Strategies for Implementing New CDC Guidelines for HCV in Baby Boomers

2012 Texas Viral Hepatitis Summit
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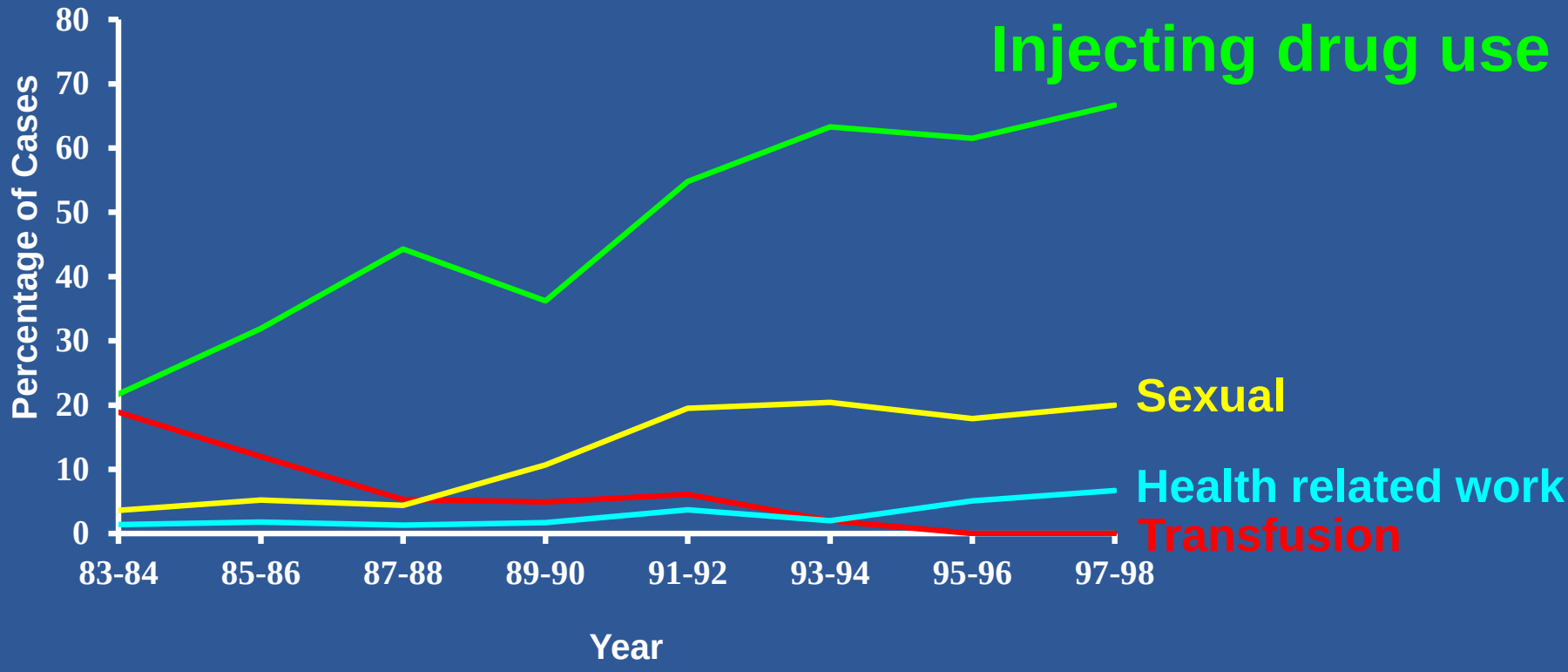
Hepatitis C

- Most common reason for liver transplant in USA (40% of 5000 last year)
- Over 4 million infected in USA
- 1 out of 30 Babyboomers has it
- 70% do not know they have it
- 60-85% go on to have chronic liver disease
  - 5-20% develop cirrhosis within 20 years
  - 3% per year of these develop HCC
  - Treatment with interferon began in 1986 (virus identified in 1989)

