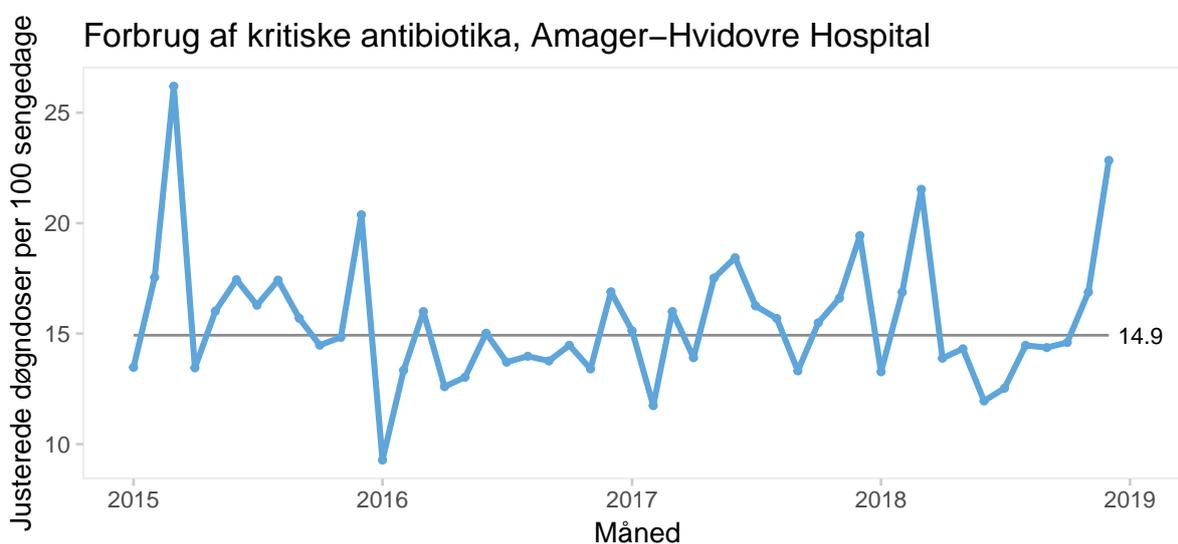
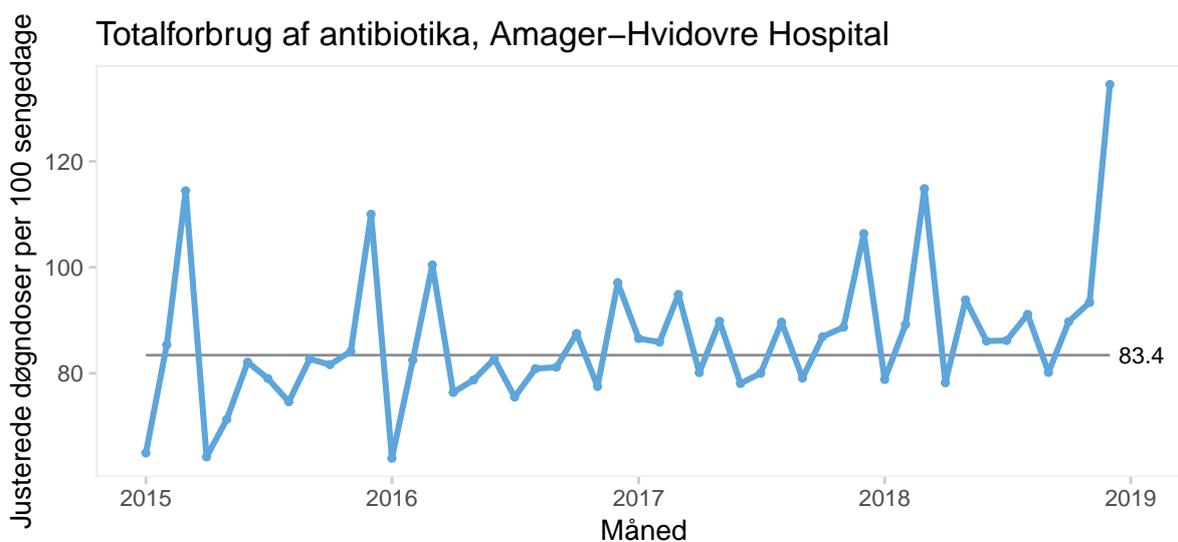
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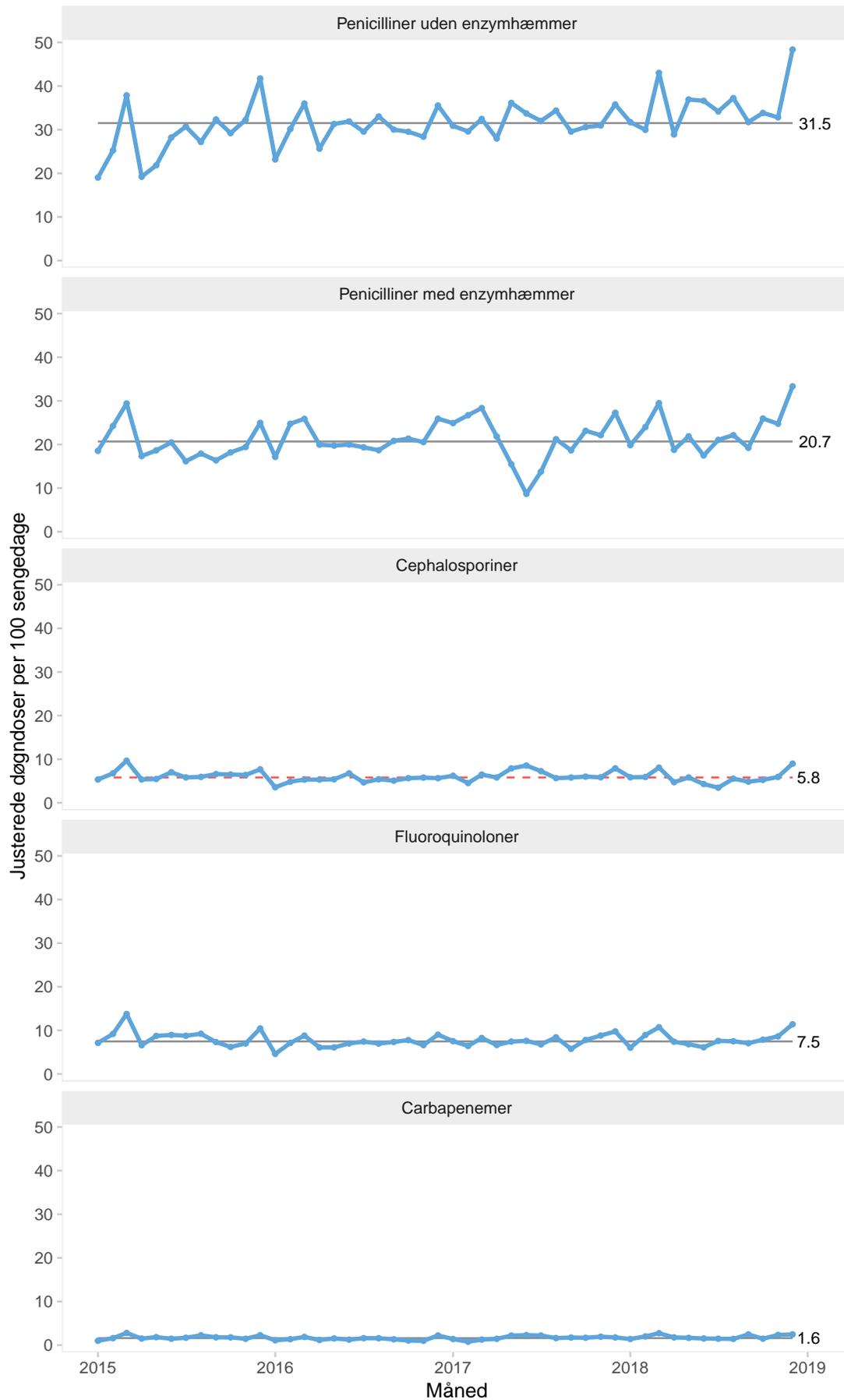
Antibiotikaforbrug, Hovedstaden



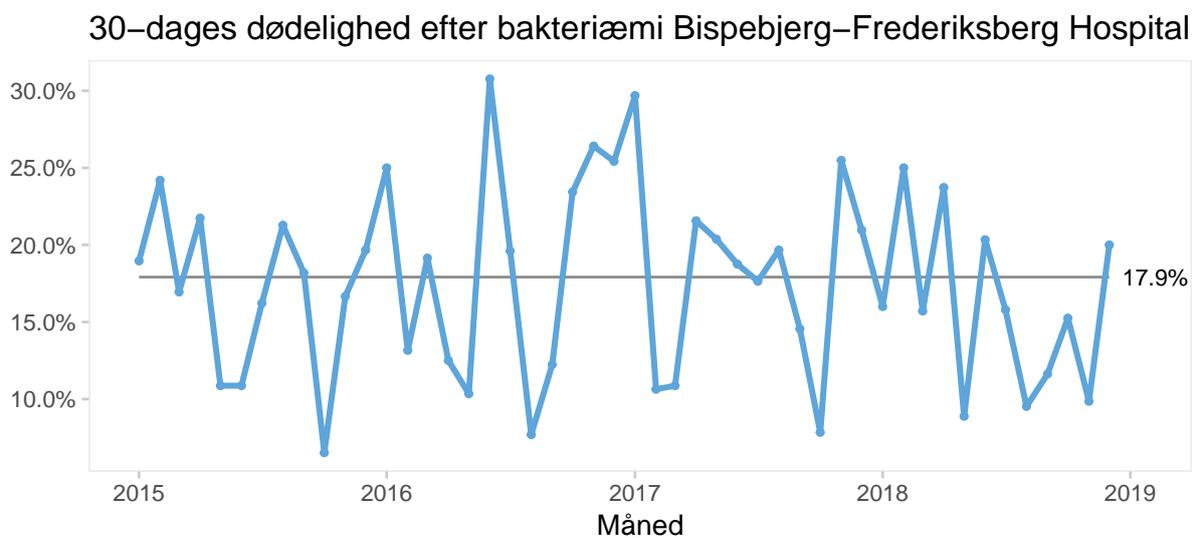
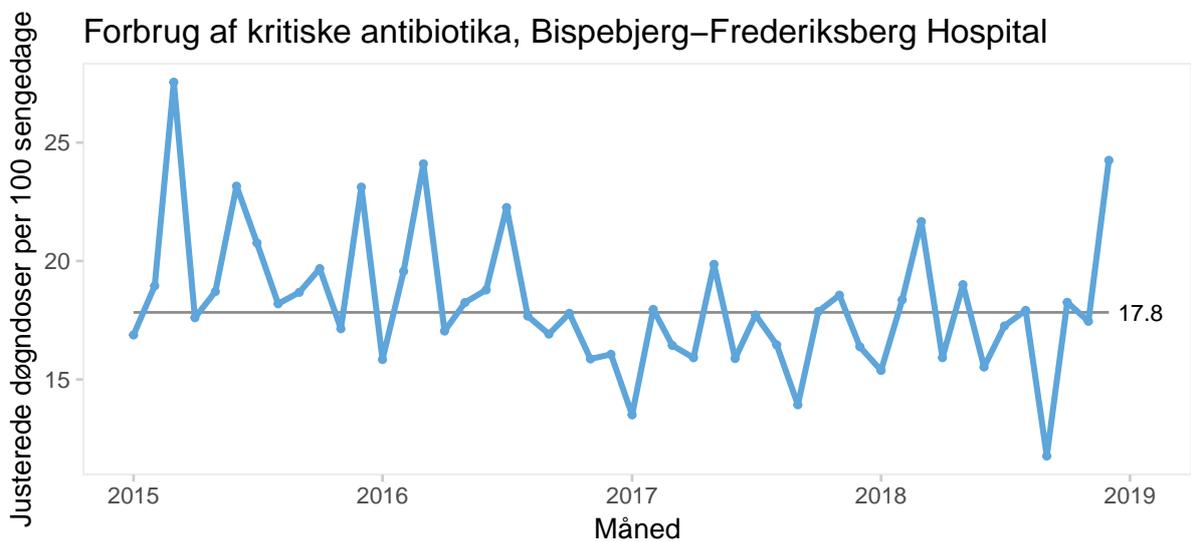
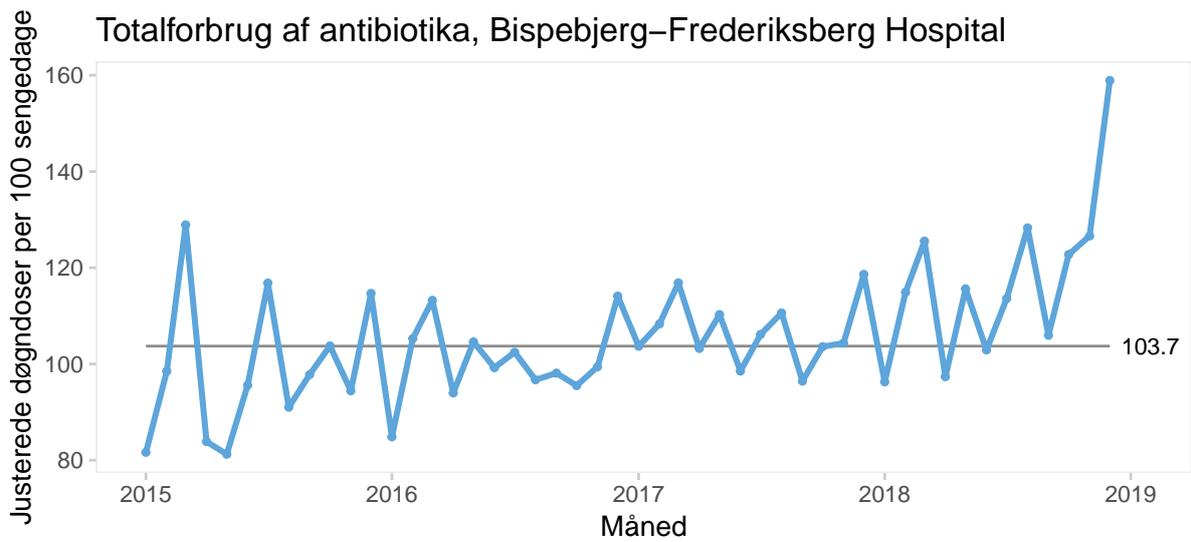
Amager-Hvidovre Hospital



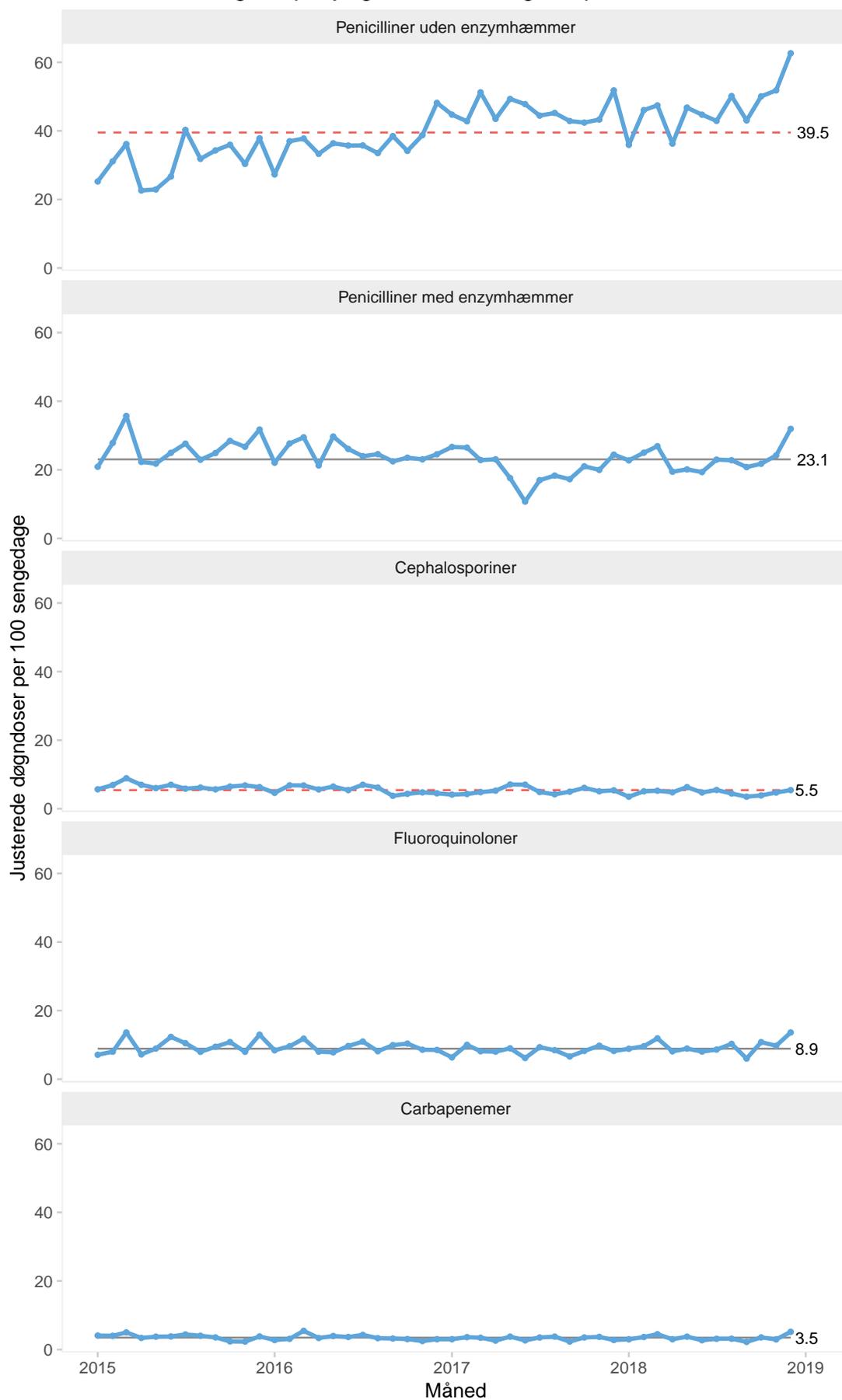
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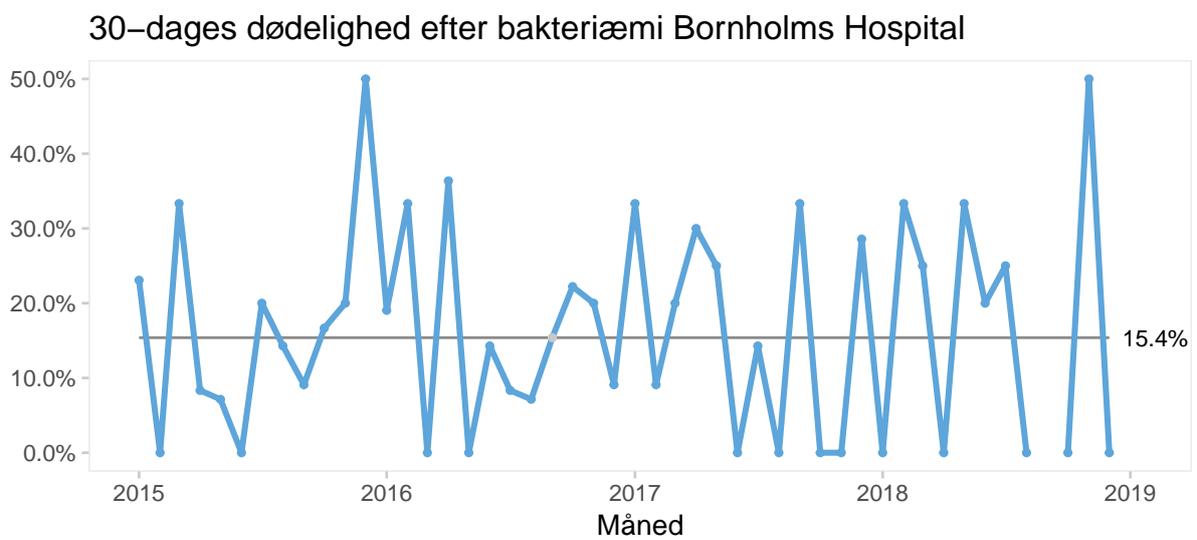
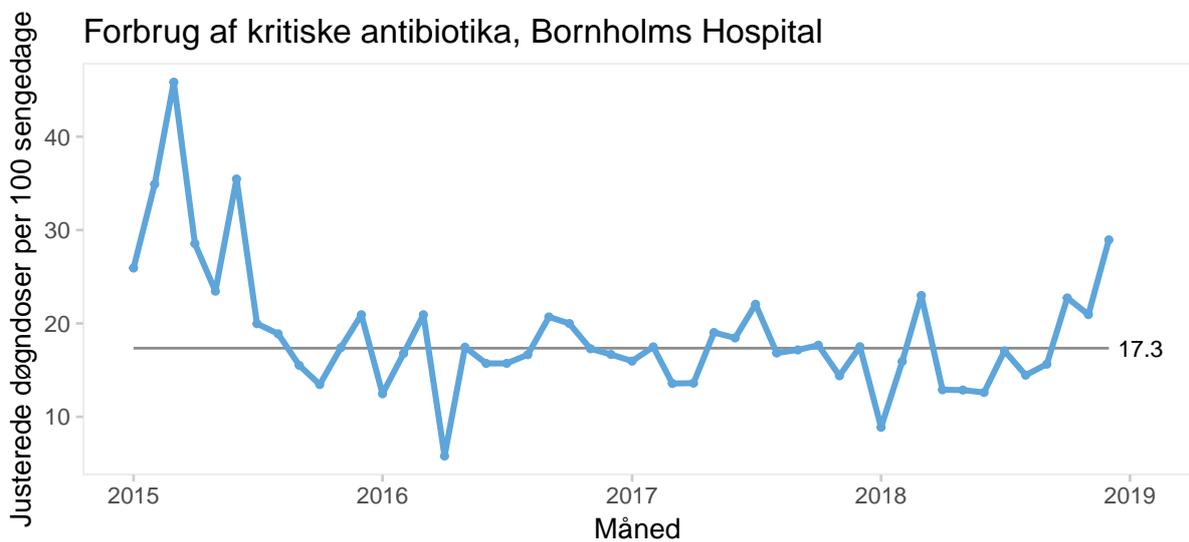
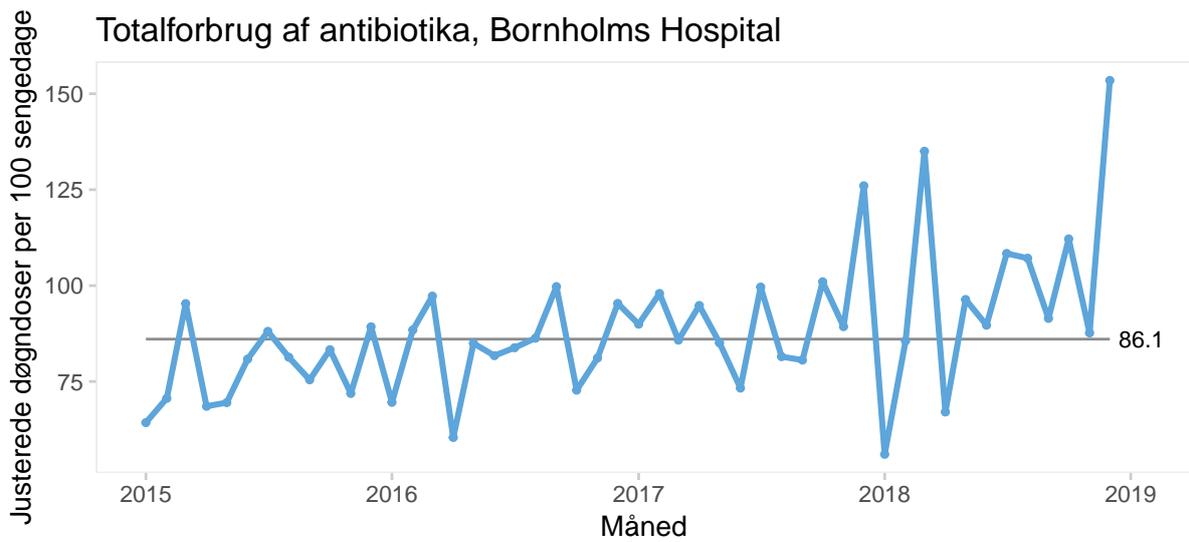
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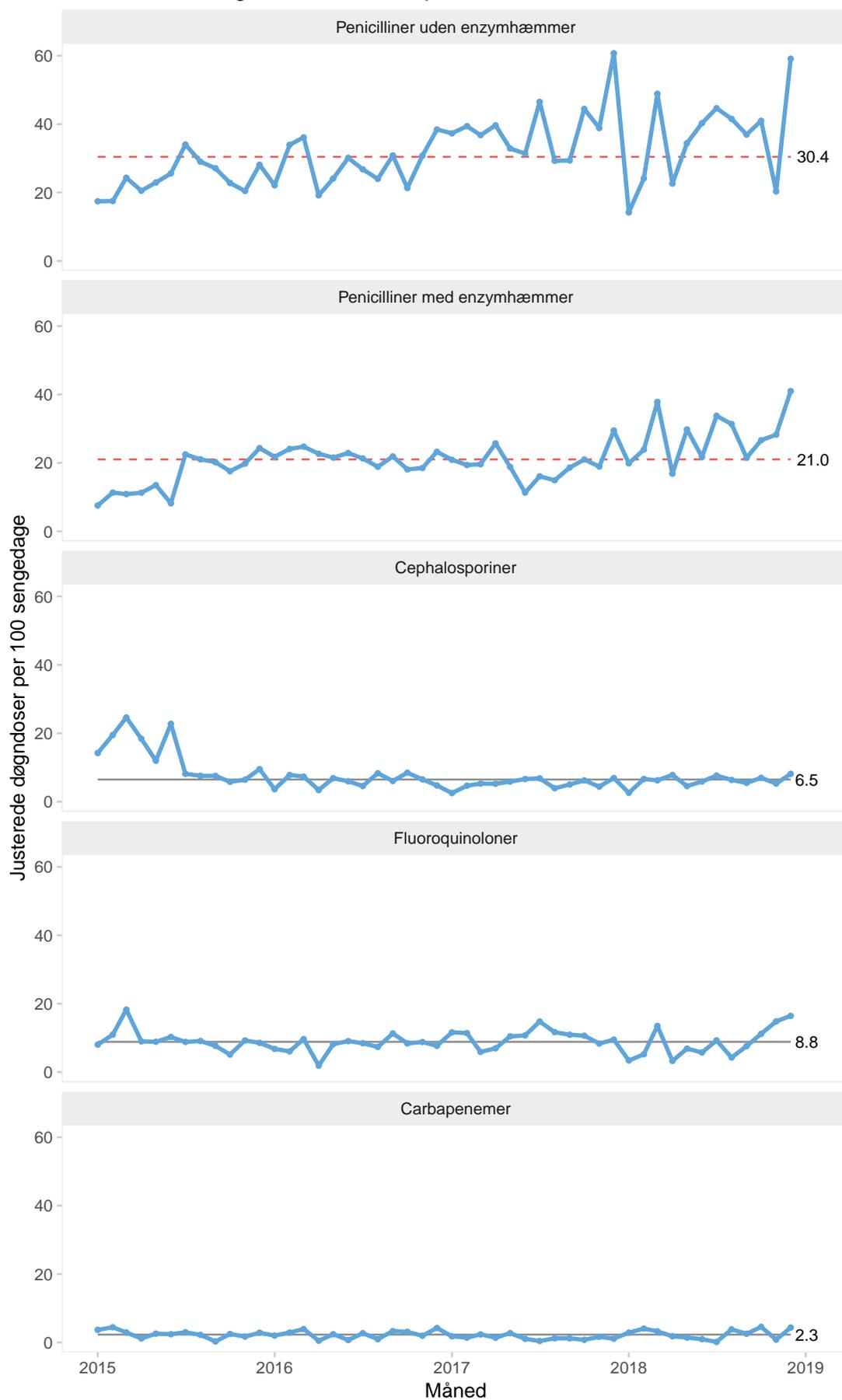
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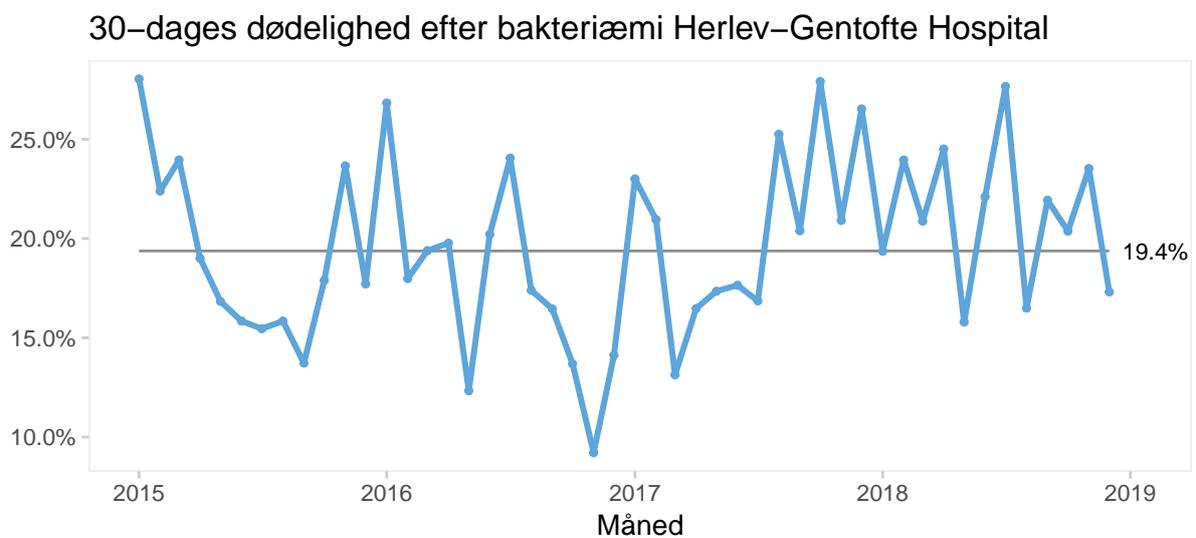
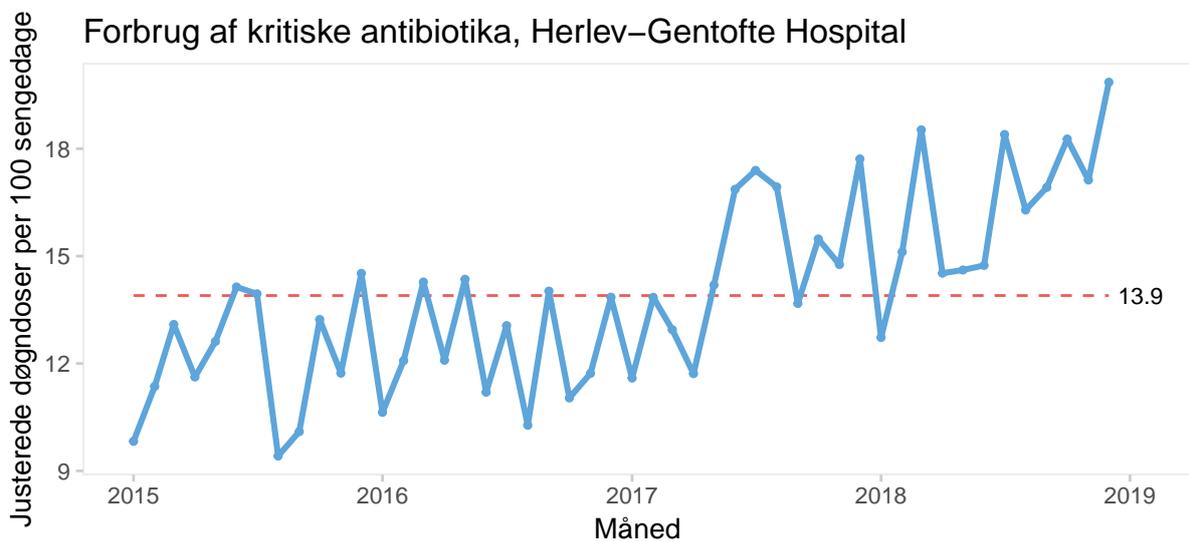
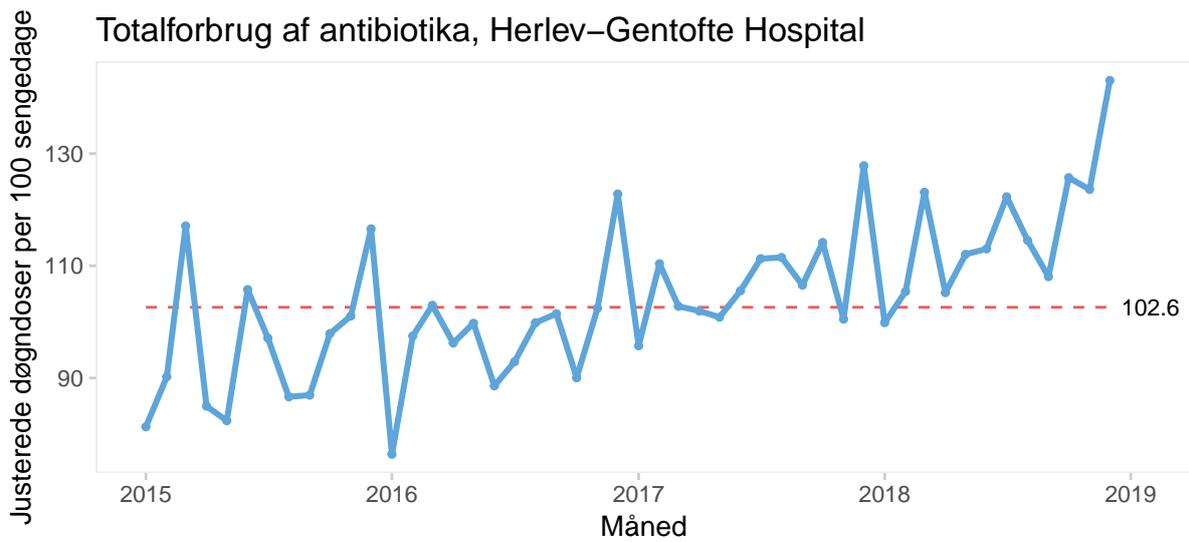
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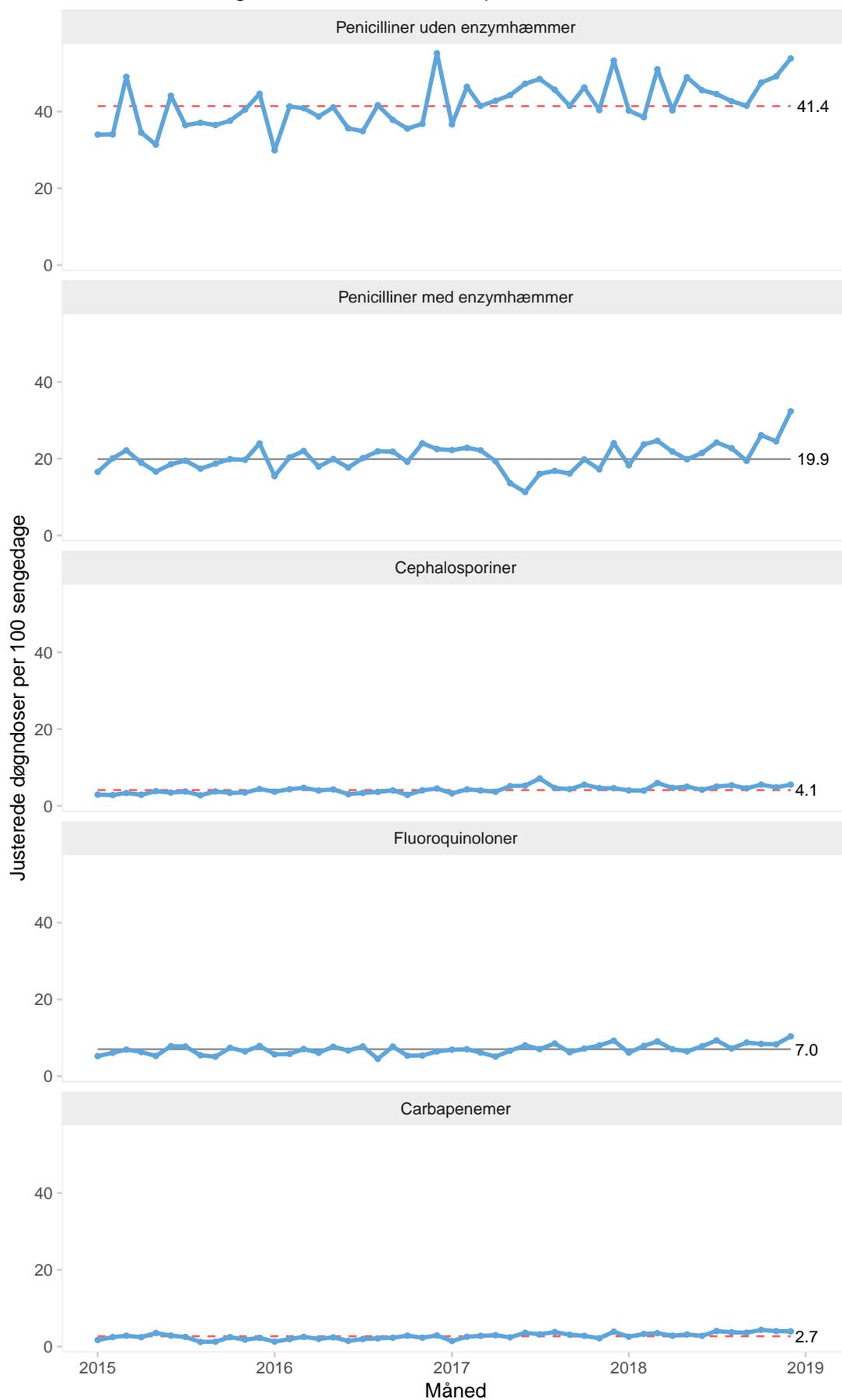
Antibiotikaforbrug, Bornholms Hospital



