BLEEDING PATTERNS AND CONTRACEPTIVE DISCONTINUATION

FG MHLANGA

MTN ANNUAL MEETING

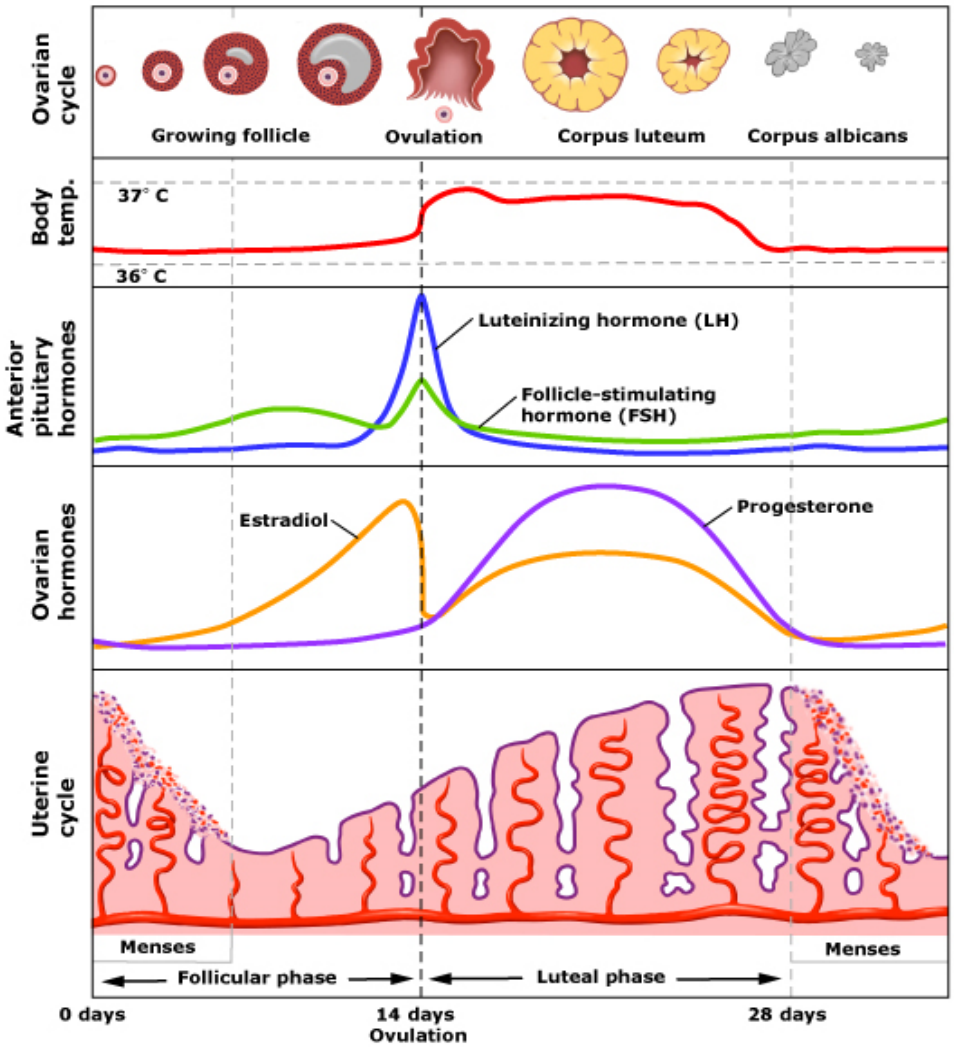
20 MARCH 2018

Introduction

- Bleeding with contraception may lead to discontinuation and possible unintended pregnancy
- What are bleeding experiences amongst women using modern contraception?
- How can we manage expectations of bleeding patterns for women using progestin only contraceptives?

The history of bleeding with HC

- Early pills designed to mimic menstrual cycle
  - Tri-phasic pills
  - Withdrawal bleed every month
- Given observed VTE risk with higher dose pills, HC shifted to lower dose methods
- Now many methods that are progestin only



What does the estrogen do?

- The estrogens component is NOT responsible for the contraceptive efficacy
  - Endometrial stability
  - Improved bleeding patterns
- Over years, dose decreased from more than 150 mcg of ethinyl estradiol to 35 mcg or less.
- The lowest doses associated with the most bleeding episodes

Bleeding experiences with progestin-only contraceptive methods: pills

- Menstrual changes in >50%.
  - –irregular bleeding
  - –short cycles (caused by an inadequate luteal phase)
  - –amenorrhea

1.Hatcher RA. Contraceptive technology. 17th ed. rev. New York: Ardent Media, 1998:467–509.
2. Wallach M, Grimes DA, Chaney EJ, et al., eds. Modern oral contraception: updates from The Contraception Report. Totowa, N.J.: Emron, 2000:242–50.