Reported Cases of Acute Hepatitis C by Selected Risk Factors, United States



*** 1983-1990 based on non-A, non-B hepatitis**

Source: CDC Sentinel Counties Study

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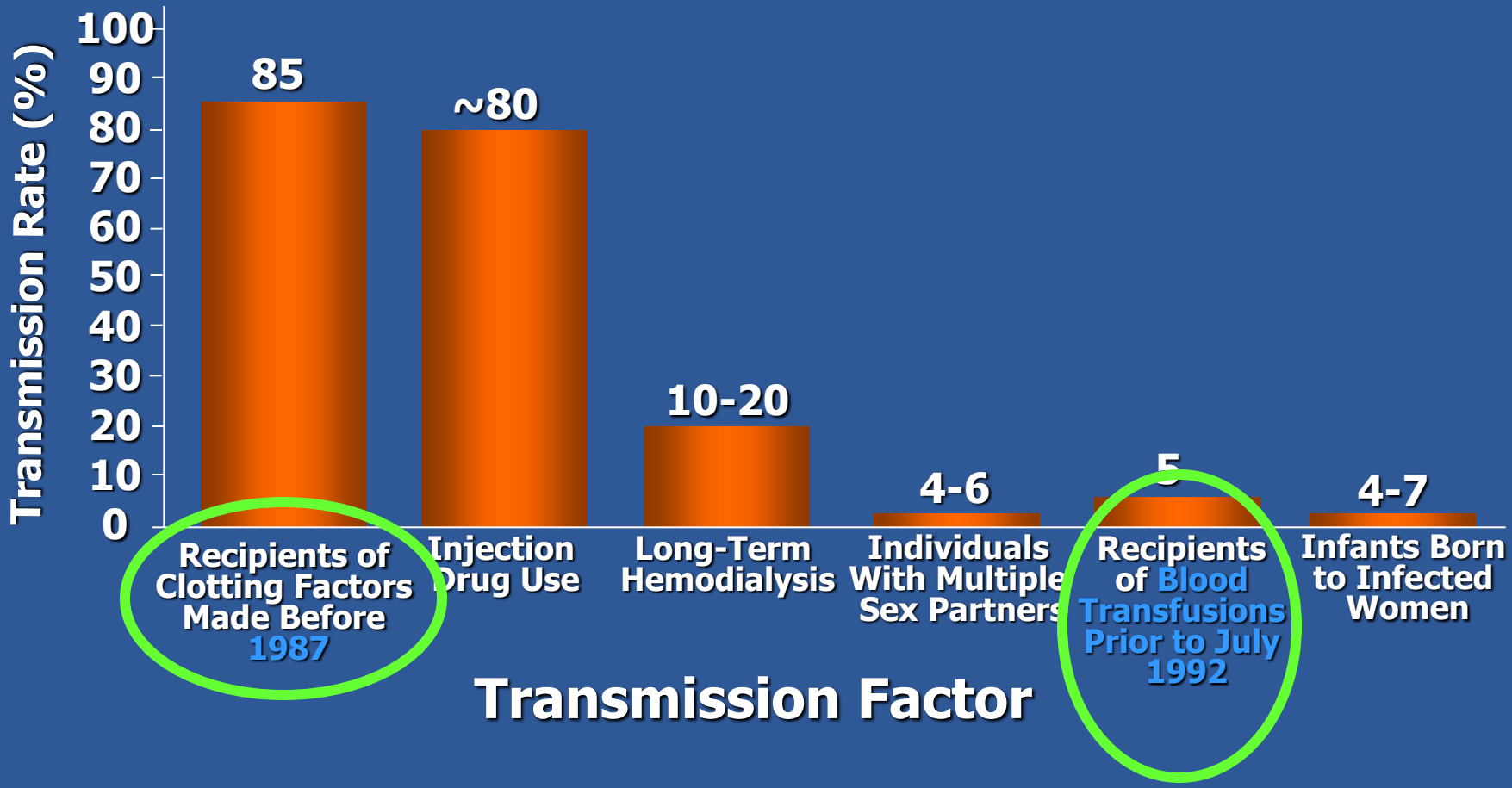
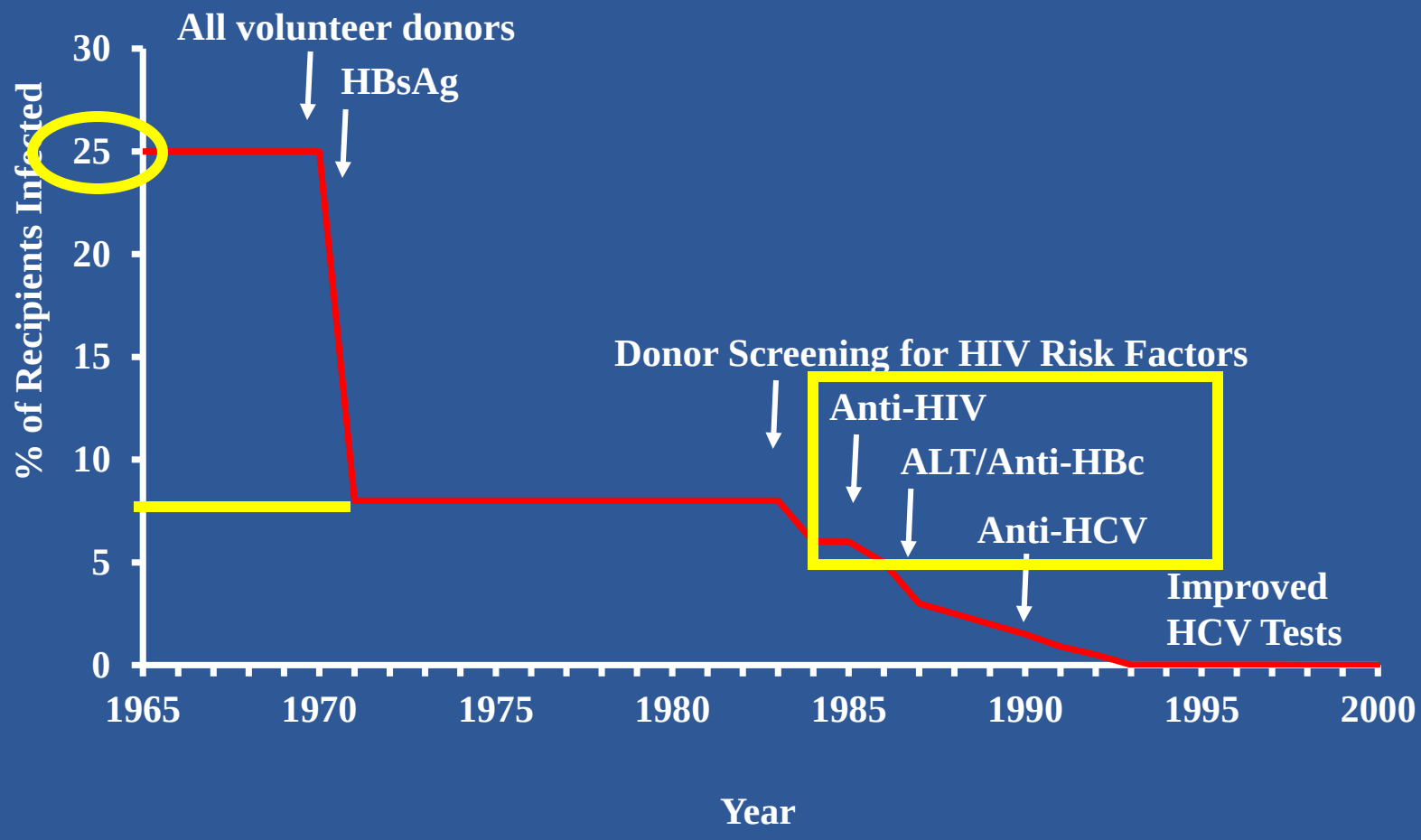
Hepatitis C Virus
High Risk Profile



