



Waste management

Patrik Jacobsson head of Facility management services Västernorrland County

Morning view from my house



About Västernorrland County



7,500 employees

Specialist care in 4 locations

33 health/medical centres

14 clinics for general dental care

10 specialist dental care clinics

Ambulance services

Medical education in collaboration with
Umeå University

Österåsen residential health centre

Hola Folk High School, Ålsta Folk High
School and Örnsköldsvik Folk High School

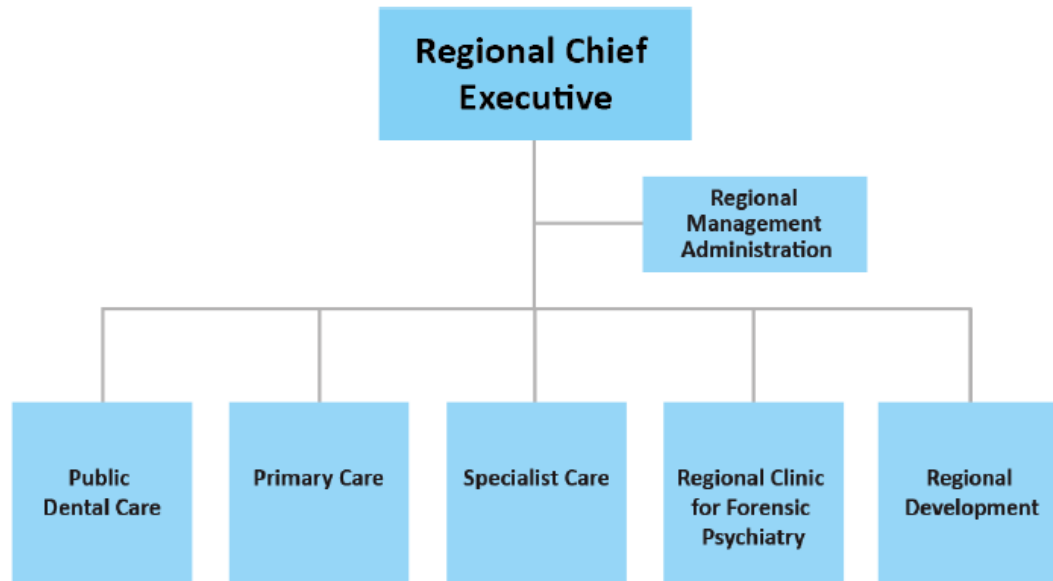
Västernorrland County



7 municipalities
245,525 inhabitants
(12 November 2018)

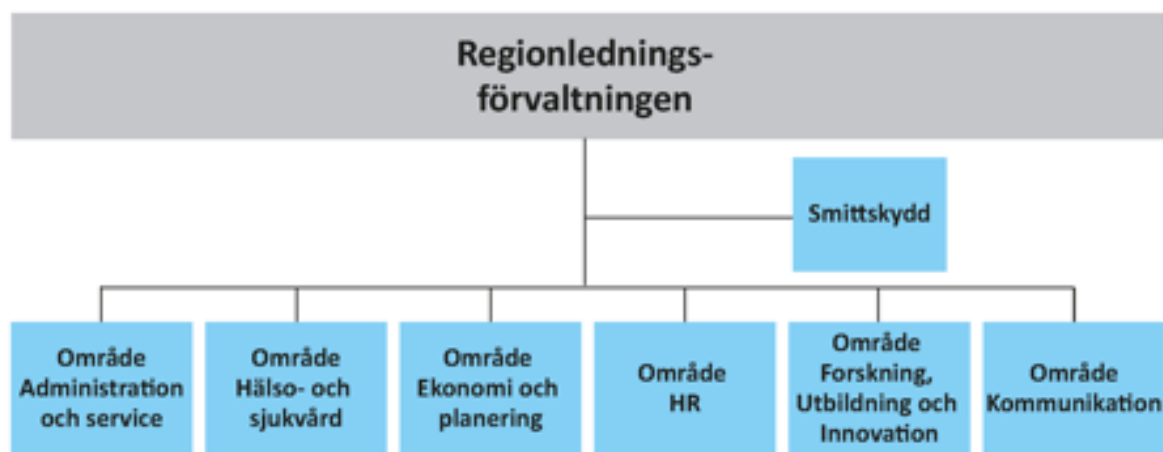
Administrative Organisation

Healthcare, dental care and regional development are the core activities of Region Västernorrland. These core activities account for just over 90 per cent of total activities.



