Vasectomy: What is it and how is it faring in family planning programs?

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Outline of presentation

1. Method characteristics
2. Worldwide and regional trends
3. Country-specific data
4. Programmatic considerations
What is vasectomy?

- A quick, simple, minor surgical procedure for permanent male sterilization
- Performed in outpatient settings, under local anesthesia
- Entails accessing and then permanently blocking both vas deferens, the 2 tubes that carry sperm from the testes to the penis
- Preferred method to access the vas: the “No-scalpel vasectomy” technique:
  - Each vas is clamped, and pulled in turn through a small puncture made in the skin of the scrotum
  - Then the vas is blocked, cut, & either tied off (ligation and excision), or cauterized
  - Less pain and bleeding than traditional scalpel method
Vasectomy: Eligibility and safety

- **Almost all men are eligible for vasectomy**
  - WHO Medical Eligibility Criteria for Contraceptive Use, 2015

- **Vasectomy is very safe:**
  - After 2 weeks, 5-10% of men note minor complications
  - Major complications are rare
  - No adverse long-term effects
  - ~90% of men are “satisfied” or “very satisfied”
  - 1/3rd of men resume sex after 6 days
  - Safer and easier to perform than female sterilization
Informed choice / informed consent

• **Informed choice:**
  
  – Bedrock principle in FP programming,
  
  – The provision of adequate **information** and a **wide range of modern FP methods** suitable for clients’ **reproductive intentions** (to delay, space, or limit),
  
  – To enable that a **client can voluntarily choose** method best suited to her/his needs.
Informed choice / informed consent

- **Informed consent**
  - The process in which a client indicates (by signature) that he or she agrees - i.e., voluntarily consents - to have the procedure performed.
  - For vasectomy, it includes informing the client that:
    - Vasectomy is **surgical**,  
    - It **has risks and benefits**,  
    - If successful, the man **will not be able to father more children**,  
    - I.e., the procedure is **intended to be permanent (not reversible)**,  
    - **Temporary methods are also available** to the client (or partner),  
    - At any point before the procedure the **client can decide against it**, without losing rights to other services or benefits.
Vasectomy: Effectiveness

- **Highly effective**, comparable to effectiveness of other 3 provider-dependent clinical methods (implants, IUDs, [together = “LARC’s”] & female sterilization [together with vasectomy = “Permanent Methods”])

- **Effective only after 3 months, i.e., not immediately**

- **Very low failure rate (WHO):** ~0.1% (1 pregnancy per 1000 women in first year) — but depends on:
  - **Skill of the operator** (Nepal study: 5% failure)
  - **Compliance of the client and his partner** in using another method for 3 months after procedure
  - I.e., “Permanent” does not equal “infallible”
Context for vasectomy: Demand to limit is increasing

- Major global megatrends are driving smaller desired family size, i.e., the small family norm is becoming universal.
- Millions of women and couples are spending $\frac{1}{2}$ to $\frac{2}{3}$ of their 3-decade reproductive lives with the intention to limit.
- Demand to limit > demand to space among women married or in union in many countries and most regions of the world.
- Average age at which demand to limit > demand to space is falling: “crossover age” is as low as 23-24 in some countries.
- Does not mean all limiters want, need or will choose a PM ... but many men and women would and do choose them.
Compared to female sterilization: Safer, simpler, equally highly effective, twice as cost-effective

Service Delivery Cost*/CYP

*Costs include commodity, materials and supplies, labor time inputs and annual staff salaries. The height of each bar shows the average value of costs per CYP across 13 USAID priority countries.

Adapted from: Tumlinson, et. al., The promise of affordable implants: Is cost recovery possible in Kenya? Contraception, 2011. Includes 2/3 lower commodity cost of implants
Trends: Nonetheless use of vasectomy is plateauing and its share of permanent method use is declining worldwide.

Sources: Contraceptive Sterilization: Global issues and trends, EngenderHealth, 2002 and World Contraceptive Use, 2011, UNDESA 2012. Notes: According to UNDESA’s Trends in Contraceptive Use Worldwide 2015. Worldwide, use of vasectomy is 2.4%, and female sterilization, the most widely used modern method, has a prevalence of 19.2%.
## Vasectomy use: Worldwide and regional

