

Reducing antibiotic prescription through dedicated and long-term work at national and local levels

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2018-11-29

Strama

The Swedish strategic programme against antibiotic resistance

Works to preserve antibiotics as powerful drugs since 1995

Strama-groups on national and local levels

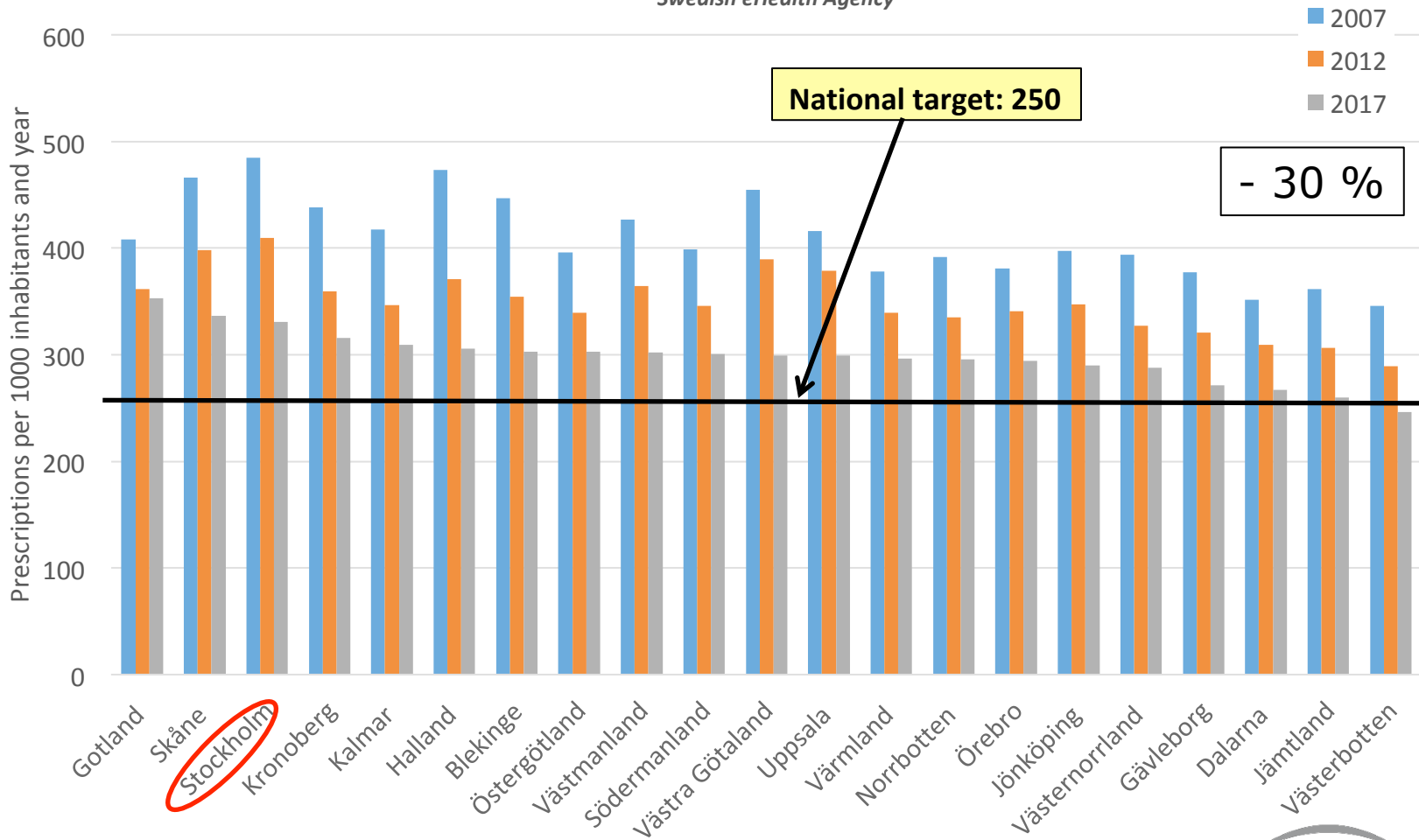


Strama Stockholm

- 2 Specialists in Family Medicine
- 1 Infectious Disease specialist
- 1 Pharmacist
- 1 Nurse

