Response by Directors of WOOMB International Ltd to:

billingsMentor: Adapting natural family planning to information technology and relieving the user of unnecessary tasks
Authors: Audrey D Smith and John L Smith
The Linacre Quarterly 81 (3) 2014, 219-238

The Directors of WOOMB International Ltd set out these responses to questions addressed to us asking for clarification regarding our support and involvement in billingsMentor, following the publication of the above paper which seeks to compare two online systems purporting to offer the Billings Ovulation Method®: one used by couples with the guidance of a teacher, the other an automated guidance and interpretation system “provided by programmed algorithms”.

Drs John and Evelyn Billings devoted to WOOMB International Ltd the authority of ensuring that the authenticity of the Billings Ovulation Method® was maintained. The Directors of WOOMB International Ltd will respond to those points raised in this paper which directly relate to the Billings Ovulation Method®, its teaching service and its Rules. The hypothesis that billingsMentor can be used with the Billings Method™ will also be discussed. We emphasise it is not our intention to be disparaging of John and Audrey Smith, billingsMentor and any trial or experiment of billingsMentor but merely to highlight the different approaches of the two methods, Billings Ovulation Method® and billingsMentor.

The terms Billings Ovulation Method® or Billings Method™ are used in this document to refer to the same Method.

What is the Billings Ovulation Method®

The Billings Ovulation Method® is a scientifically validated method of natural family planning which embodies the following key elements:

- each woman is an individual with her own unique patterns of fertility and infertility
- the understanding of patterns of fertility and infertility is essential knowledge to which every woman in the world is entitled
- the method is easy to understand, simple to use, reliable and effective
- a woman is asked to make and record daily observations, using her own words, of vulval sensation and any visual appearance of discharge
- the time of ovulation is identified
- emphasis is therefore removed from menstruation as the key indicator of fertility
- accredited teachers of the Billings Ovulation Method® assist couples to understand and attain autonomy in the management of their combined fertility
- there are only 4 Rules of the Billings Ovulation Method® designed to assist the couple to achieve or postpone pregnancy
- these 4 Rules apply to all stages of reproductive life
- this knowledge is disseminated through face to face clinical appointments, telephone counselling, approved on-line teaching and recording systems, authentic literature and
training programs using WOOMB approved curricula. The recommendation that a couple seeks individual counselling is always emphasised.

- Fertility Pinpoint™ is the official online charting system specifically developed in conjunction with OMR&RCA Ltd and WOOMB International Ltd.

In teaching of the Billings Ovulation Method®, the woman is taught to recognise both infertility and fertility and with the assistance of the teacher in the learning stages, gains confidence in making decisions, thereby gaining autonomy to use the Billings Ovulation Method® effectively throughout reproductive life. The teacher must be a good listener to assist her to interpret her patterns of fertility and infertility. The Drs Billings were insistent that a woman should be encouraged to use her own words to describe her signs and symptoms as they were aware of, and sensitive to, differences in culture and language. For women of other languages, a prescribed list of English words from which a woman has to choose may not give the most appropriate words, especially when translated.

Pre-ovulatory infertility is identified by an unchanging pattern of sensation and/or discharge recognised by each woman in the normal course of her day and reflecting low ovarian hormone levels. At this time there is no cervical mucus present to assist sperm transport and survival and couple infertility is identified. Each woman has her own unique pattern of infertility or Basic Infertile Pattern (BIP). Any change from her BIP indicates potential fertility. A user of the authentic Billings Ovulation Method® is taught that a subtle change in sensation or appearance of the discharge can identify the beginning of the fertile phase.

Whenever fertility is suppressed and ovulation is delayed – either during the stages of the Continuum (Brown 2011), or due to underlying pathology, a combined BIP can be identified. When regular cycles return, the woman is in a new reproductive life stage and will revert to one BIP.

The Three Early Day Rules apply to this pre-ovulatory phase of the cycle and cover all possible eventualities.

