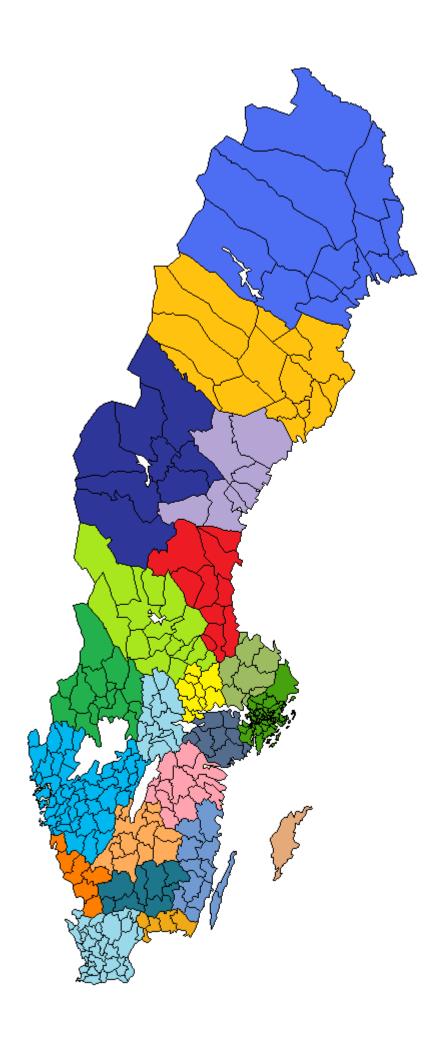
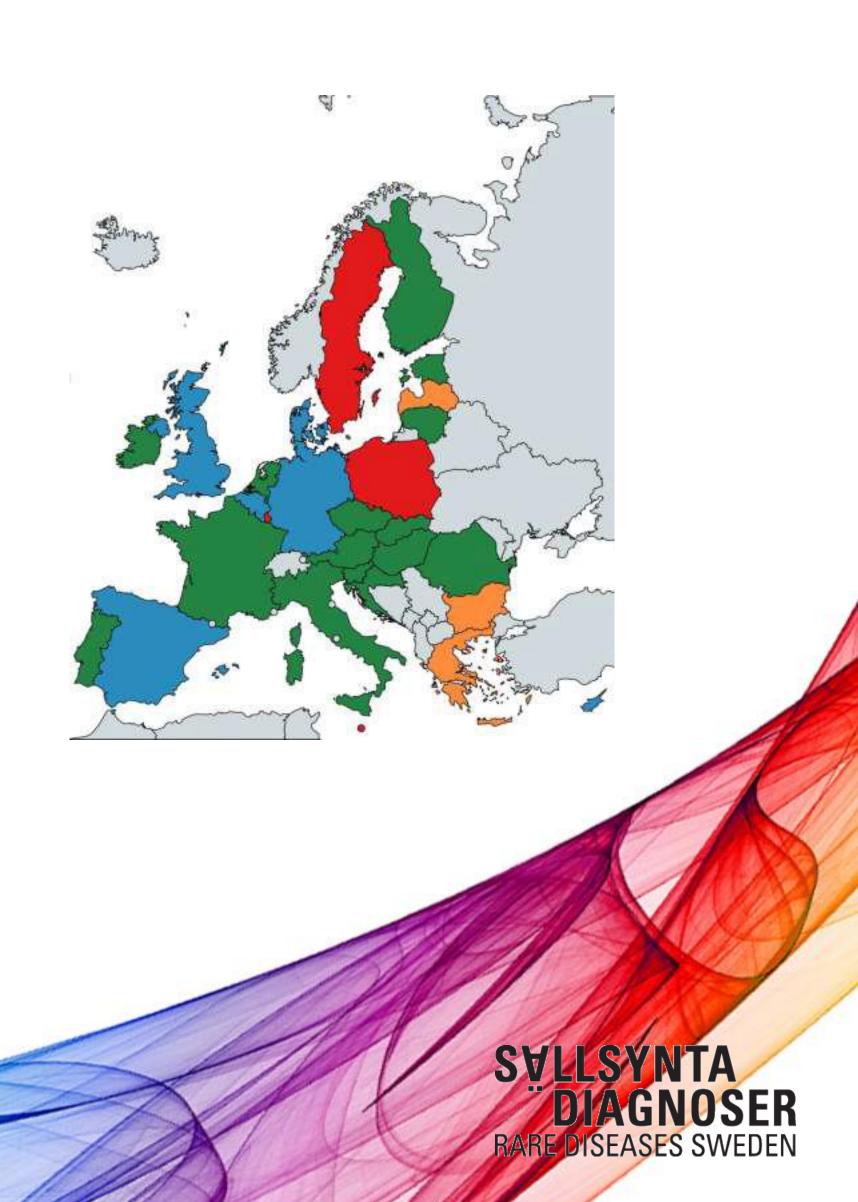