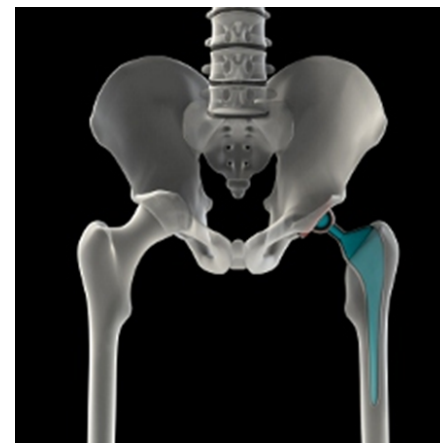
Antibiotic* prescriptions per 1000 inhabitants and year per county in Sweden 2007, 2012 and 2017

Swedish eHealth Agency



*J01 excl metenamin

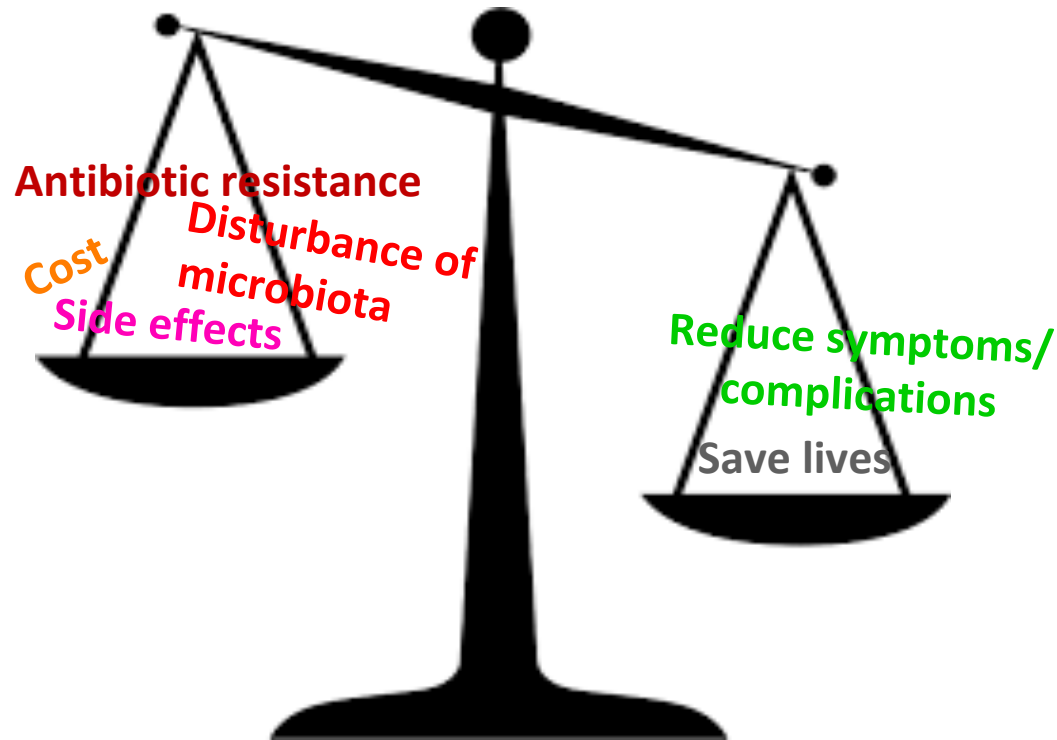
Modern health care at stake



Few new antibiotics in pipeline...



Never antibiotics without a good reason!