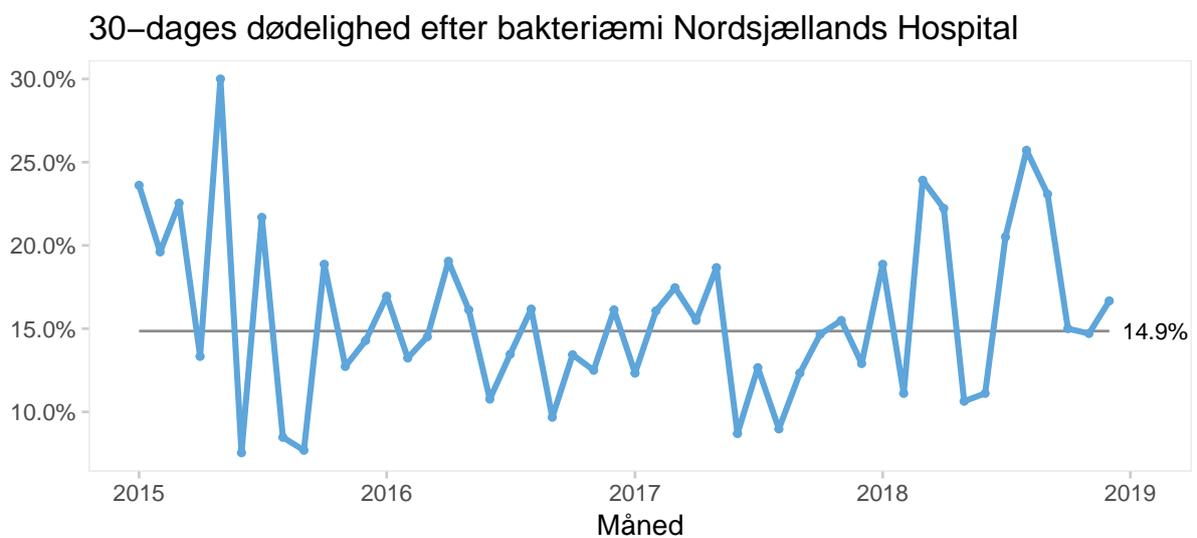
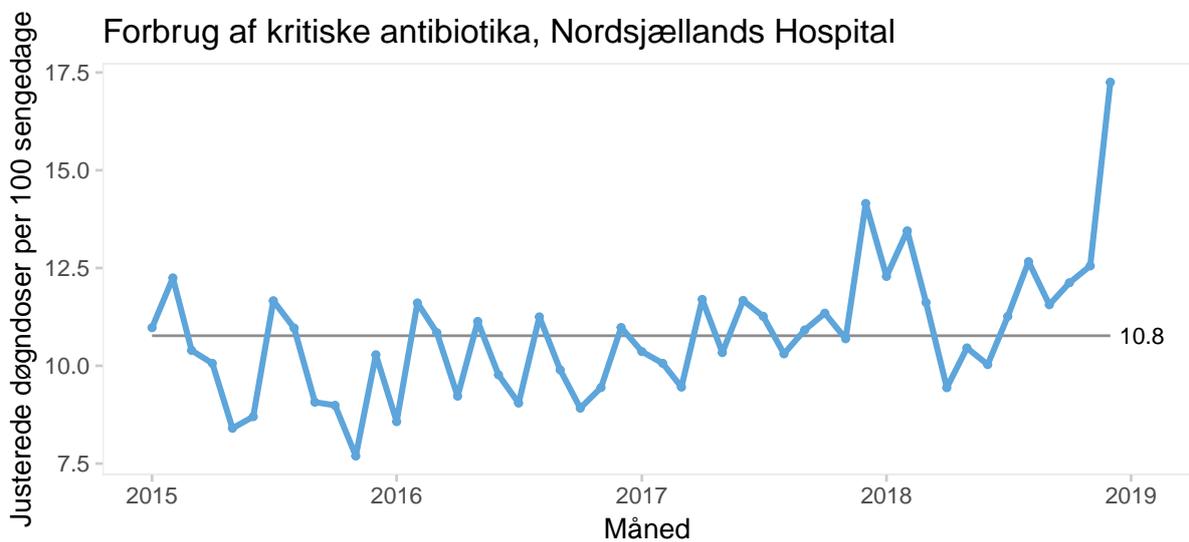
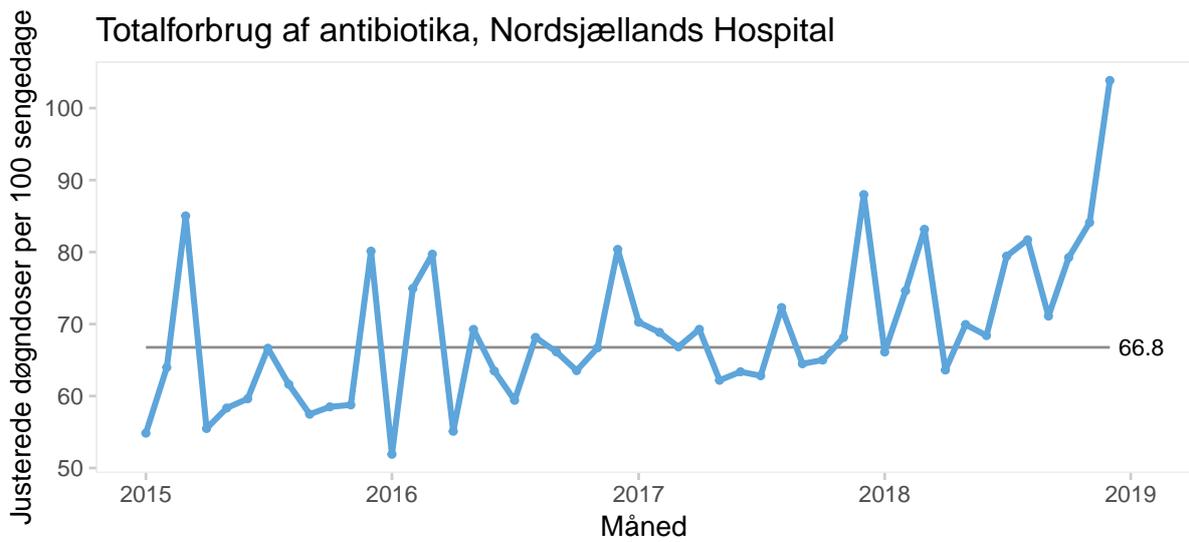
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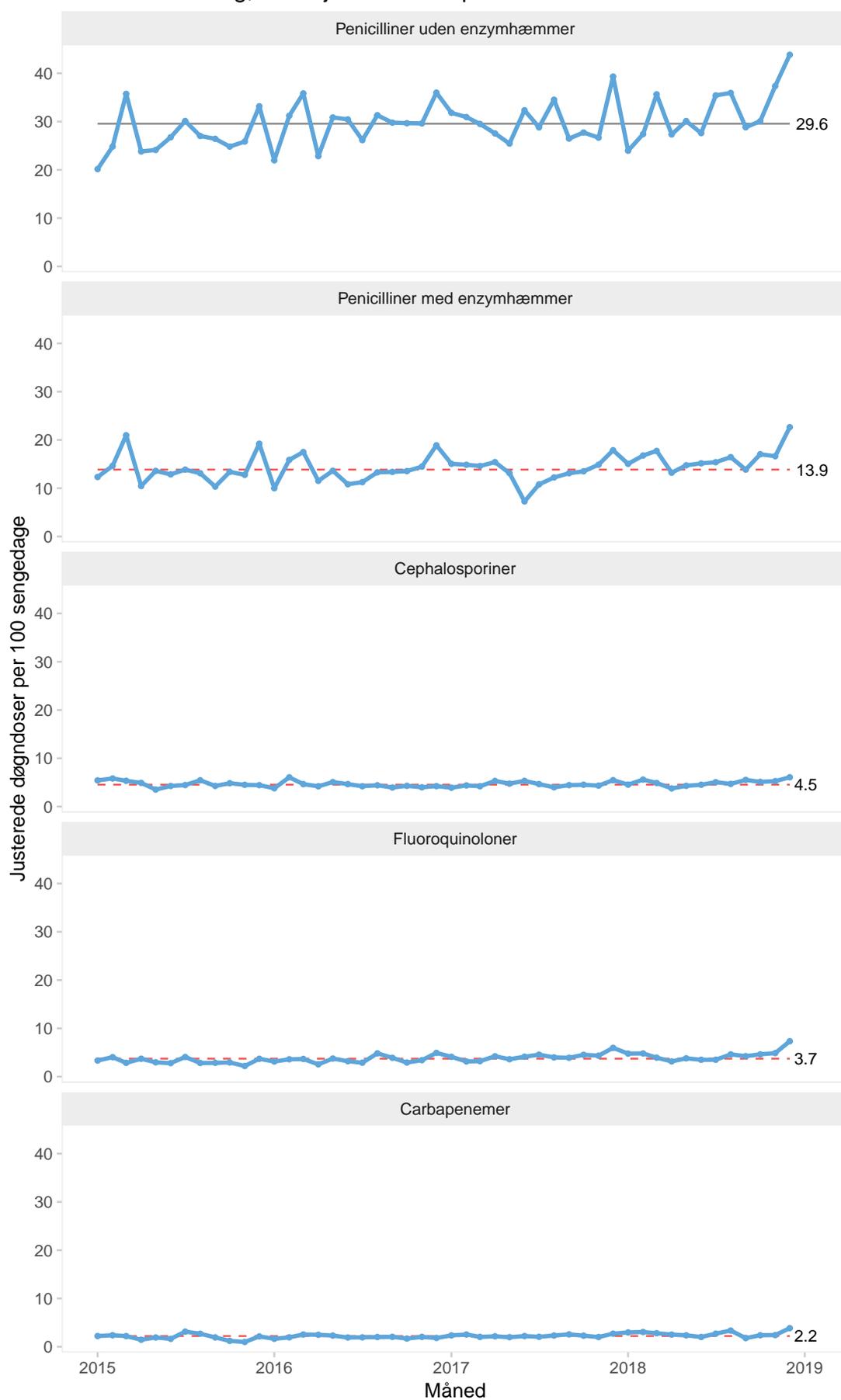
Antibiotikaforbrug, Herlev-Gentofte Hospital



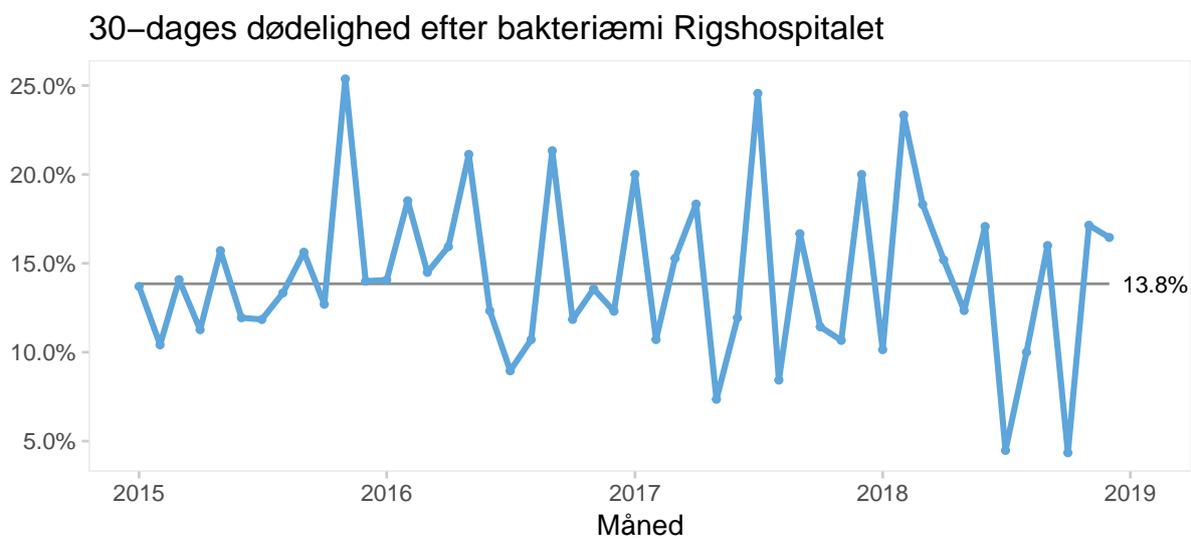
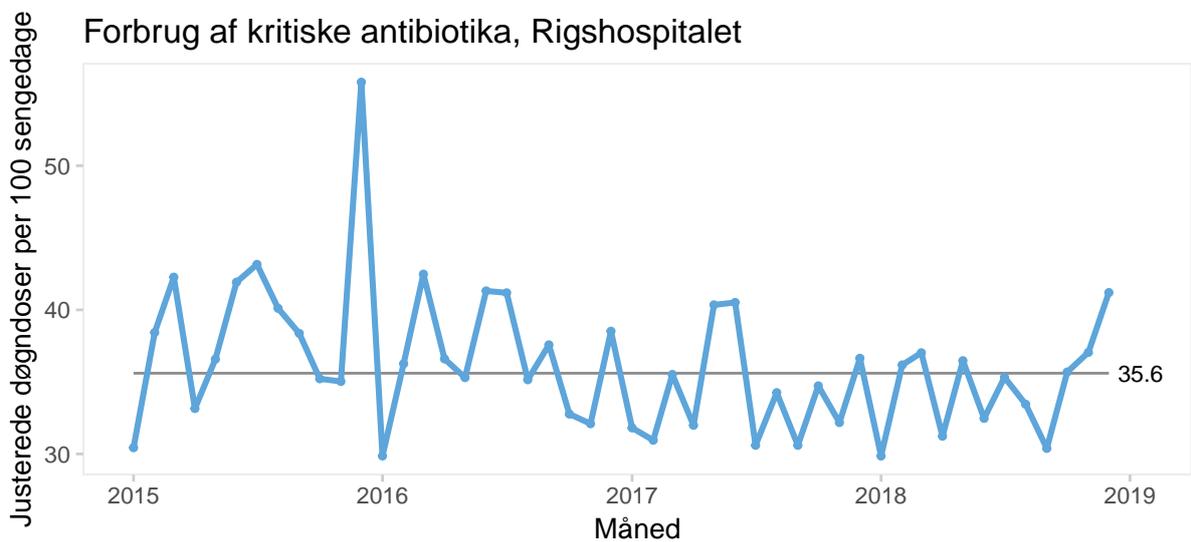
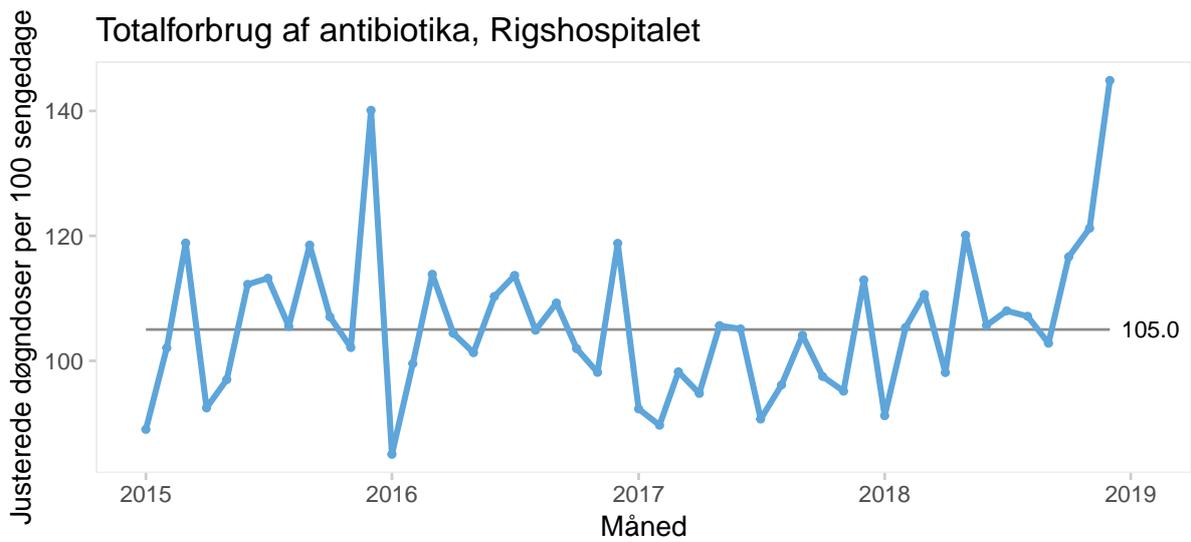
Nordsjællands Hospital



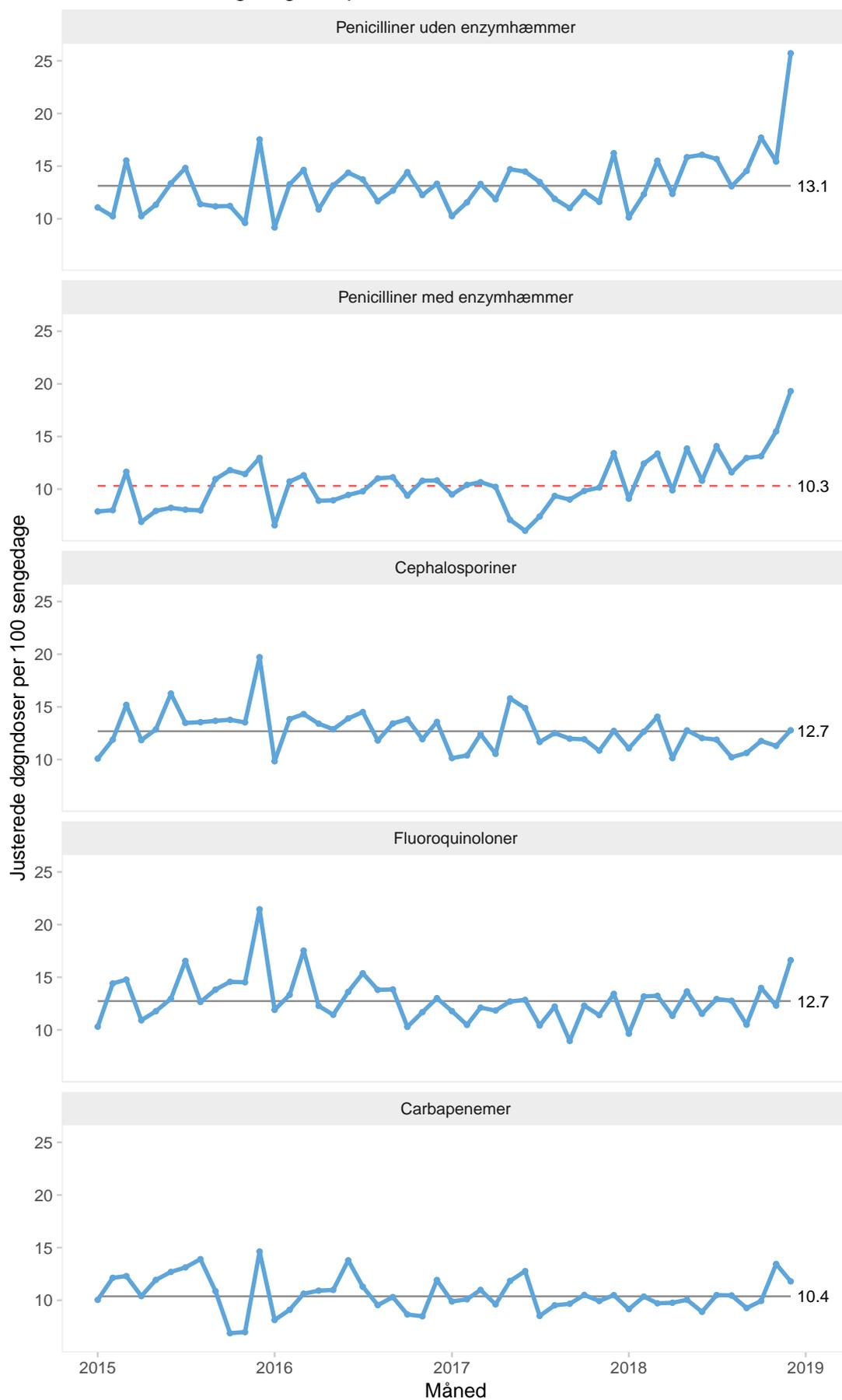
Antibiotikaforbrug, Nordsjællands Hospital



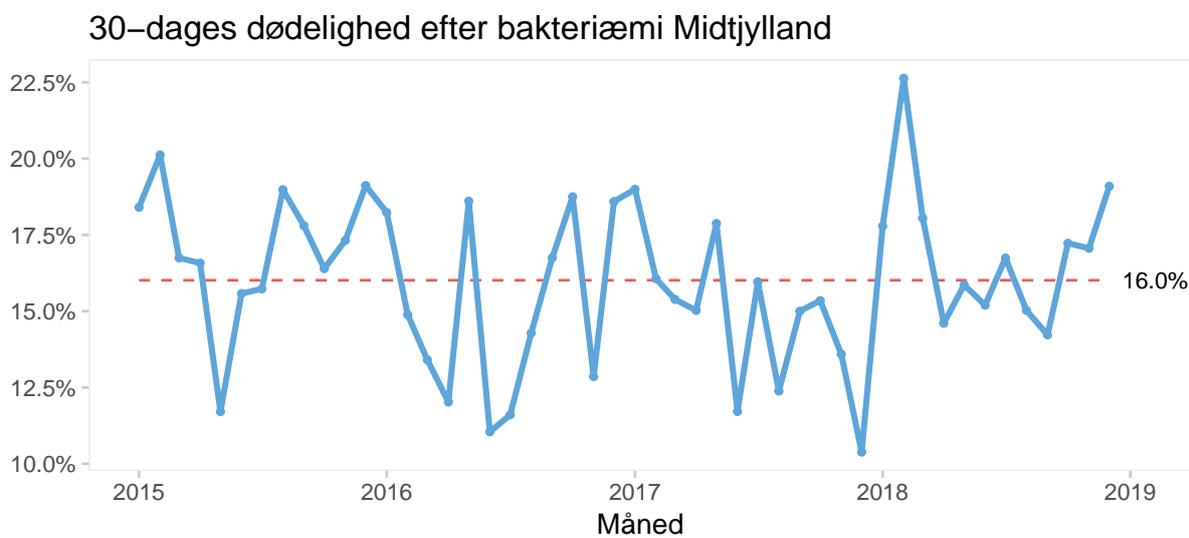
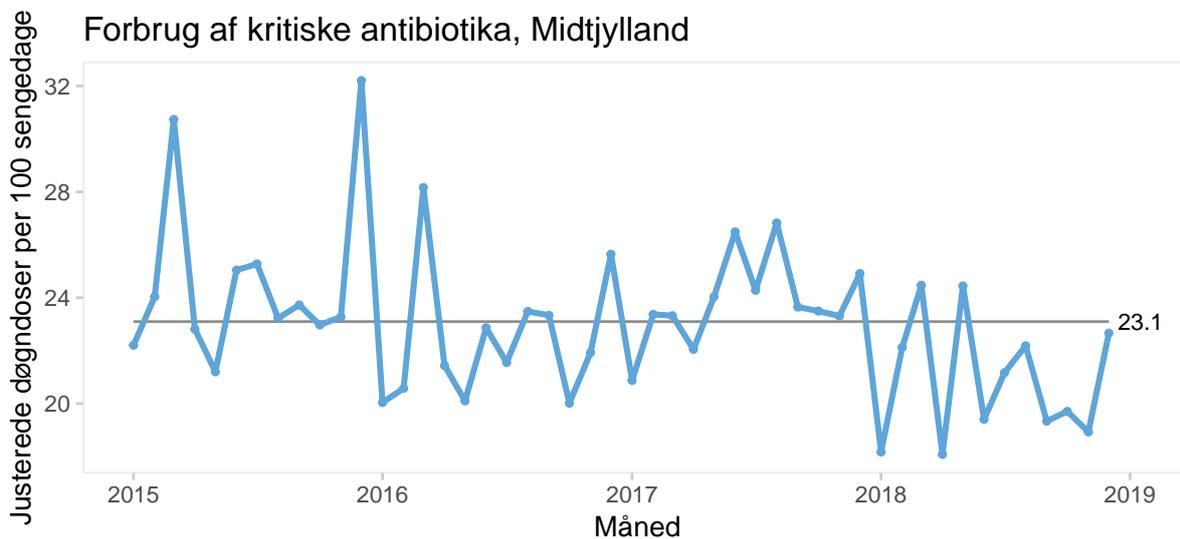
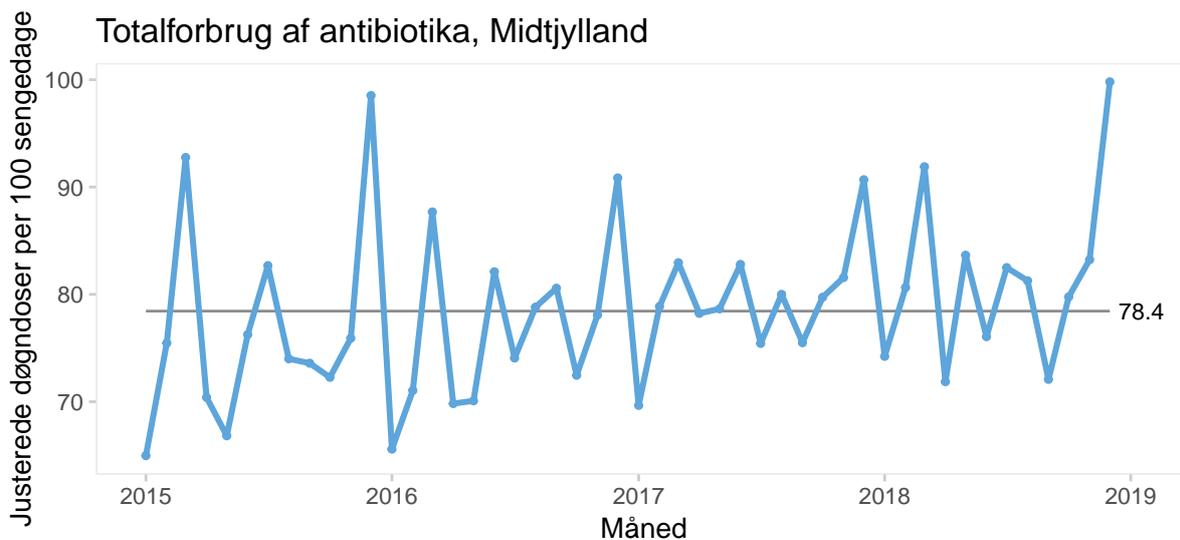
Rigshospitalet