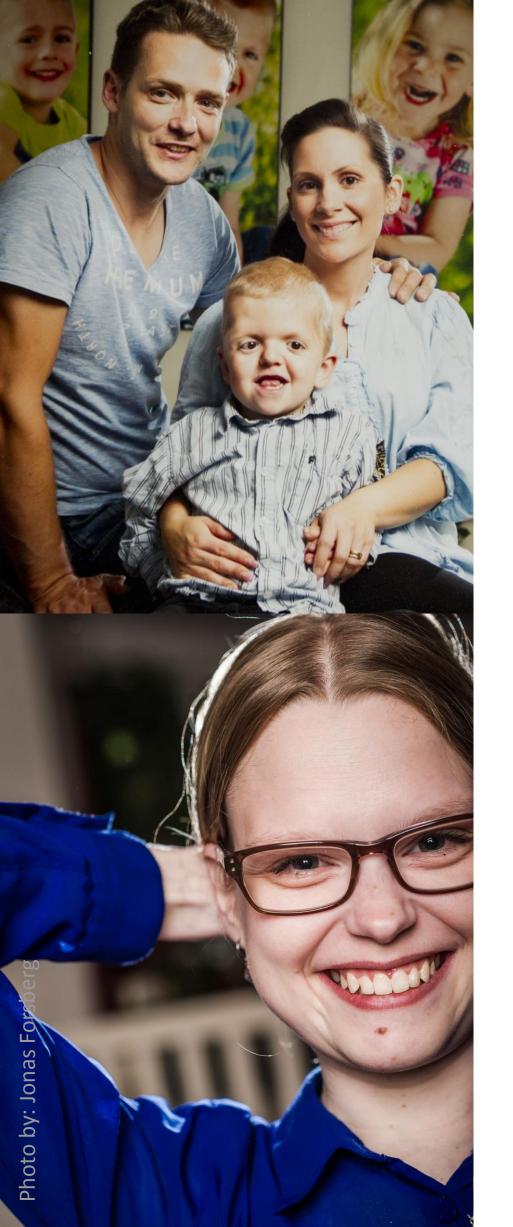
malin.grande@sallsyntadiagnoser.se stephanie.juran@sallsyntadiagnoser.se



Sweden

- A large country with few inhabitants and 21 county councils
- Third largest country in the EU (450 295 km²)
- 22 inhabitants per km²
 (10.2 mill people)
- One of the last 4 EUcountries without national plan for rare diseases





Rare Diseases in Sweden

- 1 in 10 000 people
- Roughly 5% of Sweden's population is assumed to have a rare disease
- 30 mill in Europe, 350 mill all over the world

National alliance - Rare Diseases Sweden

More than 15.000 members from 65 patient organizations

Complex syndrome diagnoses (multi-disciplinary, healthcare system

lacks expertise, often miss-/undiagnosed)

www.sallsyntadiagnoser.se



Transition to adult healthcare – member voices



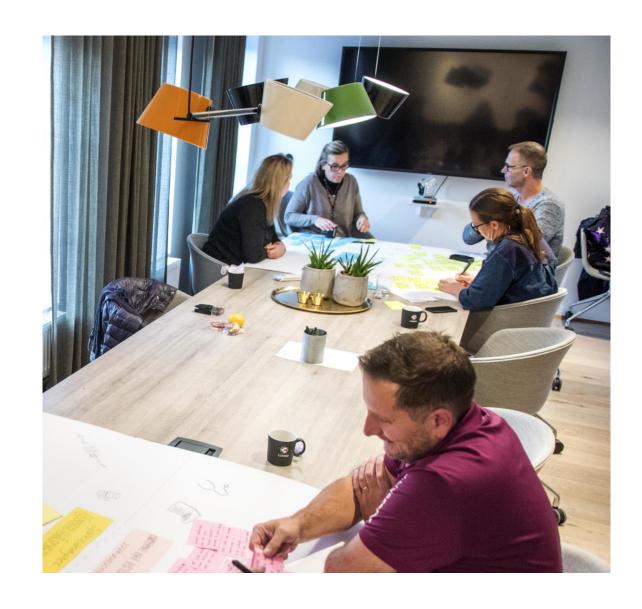
Adolescents with rare diseases:

- Longing for independence
- Need to talk to independent third party individual



Adolescent with PKU:

- Child care until age of 20
- Who are my contacts now?
- Are there PKU experts?
- How to contact them?
- With whom to discuss sensitive matters?



Their parents:

Loss of knowledge

- In the healthcare system
- Among parents

Development of transition tools:

STEP 1

Understanding the problem

STEP 3

Alphapilot real-world test with 8 patients in the healthcare system



STEP 2

Transition-experiences; how it was and how we want it

Finding tools to improve the transition

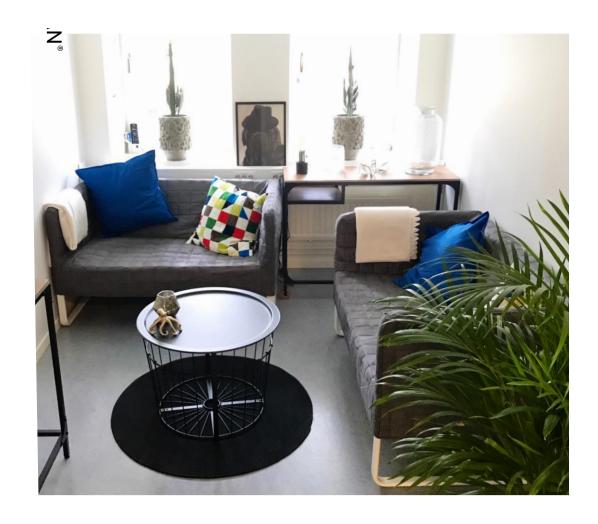
Develop and test prototypes

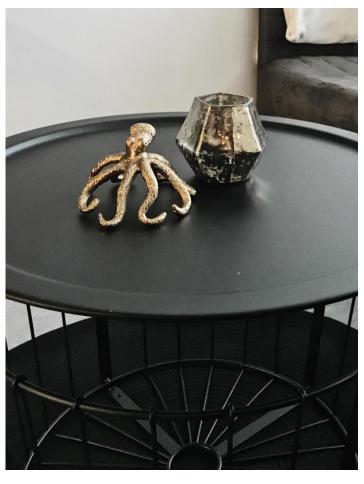
SYLLSYNTA DIAGNOSER RARE DISEASES SWEDEN

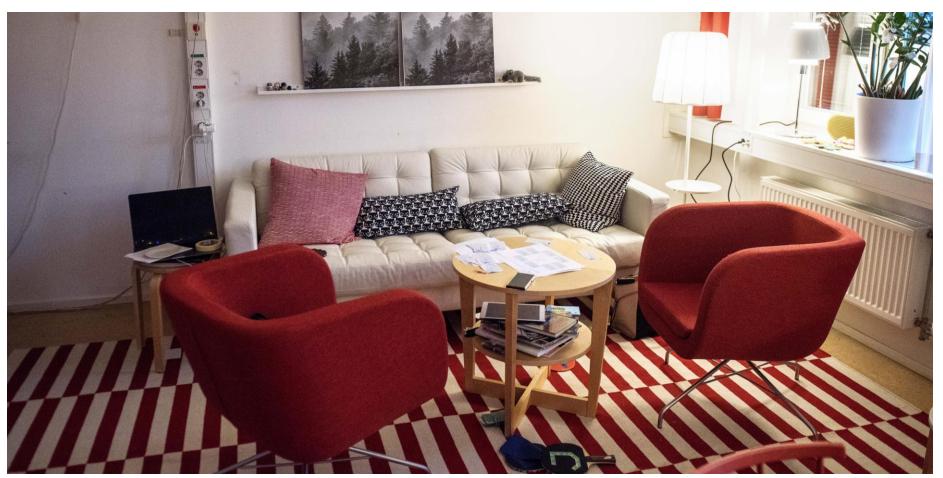


Transition - coordinator

- e.g. nurse or healthcare counselor
- several meetings during transition
- knows the healthcare system and the different professions involved
- knows how to identify and get help from the right persons
- insightful and with good counceling skills
- knowledgeable about living with a rare disease
- experienced in and open for searching information from a vide variety of areas, following the adolescents' needs