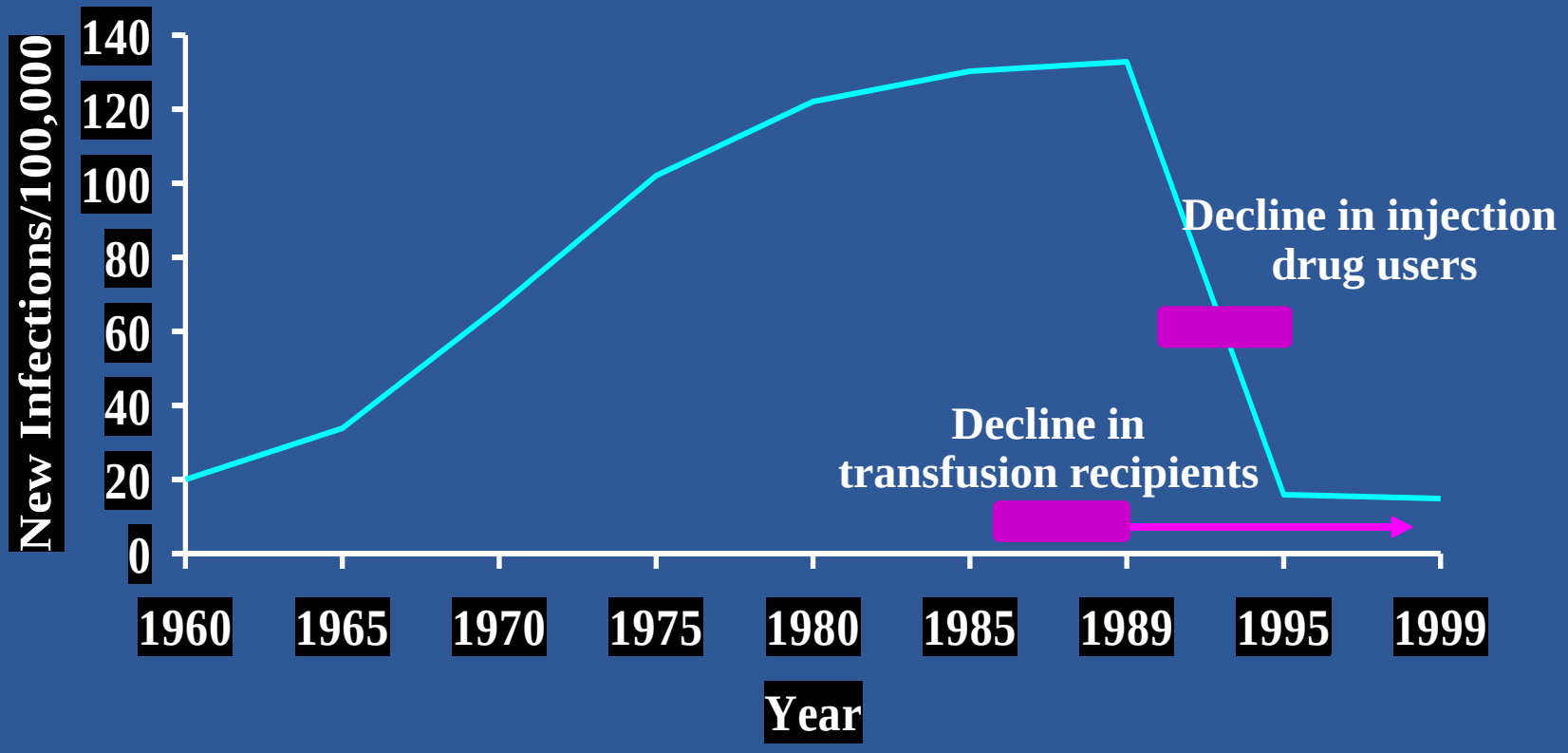
Alter et al. *N Engl J Med*. 1999;341:556-562.
NIH Consensus Development Conference Statement. 2002.
Ohto et al. *N Engl J Med*. 1994:330:744-750.

