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# The Role of HPV Testing In Asia Pacific Region

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## Wide Variation in Screening..

- Australia- long standing and highly effective cytology-based screening
    - Lifetime screening participation 88% rate
  - Singapore, Hongkong, Taiwan- national based programmes. Participation rates of 63%
  - Japan- Cytology screening since 1960s; national programme since 1982; less complete coverage of about 30%
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## Variation in screening across the region....

- Korea, with a national screening programme coverage of about 55%, still has a high cervical cancer rate, although declining recently.
  - Thailand, Indonesia, Philippines, Vietnam, Malaysia- some attempt at screening- not performed as an organized programme and coverage is low.
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## Variations in screening...

- Thailand, Indonesia, Malaysia, Vietnam, Philippines- Organized programme using pap or VIA, but only as pilot projects, with little change in mortality in their current form.
  - India, Bangladesh, China- No screening programmes. No plans for cytology based activities.
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## Variations in screening...

- India, Bangladesh, China- However, govt and non govt organizations have collaborated to establish demonstration centers in both high and low resource settings to screen and obtain data.
  - VIA has been successful in pilot projects in India, and more widely introduced in these countries- possible with HPV DNA testing yet to be released as well.
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# Detailed Modelling Studies in India

- Screening women once in their lifetime at the age of 35 with a one or two visit schedule using VIA or HPV DNA testing reduced the lifetime risk of cervical cancer by some 25-36% at a cost of less than USD 500 per year of life saved.
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## In many countries of the region

- No screening of any kind...and very little data exist.



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# Scenarios for Cervical Cancer Prevention

- 1.) In settings in which HPV Vaccination is deferred indefinitely.
  - 2.) In settings where HPV Vaccination and Screening is performed.
  - 3.) In settings where HPV Vaccination is Universal.
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## In settings in which HPV Vaccination is deferred indefinitely

- Cervical cancer screening is the sole strategy for prevention.
  - Countries or regions with an existing workforce and infrastructure based on cytology should maintain the WHO recommended guidelines for age at initiation and the frequency of screening.
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## In settings in which HPV Vaccination is deferred indefinitely

- If the required infrastructure for a cytology program is not available, screen and treat strategies based on VIA are likely to reduce disease burden substantially.
  - Evidence indicates that a combined strategy of primary screening with a validated, affordable, and near real-time HPV test ( e.g. Fast HPV) followed by cytologic triage or VIA, may attain the most cost-effective secondary prevention dividends.
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## In settings in which HPV Vaccination is deferred indefinitely

- It is envisaged that the requirements for quality control and performance standards of cytology and VIA, when these tests are restricted to a triage situation, (i.e., reduced case loads, focusing on HPV- women), may be more manageable and sustainable as long term solutions.
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# HPV DNA Test in Low Resource Settings

- None appropriate.
  - PATH (Seattle, Washington USA), was funded in 2003 by the Bill and Melinda Gates Foundation to lead the research and development of a new HPV DNA screening test that was rapid, simple and affordable.
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# HPV DNA Test in Low Resource Settings

- The new test, designated careHPV, is a signal amplification assay that detects target HPV-DNA from 14 different carcinogenic types  
(16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68.)
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# HPV DNA Test in Low Resource Settings