Transition room

- let the adolescent go into the room to get accustomed to the location and pick a spot to sit
- to come to the meeting alone or with parents
- dim and cozy lighting
- have some music playing when entering
- provide toy widget to occupy adolescent during meeting

scientist

How often: as needed

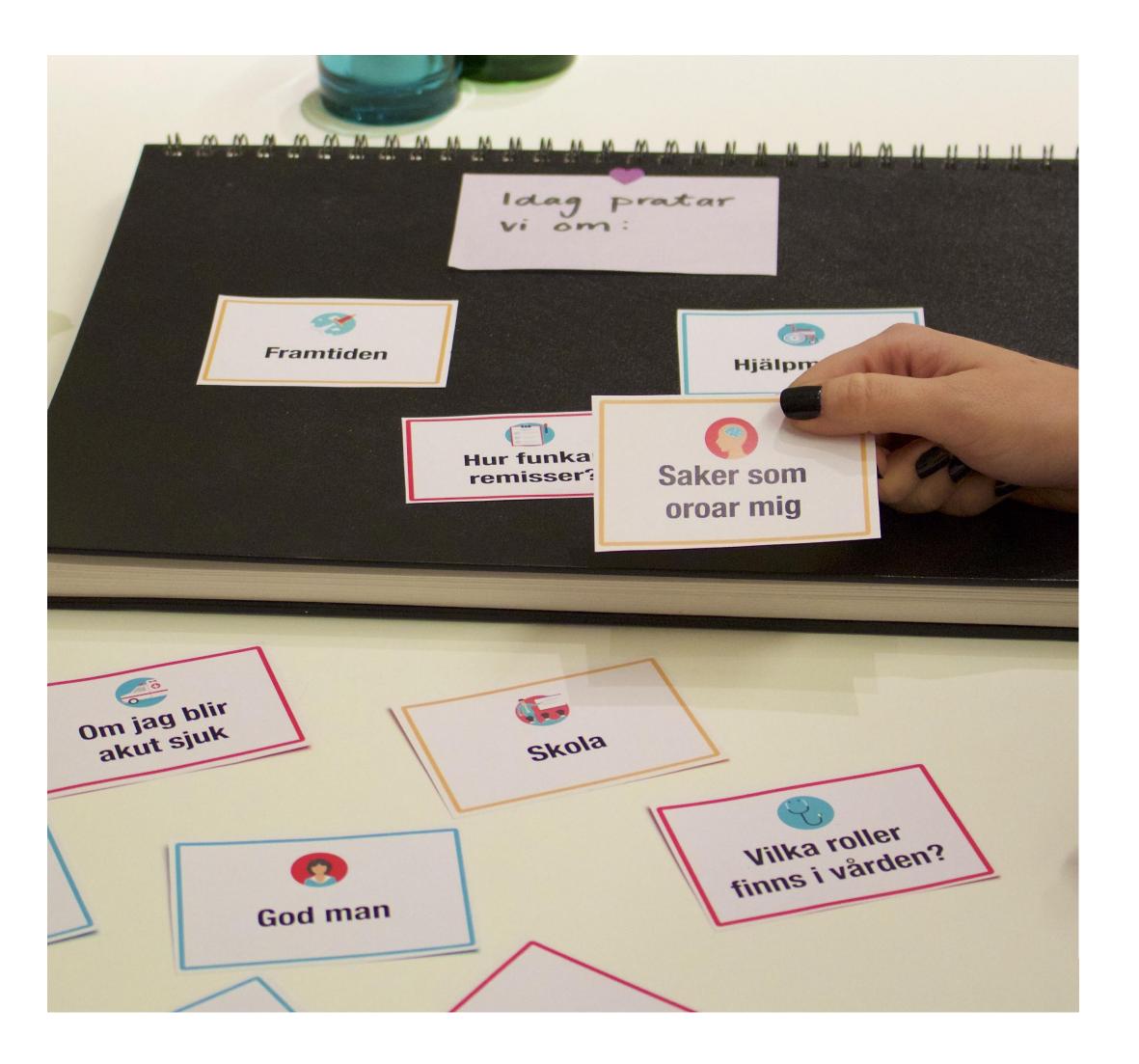
Educational advice Dietitian Why: Parenting, family relation Why: Food composition, What: Guidance and help nutrients Who: Anna Svensson, What: Advisory services Who: Anna Hansson Pedagogue How often: once a year How often: as needed Pedago-Food gue **Psychologist** Why: Cognitive development What: Cognitive testing Who: Hanna Svensson How often: twice a year **Blood** Cognition **Adolescent with** a rare disease GP / lab Why: Check phenylalanine What: Blood sample Who: Johan Johansson, MD How often: once a year Social Cooking service counselor Kitchen assistant Counselor Why: Help navigating between Why: Help with low-protein food healthcare and social services preparation Who: Anders Andersson, Social What: Inspiration

