Research Needs for Contraceptive Technology Development

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Goals of this presentation

Provide an overview of contraceptive technology development

Setting the stage for other sessions and presentations

• Review why additional technologies are needed

• Stages of product development

• New technologies closer to reality

• What could be game changing contraceptive technologies (longer time frame)
Why do we need more technology?

Existing methods do not meet the needs of all
- Some are difficult to use consistently and correctly
- High typical use failure rates of temporary methods
- Side effects or fear of side effects
- High discontinuation of temporary methods
- Changing needs and desires over reproductive lifespan

High percent of non-use

High unmet need
Target qualities for new contraceptive methods

Highly effective in typical use
  User-independent
  Forgiving of misuse

Safe and Acceptable
  Minimal side effects or
    have “desirable” side effects (e.g. amenorrhea)
  Rapidly reversible
  Convenient and easy to use
  Use in chronic disease states

Provide additional health benefits

Very low cost

Potential for wide availability
  Provided by CHWs or provider independent
Stages of Product Development

Discovery
- Pre-clinical Research
- Animal Testing
- Chemistry
- Short-Term
- Long-Term

Early Development
- Clinical Studies
  - Phase 1 Safety
  - Phase 2 Efficacy

Late Development
- Phase 3 Pivotal Studies
  - Application
  - Review and Approval

Registration Stage
- Post Marketing

Pre-clinical Research
- Animal Testing
- Chemistry
- Product Manufacturing

Clinical Studies
- Phase 1 Safety
- Phase 2 Efficacy

Phase 2 Pivotal Studies
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Registration Stage
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Improving upon existing methods

Less expensive ("generic" or "alternative")
  Implant systems
  Levonorgestrel IUS
Easier to use in a compliant way
  Vaginal rings
Easier to deliver in service settings
  Preloaded injectable systems (Depo SC in Uniject)
  Biodegradable implants
New barrier devices – dual purpose
  One size diaphragm – SILCS
New methods that could be game changers

Non-surgical sterilization
Male methods that are practical
Peri-coital method
Immuno-contraception (women and men)
Non-condom approaches for dual protection
Novel and/or non-hormonal contraceptives (daily or long-acting)
Method with non-contraceptive health benefits
Conclusions

- Women in developing countries need broad access to current, highly effective contraceptive methods

- New technology
  - could have substantial positive impact for women and men globally
    - is long and costly process

- Hope to see a renewed commitment by donors and the commercial sector - perhaps through partnerships
• Two sessions on contraceptive technology - Monday
  – E1 (9:30 to 11:00)
  – E2 (11:30 to 1:00)
  – Jeff Spieler will wrap up and present some new technologies

• Round tables
  – Gates Foundation on Grand Challenge Grants – Table 36
    on Tuesday (Fil Randazzo – Tuesday)
  – Contraceptive Technology Café - Tuesday