Many antibiotics on the list of environmentally hazardous pharmaceuticals

Substance	Substance
amoxicillin	glibenclamide
azithromycin	haloperidol
ciprofloxacin	irbesartan
citalopram/escitalopram	levonorgestrel
clarithromycin	meclozine
diazepam	oxazepam
diclofenac	risperidone
erythromycin	roxithromycin
estradiol	sertraline
ethinylestradiol	tetracycline
felodipine	trimethoprim
fluoxetine	venlafaxine
flupentixol	

Antibiotic resistance



Use of antibiotics



Spread of resistant
bacteria

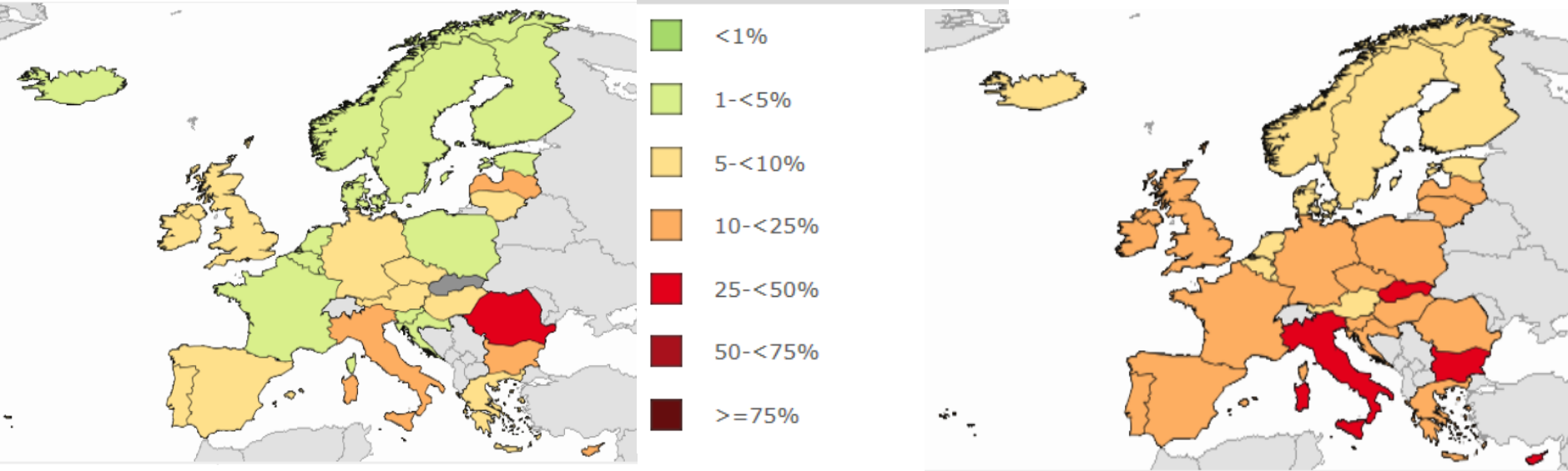
Proportion *E.coli* resistant to Third-generation cephalosporins in 2007 and 2017