Who: Hanna Hansson

How often: as needed

Care map

- visualisation of all healthcare contacts and their function
- possibility to group/organize all contacts if required
- aids in understanding of who does what among the healthcare contacts
- makes it easy to "replace" pediatric with adult healthcare contacts
- gives opportunity to talk about diagnosis and its consequences: Where? What for? Who? How often?
- our vision: develop a digital version



Conversation cards

Grouped in four categories:

- my healthcare
- my life
- people who support me
- my diagnosis

Adolescent gets the opportunity to talk about diagnose-related questions but also worries about the future.

Alphapilot

Alphapilot, August - December 2017



Center for rare disease Linköping University hospital



1 transition coordinator With transition tools and cozy room



4 adolescents with a rare disease about to transit from child to adult healthcare and one parent



Center for rare disease Karolinska University hospital



1 transition coordinator With transition tools and cozy room



4 adolescents with a rare disease about to transit from child to adult healthcare

Alphaphilot: Meetings with the adolescents

Letters from transition coordinator to 8 adolescents

1st meeting:

- Get to know each other

- First information 2nd meeting

- Get to know each other

- Planning



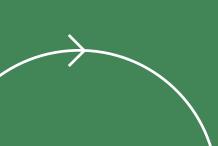








Communication between meetings mainly text messages



Meetings, in person or video chat:



Working with care map and diagnose



What access do I have to my healthcare data



Dialogue, optional topics from conversation cards



Understanding one's diagnose



Independent meetings with the healthcare system



Information

From the

system

healthcare



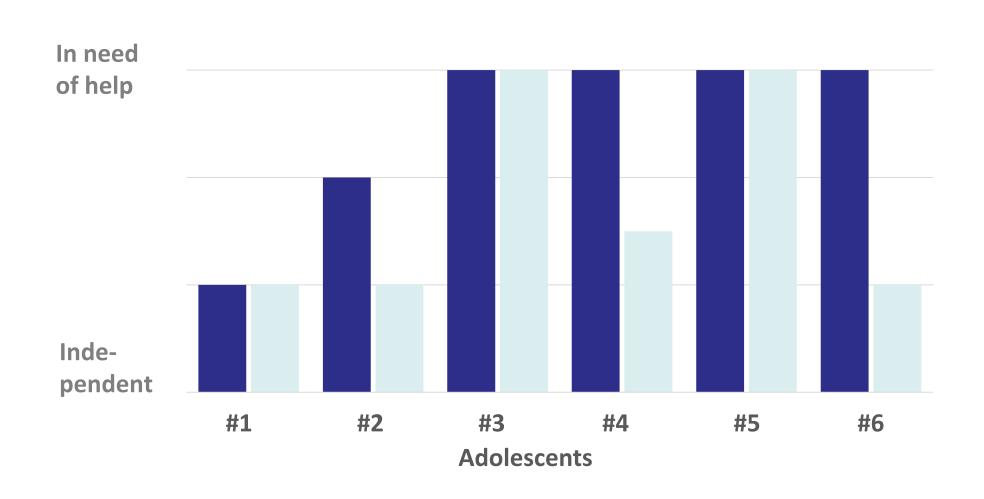




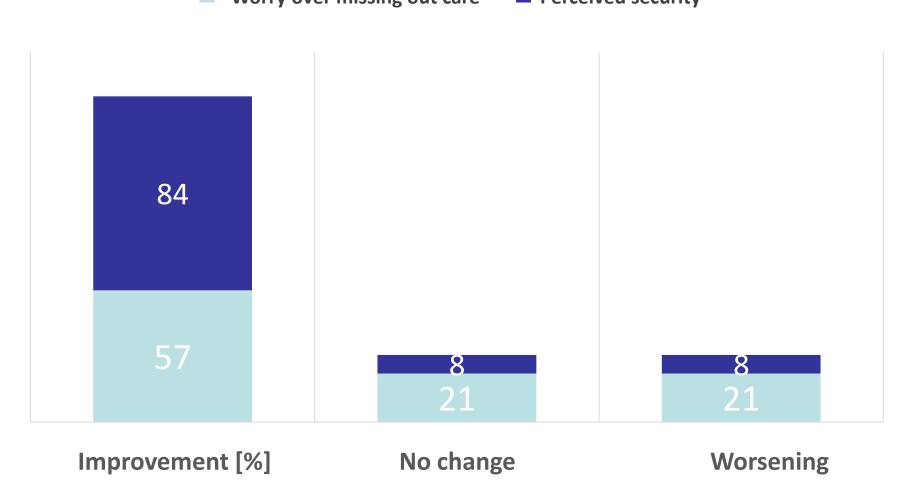


RESULTS ADOLESCENTS

Perceived degree of independence







Results Adolescents:

Increased independence

Increased knowledge about one's diagnose and healthcare contacts

Had important dialogues about relevant topics

Results Parents:

Describe adolescents as more independent
Report increased feeling of security
Reduced concern about adolescents healthcare
Wish to continue the transition project

Björquist, E. (2016). *Mind the gap. Transition to adulthood* http://lup.lub.lu.se/record/8871323 Gorter et al. (2011). Youth in transition. doi:10.1111/j.1365-2214.2011.01336.x



Take-home message

Helping adolescents with a chronic disease in their healthcare transition has the potential to improve their future health and their independence and will relieve their parents.

- Four promising tools:
 - ✓ Transition coordinator
 - ✓ Transition room
 - ✓ Care map
 - ✓ Conversation cards

• Easy to implement for a variety of healthcare-professionals :

- ✓ Specialist/school nurses
- ✓ General practitioner (GP)
- ✓ Other healthcare counselor
- **✓** ...

Future prospects: getting digital!



Adolescents with a chronic illness

an important group with increased health-risks

Adolescent-friendly health services

Need to provide adequat information, a safe and supportive environment and adequate counselling services:

- Confidential, respectful, professional, friendly and obliging
- Showing an open attitude
- Accessible services (technical solutions)
- Appealing health facilities

/ WHO 2012 / Making health services adolescent friendly

Adolescents

Are self-centered, adventurous, willing to take risks, prefer quick rewards, focused on peers

A life-phase where good & bad habits develop; the basis for NCDs (non-communicable diseases)

This leads to Increased health risks at 15-24 years

Adolescent with a chronic disease

- Worse medical and disease management
- Risk to develop secondary NCD

/ WHO 2012/ Adolescent health and development

Chronic diseases / NCDs

- Reduced life expectancy and quality
- account for an estimated 86% of the deaths and 77% of the disease burden in Europe
- Increase risk for early retirement, unemployment, receiving welfare benefits, lower income
- Have negative impact of up to 6.77% on a country's GDP

/ WHO 2010 / Tackling chronic disease in Europe

Chronic diseases in adolescents

Negative outcomes already seen in adolescents

- More problems in school and jobs
- Smaller social networks
- Less independent
- Less physical active
- Increased mental health problems
- More dependent on welfare benefits
- Higher risk for unemployment
- Worse economic

/ WHO 2007 / The Adolescent with a Chronic Condition

- Adolescents in general need specific guidance towards a healthy lifestyle
- > This is much more important for adolescents with a chronic illness

