Primary and secondary hepatitis prevention and control programmes **The Netherlands**

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Burden of disease

- HBV and HCV notifiable in Public Health Law
  - HBV: acute and chronic (since 1976)
    - ≈250 acute and ≈1700 chronic cases per year
    - Acute HBV incidence /100,000 in 2009: **1.2** (men 1.9, women 0.5)
  - HCV: since 1999 acute+chronic, since 2003 acute only
    - acute cases per year **34** in 2004 to **52** in 2009
- Prevalence data
  - HBV 0.1% (Nationwide seroprevalence study, 1996)
    0.3% (Pregnancy screening, 2008)
    0.4% (Amsterdam N=1300, 2004)
  - HCV 0.1% (Nationwide seroprevalence study 1996)
    0.2% (Regional study N=2200, 2006)

Vaccination strategy (1)

- National Immunisation programme
  - Infants from HBsAg+ mothers (since 1989)
  - Infants with parent(s) from endemic country (since 2003)
    $\longrightarrow$ 17% of birth cohort
  - All infants by 2012
- Specific patient groups
  - Hemophiliacs, dialysis patients, institutionalised mentally handicapped, chronic liver disease
- Occupational risk groups
  - Healthcare workers, dentist, tattooist, acupuncturist, etc.

Vaccination strategy (2)

- Behavioural risk groups (since 2002)
  - Drug users
  - MSM
  - Sex workers
  - Heterosexuals STI check-up (up to 2007)

Reached through STI clinics, public health services, drug user services, outreach strategies, internet

Vaccination strategy

Results

- Risk groups: 5 year period (2002-2007)

	1st vac	vaccination coverage estimate
MSM	18,510	6% (4–7%)
DU	13,482	39% (17–60%)
SW	9,391	25% (19–30%)
Heterosex	39,297	17% (13–21%)
Total	**80,680**	**12% (8–15%)**

- Compliance 80% (2 vac), 62% (3 vac)

Reference: van Houdt R et al. Hepatitis B vaccination targeted at behavioural risk groups in the Netherlands: does it work? Vaccine 2009;27(27):3530-5.

Screening strategy

GOALS

Hepatitis B: current nationwide programmes

- Pregnancy screening
  - Primary prevention to newborns
- Behavioural risk groups
  - Screening prior to vaccination, identify susceptibles
- Contact screening
  - Vaccination of susceptible contacts
  - Identification of new HBsAg infections

→ **main reason primary prevention**

Screening strategy

GOALS

Hepatitis B → secondary prevention

- Screening of migrants for hepatitis B (and C)

  Regional projects
  - Chinese (Rotterdam 2009, The Hague 2010)
  - Turks (Arnhem 2009, Rotterdam 2010)

  Further implementation of projects for Chinese in other cities (2010)

HBV screening campaign

Results

- Target group: Chinese population in Rotterdam
  - Outreach campaign: awareness and onsite testing
  - 1,100 tested (13 activities in 3 months)
  - 92 HBsAg+ (8.4%)
  - 35 HBeAg+ or elevated ALT (38% of HBsAg+)
  - 15 started antiviral treatment (16% of HBsAg+)

Screening strategy

GOALS

Hepatitis C → secondary prevention

- Projects for drug users (since 2004)
- National Hepatitis C Campaign
  - Target groups: General population, drug users, migrants
  - Pilot projects 2007/2008
  - 6 month campaign period (Sept 2009-Feb 2010)
  - Radio, local newspapers, website
  - Flyers in GP practices, pharmacies, hospitals, drug user serv.
  - Awareness activities for drug users and migrants

National HCV campaign (1)

Results

- Target group: general public
  - Website and online risk assessment tool
    - 80.000 visitors → 16.500 completed risk assessment
  - GP training and support in 6 largest cities
  - Increase in HCV testing observed
    - Mainly in regions with GP support (+26%)
  - Increase in percentage test positive
    - Highest in GP support regions (5.8%, +16%)

National HCV campaign (2)

Results

- Target group: drug users
  - 715 screened → 176 (25%) HCV positive
  - 35% of positives (n=62) started treatment (by May 2010)

Treatment strategies

- Guideline for referral from primary to secondary care
- Dutch treatment guidelines (2008)
- Treatment covered by health insurance

Screening strategy

Lessons learnt

- Ensure referral to secondary care
- Enhance existing programmes
  - Pregnant women → refer to specialist before third trimester
- HCV campaign increased testing through GP's
- Migrants can be reached with outreach campaigns

Screening strategy

Challenges (1)

- Combine hepatitis B and C screening
- Expand to all migrants from endemic area's
- Upgrade from local projects to nationwide level
- From projects to structural approach
- Funding
- Define best screening practices

Screening strategy

Challenges (2)

- **Need for data to support policy making!**
  - Compliance to screening criteria (Wilson&Jungner) Potential harms and benefits
  - Impact of various alternative screening strategies e.g. systematic, opportunistic, outreach
  - Cost effectiveness evaluation
    → long term clinical follow up data needed