Posttransfusion Hepatitis C

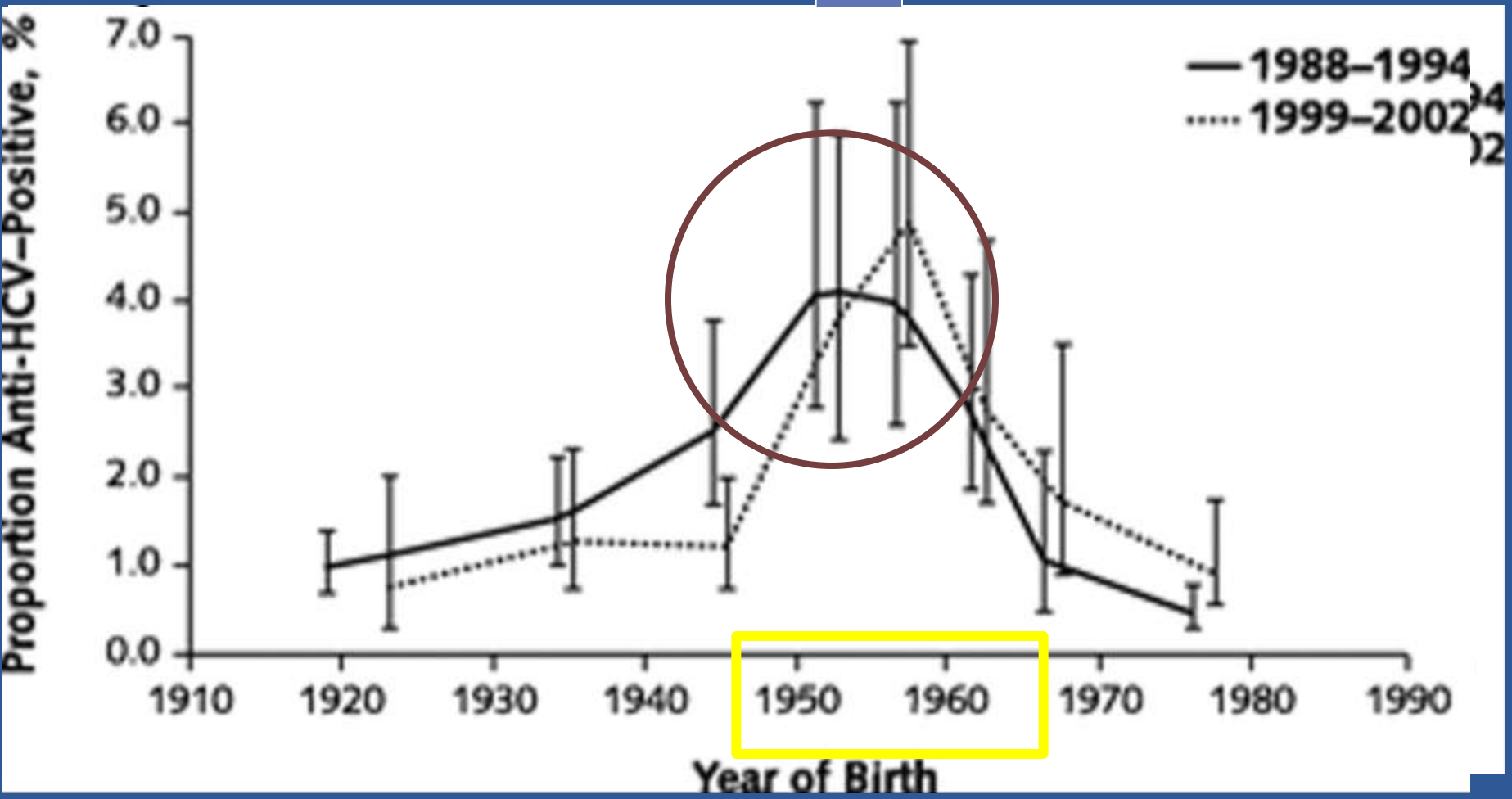


Adapted from HJ Alter and Tobler and Busch, Clin Chem 1997