Regional Management Administration

Regionledningsförvaltningen



Facility management

Transportverksamheten

Transportenheten Härnösand

Waste management

Textilhantering

Post extern och intern

Godsmottagning
Godsdistribution

Externa turbilar

Gashantering lösa flaskor

Mattransporter internt och
externt

Medicintransporter internt
och externt

Garage/Parkering

Passerkort/SITHS

Leasingbilar

Kontorsservice Regionens
Hus

Tryckeri Regionens Hus

Transportenheten Sollefteå

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och externt

Patienttransporter

Bårhus

Garage/Parkering

Hjälpmedelstransporter

Passerkort/SITHS

Leasingbilar

Vätskevagnar Sollefteå

Transportenheten Sundsvall

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Medicintransporter internt
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Patienttransporter

Nattvaktmästare

Garage/Parkering

Hjälpmedelstransporter

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Vätskevagnar Sundsvall

Transportenheten Örnsköldsvik

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Waste management Västernorrland County

Waste generation

Medical units in the Region generates different types of waste products such as:

- Recyclable waste such as plastics, glass, metal, paper etc.
- Chemicals used in cleaning and preserving of samples for examination such as spirits and other products.
- Highly toxic waste other than chemicals used in cancer treatment.
- Biological and infectious waste such as body parts and contaminated blood.

Waste generation statistics 2018 from hospitals and medical centers.

| | |
|------------------------------------|-------------|
| Recyclable waste, incl. food waste | 418 tonnes |
| Waste for energy production | 1105 tonnes |
| Hazardous waste | 51 tonnes |
| Non-recyclable waste | 4 tonnes |
| | |
| Total waste production | 1578 tonnes |
| Recyclable rate | 27% |
| Recyclable rate objective | 40% |



Waste handling

- Separation of waste at the source is our concept, units use the waste separation guide for support on how to categorise the waste. Separation is synonymous with recycling.
- All waste fractions is separated at health or administrative units and moved to storage locations within the hospital.
- Facility management personnel collect the separated waste fractions and prepare them and store them for disposal to recycling companies.
- Facility management personnel collect medical waste such as hazardous fractions in separate transport routes from medical units outside the hospital areas.

Waste transportation

- In our waste handling guide units are instructed how to prepare different waste fractions based on the hazard for transportation.
 - Instructions and documents at our internal website for all personnel.
 - Movie for instruction for units outside the hospital areas at internal website.
- Same instructions for preparing and packaging waste for all units within the Region.
- At external units outside the hospital areas Facility Management service personnel transport the hazardous medical waste fractions to the hospitals for storage and disposal.



Waste storage and disposal

- Municipal council handle the fraction of waste witch we can't recycle. The municipal council mainly use that fraction for heating houses and buildings in the city.
- Infectious waste is treated in heat (120 degrees Celsius) for a period of 5 hours and after that sent to the municipal council for disposal.
- Biological-, Chemical- and toxic waste is stored at the hospitals in the Region and private collectors are contracted by the county and responsible for waste disposal in special facilities.

Waste Re-use and recycling.

- Recyclable waste fractions are stored and picked up by contracted private collectors at the hospitals and units outside the hospital area.
- Food waste is used for biogas production.
- Re-use is an ambition within the organisation but sadly we see increasing volumes of throwaway/disposal products in waste fractions.

Recommendations

- Waste separation at generation points.
- Waste guide for all fractions for all personnel.
- Well educated facility management personnel in waste
- Make personnel aware of environmental effects of recycling and re-use of (some) products.
- Contract private collectors and set perimeters for handling and recycling within the contract.