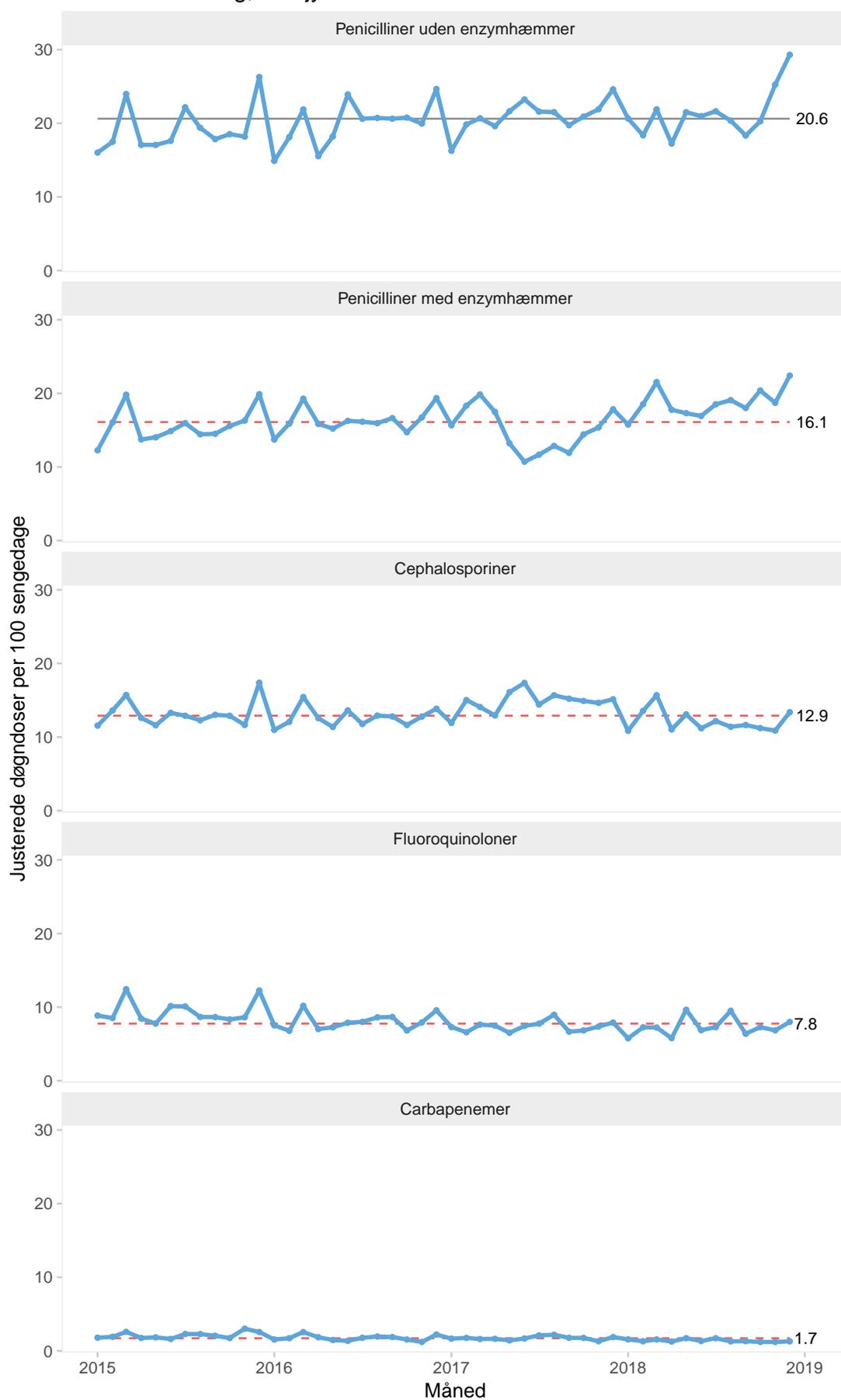
Antibiotikaforbrug, Rigshospitalet



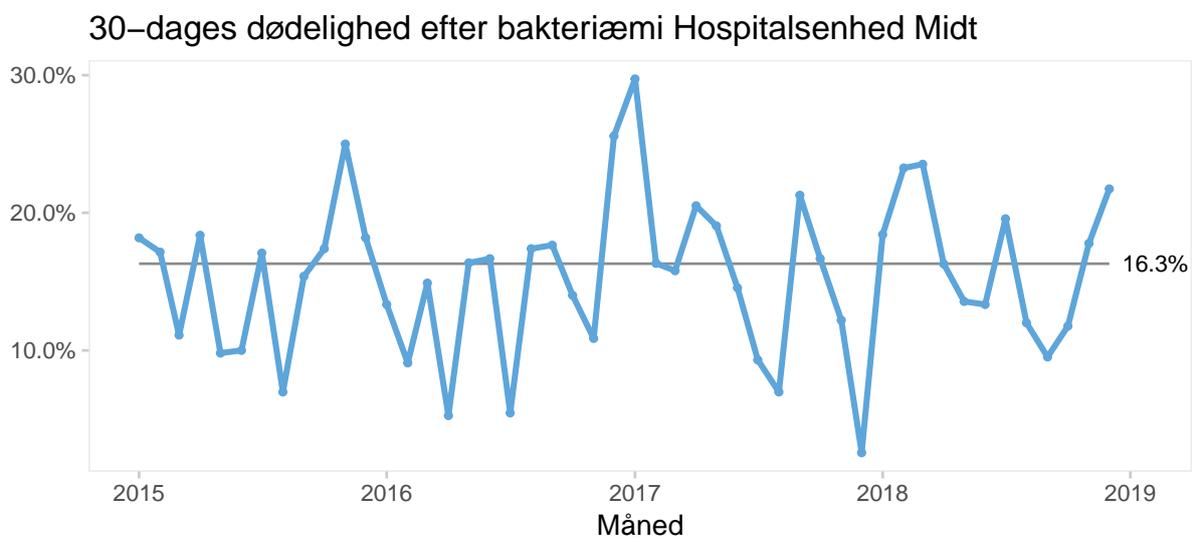
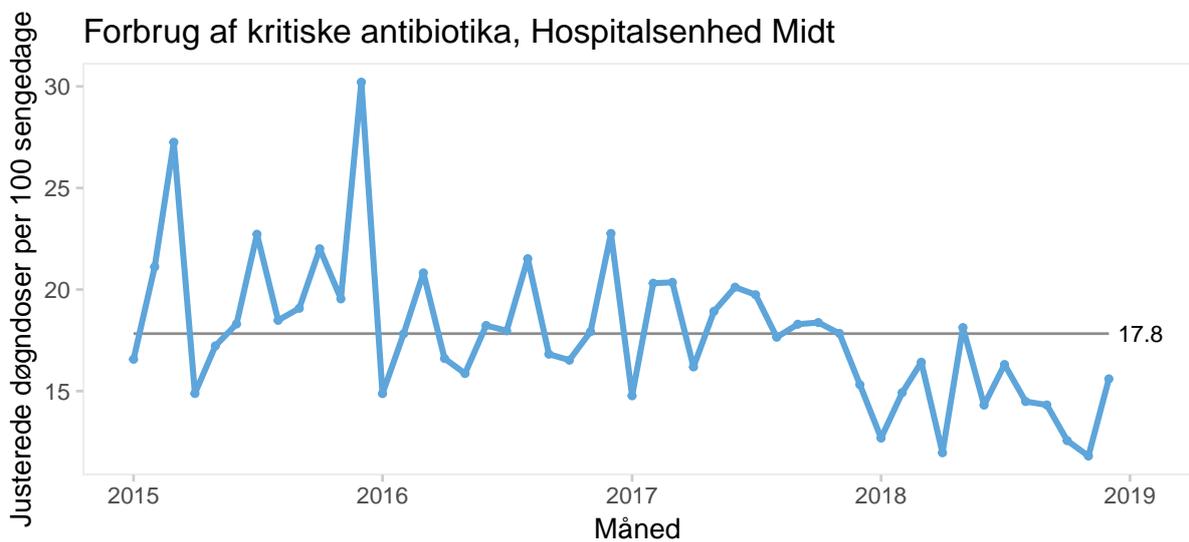
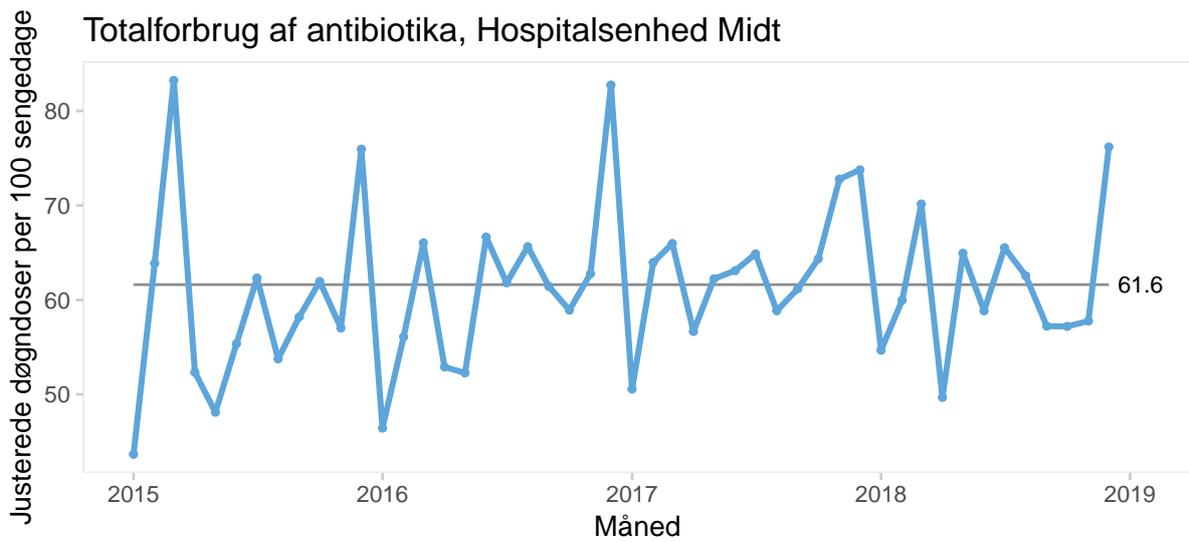
Midtjylland



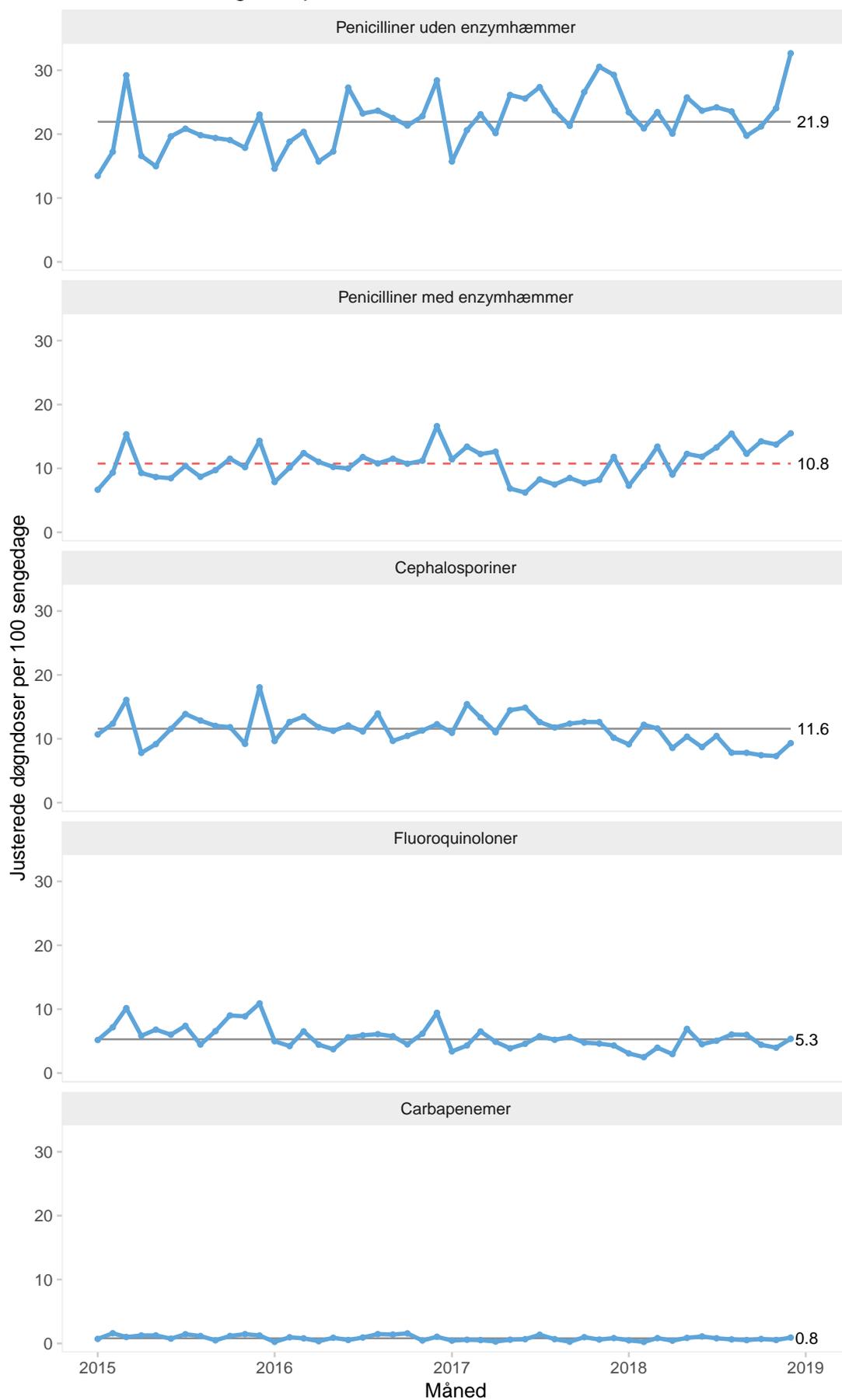
Antibiotikaforbrug, Midtjylland



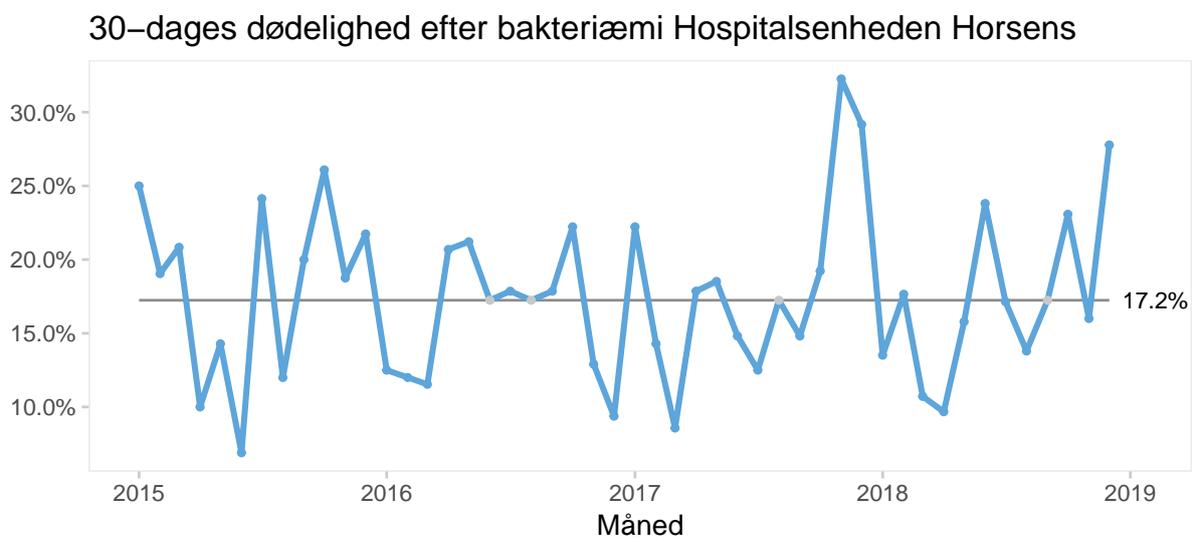
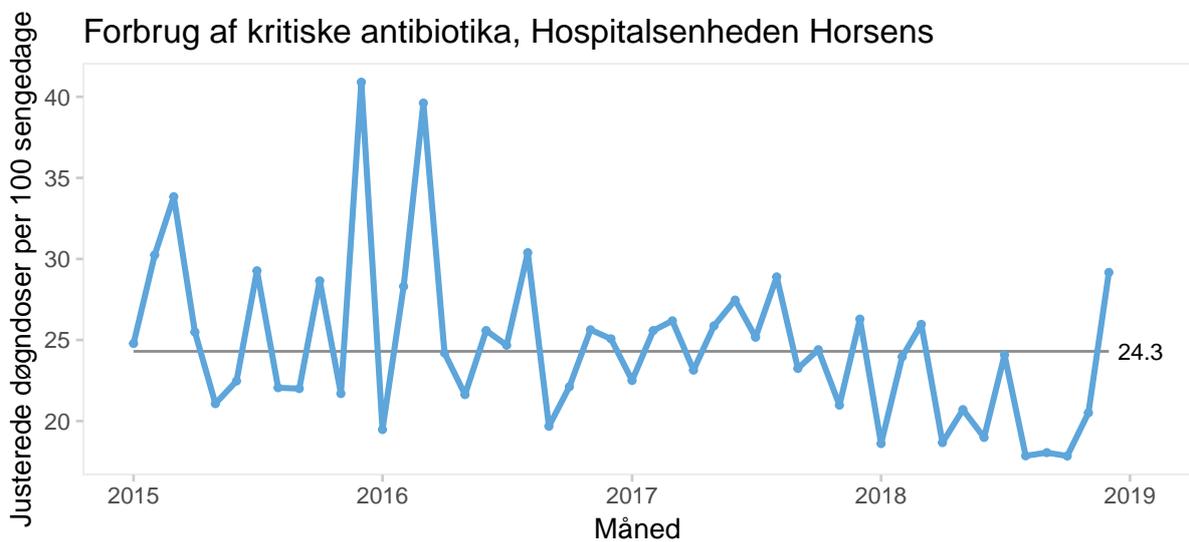
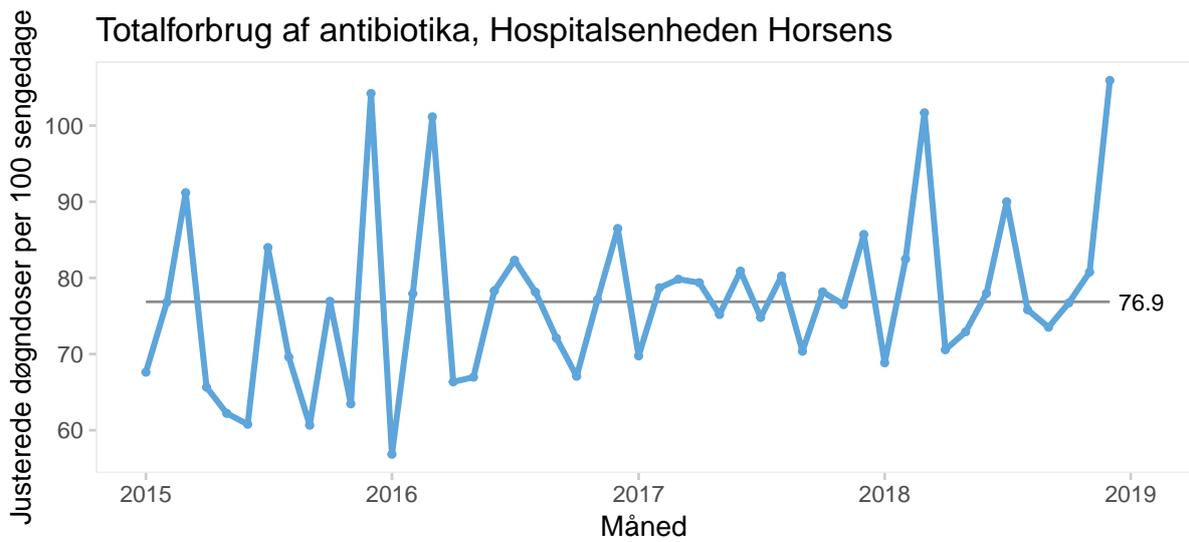
Hospitalsenhed Midt



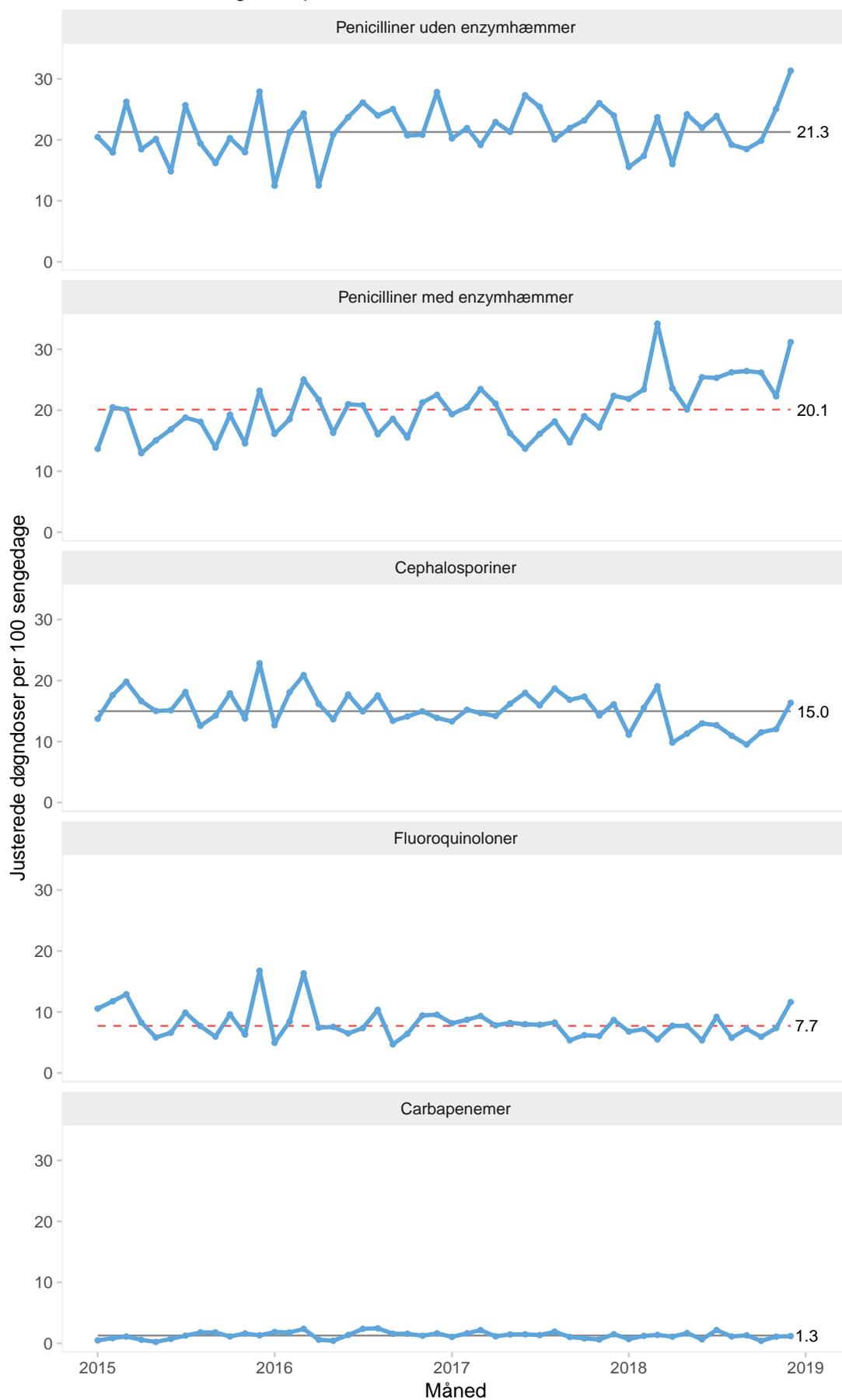
Antibiotikaforbrug, Hospitalsenhed Midt



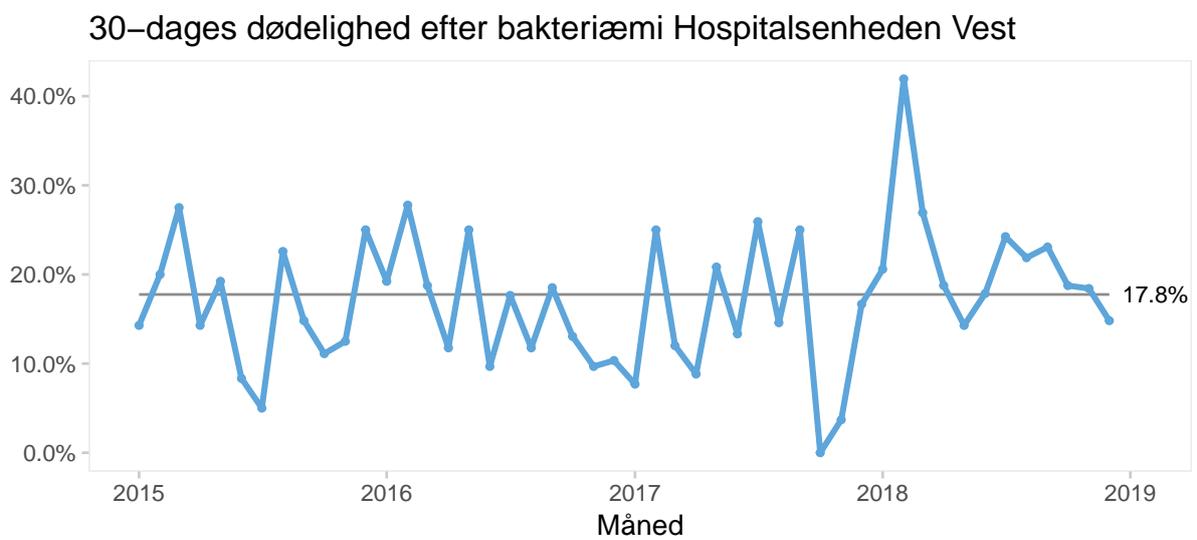
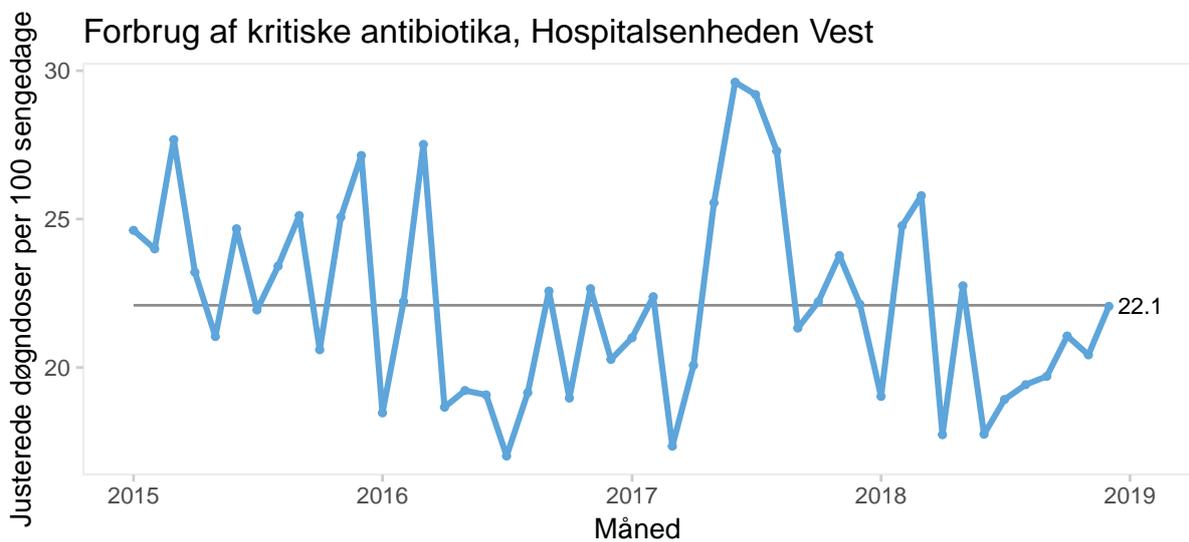
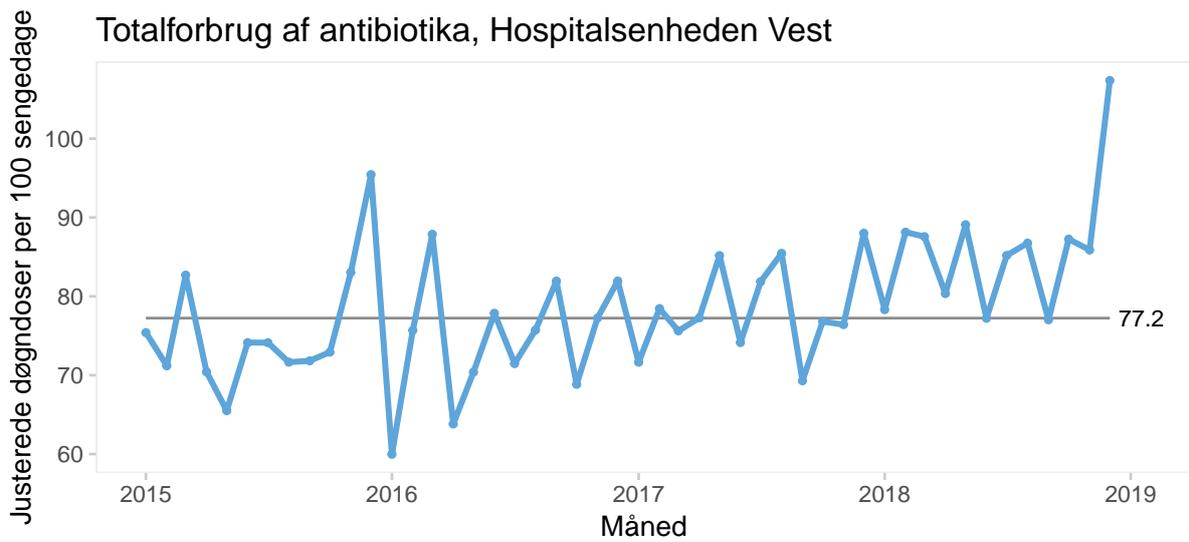
Hospitalsenheden Horsens