Estimated Incidence of Acute HCV Infection United States, 1960-1999



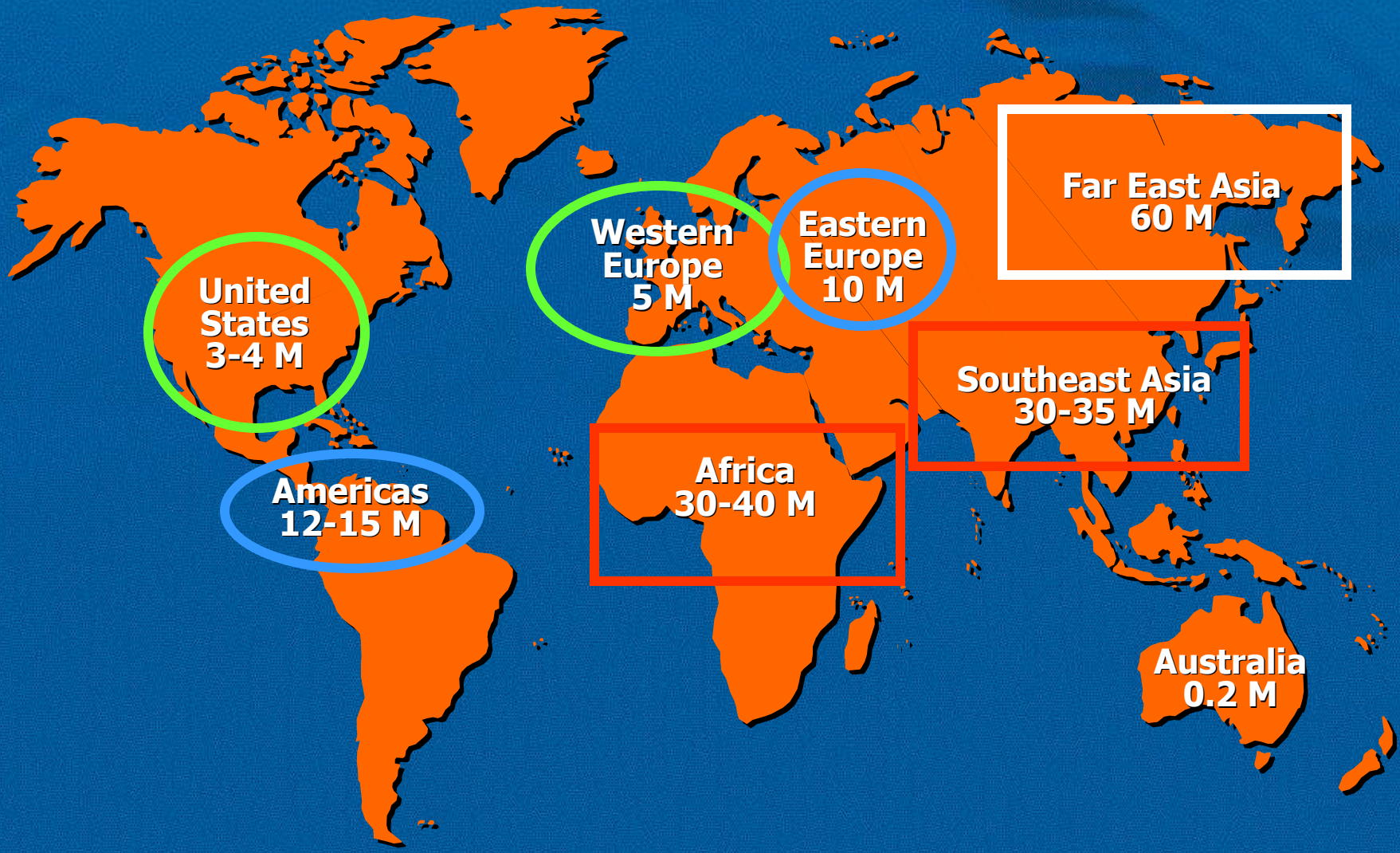
Source: Hepatology 2000;31:777-82; Hepatology 1997;26:62S-65S