Bleeding experiences with progestin-only contraceptive methods: injectables

- Unscheduled bleeds ~ 70% of women 1st year
- Post I yr of DMPA use, up to 50% of women experience amenorrhea & may reach 80% with further use

1.Hatcher RA. Contraceptive technology. 17th ed. rev. New York: Ardent Media, 1998:467–509

Bleeding experiences with progestin-only contraceptive methods: implants

- Unscheduled bleeding in up to 80% of women
- Bleeds tend not to normalize over time but remain random and unpredictable throughout years of use.

1.Hatcher RA. Contraceptive technology. 17th ed. rev. New York
2. Darney P Fertil Steril. 2009;91(5):
3.Mansour D, Eur J Contracept Reprod Health Care. 2008;

Bleeding experiences with Copper IUDs

- Unscheduled in ~70% of new users first 3 to 6 months[1].
- Up to 50% increased menstrual blood loss with a NCS reduction in hemoglobin[2].
- Bleeding tendency decreases over time.

1.J Fam Plann Reprod Health Care. 2015;41(4)
2. Contraception. 1987;36(1):129–144

Bleeding experiences with LNG IUDs

- LNG-IUD- lighter menses/amenorrhoea that might take 3-6 months to establish

WHO Levonorgestrel IVR

- LNG ring previously developed & tested in women
- Low dose 20mcg/day and lasted 90 days
- Disappointing contraceptive efficacy
  - 3.6 – 6.5 per 100wyrs [1,3]
- Bleeding concerns [2]
  - Unscheduled~25%
  - Prolonged~10%

1.Koetsawang S Contraception. 1990 Feb;41(2):151-67
2.Koetsawang S Contraception. 1990 Feb;41(2):105-24
3. Sahota J Adv Contracept. 1999;15(4):313-24.

Bleeding experiences with progestin-only contraceptive methods: IVRs?

- Nuvaring releases 15 µg of ethinyl estradiol and 120 µg of etonogestrel daily; continuous & cyclic use.
- Excellent cycle control similar/better than that of COCs[1]
- Unscheduled bleeding common in the first few months of use[2]

1. Bjarnadottir RI, TuAm J Obstet Gynecol. 2002;186(3)
2.Speroff L, Darney PD. A Clinical Guide for Contraception. 5th ed. Philadelphia

Zimbabwe Experience

- High uptake of contraceptive use 66% [1]

- Most common reasons for method d/c:
  - Unscheduled bleeding
  - Perceived side effects

1. ZDHS 2015

Participant experience of unpredictable bleeding in ZIMCHIC Study

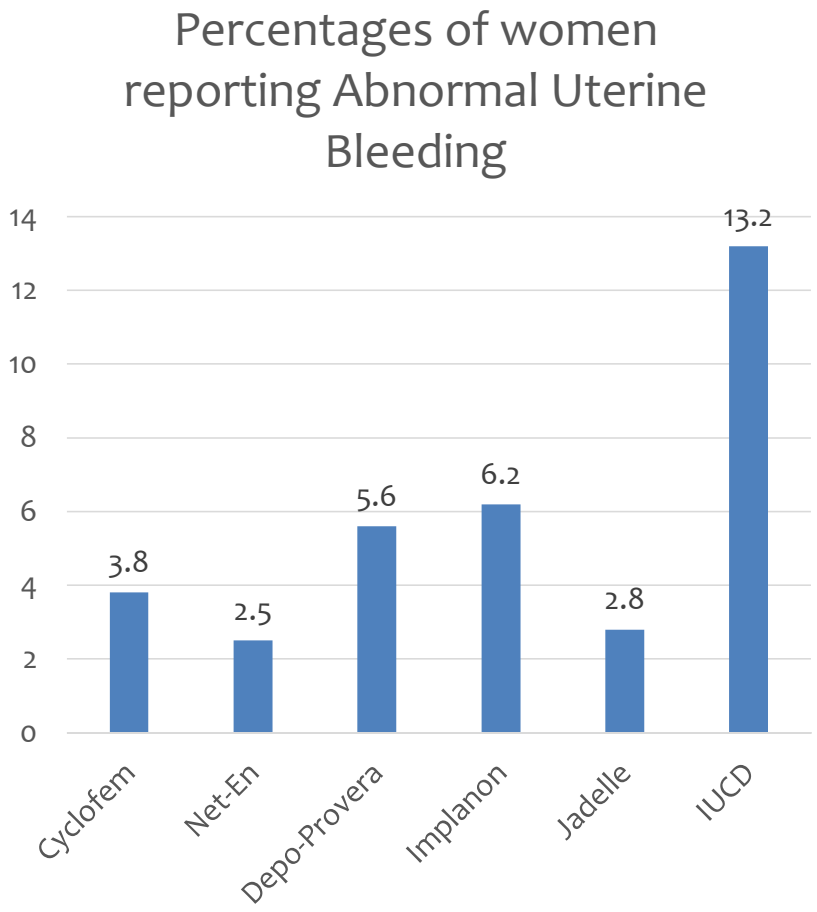
- Young (18-34yo), healthy women
- Enrolled participants (N=451) self-selected contraceptive method to start/use for 6 mo:
  - Injectable (DMPA, MPA/EE, Net-En)
  - Implant (ENG or LNG implant)
  - Copper-T IUCD
- Evaluated satisfaction with chosen contraceptive and reasons for discontinuation
- Monitored Hgb over course of study