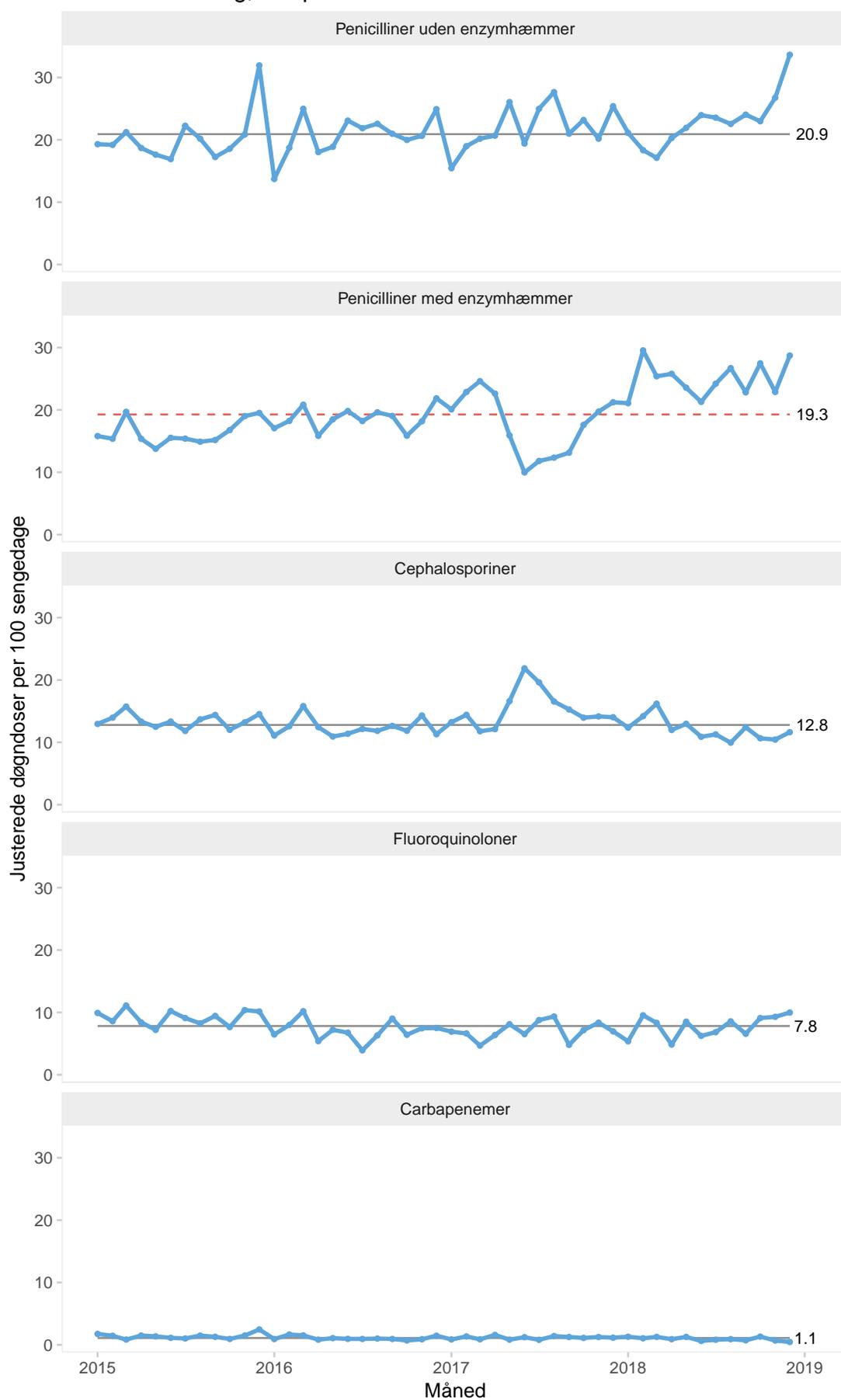
Antibiotikaforbrug, Hospitalsenheden Horsens



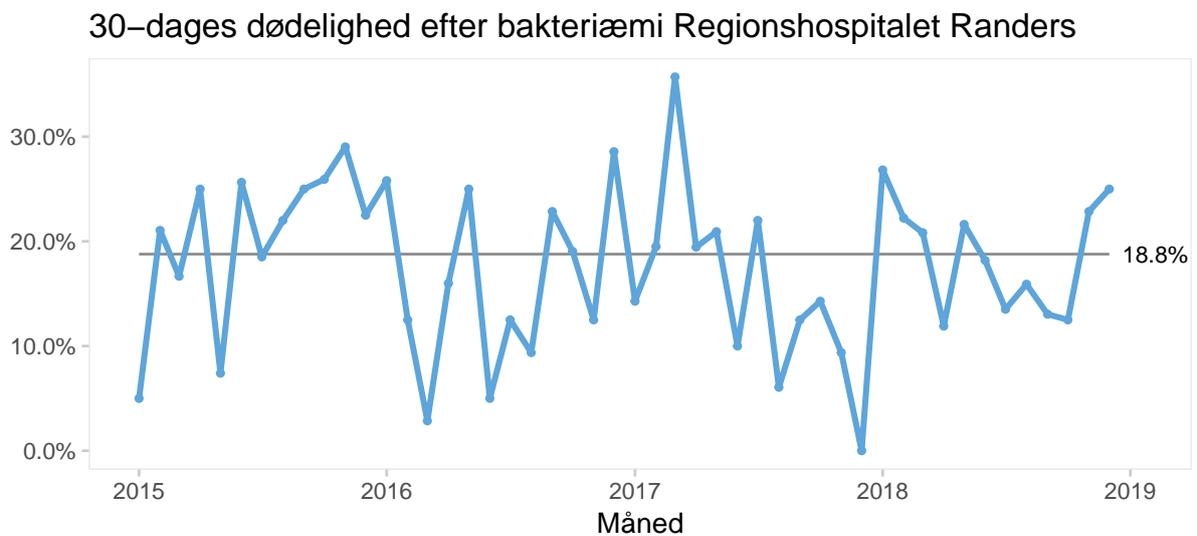
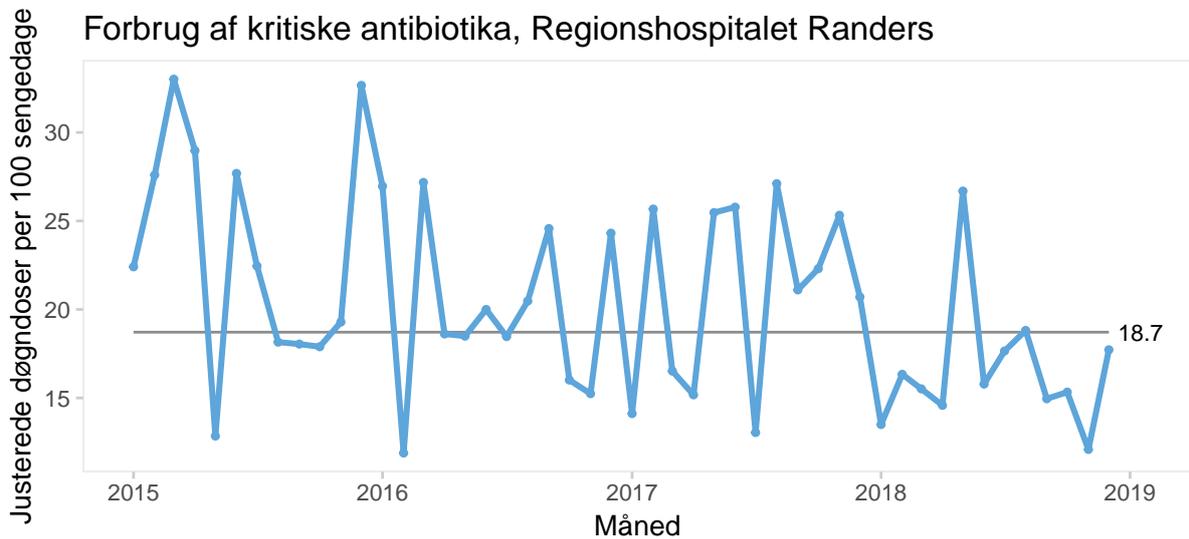
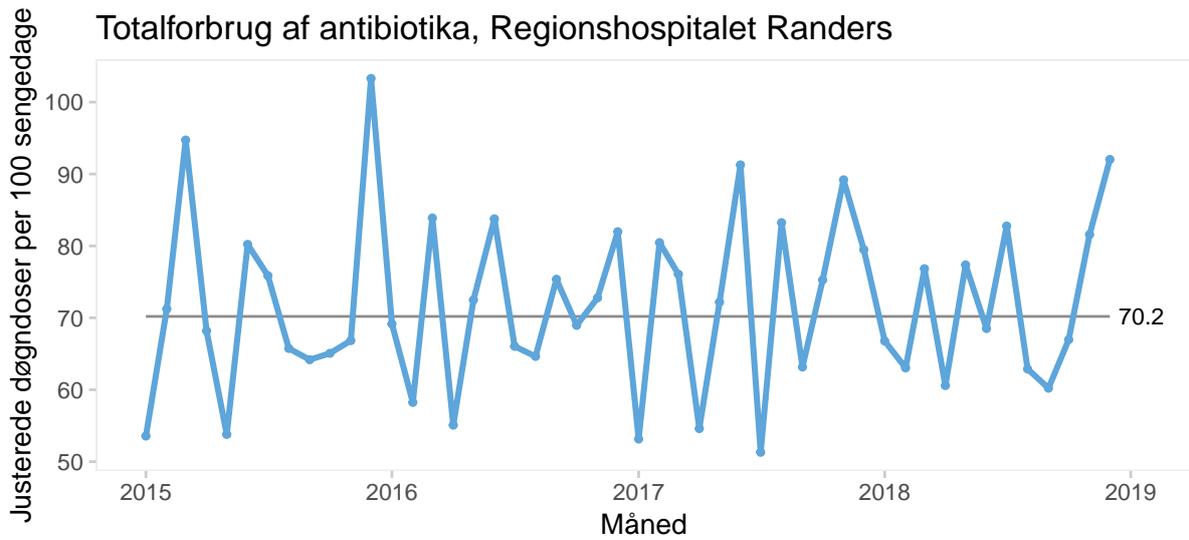
Hospitalsenheden Vest



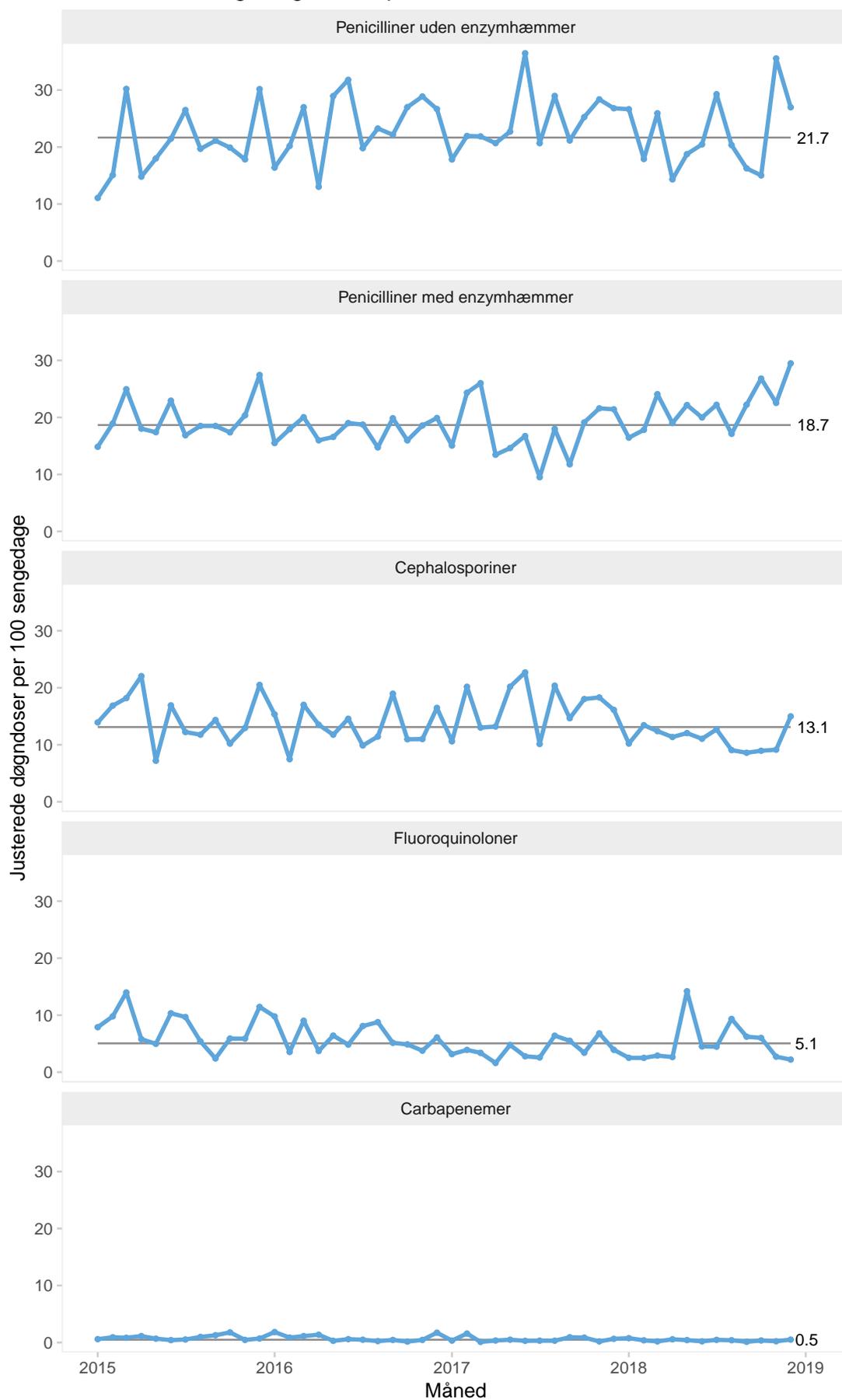
Antibiotikaforbrug, Hospitalsenheden Vest



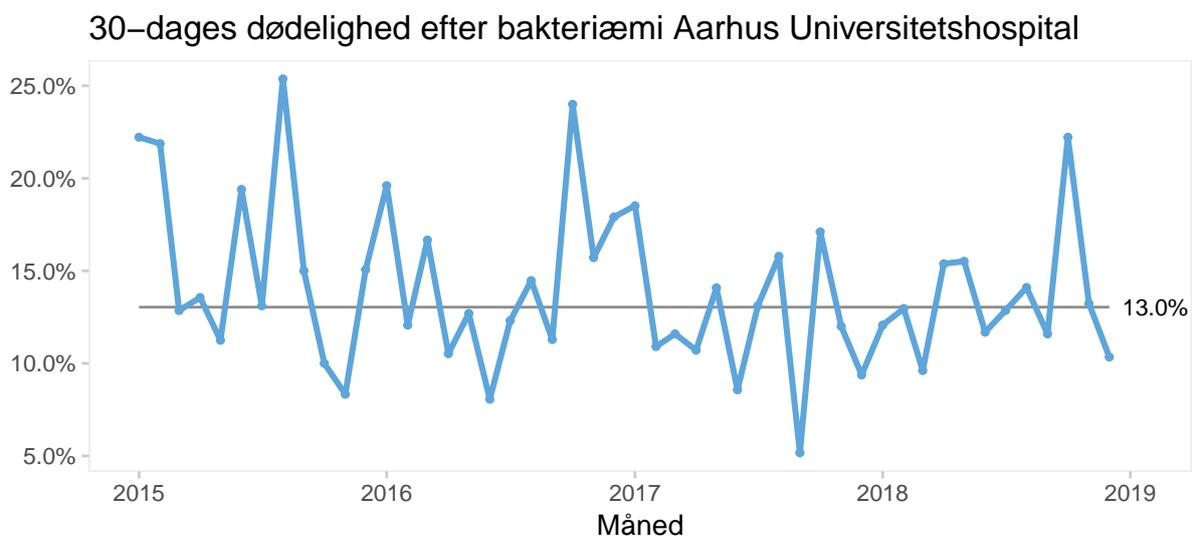
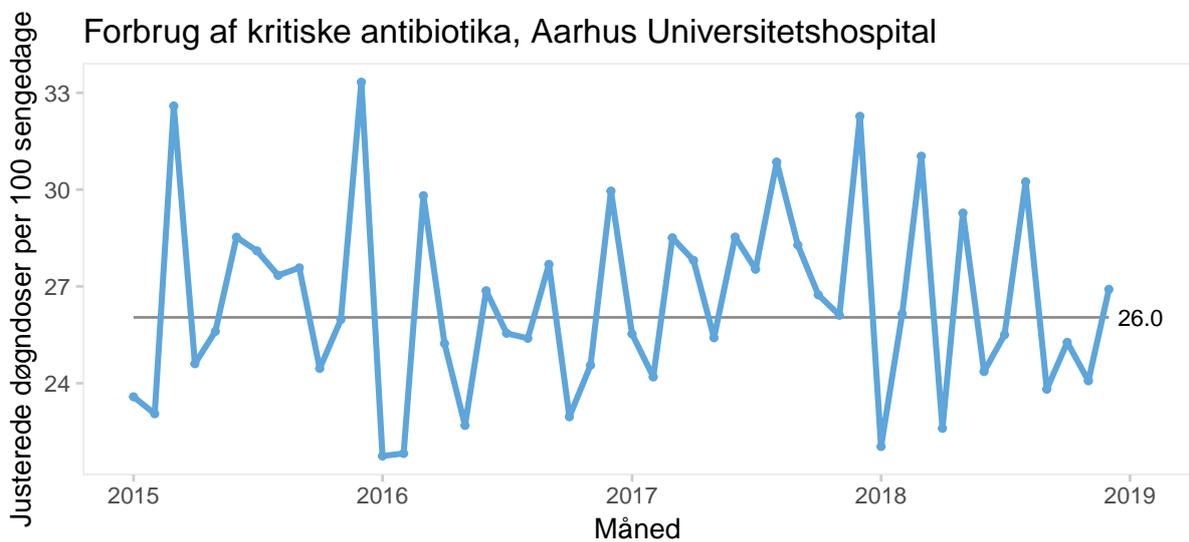
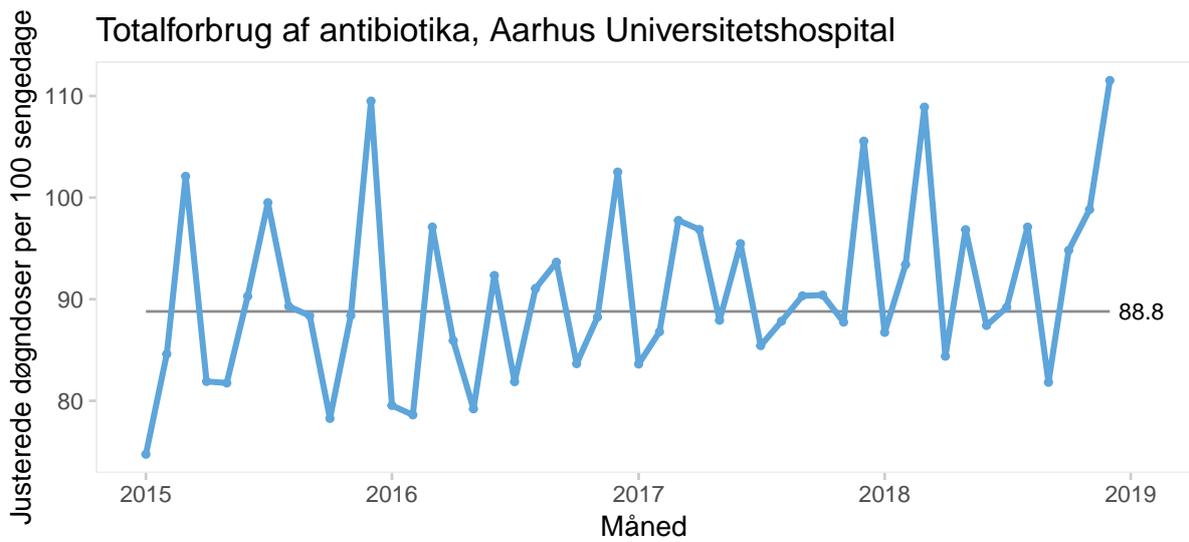
Regionshospitalet Randers



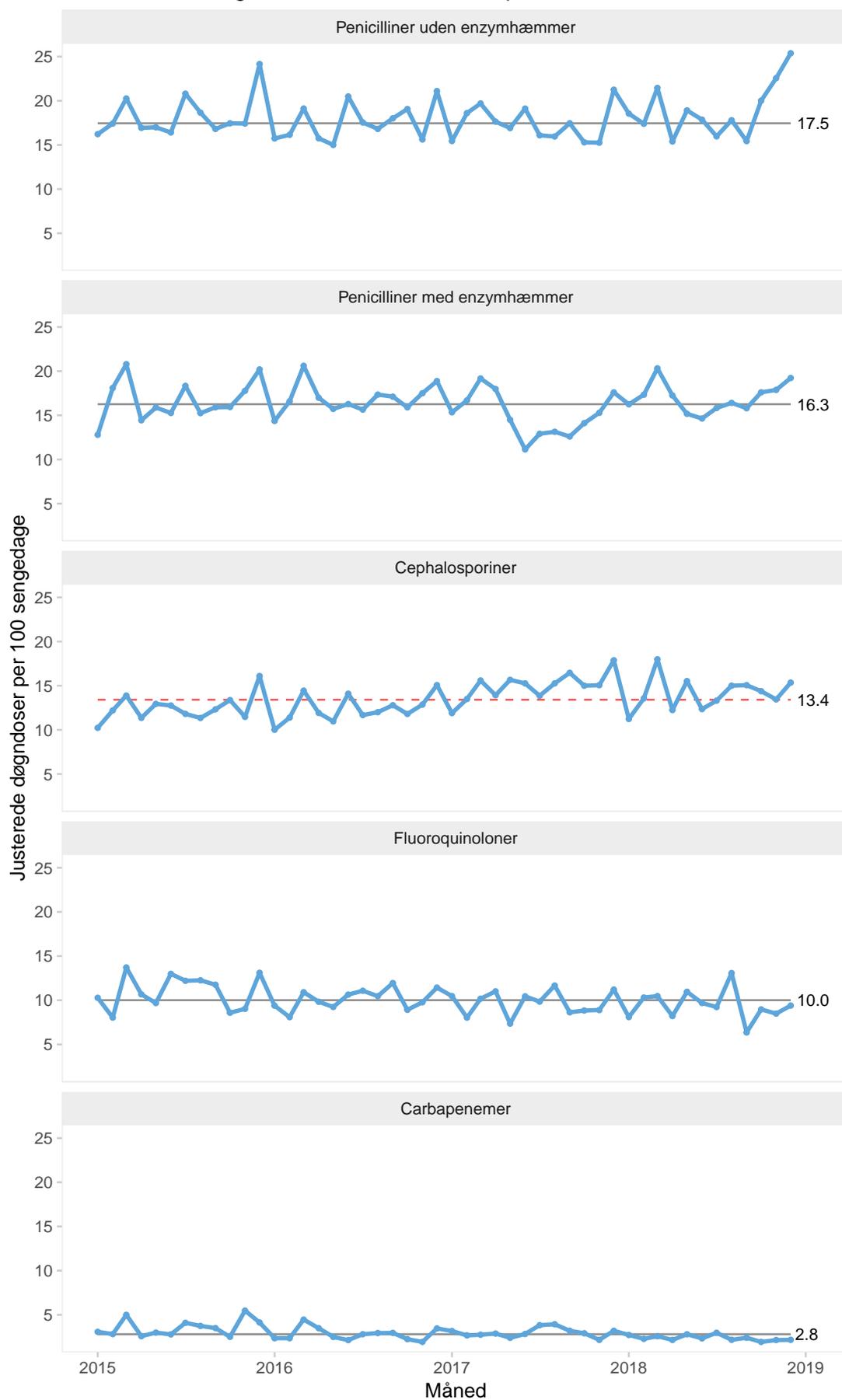
Antibiotikaforbrug, Regionshospitalet Randers



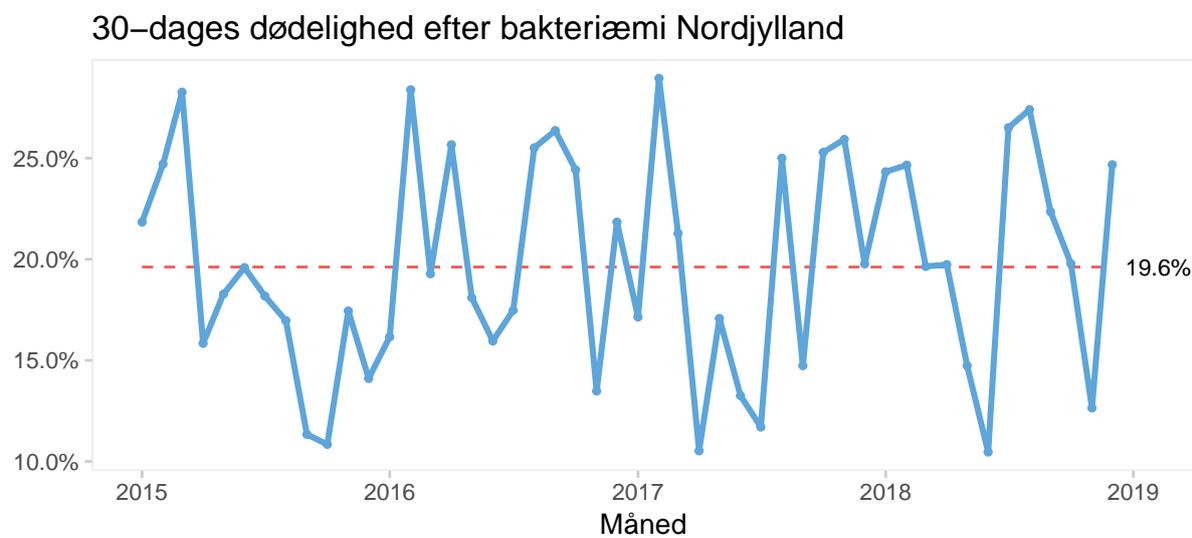
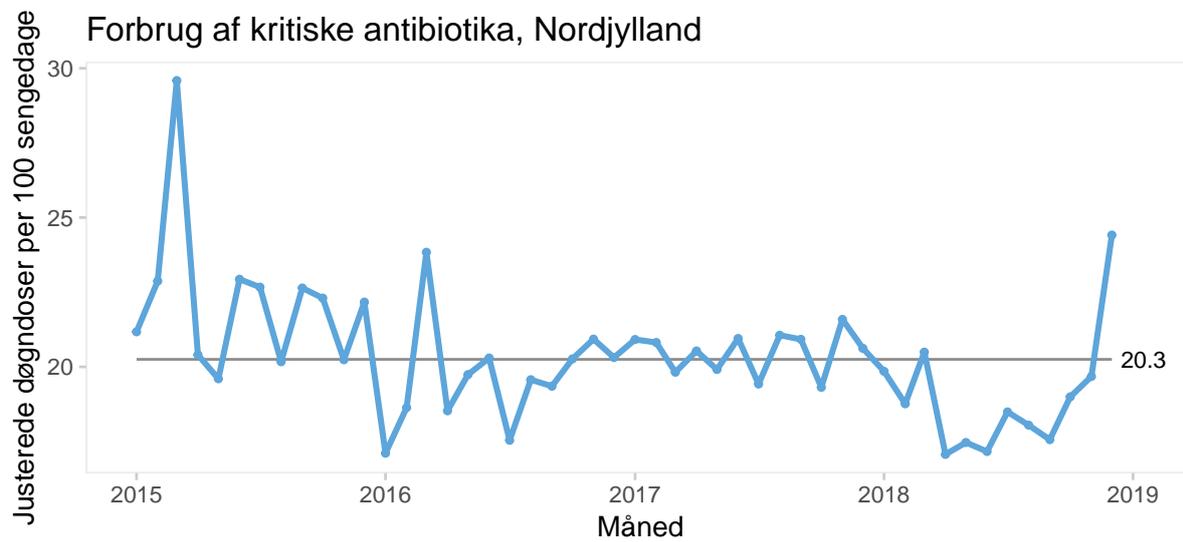
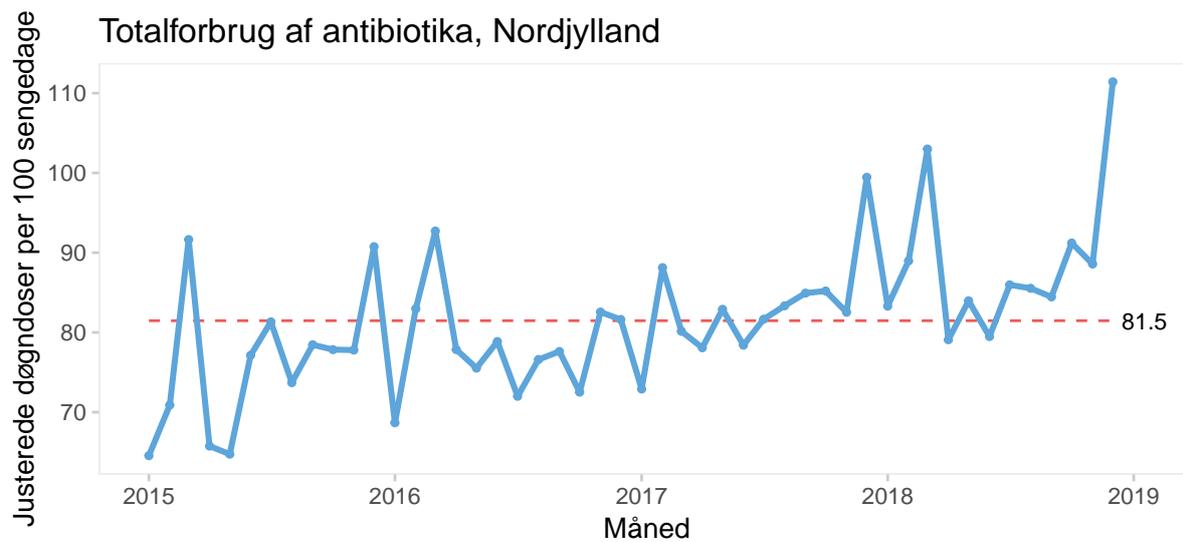
Aarhus Universitetshospital