The Prevalence of Hepatitis C Virus Infection in the United States. Gregory L. Armstrong, MD; Annemarie Wasley, ScD; Edgar P. Simard, MPH; Geraldine M. McQuillan, PhD; Wendi L. Kuhnert, PhD; and Miriam J. Alter, PhD
Ann Intern Med. 16 May 2006;144(10):705-714

Hepatitis C: A Global Health Problem

170-200 Million (M) Carriers Worldwide



World Health Organization. Weekly epidemiological record. 1999;74:421-428.

What did they REALLY mean?!!

- All Babyboomers?
- 1945-1965 birthyears
  - 3.25% prevalence
  - Accounts for 76.5% of all hepatitis C infections
  - Of HCV related deaths 73.4% occur in 45-64 year olds

1. One time screening
   - Regardless of risk factors
2. All persons HCV positive should receive brief alcohol screening and interventions and referral

More Details

TABLE 2. Prevalence of anti-HCV among three birth cohorts, by sex and race/ethnicity* — National Health and Nutrition Examination Survey, United States, 1999–2008

Characteristic	Anti-HCV (weighted %) 1945–1965	1950–1970	1945–1970
Sex			
Male	4.34	4.12	3.89
Female	2.19	2.34	2.14
Race/ethnicity			
White, non-Hispanic	2.89	3.01	2.77
Black, non-Hispanic	6.42	5.73	5.60
Mexican American	3.26	2.56	2.71

Abbreviation: anti-HCV = antibody to hepatitis C virus.
* Not adjusted by age or other covariates.

Current Screening Recommendations

- Hepatitis C:
  - All Baby boomers x 1
  - Anyone with HIV
  - Anyone who ever injected illegal drug
  - Anyone who received:
    - Clotting factor prior to 1987
    - Transfusion prior to 1992
    - Transplant prior to 1992
  - Dialysis
  - Abnormal ALT
  - Exposure
- Hepatitis B:
  - Anyone born in country of prevalence of > 2%
  - Parents born in country of >8% prevalence (not India)
  - PWID
  - MSM
  - Need for immunosuppression
  - Blood Donors
  - All pregnant women
  - Abnormal ALT/AST
  - Exposure or household contact

Screening

- Screening at high risk venues….21% ultimately receive treatment
- 80% of IV drug users from 1970's and 80's had hepatitis C
- 20% of current IV drug users have hepatitis C

IOM

- Institute of Medicine Report January 2010
- Hepatitis and Liver Cancer
  - A National Strategy for Prevention and Control of Hepatitis B and C
  - Hepatitis B and C are important public health problems
  - Patients and Doctors do not understand hepatitis B or C
  - Screening, Prevention and Access to care need to be improved
    - This should include integration into the current health care system

$$$

- Average annual cost after diagnosed with:
  - Chronic hepatitis $8,000
  - Cirrhosis $10,000
  - Liver Cancer $18,000
  - Transplant $89,000
- Hepatitis Screen cost/charge
  - Hep C antibody $25/$136
  - Hepatitis B surface Antigen $35/$99
  - Hepatitis A Antibody $43/$118
- Hepatitis Vaccination
  - Hepatitis A Vaccination series $100
  - Hepatitis B Vaccination series $60