<table>
<thead>
<tr>
<th>Region</th>
<th>% of MWRA using (2007-08)</th>
<th>% of MWRA using (2015)</th>
<th># of users (millions, 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worldwide</td>
<td>2.7%</td>
<td>2.4%</td>
<td>32.8</td>
</tr>
<tr>
<td>Northern America</td>
<td>10.3%</td>
<td>11.9%</td>
<td>4.1</td>
</tr>
<tr>
<td>Oceania</td>
<td>11.8%</td>
<td>6.3%</td>
<td>0.5</td>
</tr>
<tr>
<td>Europe</td>
<td>2.9%</td>
<td>3.3%</td>
<td>2.8</td>
</tr>
<tr>
<td>Latin America &amp; Carib.</td>
<td>1.3%</td>
<td>2.6%</td>
<td>1.3</td>
</tr>
<tr>
<td>Asia</td>
<td>3.0%</td>
<td>2.2%</td>
<td>22.5</td>
</tr>
<tr>
<td>Africa</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.1</td>
</tr>
</tbody>
</table>


**Additional Notes.** “Least Developed Countries” have an aggregate vasectomy prevalence of 0.4%.
Countries with high vasectomy use generally have high FP access and use, health coverage, and gender equity.

<table>
<thead>
<tr>
<th>Country &amp; date of latest survey cited*</th>
<th>Vasectomy prevalence (CPR)</th>
<th>Vasectomy’s share of modern method use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada (2002)</td>
<td>22%</td>
<td>31%</td>
</tr>
<tr>
<td>United Kingdom (2008-09)</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>New Zealand (1995)</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>Republic of Korea (2009)</td>
<td>17%</td>
<td>24%</td>
</tr>
<tr>
<td>Bhutan (2010)</td>
<td>13%</td>
<td>19%</td>
</tr>
<tr>
<td>United States (2006-2010)</td>
<td>11%</td>
<td>16%</td>
</tr>
<tr>
<td>Australia (2005)</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>Belgium (2008-10)</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Spain (2006)</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>Netherlands (2008)</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Brazil (2006)</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Nepal (2014)</td>
<td>5% (4.7%)</td>
<td>10%</td>
</tr>
<tr>
<td>China (2006)</td>
<td>5% (4.5%)</td>
<td>5% (5.4%)</td>
</tr>
</tbody>
</table>


Notes: China and India accounted for around 20 million users. U.S. has 175,000 to 500,000 vasectomies annually.
Low awareness and negligible vasectomy use in LMICs with lower levels of gender equity despite substantial demand to limit

<table>
<thead>
<tr>
<th>Country / (Year of DHS)prevalence2</th>
<th>Demand to limit (L)/demand to space (%)</th>
<th>MCPR (%)</th>
<th>Awareness (&quot;knowledge&quot;)</th>
<th>Vasectomy prevalence (CPR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India (2015-16)</td>
<td>55% L / 11% S</td>
<td>51.2%</td>
<td>89% F / 96% M</td>
<td>1.1%</td>
</tr>
<tr>
<td>Bangladesh (2014)</td>
<td>51% L / 23% S</td>
<td>54.1%</td>
<td>Of FP: &quot;universal&quot;</td>
<td>1.2%</td>
</tr>
<tr>
<td>South Africa (2003)</td>
<td>55% L / 19% S</td>
<td>59.8%</td>
<td>36%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Kenya (2014)*</td>
<td>41% L / 35%</td>
<td>53.2%</td>
<td>50%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Rwanda (2014-15)</td>
<td>36% L / 36% S</td>
<td>47.5%</td>
<td>86%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Malawi (2015-16)</td>
<td>41% L / 37% S</td>
<td>58.1%</td>
<td>72%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Uganda (2016)</td>
<td>19% L / 31% S</td>
<td>34.8%</td>
<td>73%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Tanzania (2015-16)</td>
<td>22% L / 39% S</td>
<td>32.0%</td>
<td>47%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Ethiopia (2016)</td>
<td>24% L / 35% S</td>
<td>35.3%</td>
<td>11%</td>
<td>0% [not listed in DHS]</td>
</tr>
<tr>
<td>DRC (2013-14)</td>
<td>14% L / 34% S</td>
<td>7.8%</td>
<td>20%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Senegal (2016)</td>
<td>12% L / 35% S</td>
<td>23.1%</td>
<td>Not given</td>
<td>not listed (in &quot;other&quot;)</td>
</tr>
<tr>
<td>Nigeria (2013)</td>
<td>11% L / 20% S</td>
<td>9.8%</td>
<td>16%</td>
<td>~0% [not listed]</td>
</tr>
</tbody>
</table>

Source: Latest DHS available, as of July 17, 2018. Data for women currently married or in union.
Notes:*In Kenya PMA2020 survey of Nov-Dec 2017, mCPR is 59.0%, vasectomy prevalence is 0.15%
In many African countries, among women using FP to limit, PM use & PM share of method mix are very low.