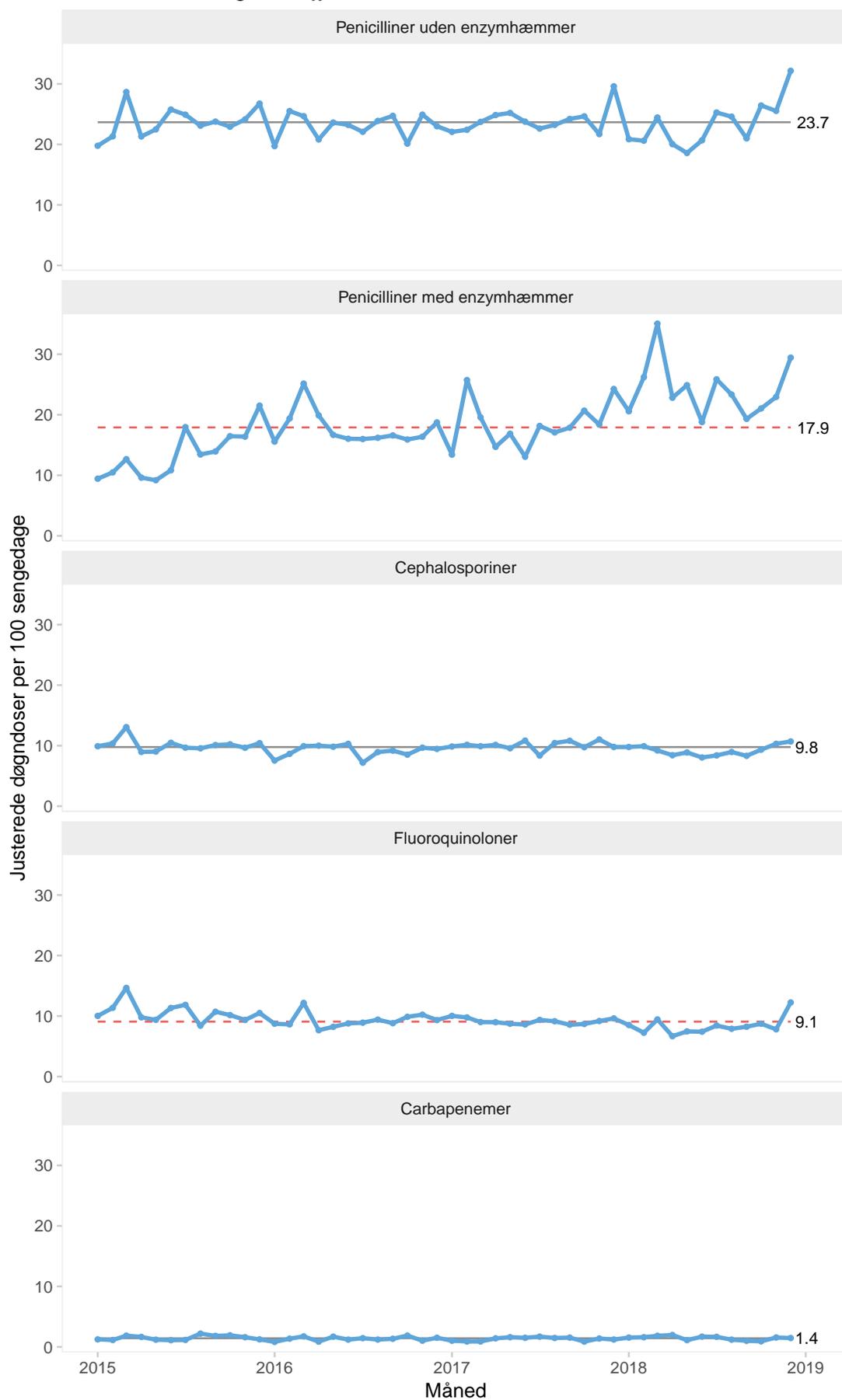
Antibiotikaforbrug, Aarhus Universitetshospital



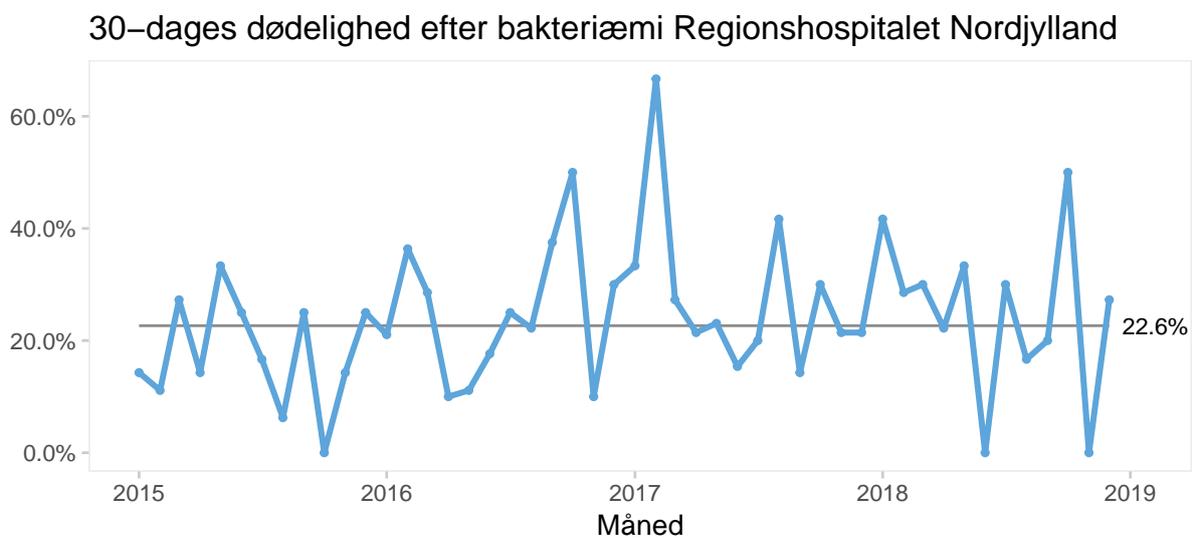
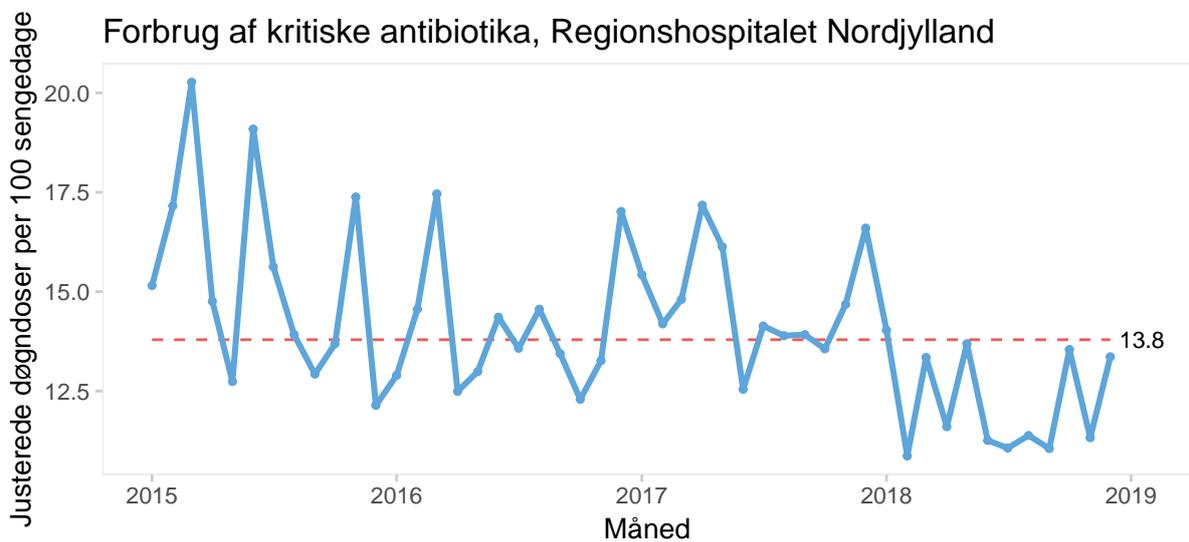
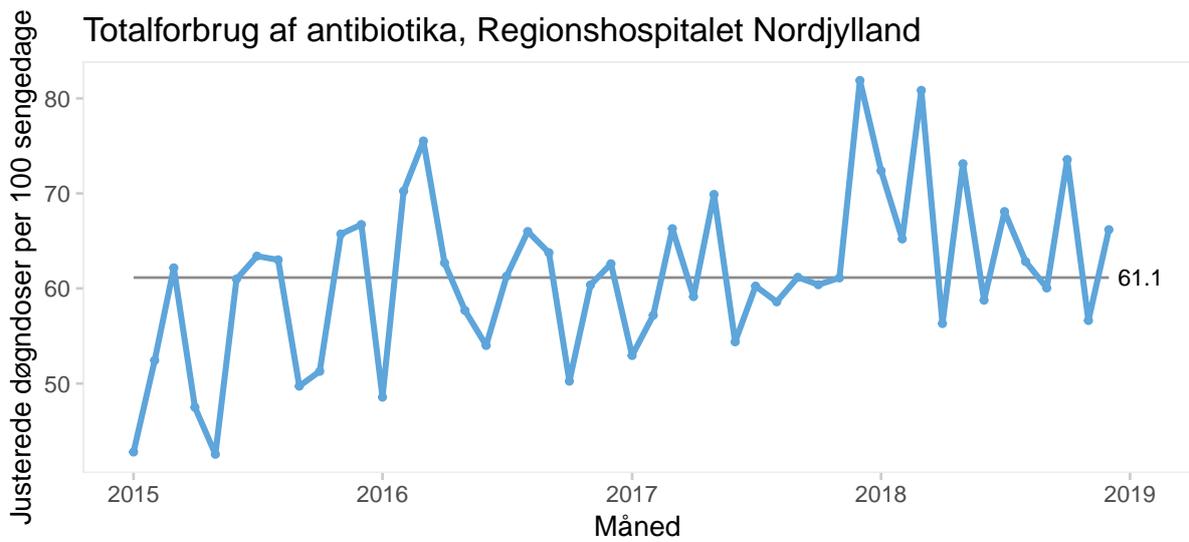
Nordjylland



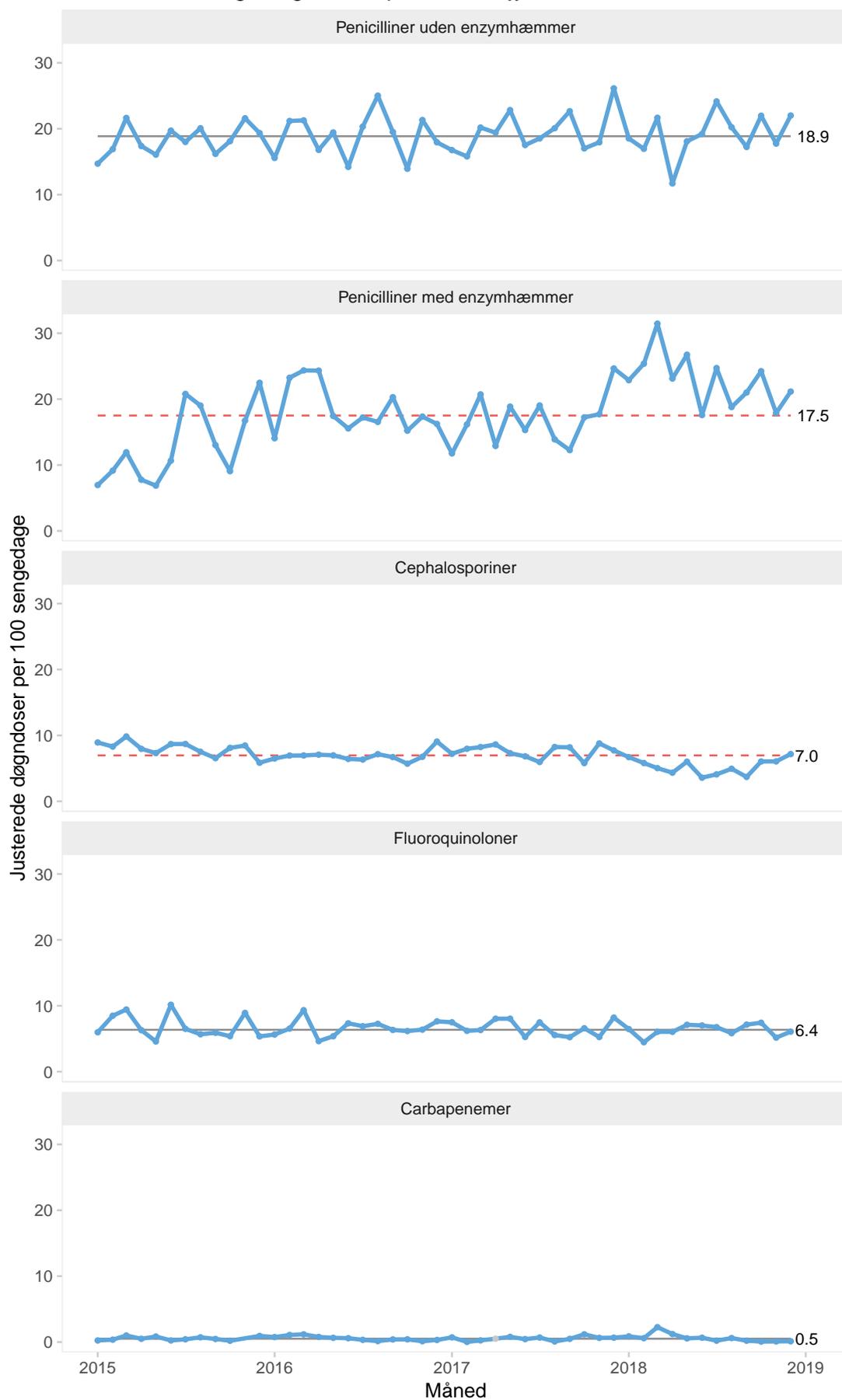
Antibiotikaforbrug, Nordjylland



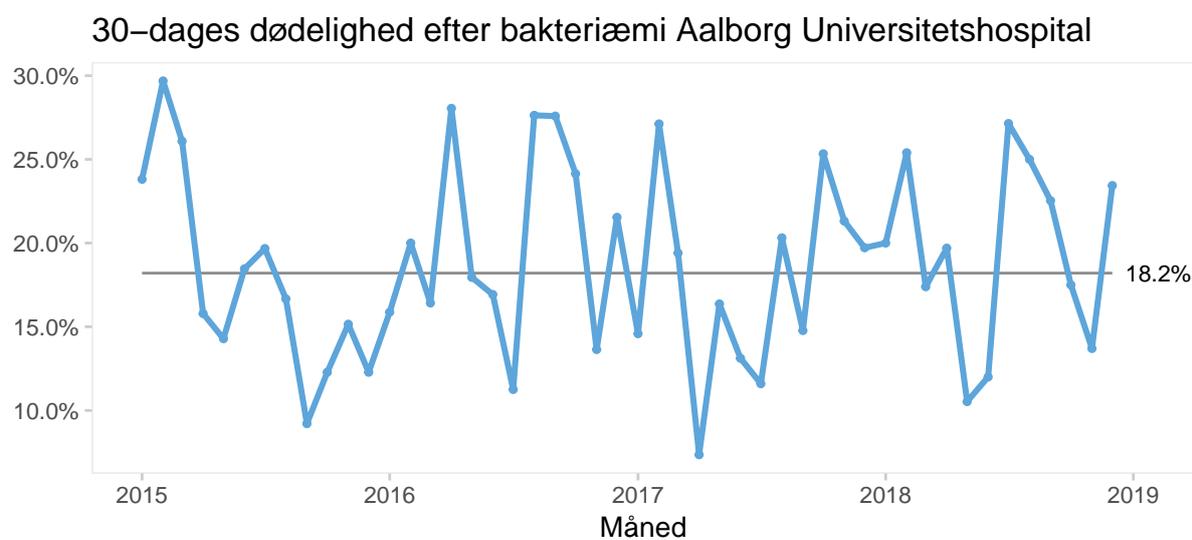
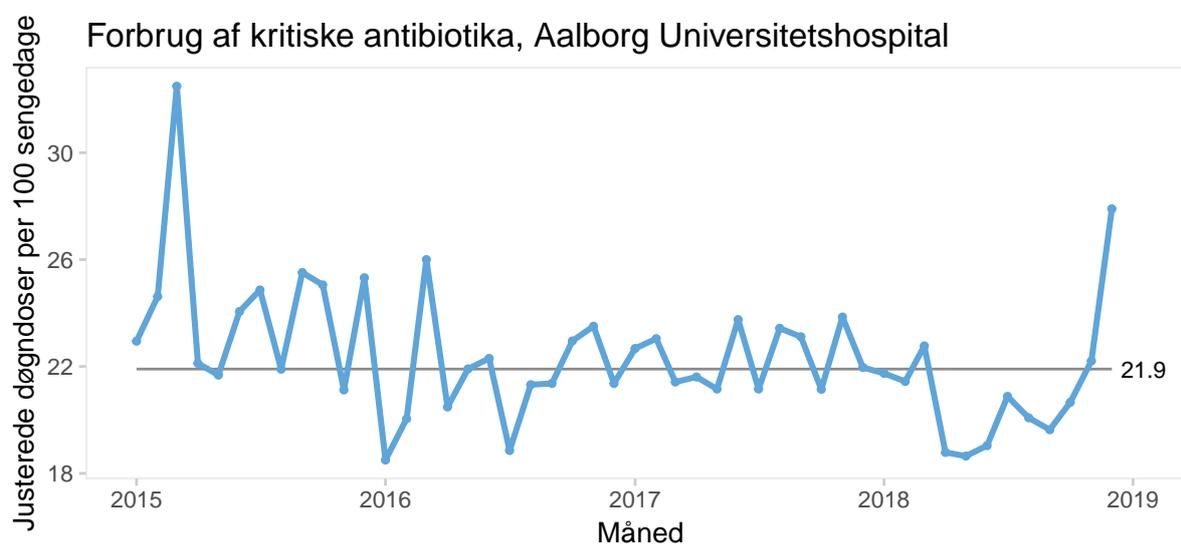
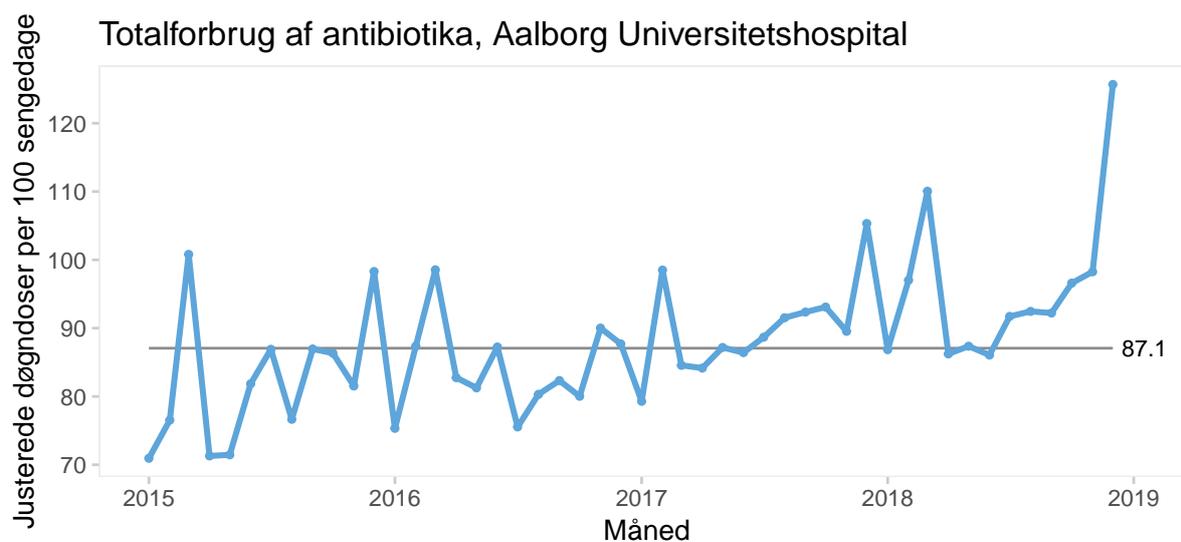
Regionshospitalet Nordjylland



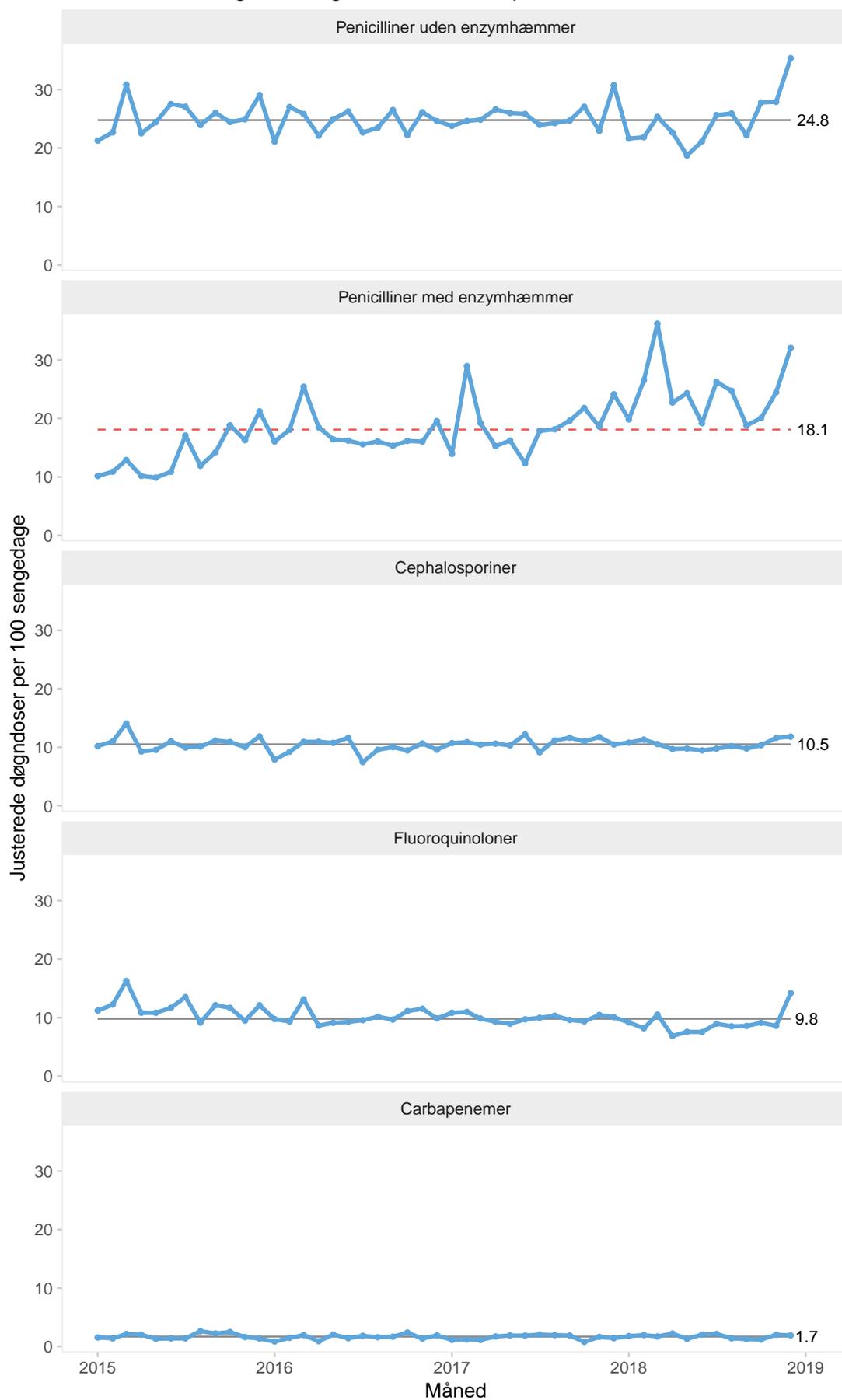
Antibiotikaforbrug, Regionshospitalet Nordjylland



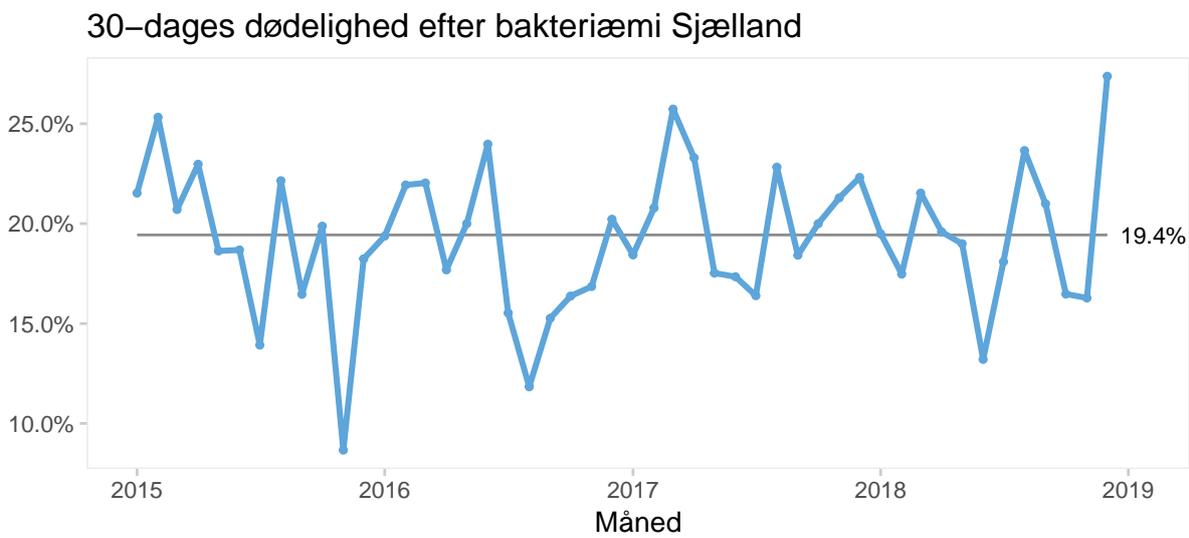
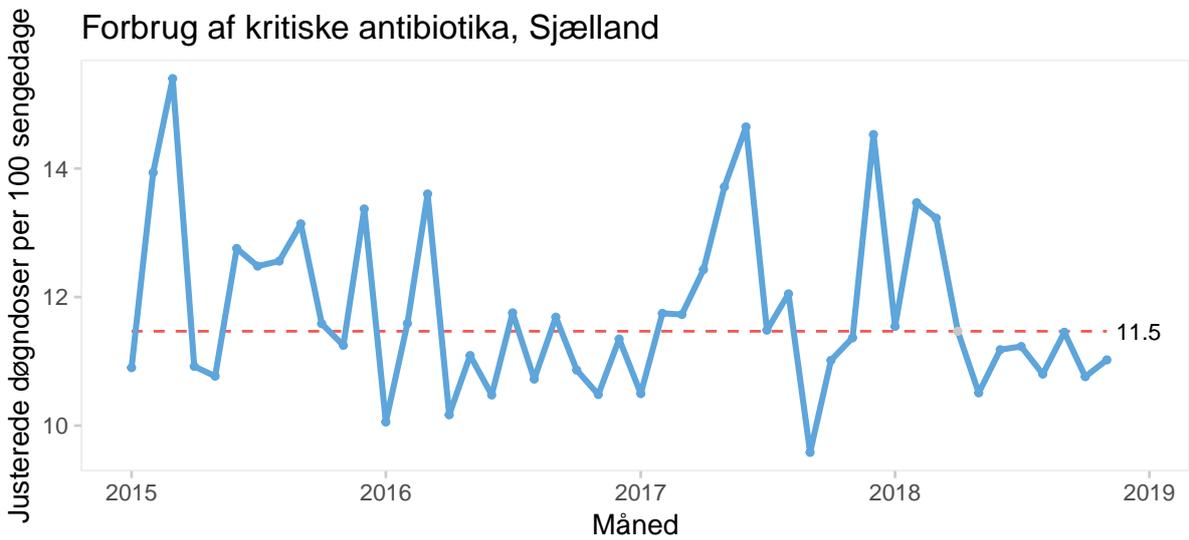
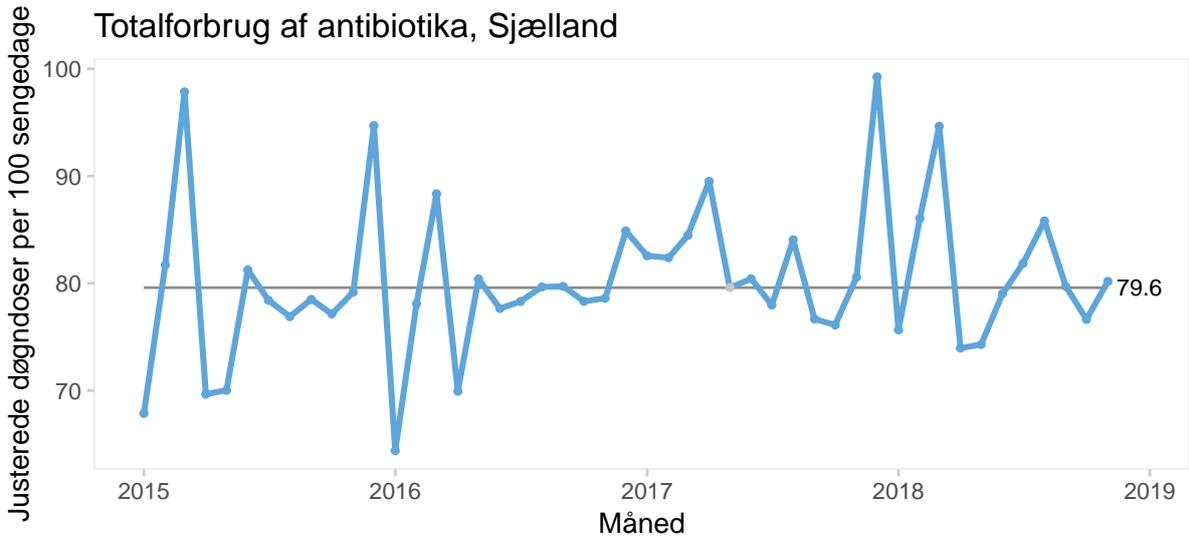
Aalborg Universitetshospital