Demographics of Participants enrolled in the ZIMCHIC study.

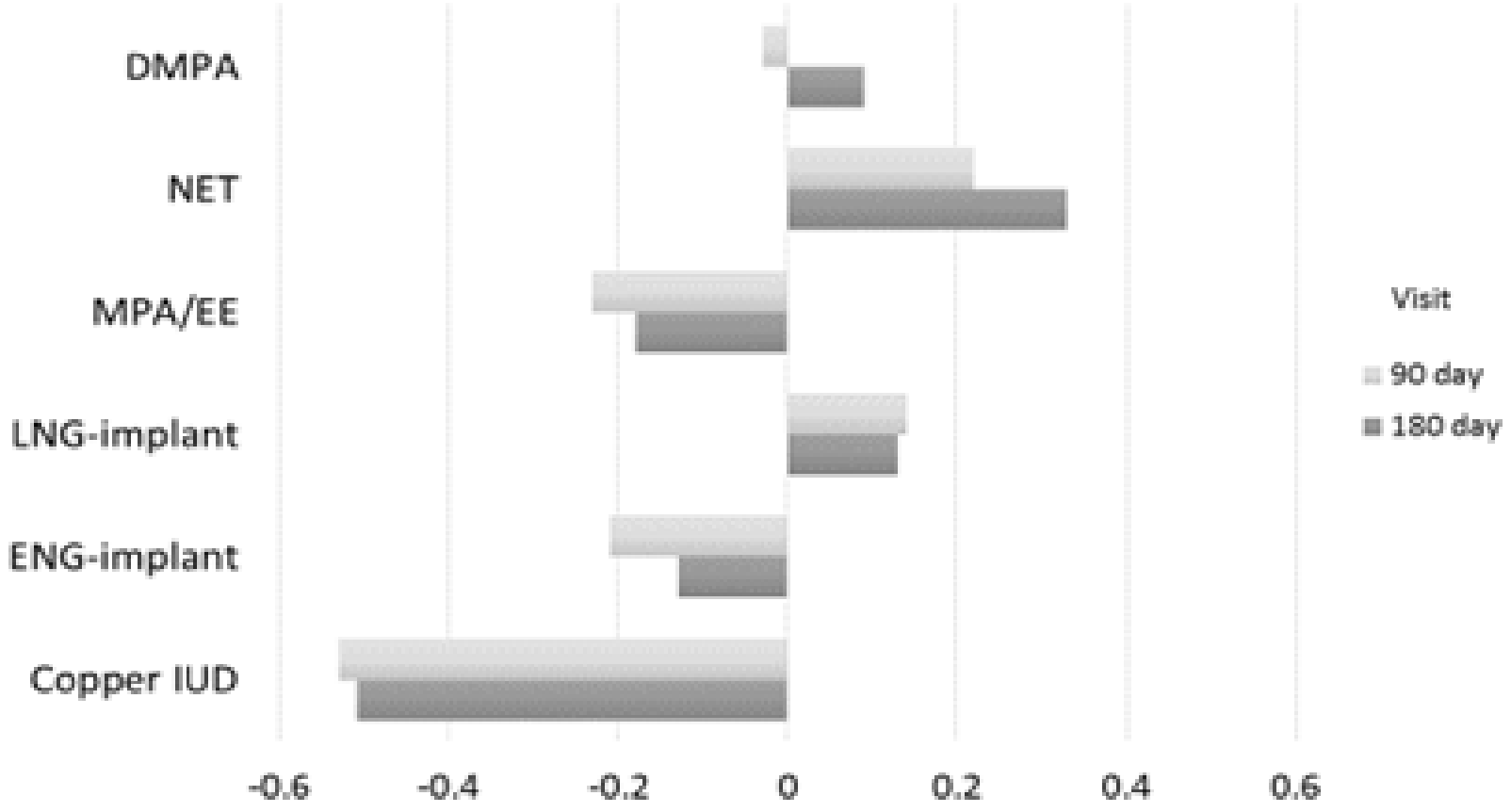
- Important differences were noted in the copper IUD arm mostly being;
  - single
  - of low parity,
  - living on their own without a sexual partner
  - reduced coital frequency.
- Other sociodemographic characteristics similar across the study arms.