2007

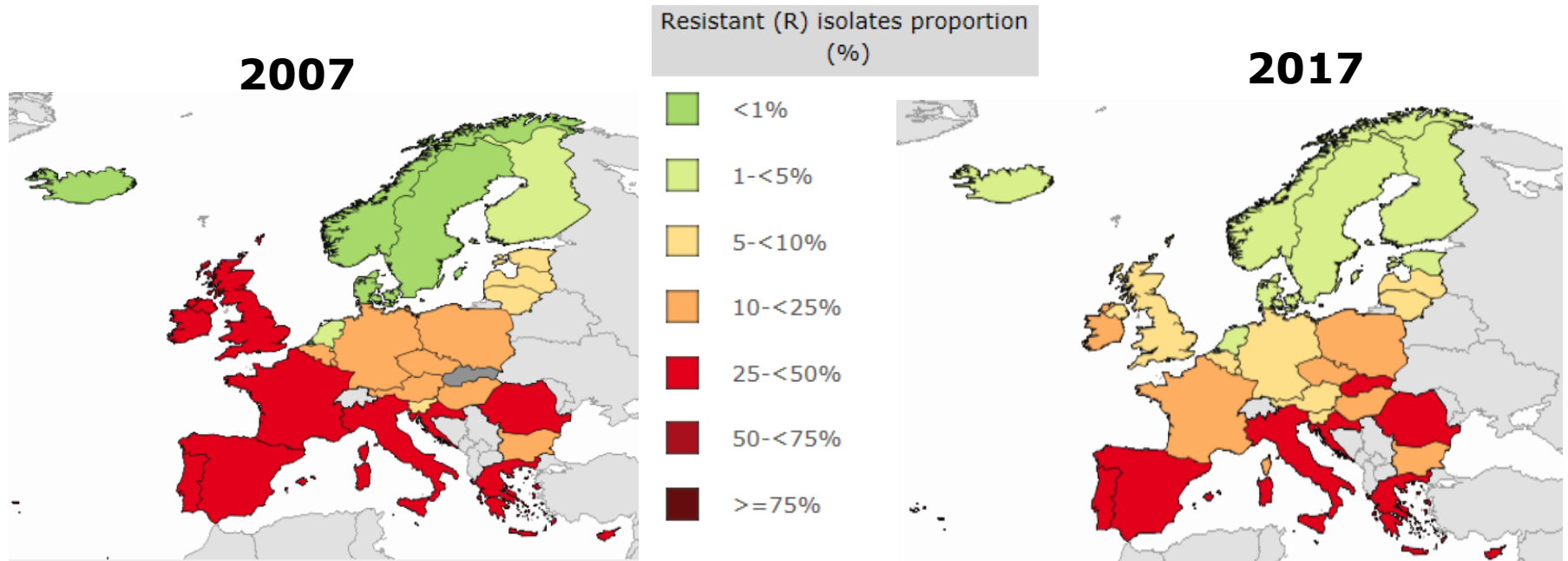
Resistant (R) isolates proportion (%)

- <1%
- 1-<5%
- 5-<10%
- 10-<25%
- 25-<50%
- 50-<75%
- $\geq 75\%$

2017



Proportion MRSA of all *S.aureus* in 2007 and 2017



Source: ECDC

So what does Strama do?



So what does Strama do?

1. Provides guidelines for treatment of common infections

National guidelines from Strama, the Public Health Agency and the Medical Products Agency