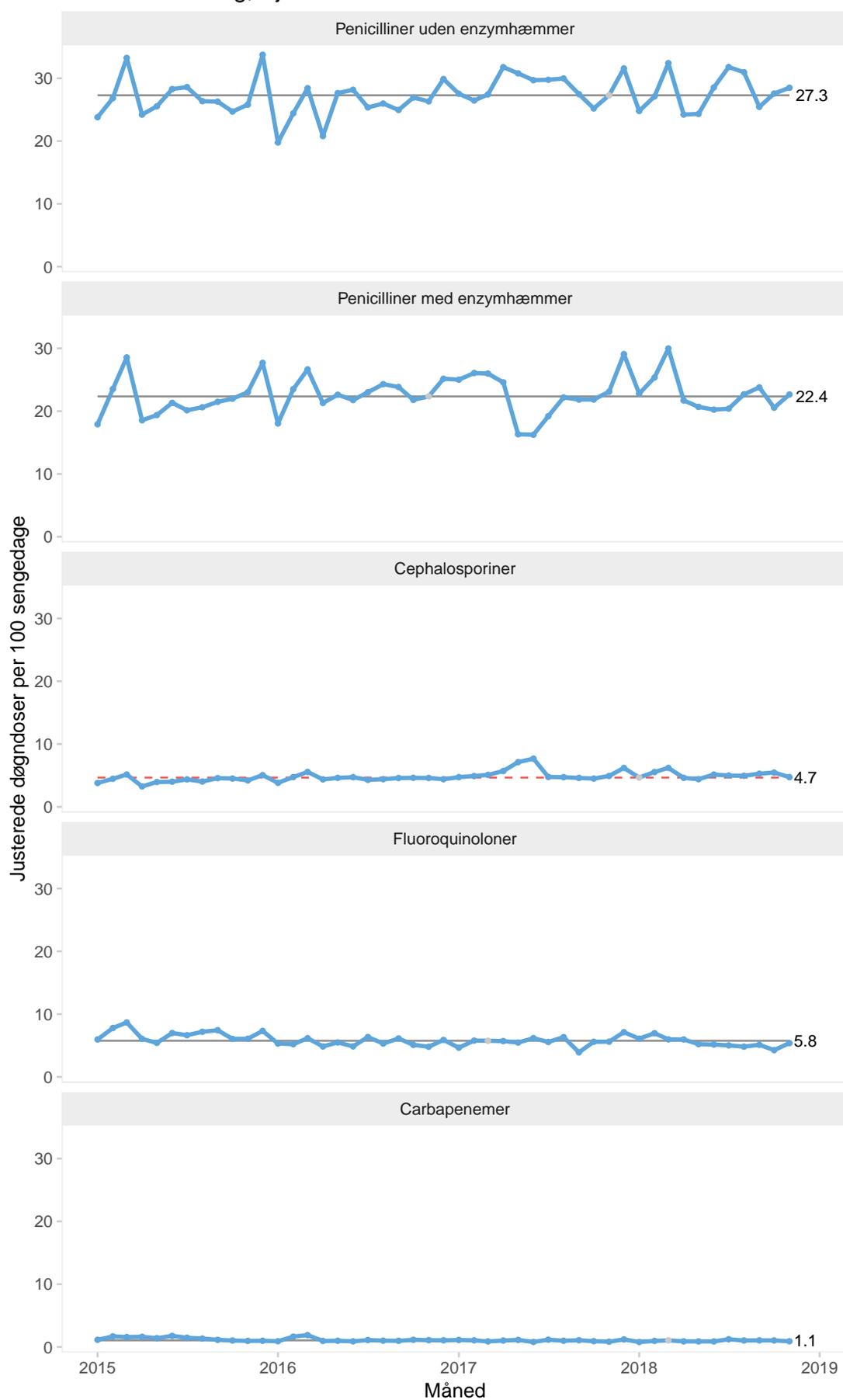
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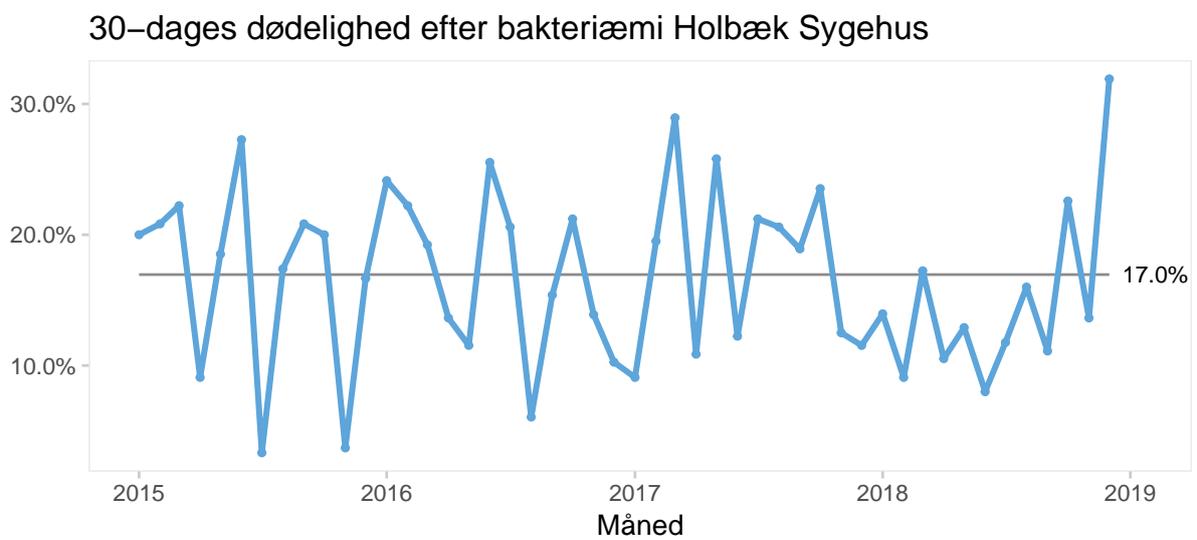
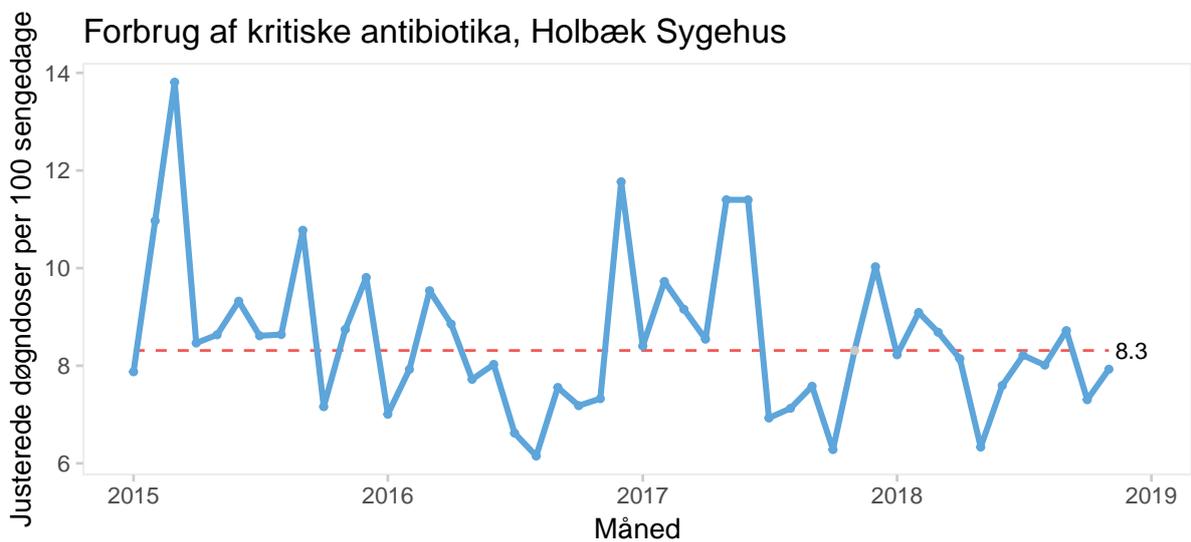
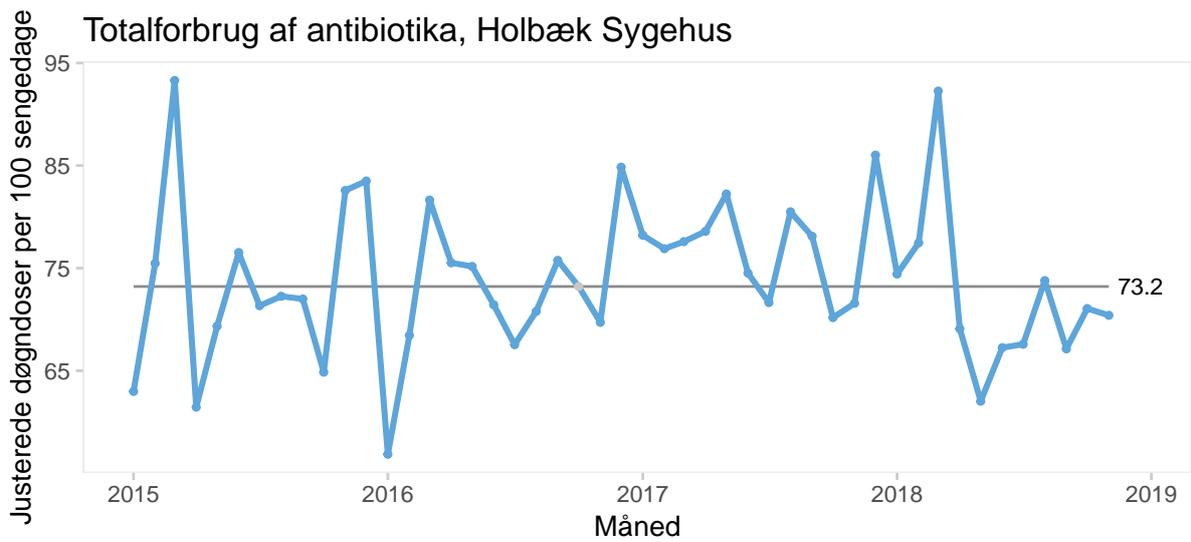
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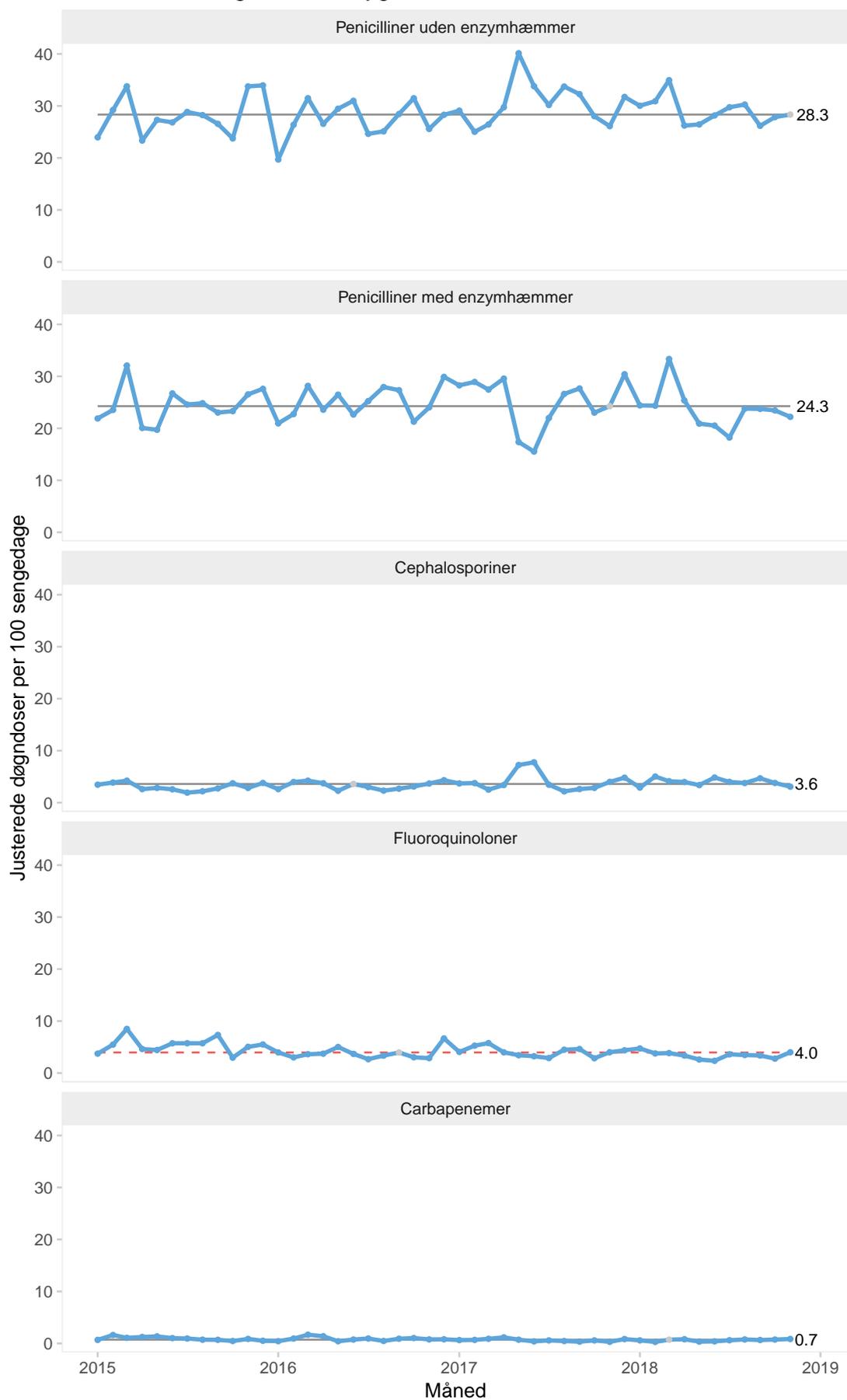
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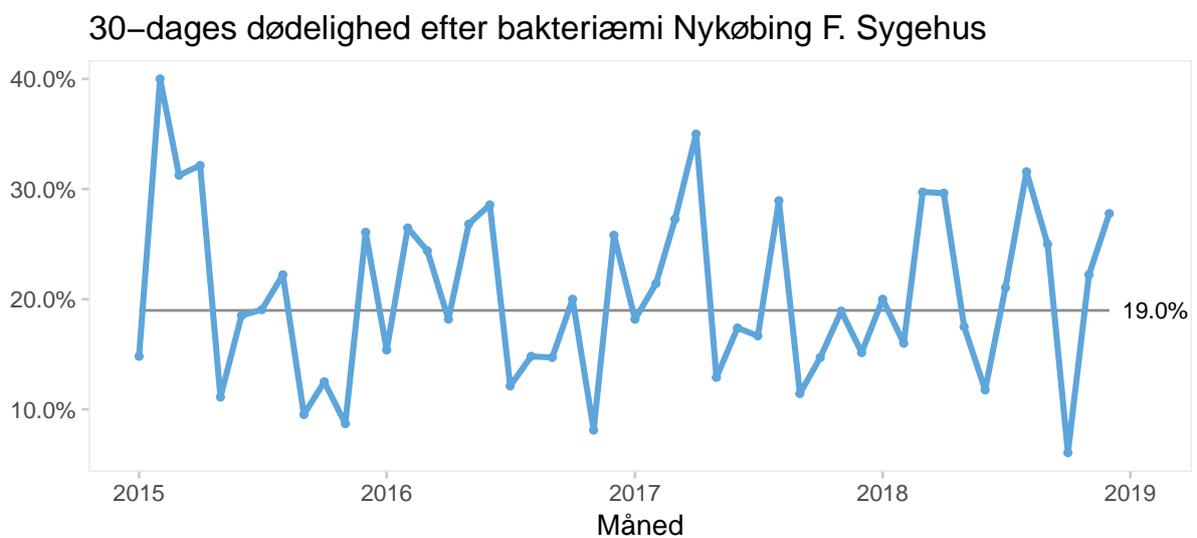
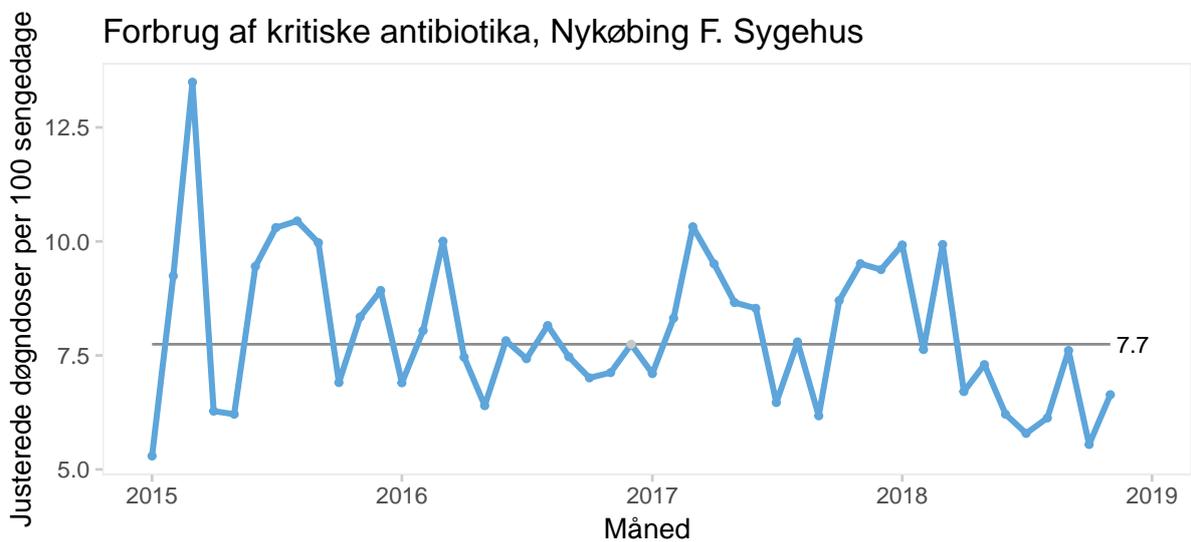
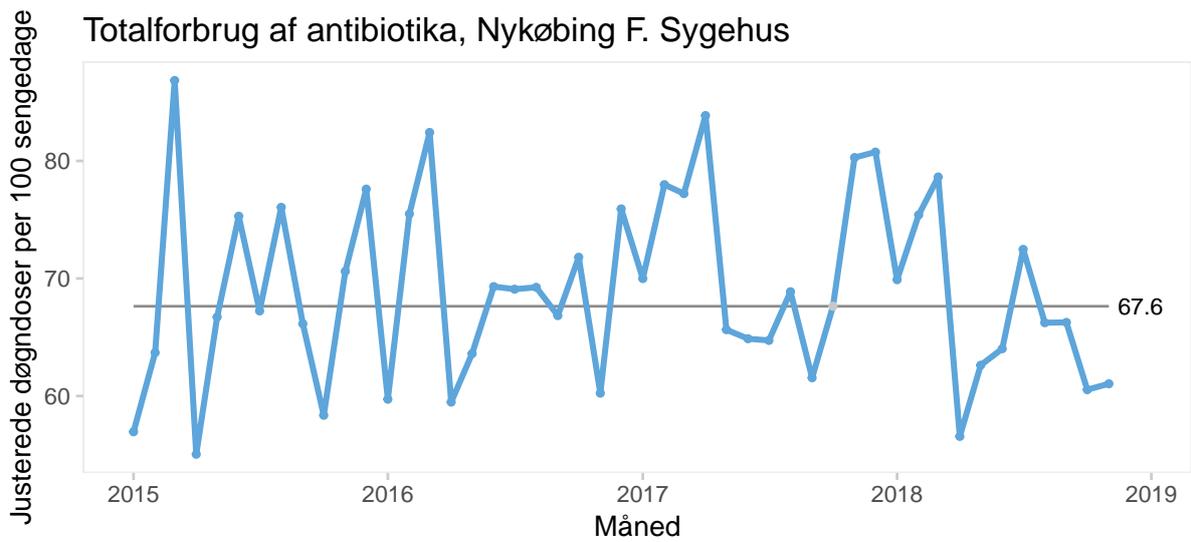
Holbæk Sygehus



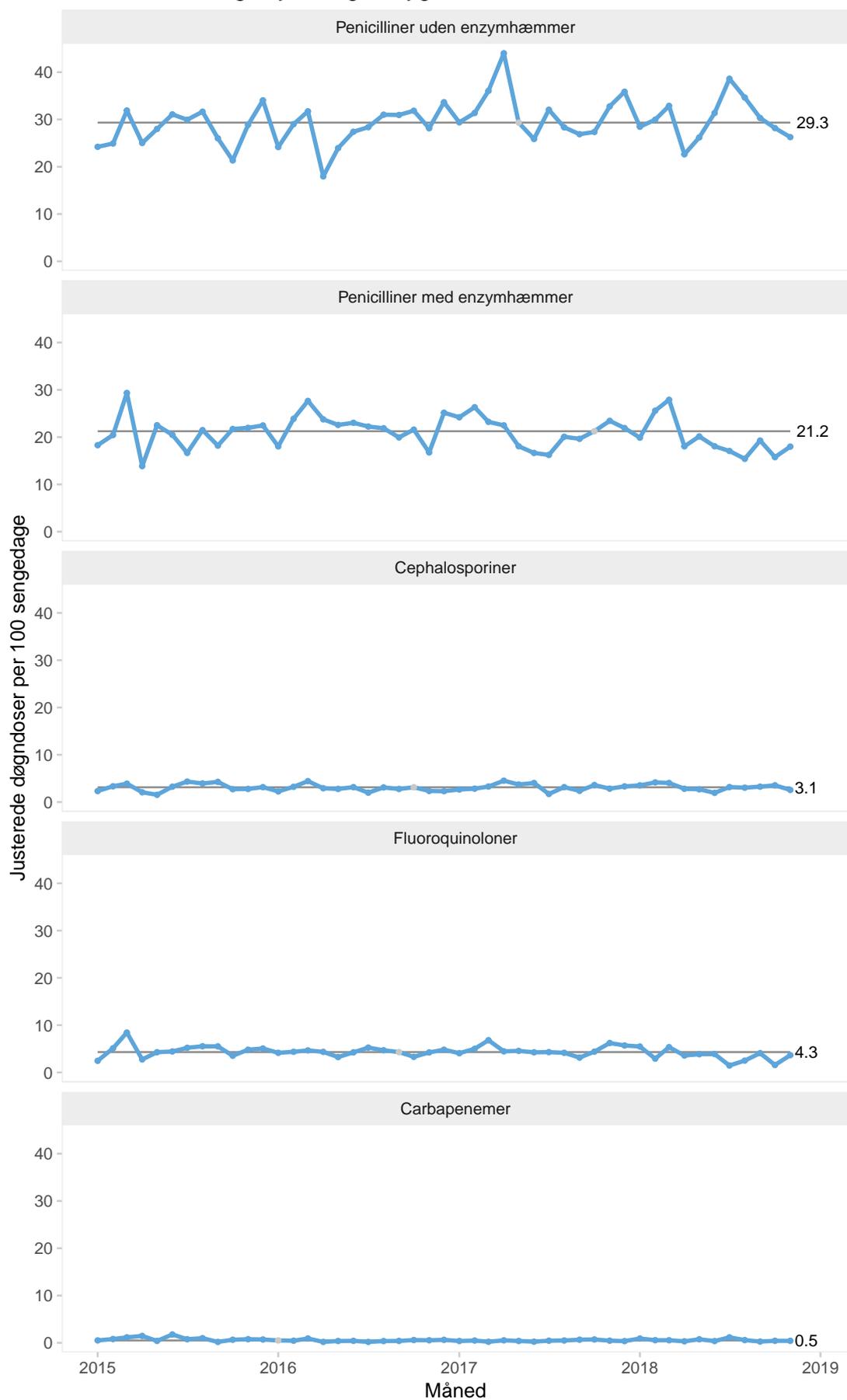
Antibiotikaforbrug, Holbæk Sygehus



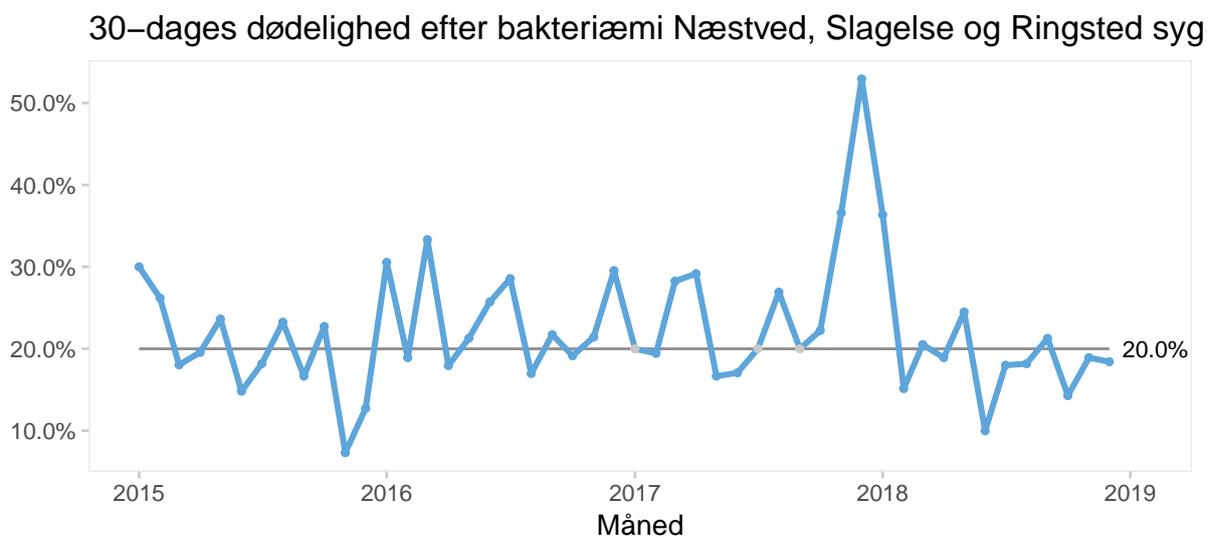
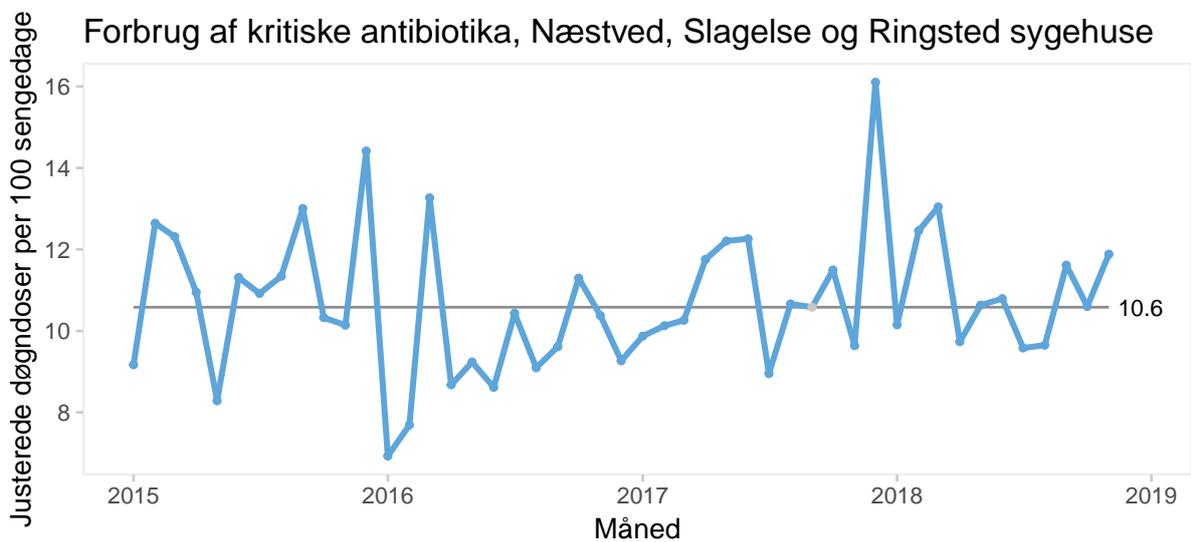
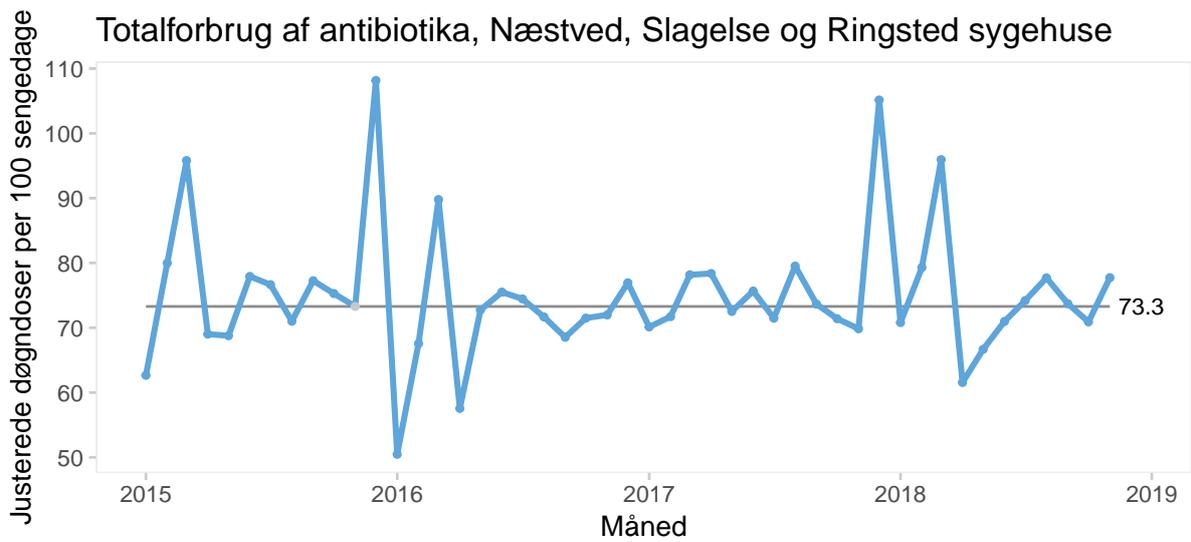
Nykøbing F. Sygehus