Men

- Men make up 70% of chronic hepatitis
- Men do not go to the doctor
- Women get screened for hepatitis B when pregnant
- Women see doctors regularly
- Men are more likely to get colonoscopy if their wife is also getting colonoscopy

Colonoscopy

- 65%-70% of eligible central Texans have received an endoscopic examination of their colon
- We have a very high rate of Colorectal Cancer Screenings with colonoscopy at Scott & White
- This is often the ONLY physician encounter for men aged 50-60

Hypothesis

Combining risk assessment and screening for viral hepatitis with colonoscopy will lead to better screening rates

How?

- With preparation instructions patients were mailed 3 documents:
  - Introduction to the Study
  - What is Hepatitis? brochure
  - Testing and Vaccinating for Hepatitis brochure
- Day of study:
  - Met with research nurse
  - Signed informed consent
  - Filled out patient risk form

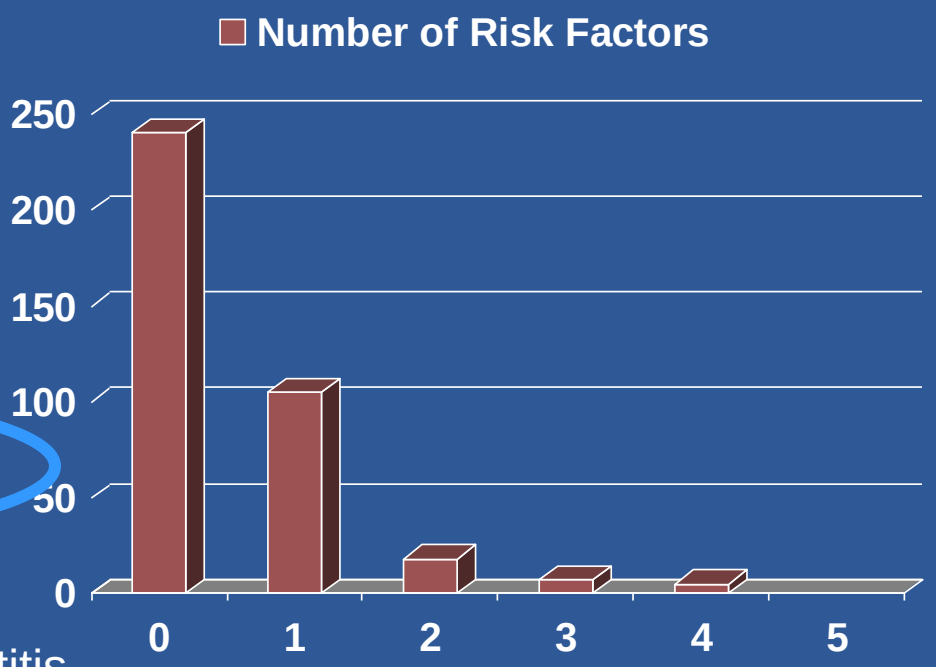
How? Cont.

- When IV was placed:
  - Blood was drawn for lab- hepatitis screening
- 2-4 weeks later
  - Patients were called or written a letter with results and any possible follow-up instructions
- 6 months
  - Fellows and research student searched EMR database to see if any of the newly diagnosed hepatitis followed up, and see how many completed needed vaccinations