SYLLSYNTA DIAGNOSER PARE DISEASES SWEDEN

Literature

- WHO 2006 systematic review showing that user friendly and appealing health services lead to (substantial) increase in the use of health services by adolescents
- WHO (2007). The Adolescent with a Chronic Condition Epidemiology, developmental issues and health care provision. WHO Discussion Papers on Adolescence. Retrieved from http://apps.who.int/iris/bitstream/10665/43775/1/9789241595704_eng.pdf
- WHO 2010: Tackling chronic disease in Europe: The WHO's project **The Global Burden of Disease** estimates incidence, prevalence, severity and duration, and mortality for more than 130 major causes. It includes data since 2000 for WHO member countries http://www.euro.who.int/ data/assets/pdf file/0008/96632/E93736.pdf
- WHO 2012: making health services adolescent friendly http://apps.who.int/iris/bitstream/10665/75217/1/9789241503594 eng.pdf
- WHO (2015a). Core competencies in adolescent health and development for primary care providers. Retrieved from http://www.who.int/maternal_child_adolescent/documents/core_competencies/en/
- WHO (2015b). Global standards for quality health care services for adolescents. Retrieved from http://www.who.int/maternal_child_adolescent/documents/global-standards-adolescent-care/en/
- Ambresin, A.-E., Bennett, K., Patton, G. C., Sanci, L. A., & Sawyer, S. M. (2013). Assessment of Youth-Friendly Health Care: A Systematic Review of Indicators Drawn From Young People's Perspectives. Journal of Adolescent Health, 52(6), 670-681. doi:https://doi.org/10.1016/j.jadohealth.2012.12.014
- Björquist, E. (2016). Mind the gap. Transition to adulthood youths' with disabilities and their caregivers' perspectives. (PhD), Lund University Retrieved from http://lup.lub.lu.se/record/8871323
- Gore, F. M., Bloem, P. J. N., Patton, G. C., Ferguson, J., Joseph, V., Coffey, C., . . . Mathers, C. D. (2011). Global burden of disease in young people aged 10–24 years: a systematic analysis. *The Lancet*, 377(9783), 2093-2102. doi:https://doi.org/10.1016/S0140-6736(11)60512-6
- Gorter, J. W., Stewart, D., & Woodbury-Smith, M. (2011). Youth in transition: care, health and development. Child Care Health Dev, 37(6), 757-763. doi:10.1111/j.1365-2214.2011.01336.x
- Guy, G. P., Jr., Yabroff, K. R., Ekwueme, D. U., Smith, A. W., Dowling, E. C., Rechis, R., . . . Richardson, L. C. (2014). Estimating the health and economic burden of cancer among those diagnosed as adolescents and young adults. Health Aff (Millwood), 33(6), 1024-1031. doi:10.1377/hlthaff.2013.1425
- Roebroeck, M. E., Jahnsen, R., Carona, C., Kent, R. M., & Chamberlain, M. A. (2009). Adult outcomes and lifespan issues for people with childhood-onset physical disability. Developmental Medicine & Child Neurology, 51(8), 670-678. doi:10.1111/j.1469-8749.2009.03322.x
- Teunissen T, Visse M, de Boer P, Abma TA (2011). Patient issues in health research and quality of care: an inventory and data synthesis. Health Expectations, 16, pp.308–322. doi: 10.1111/j.1369-7625.2011.00718.x
- Tylee, A., Haller, D. M., Graham, T., Churchill, R., & Sanci, L. A. (2007). Youth-friendly primary-care services: how are we doing and what more needs to be done? The Lancet, 369(9572), 1565-1573. doi:https://doi.org/10.1016/S0140-6736(07)60371-7
- Verhoof, E., Maurice-Stam, H., Heymans, H., & Grootenhuis, M. (2012). Growing into disability benefits? Psychosocial course of life of young adults with a chronic somatic disease or disability. Acta Paediatrica, 101(1), e19-e26. doi:10.1111/j.1651-2227.2011.02418.x
- Viner, R. M., Coffey, C., Mathers, C., Bloem, P., Costello, A., Santelli, J., & Patton, G. C. (2011). 50-year mortality trends in children and young people: a study of 50 low-income, piddle GNOSEF income, and high-income countries. The Lancet, 377(9772), 1162-1174. doi:https://doi.org/10.1016/S0140-6736(11)60106-2