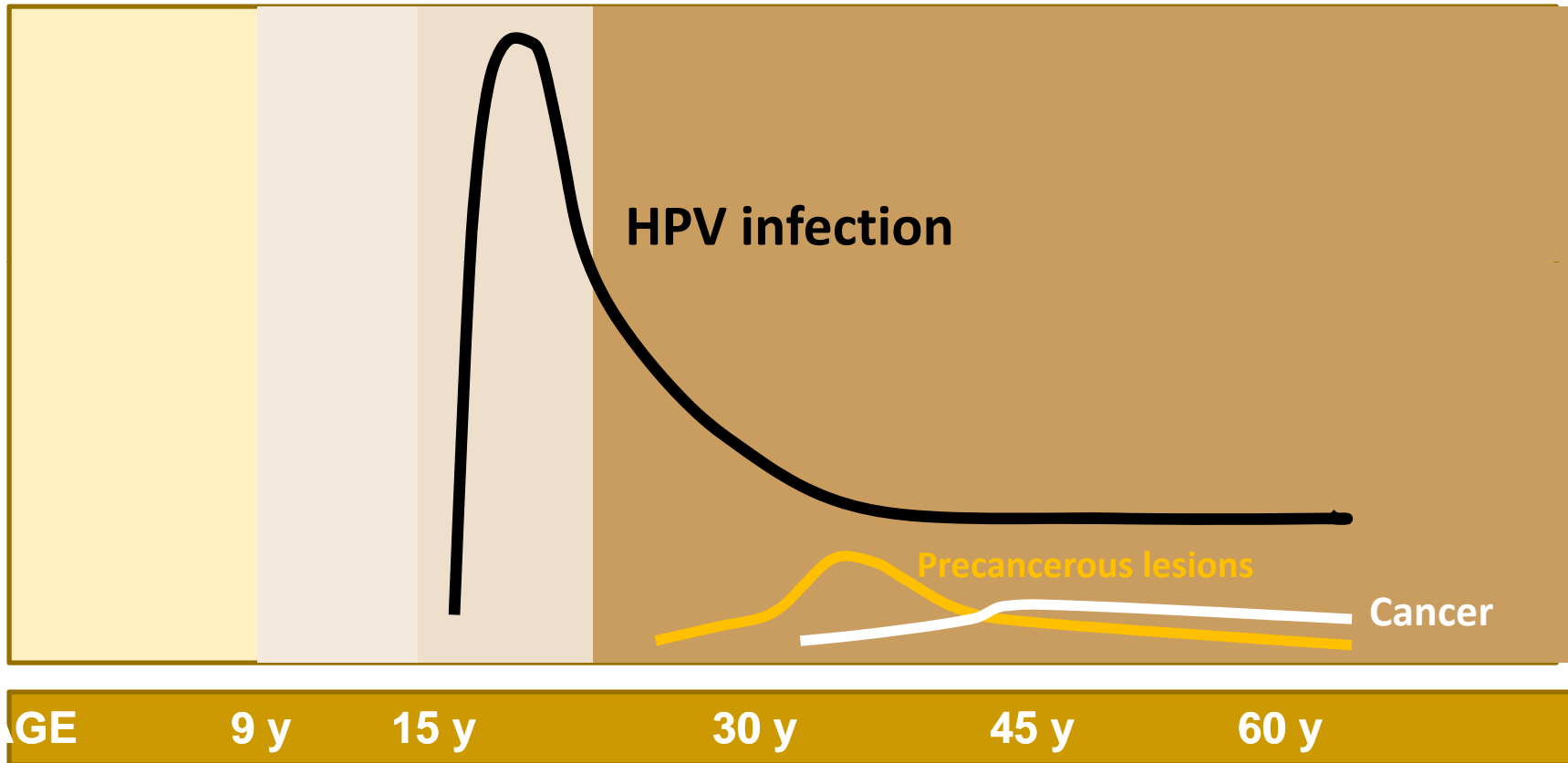
- Requires a small footprint of bench-top work space (about 25x50 cm), no mains electricity or running water, and can be done by technical support staff in roughly 2.5hrs.
  - The short assay time would allow testing and clinical follow up in the same day.
  - The price for careHPV will be negotiated to be feasible for each eligible country or organization.
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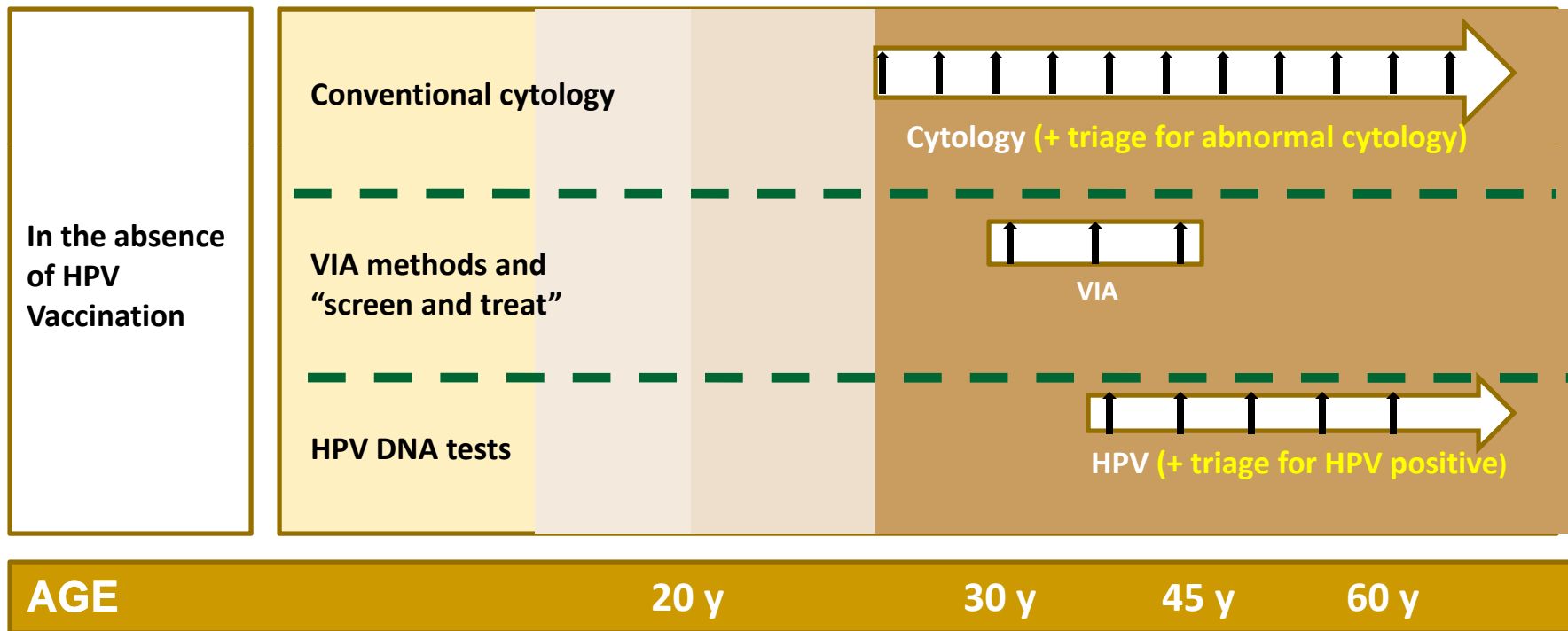
## careHPV