The fertile phase is identified as a changing, developing pattern of variable length, leading to a slippery sensation. As demonstrated by Professor James B Brown, this changing, developing pattern is typically 5-6 days reflecting the rise of oestrogen and cervical response. This phase may be shorter or, in some cases, longer. A definite change to no longer slippery defines the Peak as the last day of slippery sensation. The significance of the rise in progesterone and the activation of the Pockets of Shaw clearly identify the reason for the change following the Peak day and the confidence with which a woman can identify her Peak. There is only one Peak in a cycle.

The Billings Ovulation Method® is based on the scientific evidence that the length of the luteal phase is 11-16 days from ovulation – not Peak. The criteria for identification of Peak are clearly defined and the Peak is identified at the time on its merits, not by the length of the luteal phase, which may or may not identify the fertility of the cycle. The Billings Ovulation Method® recognises ovulation occurring in a cycle when a Peak has been identified and, for those seeking pregnancy also identifies optimum couple fertility. Couple fertility for each cycle finishes at the end of the third day following the identification of Peak and infertility continues until the commencement of the next cycle.
However if Peak has not been identified, this does not necessarily indicate that ovulation has not occurred but rather that it is not obvious in the chart. In such a case, the couple continues to use the Early Day Rules, thereby empowering them to apply the correct Rules in their fertility management.

The Billings Ovulation Method® or Billings Method™ teaches the couple to recognise their patterns of fertility and infertility so that they can apply the 4 Rules. This teaching has not changed: in the 1979 edition of Atlas of the Ovulation Method by Evelyn L Billings, John J Billings and Maurice Cataranich, the role of the cervix in controlling fertility and the hormonal correlation between the woman’s observations and ovarian hormones was described.

The Method has been extensively trialled by WHO and others and the trials reported in refereed journals.

Discussion on the Linacre Quarterly published paper on billingsMentor

“billingsMentor: Adapting natural family planning to information technology and relieving the user of unnecessary tasks”

Abstract  p219. “billingsMentor is an automated Web-based service for the Billings Method of natural family planning”

The title of this paper states that information technology can be used to relieve “the user of unnecessary tasks”. The authors “empathize” with the viewpoint expressed in a paper, published in 1984, that users found the Billings Ovulation Method “too complicated” “too difficult to apply” “too many rules to follow” and “too many qualifications to remember”. They state that an automated system “can simplify and improve use of the Billings Method by removing the shortcomings”. They further state that meta-rules were designed to “comprise the knowledge that must be acquired in order to apply the four rules” of the Billings Ovulation Method®.

Meta-rules developed for billingsMentor (p222)

- A. “The length of the fertile phase (beginning with the change described in rule 3) depends on mucus being present, typically for two or three days but it may be longer. The last day that the woman senses slipperiness or lubrication at the vulva is the Peak.”

Comment: As demonstrated by Professor James B Brown, this changing, developing pattern is typically 5-6 days reflecting the rise of oestrogen and cervical response.

- B. “Normal luteal phases have a maximum length of 16 days followed by menstrual bleeding. Rule 4 above applies during the luteal phase. If bleeding does not start by day 17 past the Peak the application of rule 4 must cease and rules 2 and 3 should be applied until another Peak is identified.” (Rule 4 refers to Peak Rule)

- C. “If a wet or slippery sensation occurs during the first three days after a Peak has been identified then the counting of days as specified in rule 4 should cease and rules 2 and 3 should be applied until another Peak is identified.”
Comment: The criteria for identification of Peak are not detailed in this published paper. These instructions are not part of Billings Ovulation Method® teaching.

- D. “If a woman is having regular cycles of normal length (maximum of 35 days) and she experiences a day or days following menstruation when her symptoms are of no sensation and no discharge (nothing felt/Nothing seen) then this is her BIP (called a dry BIP).”
- E. “If a woman is having regular cycles of normal length and she does not have a dry BIP, she may have a non-dry BIP. There is some sensation and/or some discharge in an unchanging pattern over the days following menstruation. This pattern should be verified over three usually consecutive cycles before it is applied in rules 2 and 3.”