Primary care



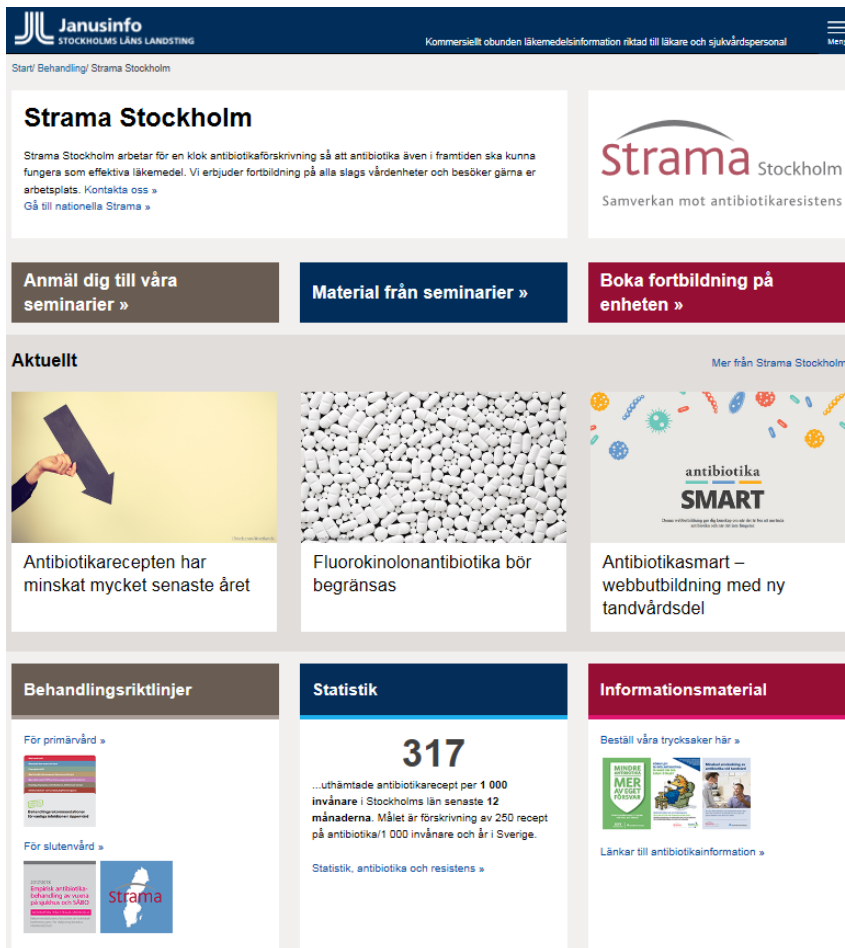
For smartphones

Hospital care

Primary care



www.stramastockholm.se



The screenshot shows the homepage of the Strama Stockholm website. At the top, there is a navigation bar with the 'Janusinfo' logo and the text 'STOCKHOLMS LÄNS LANDSTING'. Below this, the main content area is organized into several sections:

- Strama Stockholm:** A section with a description of the organization's mission to promote responsible antibiotic use and a link to contact them.
- Navigation buttons:** Three buttons for 'Anmäl dig till våra seminarier', 'Material från seminarier', and 'Boka fortbildning på enheten'.
- Aktuellt:** A section with three articles: 'Antibiotikarecepten har minskat mycket senaste året', 'Fluorokinolonantibiotika bör begränsas', and 'Antibiotikasmart – webbutbildning med ny tandvårdsdel'.
- Behandlingsriktlinjer:** A section for primary and specialist care guidelines.
- Statistik:** A section featuring a large number '317' and text indicating the number of antibiotic prescriptions per 1,000 inhabitants in Stockholm County.
- Informationsmaterial:** A section for ordering brochures and links to antibiotic information.

On the web!

So what does Strama do?

2. Educates doctors, nurses and other health care workers.

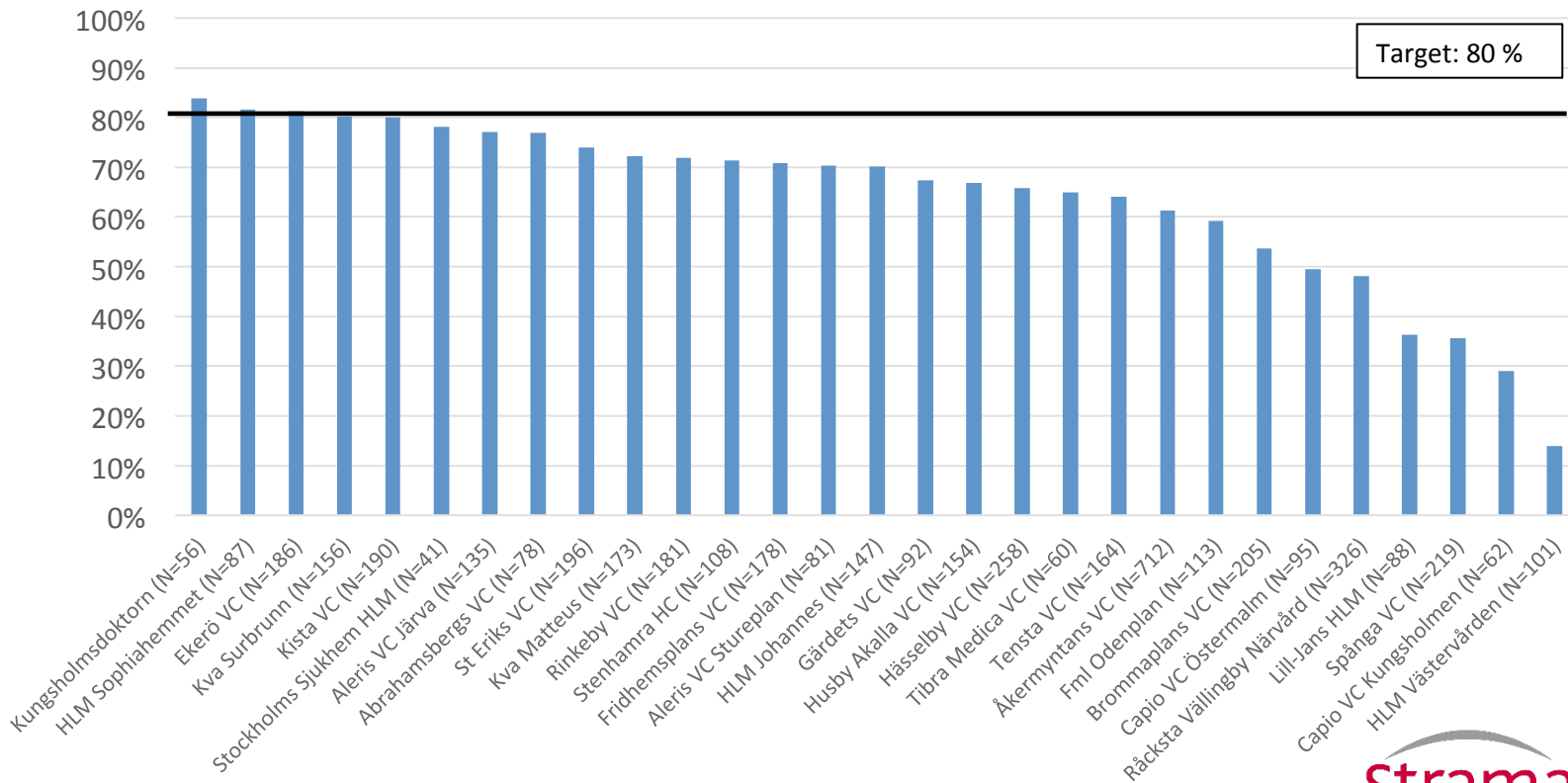
Visiting care units for short seminars with feedback on their own prescription