Frequency of Unscheduled Bleeding in ZIMCHIC

- 25 of 451 (5.5%) reported bleeding at any point after enrollment with no significant difference across the contraceptive arms; p= 0.11



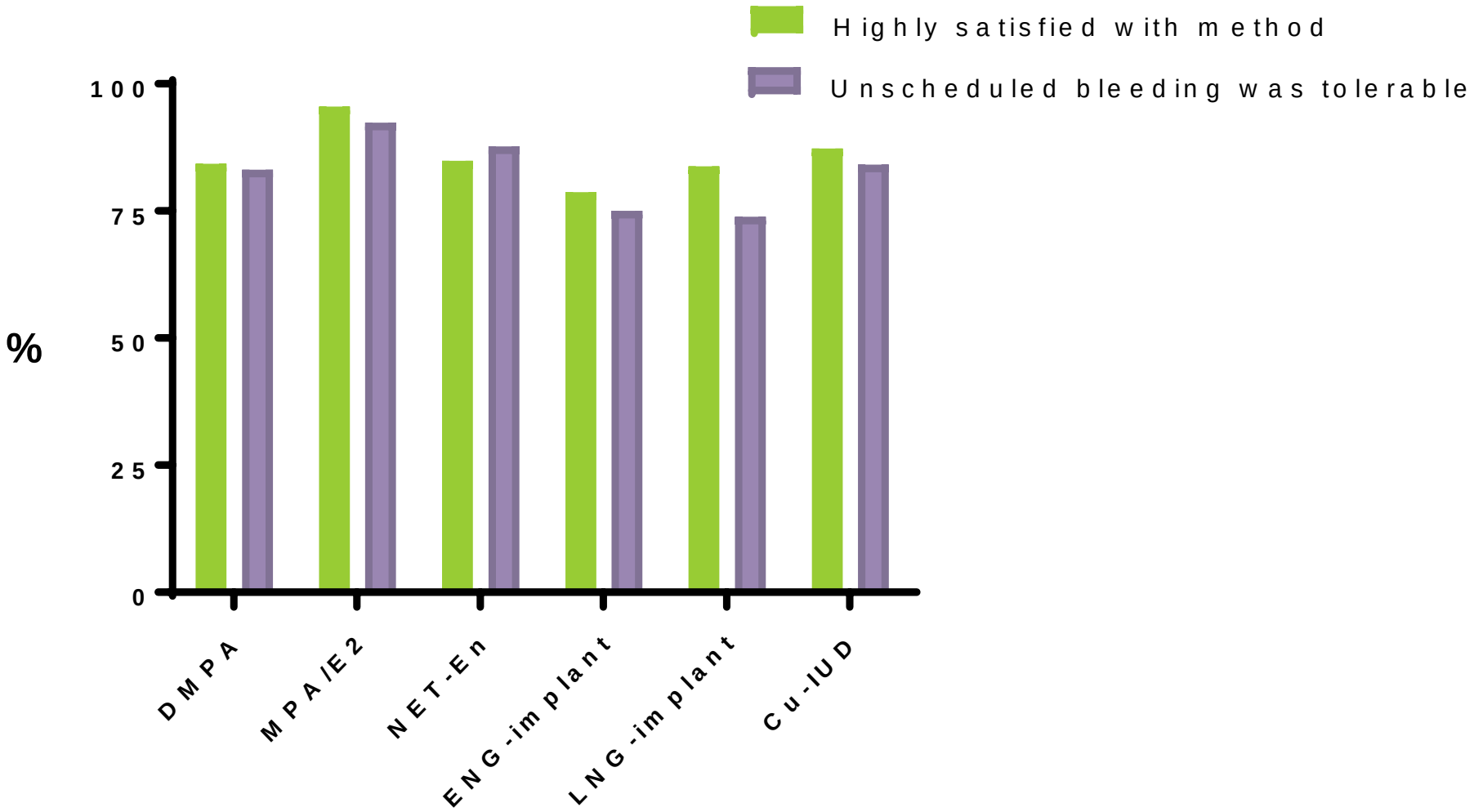
Change in Hemoglobin from Enrollment



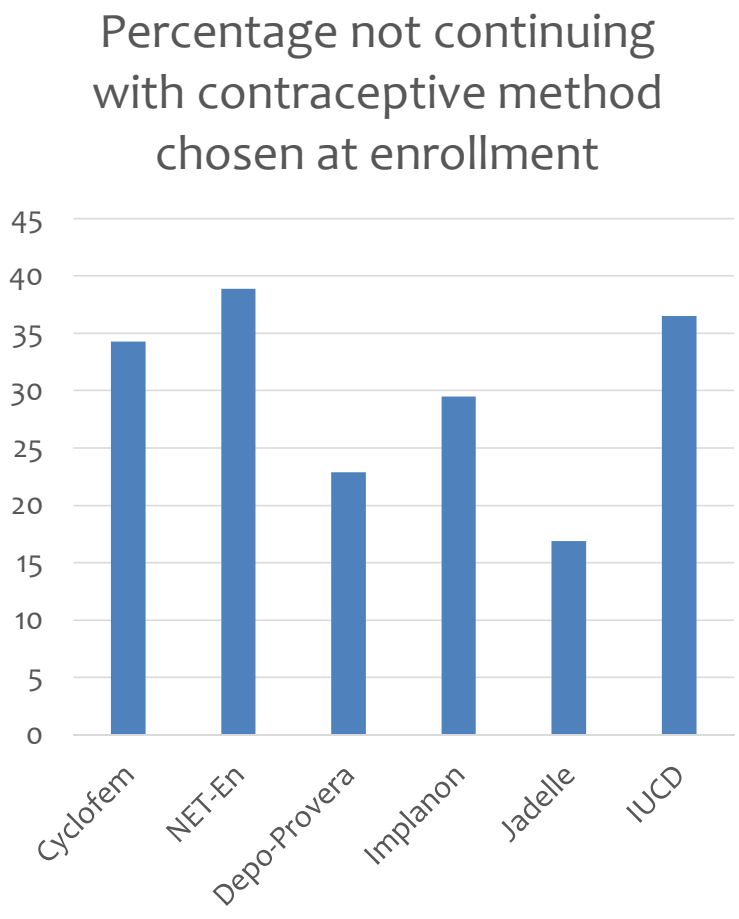
Changes in haemoglobin..

- There was no statistically significant changes in Hgb in women using any of the hormonal methods or the Copper IUCD
- In participants self-reporting abnormal bleeding:
  - mean decrease in hemoglobin was -0.26 (NS)

Satisfaction with chosen ZIMCHIC method



Method Discontinuation



- Overall 120 of 411 (29.7%) opted to change
- Only 2.4% of these cited bleeding as reason
- Most cited reasons were:
  - Opting for change (17.3%)
  - Desires pregnancy (6.9%)

Counselling on expectations with contraception

- Canto De Cetina, Contraception 2001
  - 350 women; DMPA
  - 175 each arm, detailed vs routine counselling
  - Unscheduled bleeds commonest discontinuation reason (17% vs 43%)
- Backman T, Obstet Gynecol 2002
  - 18000 had IUD; 1990-1993 , 70% following bad experience with prior contraceptive
  - Satisfaction related to AE info given regardless of pt experiencing these

Summary

- Unscheduled bleeding with progesterone only contraception is common
- Overall bleeding is typically less with progestin only contraception relative to natural cycles
- Counselling aligned to bleeding expectations improves satisfaction and minimizes discontinuation.

Acknowledgements

We sincerely thank the Bill and Melinda Gates Foundation for funding this study as well as the many participants who made this study possible.