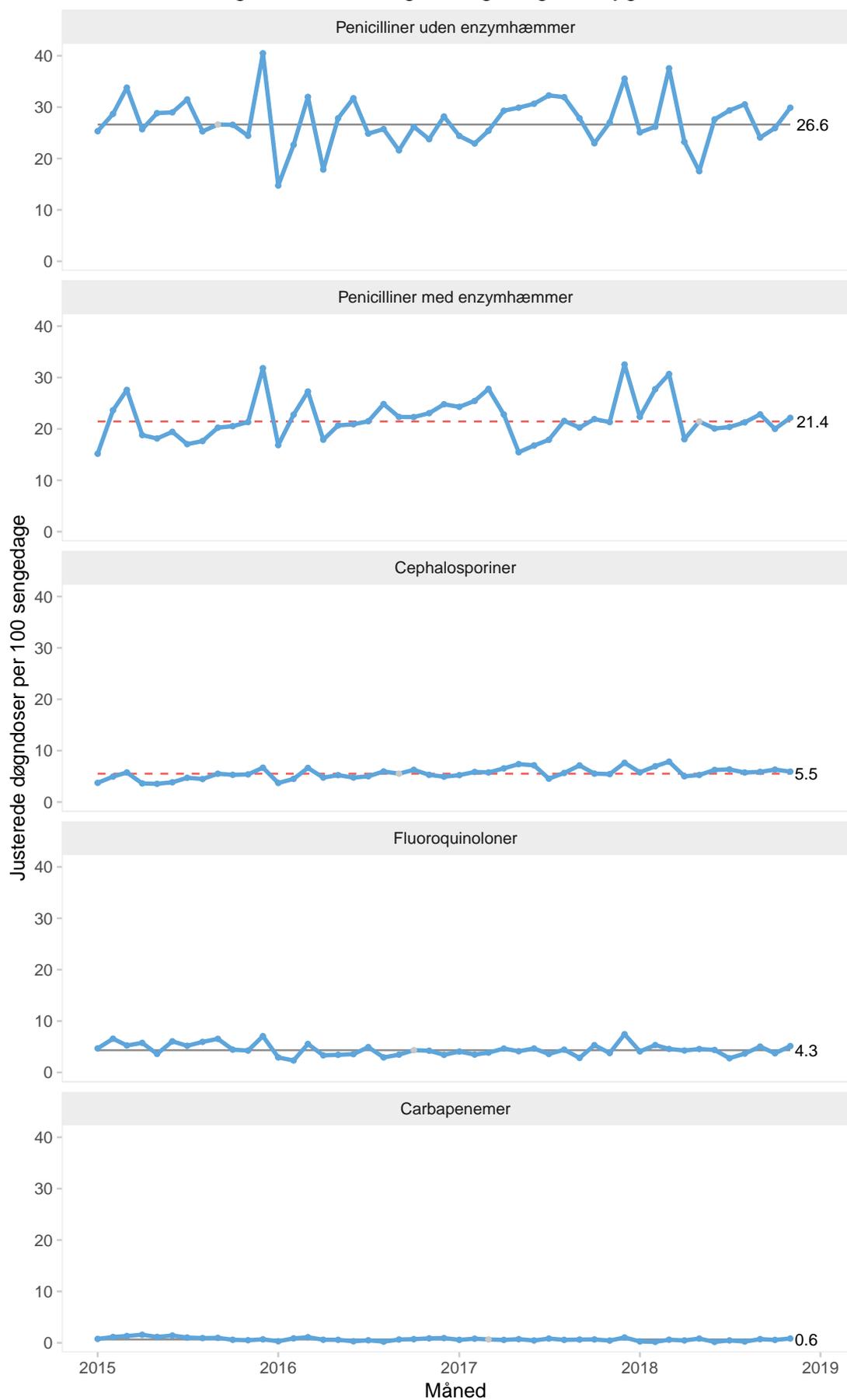
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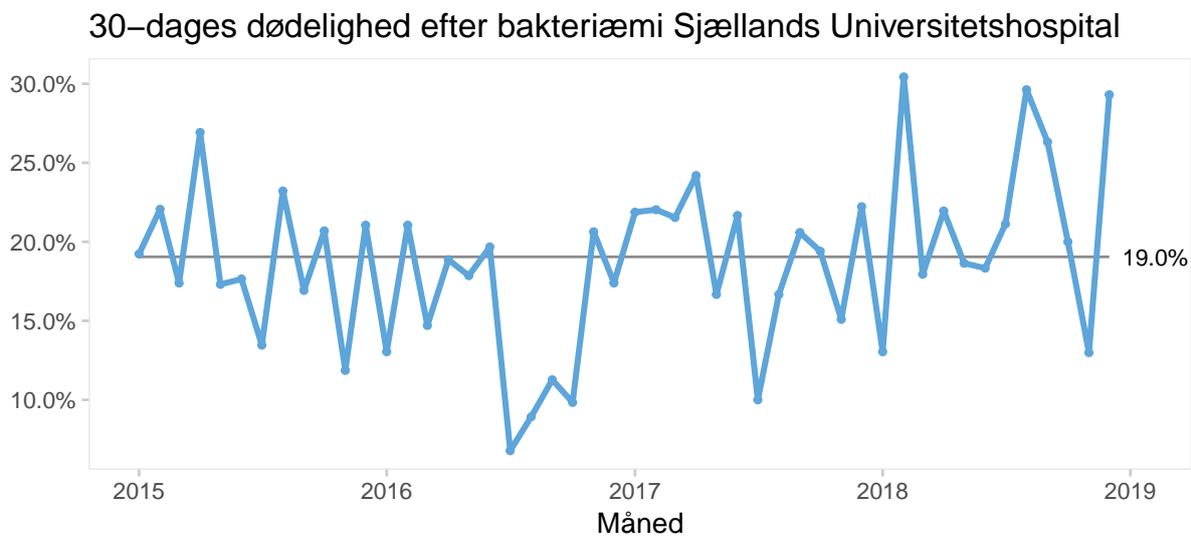
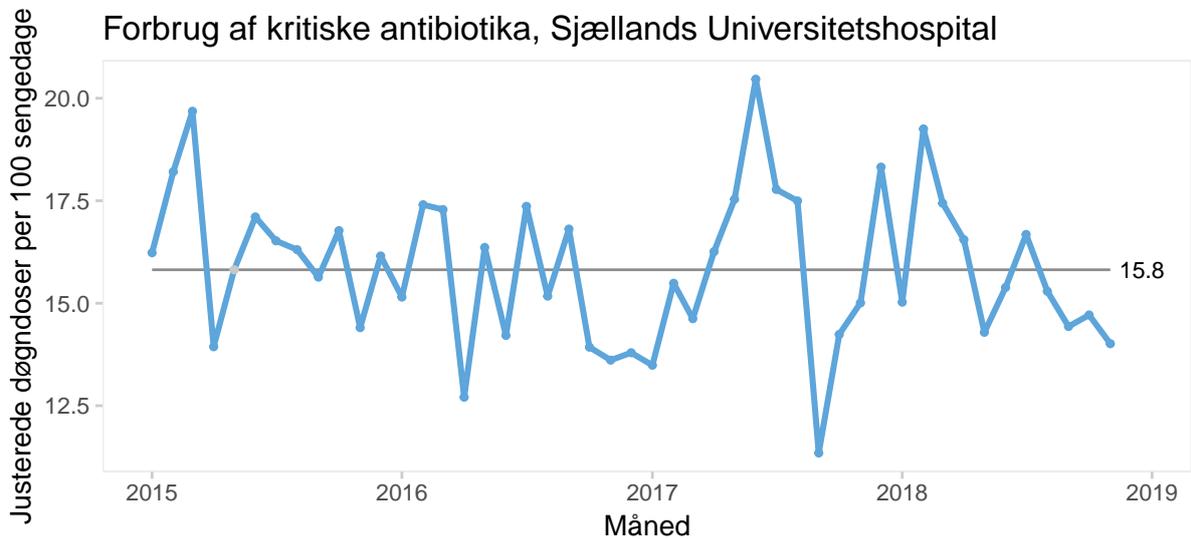
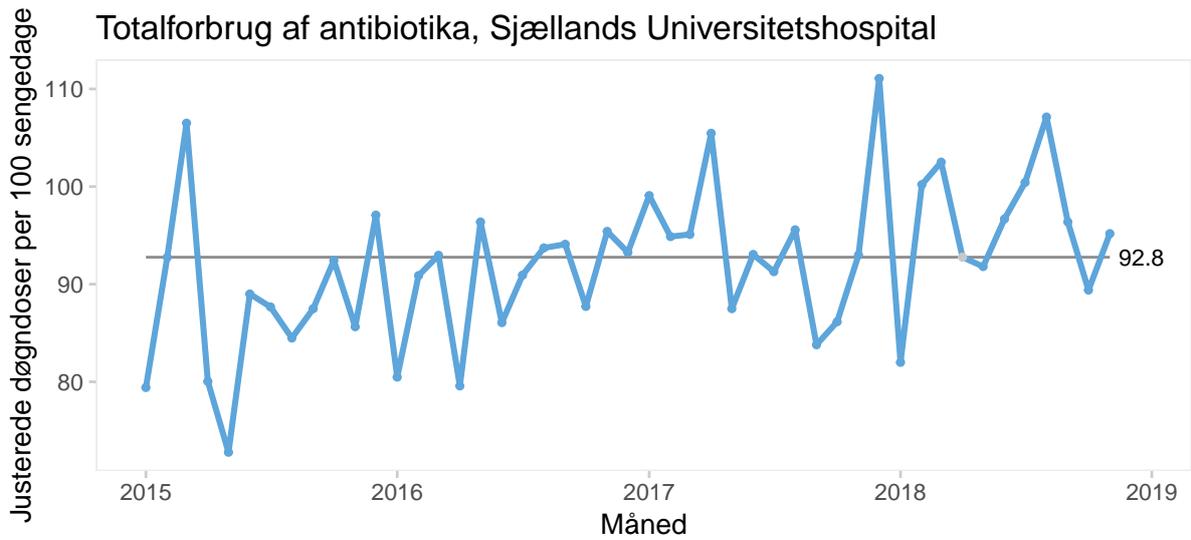
Næstved, Slagelse og Ringsted sygehuse



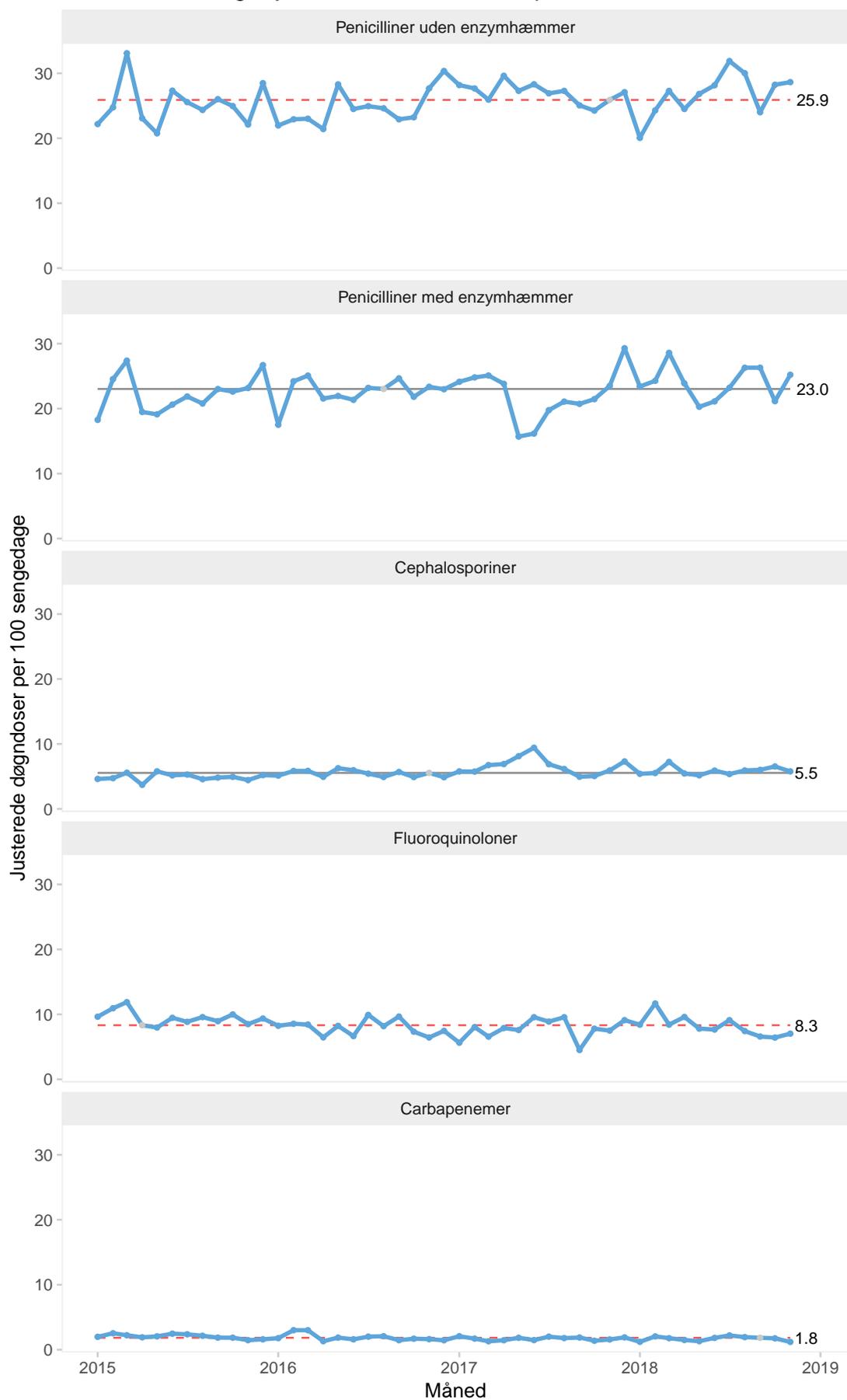
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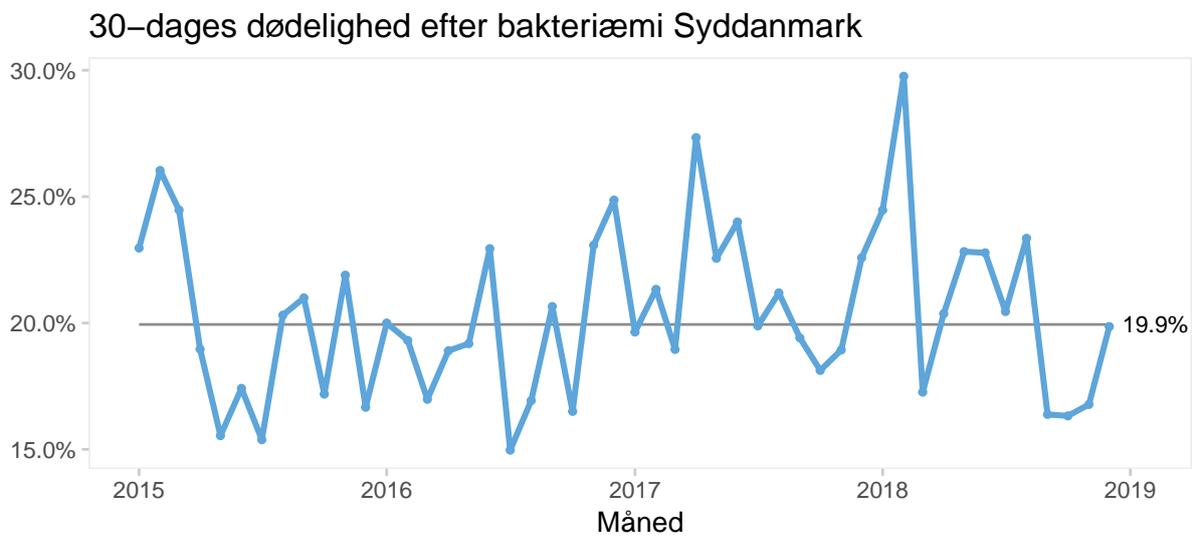
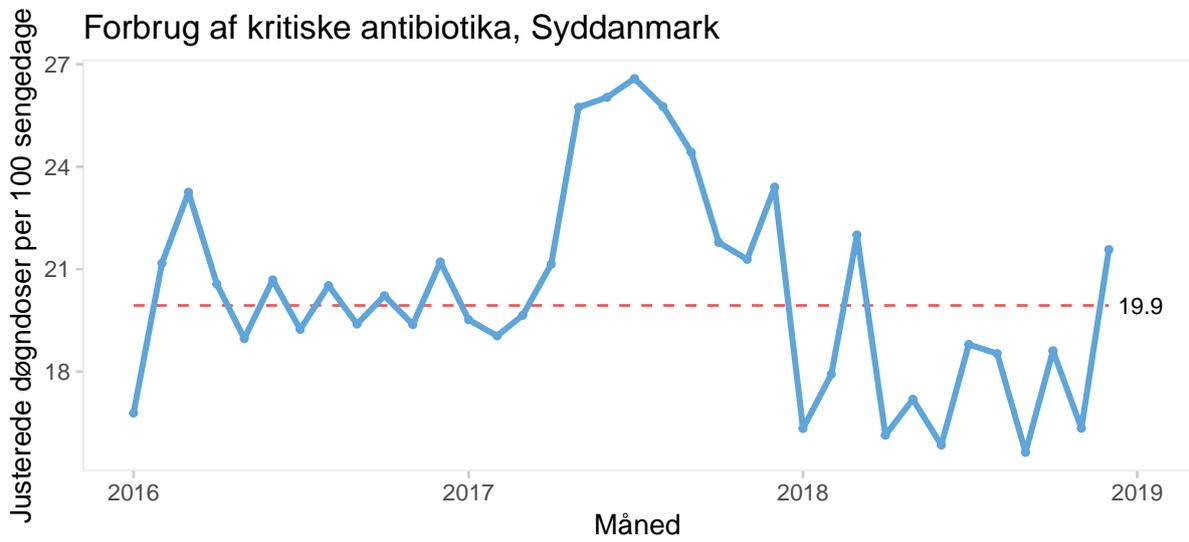
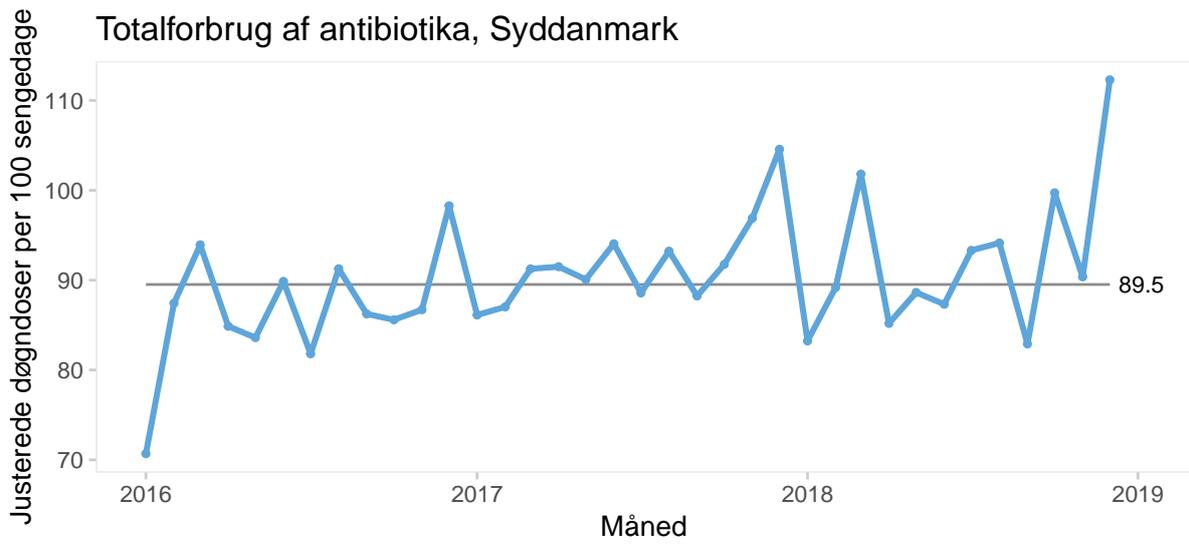
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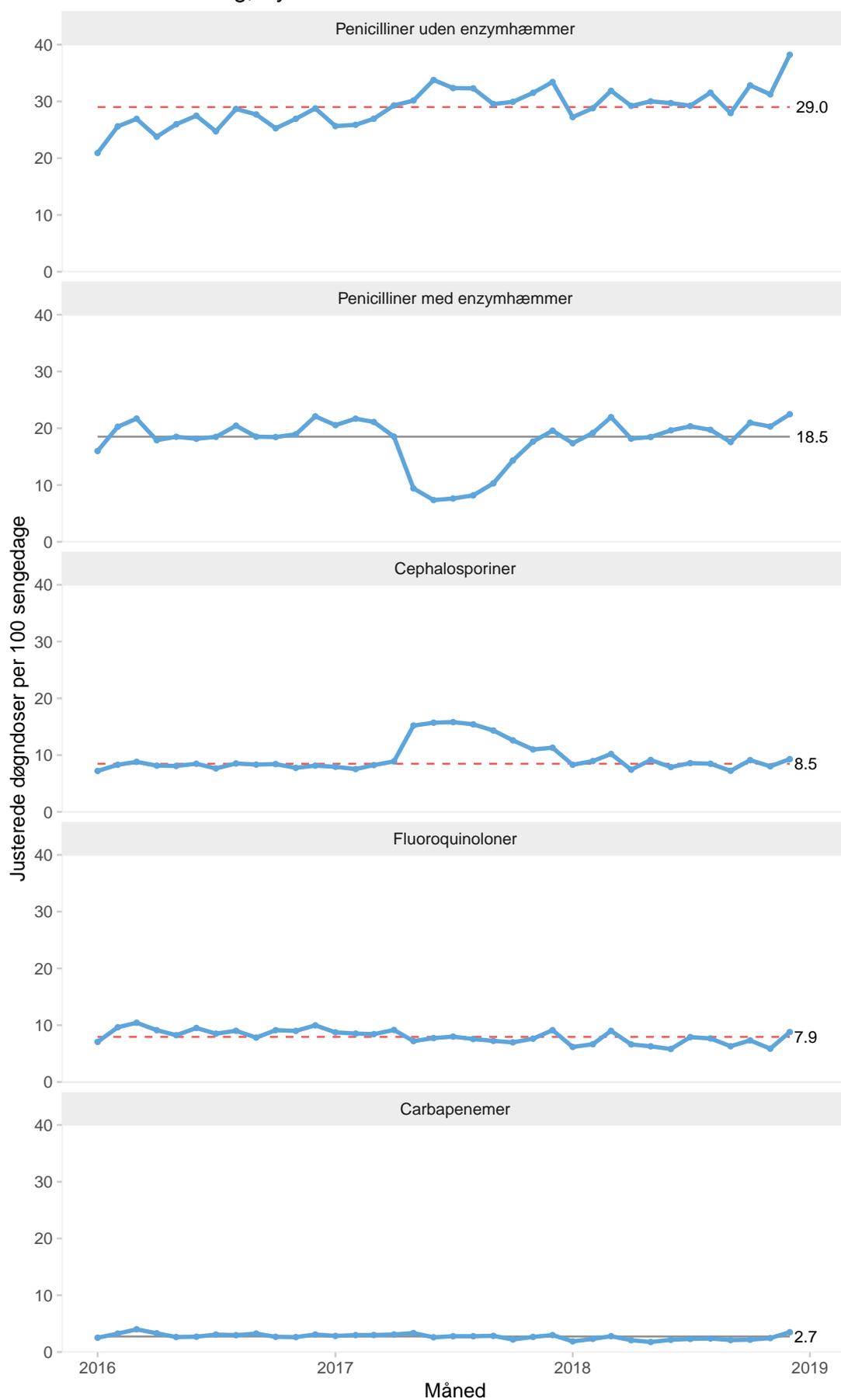
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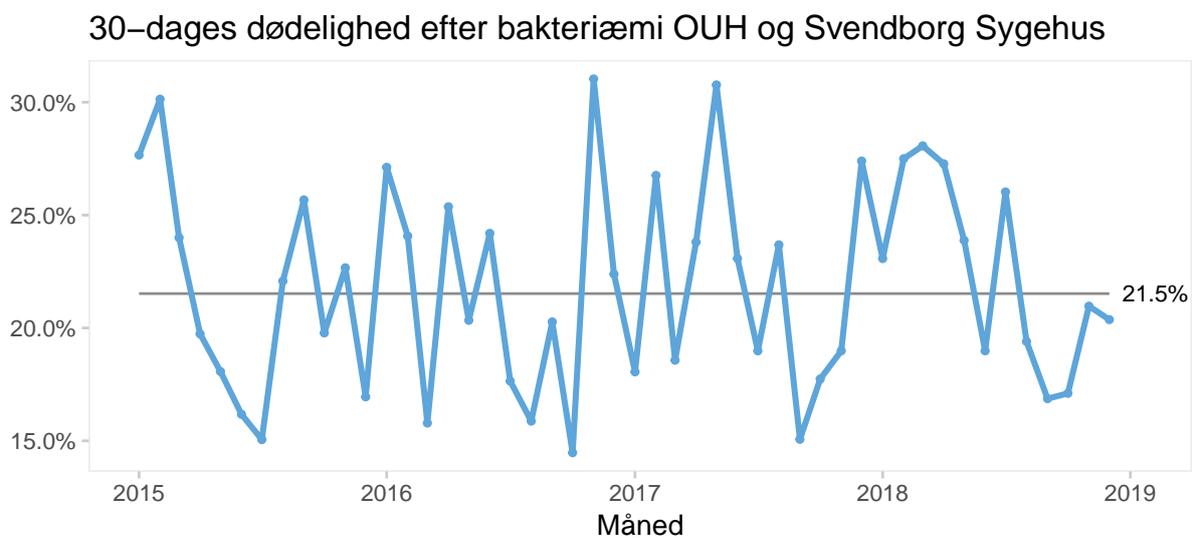
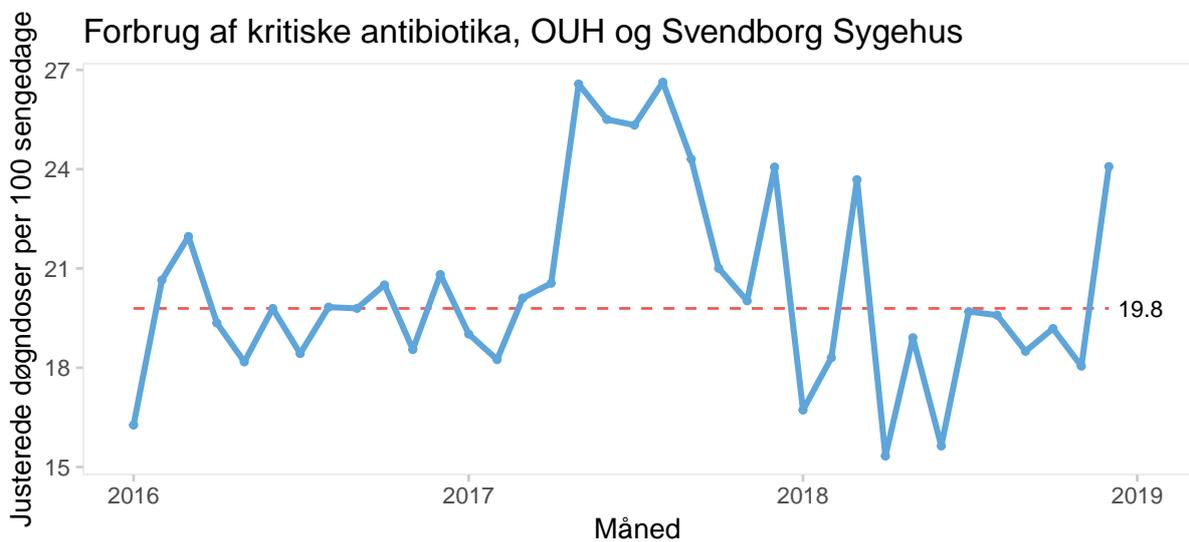
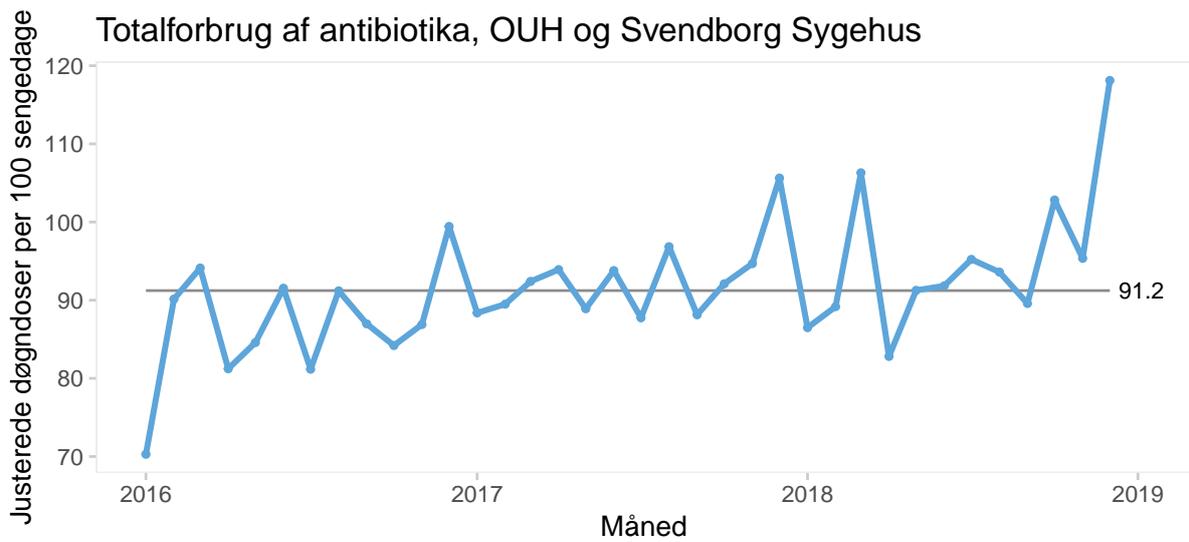
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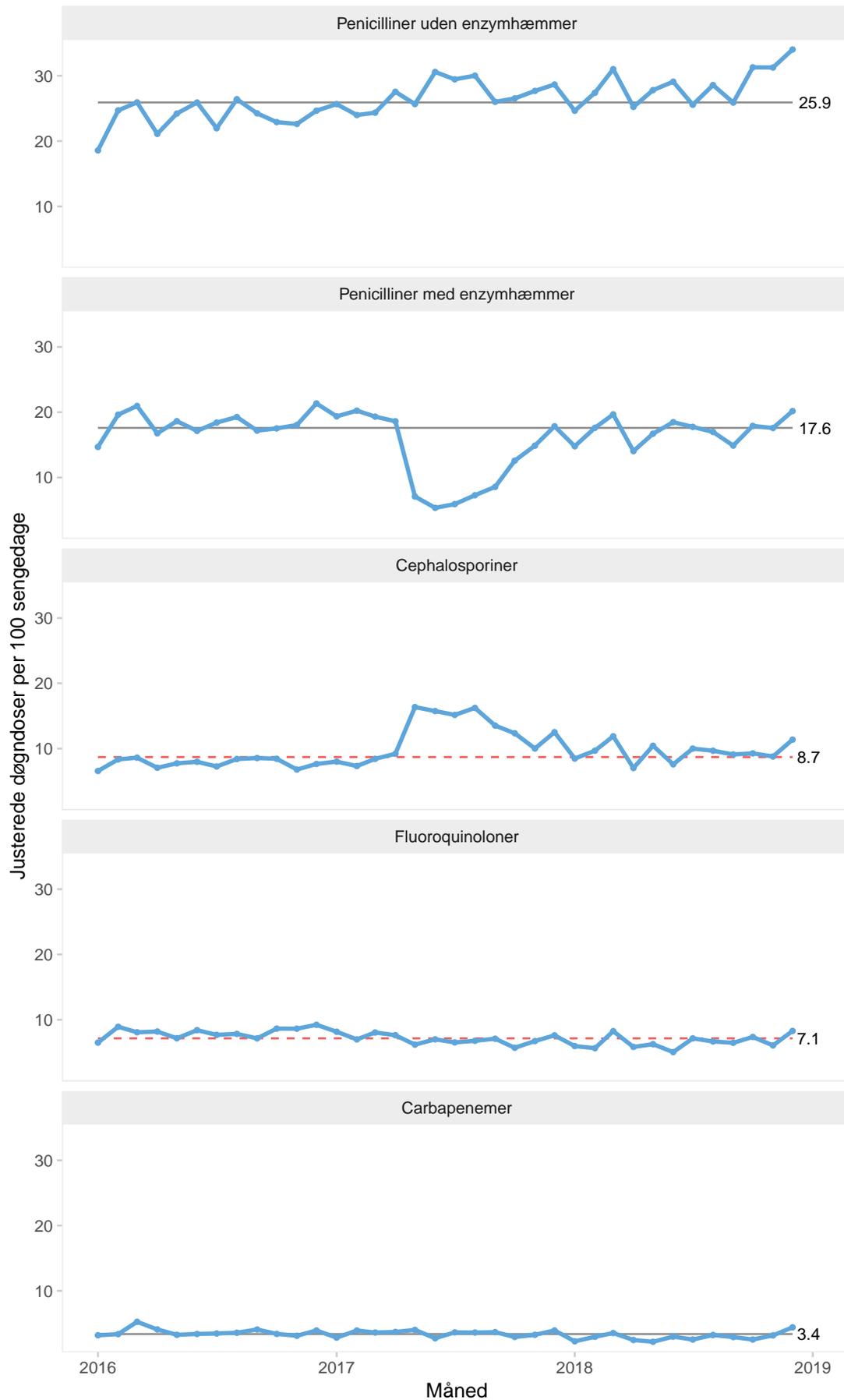
Antibiotikaforbrug, Syddanmark