Benchmark!

29 Primary Health Care Centers: Patients with Tonsillitis - adherence to guidelines 2017

Strama Stockholm (N = number of patients with tonsillitis given antibiotics)



Target: 80 %

E-learnings for health care professionals



www.antibiotikasmart.se

Facts and case based quiz - antibiotics/infections

- Primary care
- Hospital care
- Dental care



Treating wounds – (www.sarsmart.se) antibiotics are overused

Quiz!



 sarsmart

STARTSIDAN GÖR EGNA VAL LÄS PÅ FÖRST OM SÅRSMART

Försök hitta det svarsalternativ som innehåller den mest angelägna åtgärden.

1/2

Vad blir din första tanke?

72-årig man med tidigare stroke. Nu ett sår på fotryggen sedan tre veckor. Den senaste tiden ökad smärta och sekretion ur såret. Temp 37,8.

Patienten behöver antibiotika

Jag tror att det är ett arteriellt sår

Såret ska läggas om

Jag tror att det är ett traumatiskt sår

3/10 Till resultat

So what does Strama do?

3. Provides and/or distributes information directed to patients/parents/the public

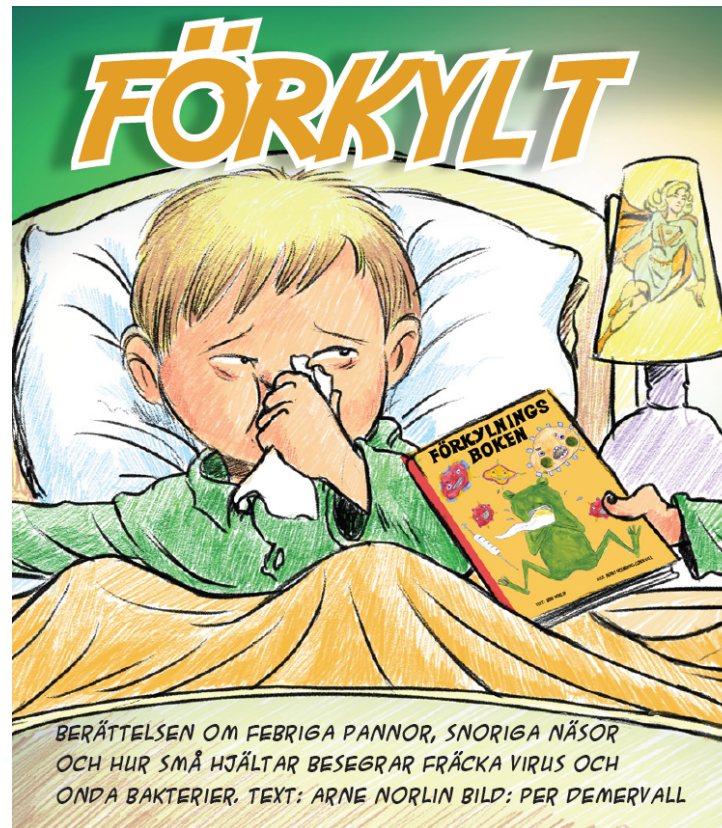
“Less antibiotics, more of your own defense”