- 90% and 84.2%, sensitivity and specificity of careHPV on cervical specimens.
  - 81.4% and 82.4%, on vaginal specimens.
  - Overall, seems to have performance characteristics that merit further study and, subject to local cost-effectiveness assessments, might be appropriate for use in resource-constrained screening programmes.
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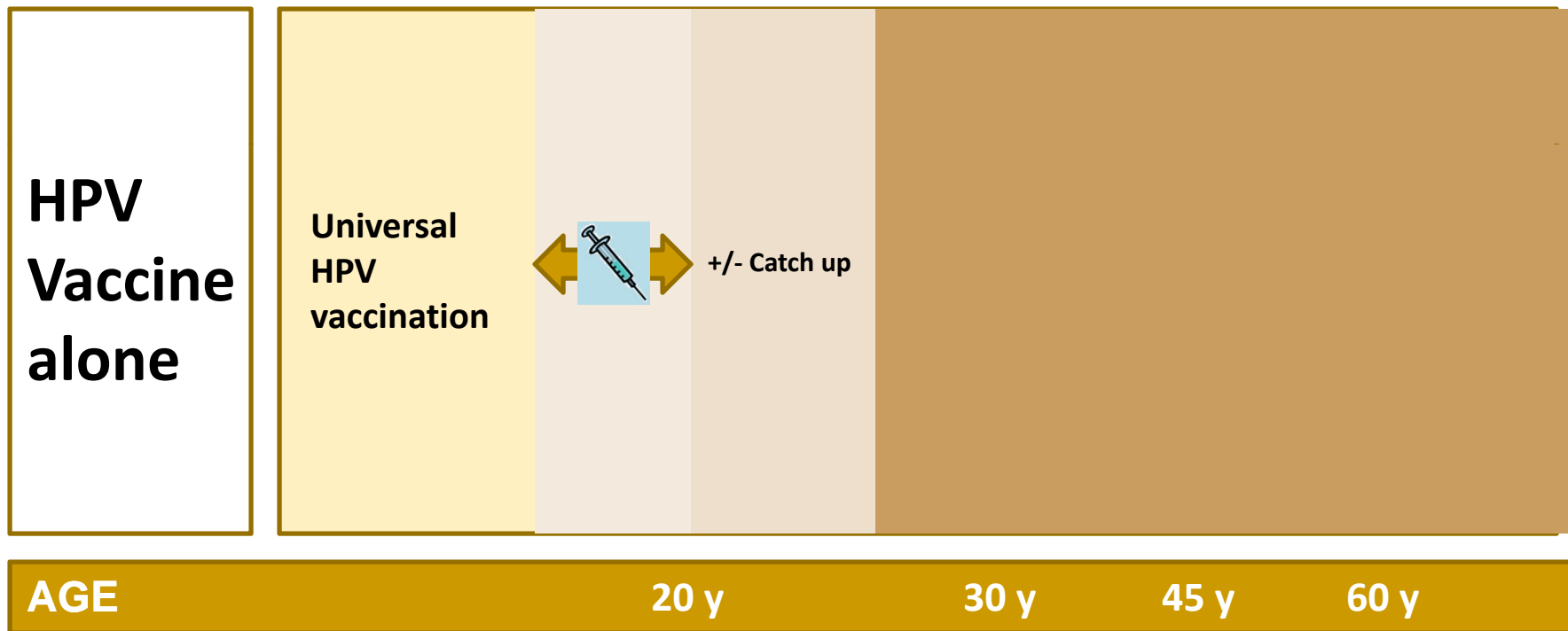
## HPV RELATED CERVICAL DISEASE BY AGE