Results

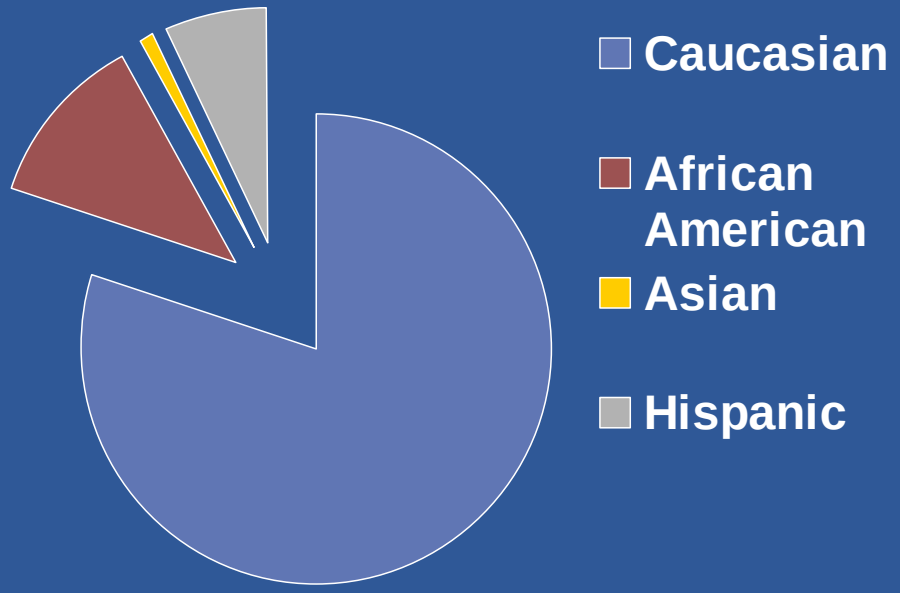
- 500 Baby boomers who appeared for colonoscopy were invited to participate
- 376 (75.2%) Agreed
  - 42% Male, 58% Female

- Risk Factors
  - 29- High risk Sexual
  - 29- Tattoo prior to 2000
  - 27- "Other" risk factor
  - 26- Inject or snort drug
  - 24- Transfusion prior to 1992
  - 20- Jail ≥ 2 days
  - 14- Health care worker stick
  - 10 -Sexual partner with hepatitis



Results of Blood Tests

- 77% did not have antibodies against both Hepatitis A and B
- No patients had Hepatitis B surface Antigen
- Three patients had Hepatitis C antibody



Follow up

- Hepatitis C Antibody
  - 100% showed up in clinic/laboratory for follow up testing
  - 1 had follow up PCR positive
  - This patient is waiting for interferon free therapy, but has stopped drinking

Conclusions

- Hepatitis Screening in the population who undergo colonoscopy is highly accepted
  - 75% agreed
  - 3% Declined because they already knew they had hepatitis C
  - 10% Declined for fear of non-reimbursement
- Hepatitis Screening had the highest yield for those patients who had risk factors
  - 100% of those found to have Hepatitis C Antibodies had risk factors

Recommendations

- Gastroenterologists see most baby boomers at least once
  - We should ask about risk factors
  - We should consider screening for hepatitis B and C
  - We understand the results
  - We will often be the treating physician
  - This provides the highest quality, most efficient healthcare for our patients

Leaves us with many current Questions….

- What is best system to screen all babyboomers?
- Who should pay for screening?
- Who should pay for treatment?
- As treatments get more expensive, as babyboomers get more chronic health problems- will it still be cost-saving to cure?
- Other questions still Loom: How many times do we re-transplant? Do we treat those who are still using or drinking? How long is long-enough sobriety? Do we re-treat non-compliant patients?

Thank you for coming!!

Questions?

Current Recommendations for Chronic Hepatitis B in Health Care Workers

- Updated CDC recommendations July 6, 2012
  - Last recommendations 1991
    - No longer state that patients be pre-notified of provider's HBV status
    - HBV DNA use instead of e-antigen status
    - Thresh hold DNA <1,000 IU/ml
    - Standard precautions is preventing spread
      - Patient transmission of acute hepatitis B to provider
        - » 1983: 10,000 cases
        - » 2002: 400 cases
        - » 2009: 100 cases

Restricted Hep B procedures

- Category I:
- If likely to pose increased risk of percutaneous injury to health care provider
  - Major abdominal surgery
  - Cardiothoracic surgery
  - Orthopedic surgery
  - Hysterectomy
  - C-Section
  - Vaginal delivery
  - Major oral or maxillofacial surgery
- Category II
- All other procedures:
  - Surgical not in list I
  - Needles when hands are outside person's body
  - Dental procedures
  - Insertion of tubes
  - Endoscopy/bronchoscopy
  - Internal exam with gloved hand and nothing sharp
  - External examinations

What is recommendation?

- Expert Review Panel at Institution
  - Evaluate providers' status
    - Viral burden
    - Experience
    - Adherence to recommended techniques
  - Provide:
    - Recommendation
    - Counseling
    - Oversight
    - Investigate breaches
    - Confidentiality
- Panel may include:
  - Co-Provider in specialty
  - ID
  - Epidemiology
  - Hepatologist/Gastroenterologist
  - Occupational health
  - Student health
  - PCP
  - Ethicist
  - HR
  - Administrator
  - Legal