Local campaign
in Stockholm

Brochure sent to 7 year olds

Fun facts about
bacteria, viruses,
vaccines and
common cold



Leaflets from the Public Health Agency



Are you suffering from a chest cold?

Bronchitis, also known as chest cold, is an inflammation of the main passages of the lungs. The mucus membranes in the airways from the throat to the lungs swell and become irritated. Coughing, the most common symptom, lasts for an average of three weeks. You may also have a fever, sore throat and runny nose.

Bronchitis is usually caused by a virus or occasionally by bacteria and it normally goes away on its own. Although annoying at times, coughing is the body's way of protecting the lungs. By coughing, the body gets rid of phlegm that would otherwise collect in lung tissue and cause more serious problems. Phlegm and expectoration also serve as a barrier that captures inhaled dust, bacteria and viruses. Because coughing is a protective mechanism, it will probably be the last symptom to go away before you fully recover. The irritation of the airways heals slowly, and this is also a reason for the prolonged period of coughing.

Antibiotic therapy

If you have healthy lungs, bronchitis does not require antibiotic therapy. Even if your illness is due to a common type of bacteria or mycoplasma, antibiotics won't speed up your recovery despite the fact that antibiotics are intended to fight bacteria rather than viruses.

Taking antibiotics when they aren't needed is a bad idea since they also affect the "good" bacteria in your body. Antibiotics can also have side effects, such as diarrhoea and skin rash. The use of antibiotics can also lead to bacterial resistance, which means that antibiotics won't have any effect when needed to fight serious infections.

However, antibiotics are sometimes necessary to treat your bronchitis if you already have another lung disease, such as chronic obstructive pulmonary disease, COPD.

Advice

- Pain relievers such as paracetamol or ibuprofen can alleviate fever and chest pain
- Cough medicines rarely have any effect when it comes to bronchitis
- Smoking makes the symptoms worse and increases the risk of recurrent difficulties

What to watch for

It usually takes two to three weeks before you fully recover from bronchitis. If you feel well except for a cough, you have no need to worry, particularly if you notice a gradual recovery.

If you develop new or more severe symptoms, or if you start to cough up blood or having difficulty breathing, contact your community health centre again. If the cough doesn't go away in 4 to 5 weeks, or if you have a recurring lingering cough several times a year, contact the health centre for a lung examination.

16.08.2010, 14.01.2011, 14.08.2011, 14.08.2011

E-learning: www.antibiotikaellerinte.se
(antibiotics or not)



Do you get better more quickly if you take antibiotics?

Antibiotics or not?

www.antibiotikaellerinte.se

What are viruses, bacteria and resistance?

Can unnecessary use of antibiotics be harmful?

Resistant bacteria, how do they affect me?

Modern healthcare without antibiotics?

OTITIS (ear inflammation)

Do you get better more quickly if you take antibiotics?



THROAT INFECTION

Do you get better more quickly if you take antibiotics?



CHRONIC COUGH

Do you get better more quickly if you take antibiotics?



SINUSITIS

Do you get better more quickly if you take antibiotics?



Everyone has a **ROLE TO PLAY**

You can help prevent antibiotic resistance

Preventing infection can reduce the use of antibiotics, and limit the spread of antibiotic resistance. Good basic hygiene is one of the most effective ways to reduce the risk of infection.



**World Health
Organization**

Thank you!

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www.strama.se