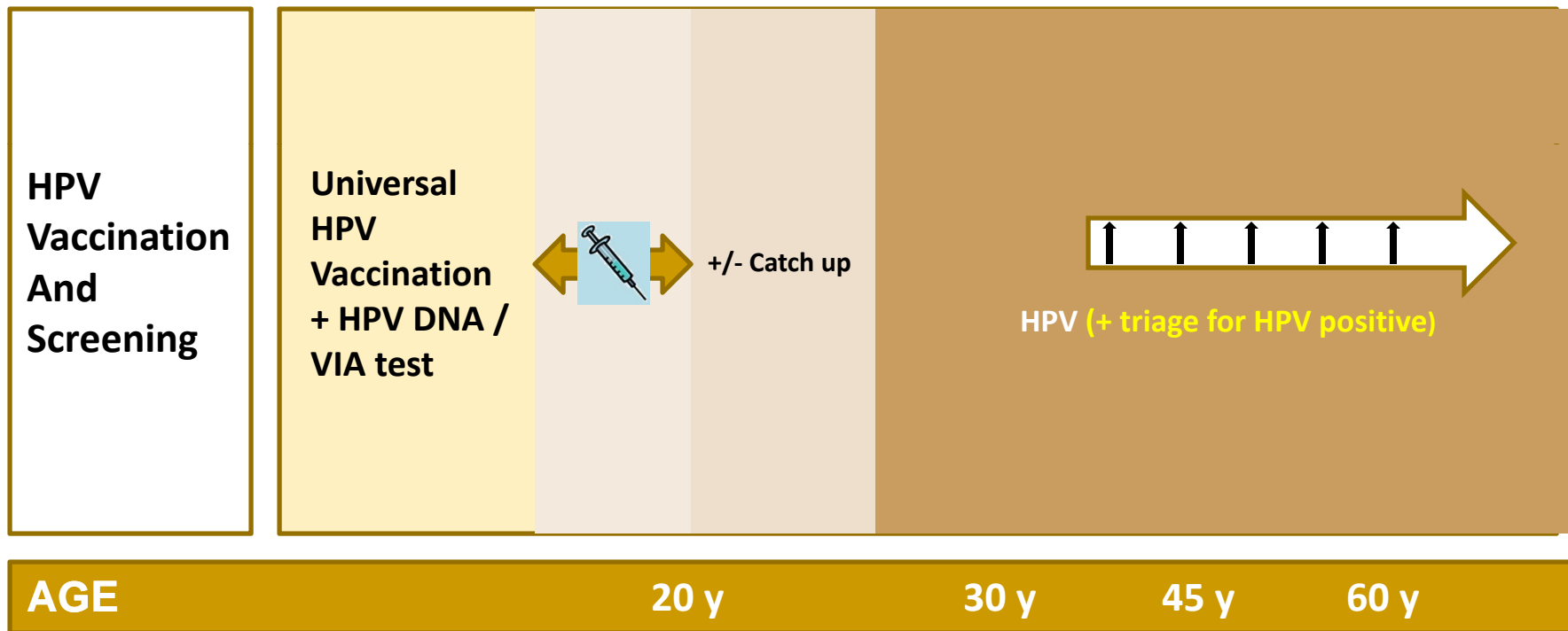
# CERVICAL CANCER PREVENTION STRATEGIES



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## An advantage of HPV DNA testing

- The negative- predictive value that can safely extend the interval for rescreening of negatives to 5 years or more.
  - Screen women aged 30 to 50 years once or twice in their lifetime.
  - A test that has maximum sensitivity, affordability and feasibility.
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## The CPG will include....

- HPV DNA testing is expected to replace the conventional pap and liquid-based pap.
  - Offer HPV DNA to all your patients in your clinic.
  - Negative HPV DNA –pap smear patients at the longest interval, may have a repeat after 5-8 years.
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