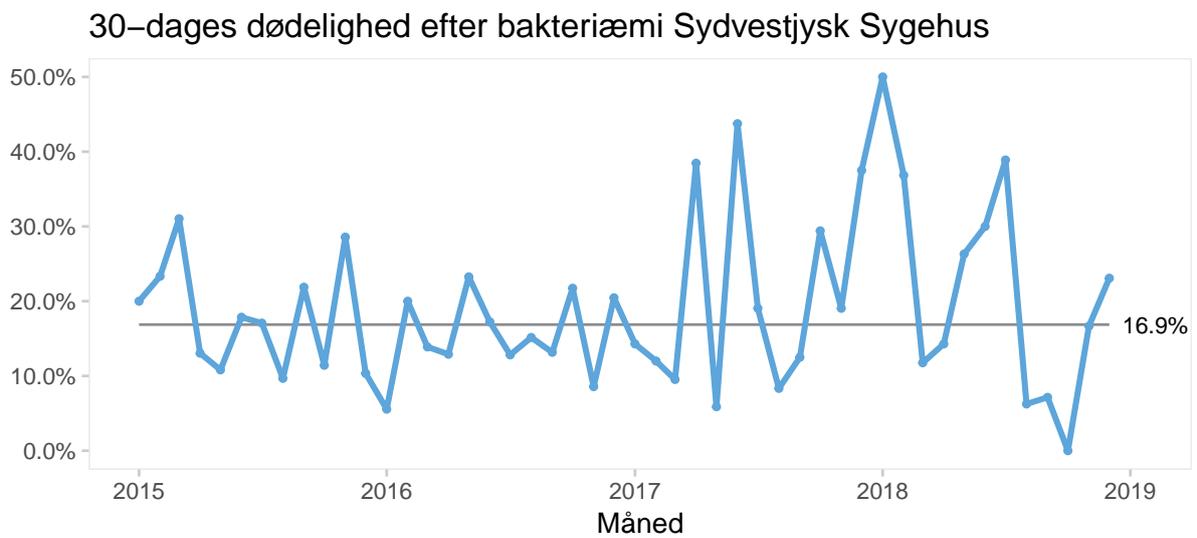
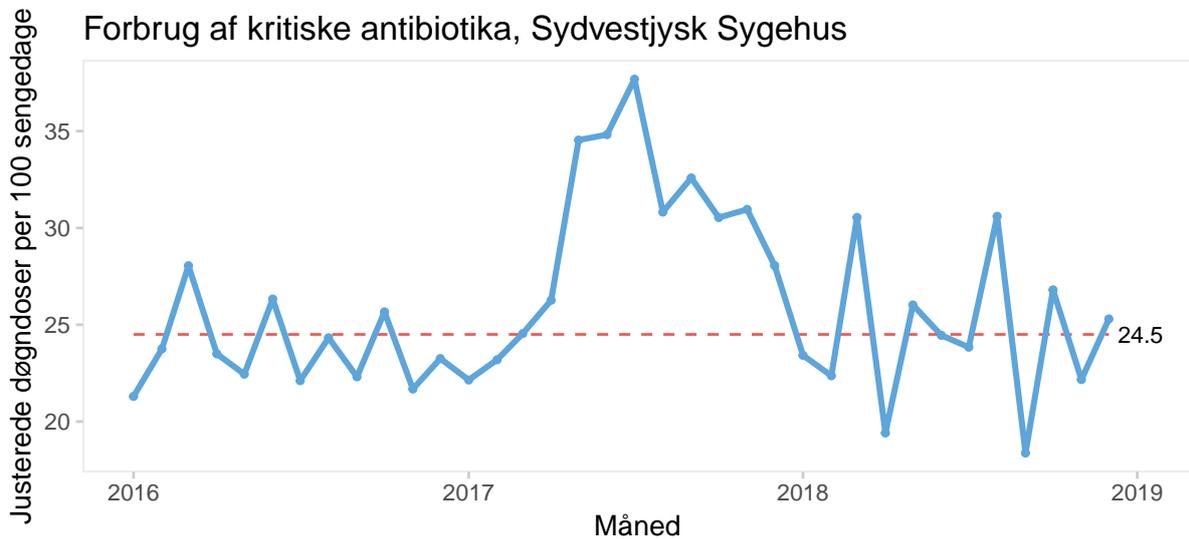
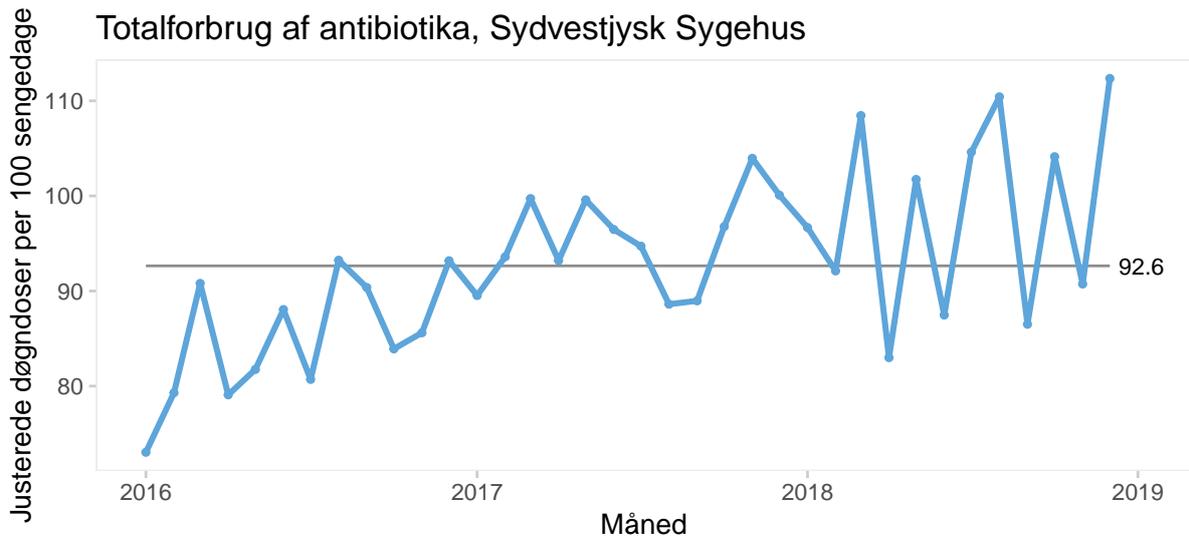
OUH og Svendborg Sygehus



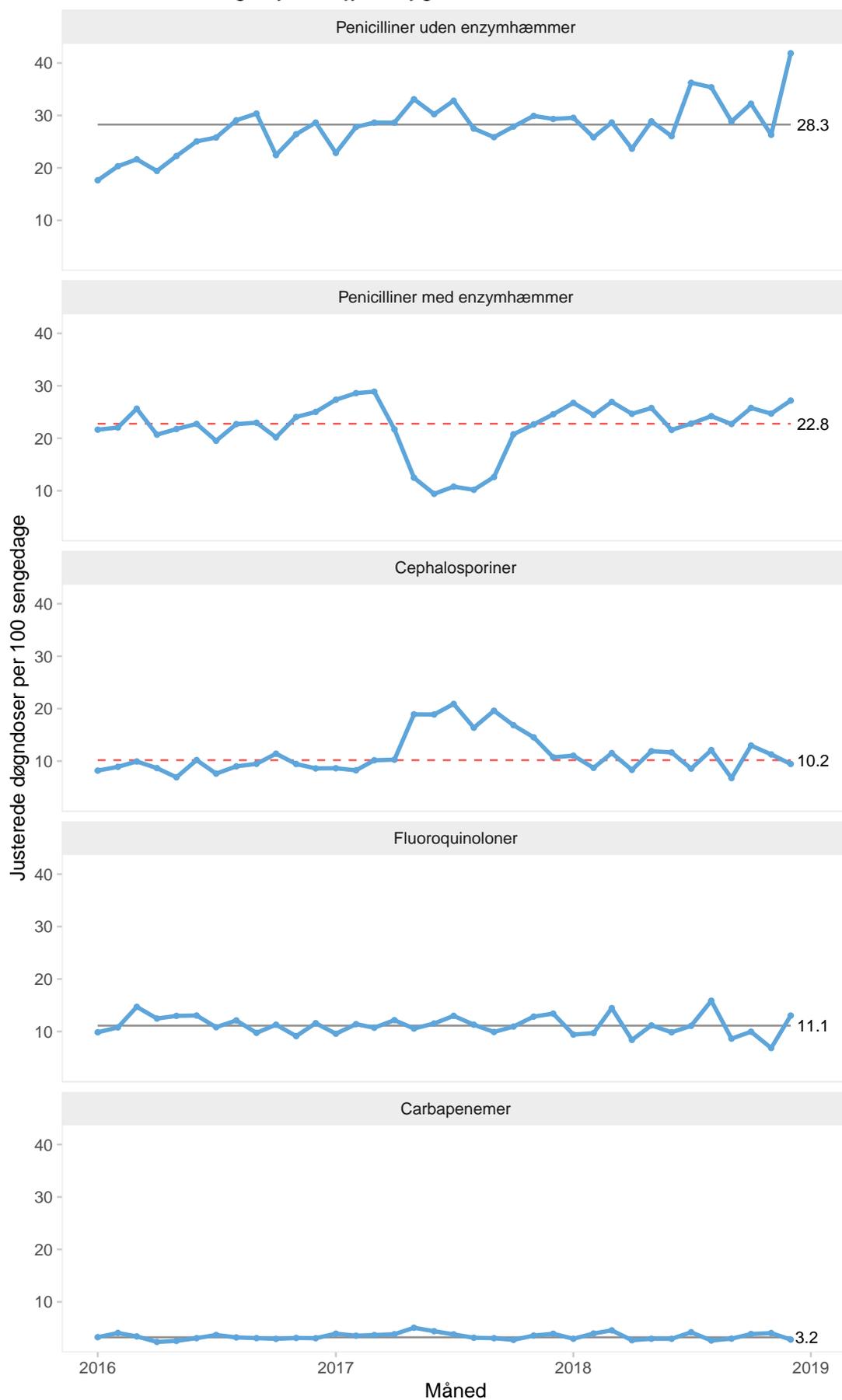
Antibiotikaforbrug, OUH og Svendborg Sygehus



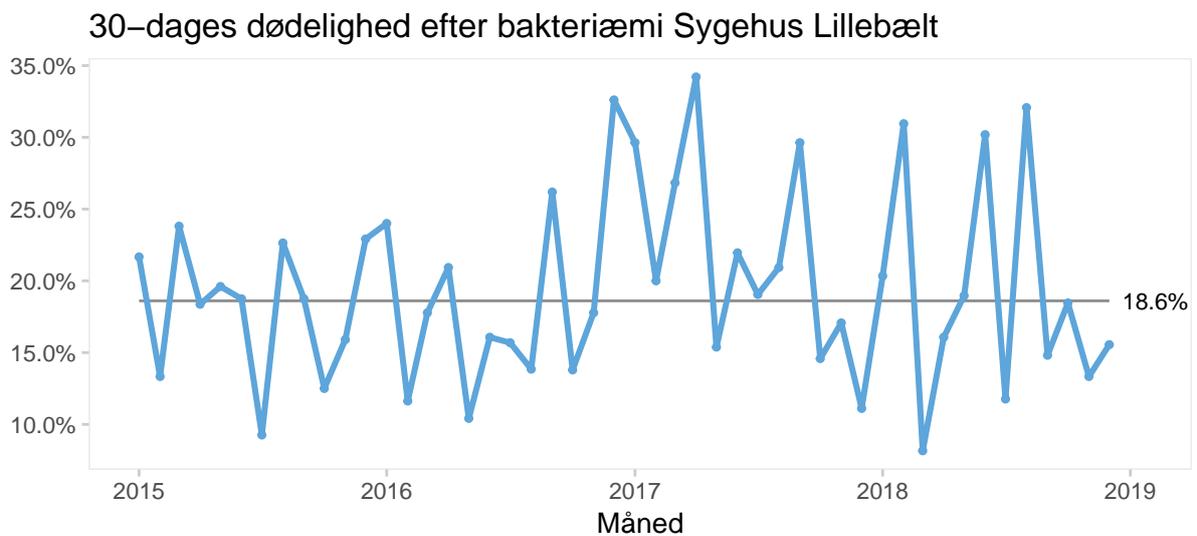
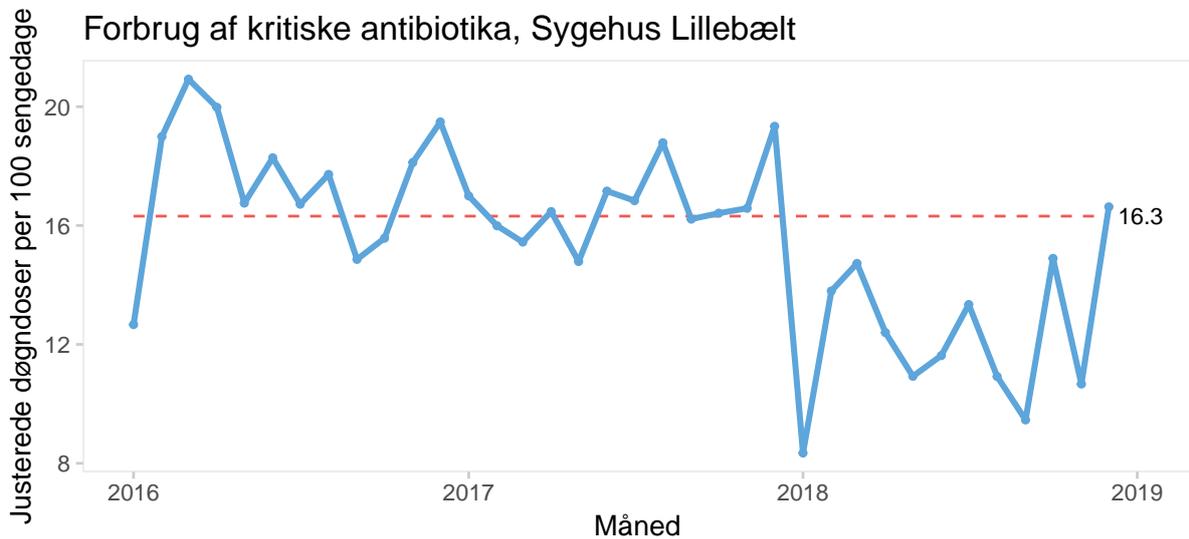
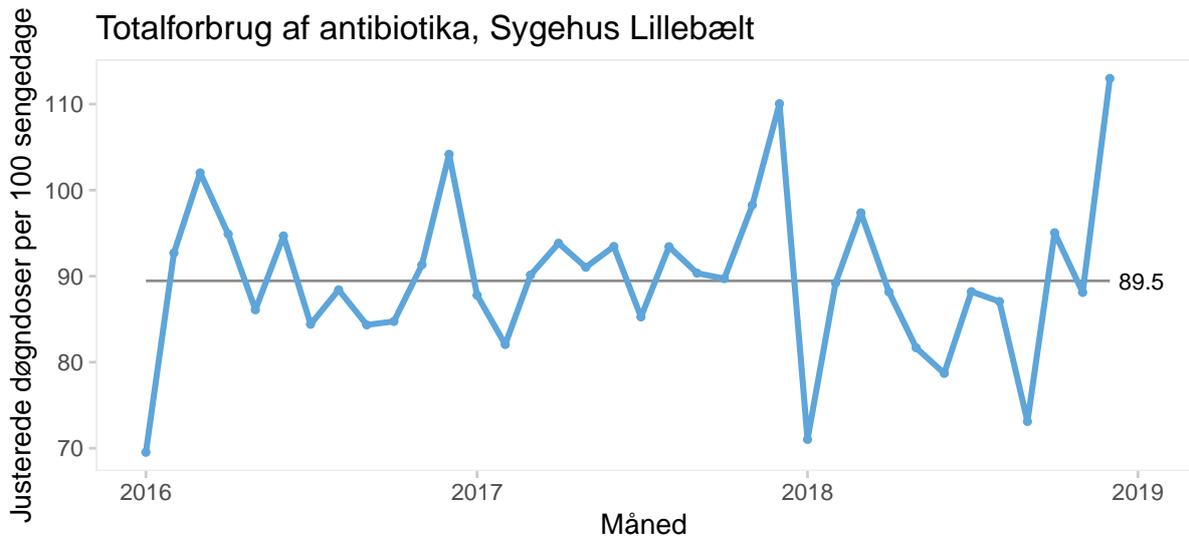
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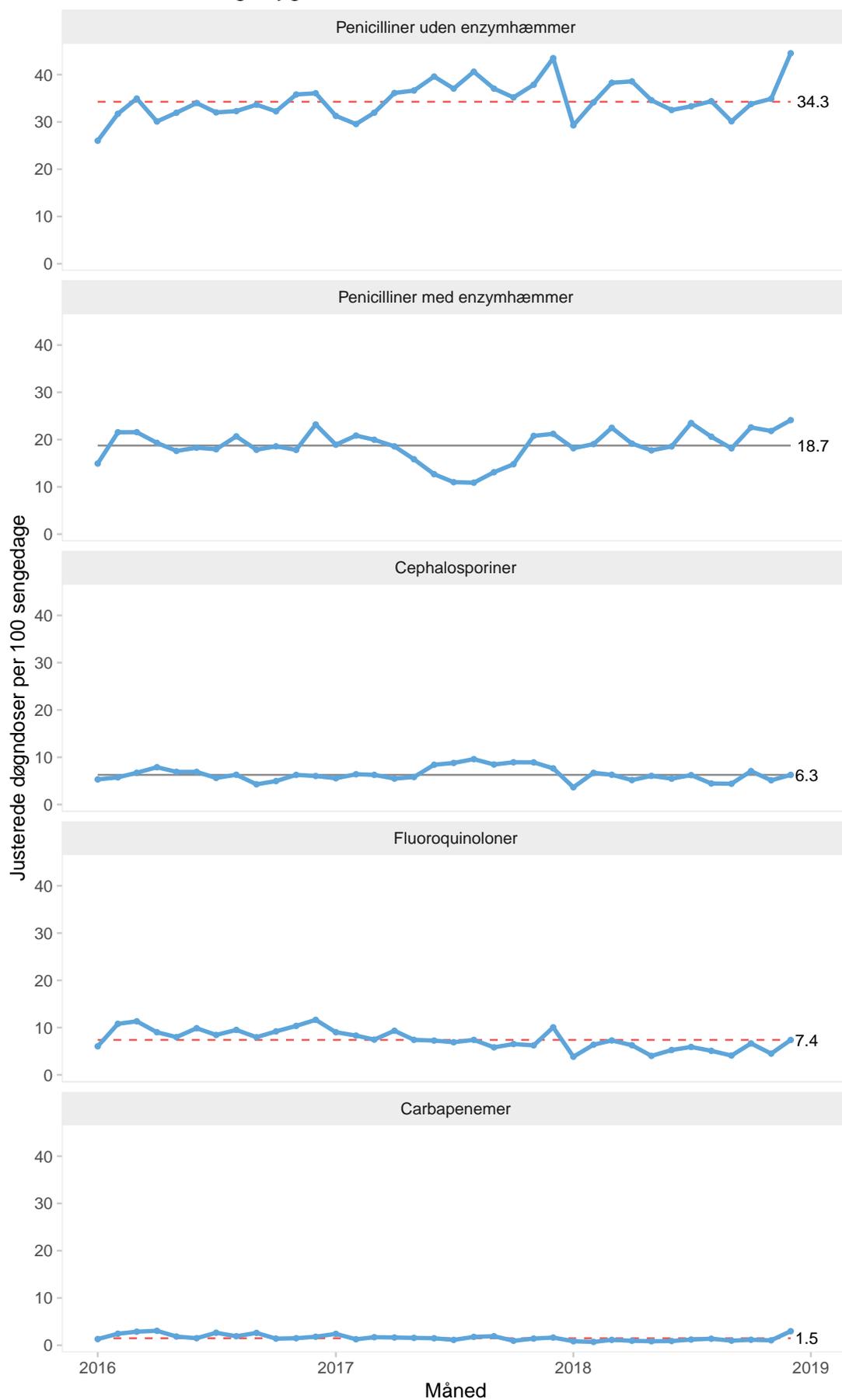
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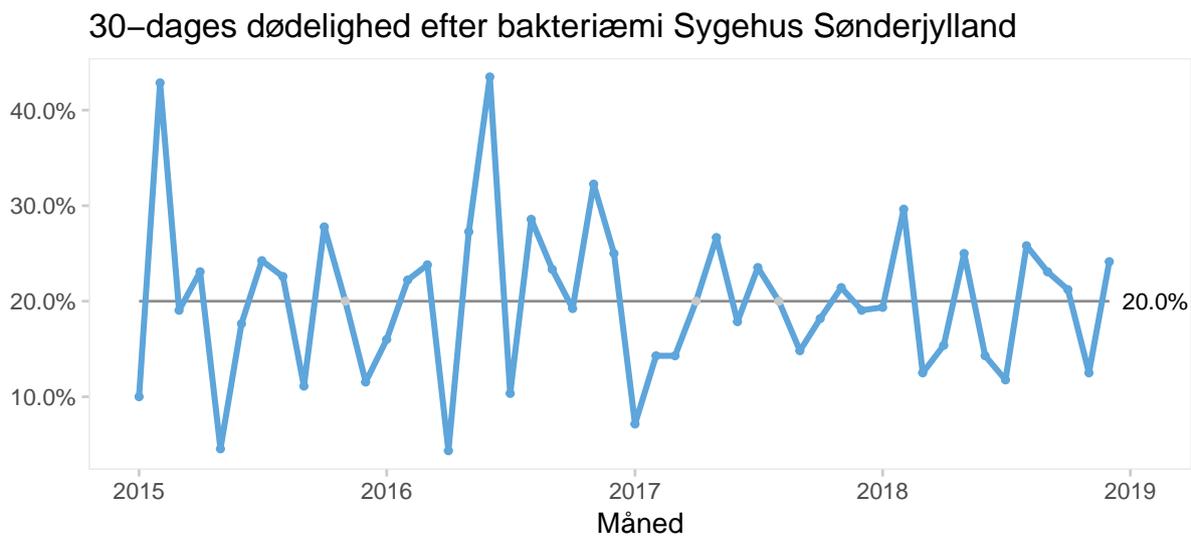
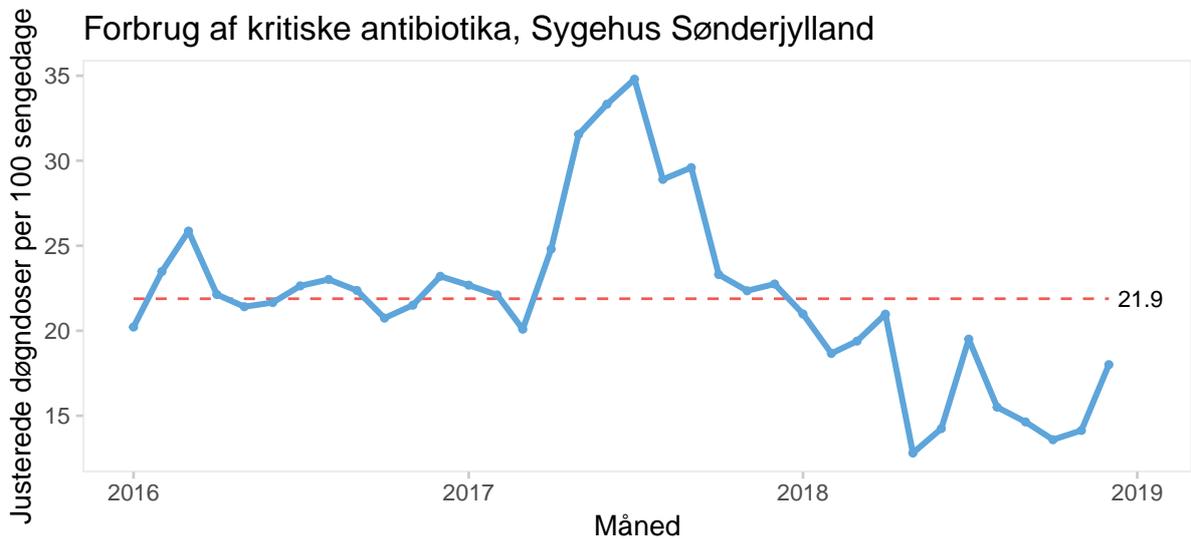
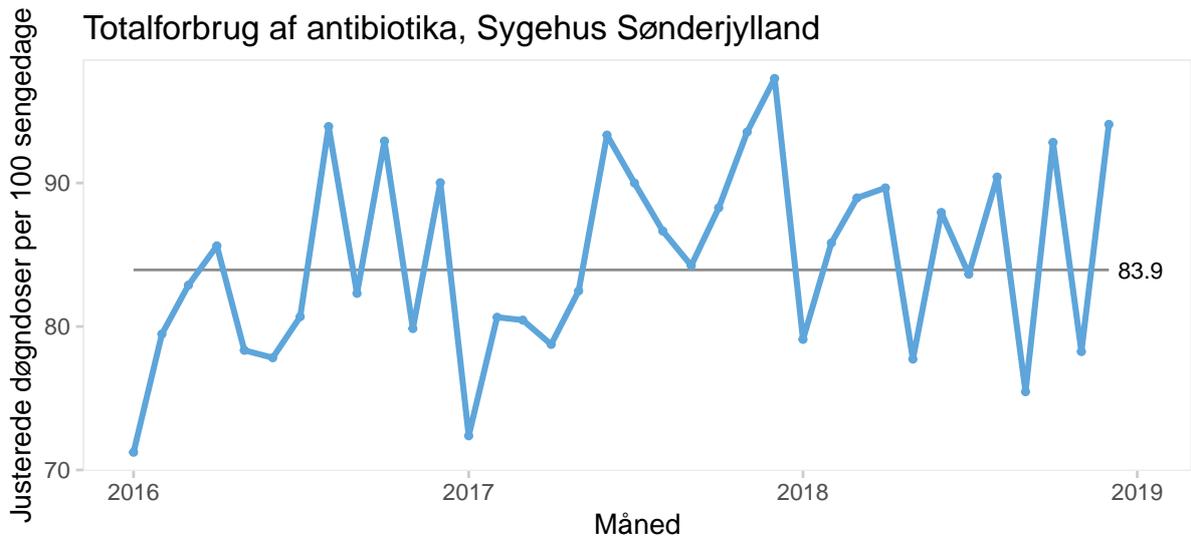
Sygehus Lillebælt



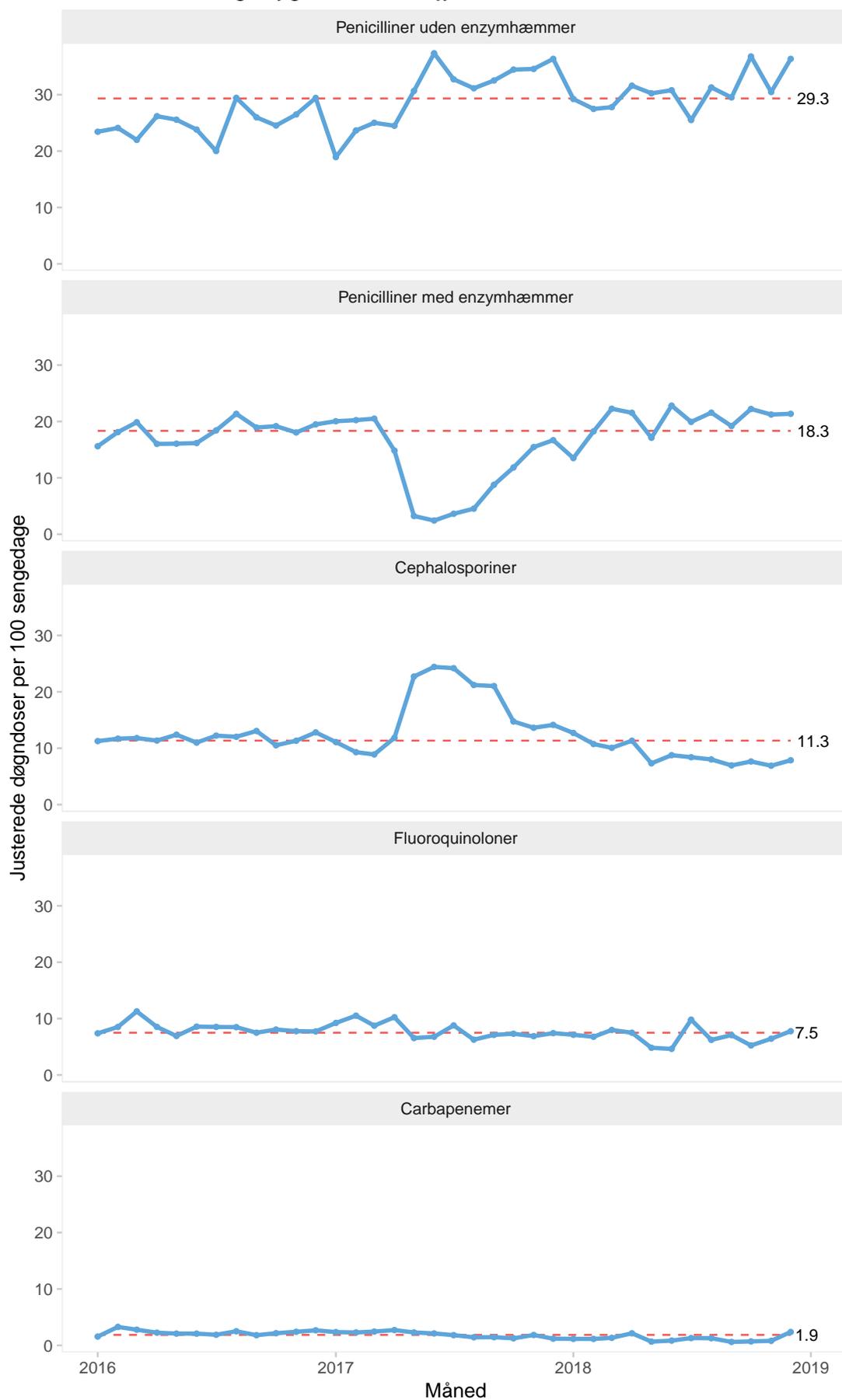
Antibiotikaforbrug, Sygehus Lillebælt



Sygehus Sønderjylland

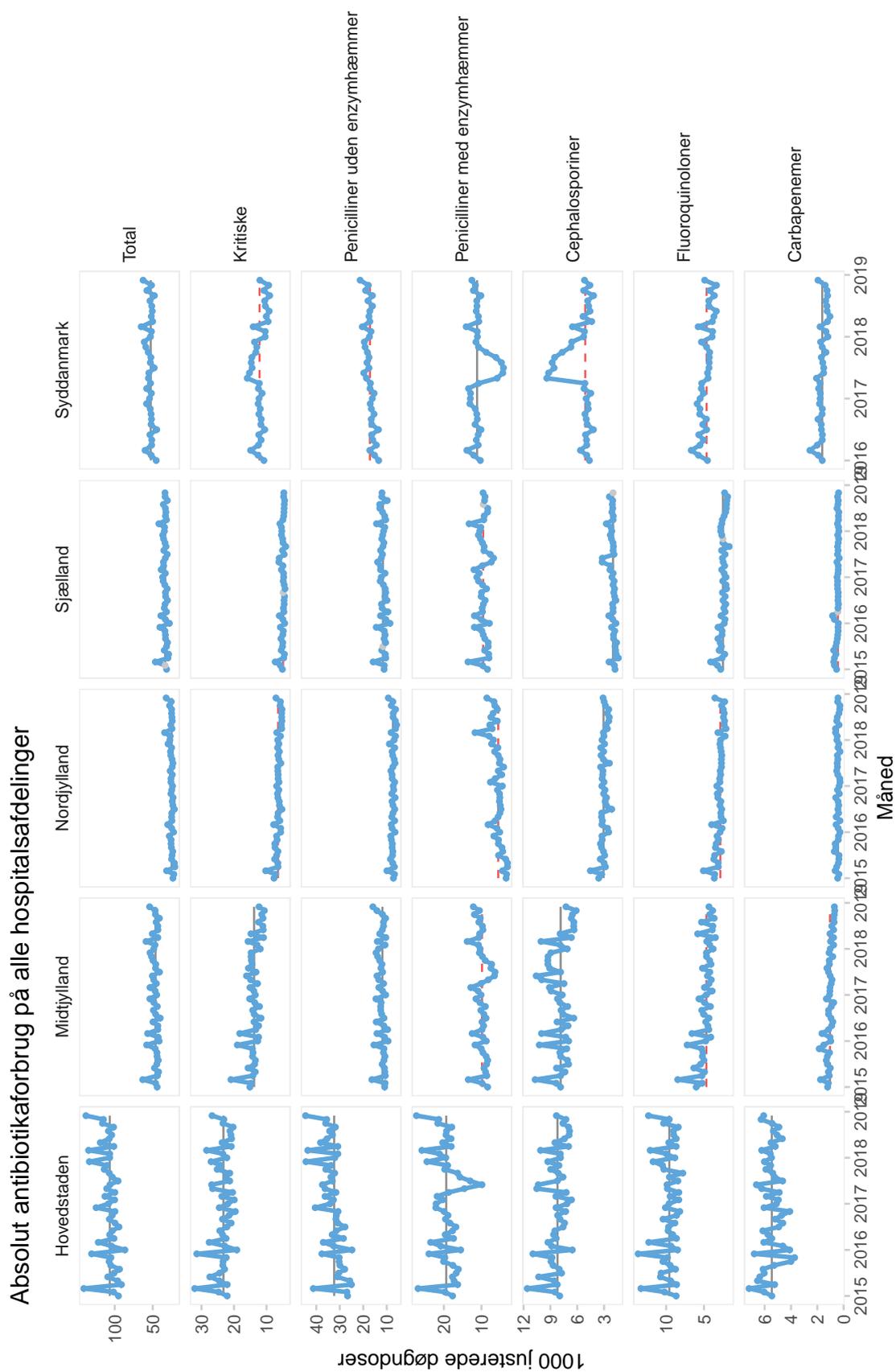


Antibiotikaforbrug, Sygehus Sønderjylland



Oversigter

Samlet regionalt antibiotikaforbrug



Regionalt antibiotikaforbrug på afdelinger som har LKT-teams