Red area of graphs = female sterilization (mainly) plus vasectomy

Method mix among women using FP to limit

Reasons for low vasectomy availability & use at the program level

• Low program and donor priority, thus limited funding
• Low availability/access hasn’t generally been seen/framed as an advocacy or gender issue (might have led to more funding)
• Policymakers and FP providers also have biases/adhere to gender norms about masculinity & who has ‘FP responsibility’
• Limited availability of FP/RH services for men: FP services are generally geared to women, and FP service providers are mainly female
• Quite limited overall demand for vasectomy
Reasons for low vasectomy use at the program level (cont.)

• Not even listed as a separate method in many survey tables (DHS, PMA2020), i.e., not even an “expectation”
  – Seemingly quickly rectifiable

• Too-short project scopes and time frames --
  but “Small projects, small results”; and, “There’s no quick fix,”

• Caveat: Greater focus on vasectomy will not lead to an immediate surge in uptake -- needs a substantial effort over a number of years —

• But, “If not now, when?”
Reasons for low vasectomy use at the client level

- **Lack of awareness**: Least “known” of all methods:

  - Cultural and gender norms:
    - “FP is a woman’s duty”
    - Greater number of children = greater masculinity

![Mean knowledge of contraceptive methods, Sub-Saharan Africa countries](chart)

- **Cultural and gender norms:**
Reasons for low vasectomy use at the client level (cont)

- **Rumors, myths, misunderstandings** - i.e., their “truths”
  - “Universal,” and held by women as well as men, about:
    - Sexual function or desire:
      - “Vasectomy = castration”
      - “A man cannot have sex”
    - Subsequent health: “it will make me (or him) ‘weak’” / or ‘fat’
    - Subsequent work: “I (he) will be less productive”
  - Widespread: RJ’s Kazakhstan translator experience
- **Anxiety** about undergoing a surgical procedure
So, What to Do?
Advocacy: Champions are essential

Family planning programs need to identify and nurture vasectomy **champions at all levels** – policy, program, facility, and providers themselves.

- At the head of almost every active “vasectomy program” is a director who is personally interested in involving men in FP and personally committed to the program’s success.

- At the center of a clinic where vasectomy is regularly provided is a trained provider who firmly believes in the method.
Strategies for greater male involvement:

On demand side

• **Emphasize benefits** to client and partner
  - Provide for your family / love & concern for your wife
  - Advantages: one act; permanent; simpler than FS
  - Sexual satisfaction / retention (no loss) of strength

• **Address women as well as men**

• **Address gender norms** that limit men’s participation in FP

• **Use multiple communication channels**
  - Mass & social media, print, interpersonal, hotlines, & mhealth

• **Use & feature champion providers and satisfied clients**
“Vasectomy is a communication ‘operation’ as much as it is a surgical operation”
Some workforce and health system strategies for vasectomy services: Supply-side “HIPs”

- ‘Male-friendly’ services
- Whole-site approach: Engage all staff (including actual gatekeepers)
- Address provider perspectives & rewards (pay, recognition, workload, & their own gender and FP method biases)
- Use “dedicated providers” / “nurture champions” (Who are skilled, motivated, enabled, equipped)
- Focus on quality & client satisfaction
- Ensure services are affordable
- If/when training, train a smaller cadre, and support them longer and “better”
What we want to accomplish

Impact Area:
- Universal knowledge
- Broad & equitable access
- Wider use

Proof of concept
- Pilot projects

Tipping Point
Conclusion

• Lack of vasectomy availability and access is
  – An advocacy issue
  – A gender (and framing) issue
  – Predominantly a demand-side issue (now)

• Limiters are an underserved group

• The solution to having substantial male services:
  – Vasectomy-specific (or male RH-specific) project(s)
  – Adequately-resourced, in terms of:
    - Funding
    - Attention
    - Priority
    - Time
Thank you!

Contact:
Roy Jacobstein
rjacobstein@intrahealth.org
Resources and references for those with further interest


• Van Lith LM, Yahner M, Bakamjian L. Women’s growing desire to limit further births in sub-Saharan Africa: meeting the challenge. *Glob Health Sci Pract* 2013; 1: 97–107


• World Vasectomy Day: [http://www.worldvasectomyday.org/contact-us/](http://www.worldvasectomyday.org/contact-us/)