Comment: These statements accord with existing Billings Ovulation Method® teaching. There is only one BIP in each of these circumstances and each woman learns to identify her own BIP.

- F. “If a woman is in a time of infertility following the birth of a baby or following cessation of hormonal medication, or she is having long cycles, there may be a combination of symptoms that constitute a BIP instead of a dry or simple non-dry BIP. The combined BIP is identified as an unchanging pattern which is a combination of symptoms not leading to a wet or slippery sensation.”

Comment: The BIP is an unchanging pattern indicating constant hormone levels and is identified by its unchanging nature, whatever the description. Whenever fertility is suppressed and ovulation is delayed—either during all stages of the Continuum (Brown 2011), or due to underlying pathology, a combined BIP can be identified.

- G. “When fertility returns (a Peak is observed) after a time of infertility the current BIP is no longer applicable and a new BIP must be evaluated according to meta-rules D and E.”

Comment: This accords with existing Billings Ovulation Method® teaching. When regular cycles return the woman is in a new reproductive life stage and will revert to one BIP.

There are obvious differences between some of the rules devised by Smiths and authentic Billings Ovulation Method® Rules.

To remove “the shortcomings” identified by their meta-rules, the authors have “simplified” what they describe as the Billings Method™. The stated two main functions of billingsMentor (p222) are “to instruct the client to generate proper descriptions of her fertility symptoms” (using the prescribed descriptors) and “to interpret the symptoms efficiently according to the Billings Method and to communicate the results to the client”. billingsMentor instructs the users in a course of action.

Comment: The Billings Ovulation Method® or Billings Method™ teaches couples to recognise their own unique patterns of fertility and infertility so that they can apply the 4 Rules which are based on clear, simple and verified knowledge, underpinned by an understanding of the roles and functions of the cervix in response to ovarian hormones.
Development of billingsMentor.

The Smiths had worked with WOOMB International Ltd to develop the original internet teaching system from which the historical data of the 54 students was extracted, however we emphasise that WOOMB International Ltd has had no ongoing involvement with billingsMentor.

Reconstructed charts were used to emulate the experience which, the authors’ state, would have been attained if the women had used billingsMentor rather than the earlier on-line Web based system developed by the authors in 2005. The suggested efficiency of the new directed system, billingsMentor, is then contrasted with the results they obtained under their web-based teaching system.

The registrations and histories of 54 women who had 300 days of charted record, (not necessarily consecutive days) were selected for retrieval and comparison and this data, including the charting data, was entered into billingsMentor. These particular records came from women who had used the on-line teaching system during the period 2006 to 2010 and all these women had the assistance of accredited Billings Ovulation Method® teachers throughout this period.

The described aim was to emulate the actions each client would have taken under the guidance of billingsMentor and compare these results with the actions taken under the web-based charting service. The women selected were categorised into 3 groups.

Group A  No recent fertility history events (not breastfeeding or recent use of hormonal contraception): 19 women (35%);
Group B  Breastfeeding mothers: 21 women (39%);
Group C  Recently ceased contraceptive medication: 14 women (26%).

The authors state that while this may not “be representative of a wider population of healthy fertile women it did provide a rigorous test of billingsMentor”. (P235)

“Descriptions in the Teacher/Student records.”

The reconstructed comparative chart for 60 daily records for a particular student, (Figure 3) p.226 detail how a woman’s words have been changed to fit standardised descriptions. To develop the program algorithms the woman’s descriptions were standardised and 5 descriptors were entered: sensation, quantity, blood, colour and fluidity. billingsMentor requires 1 descriptor for sensation and 4 for the visual appearance, using set words. On p224, Smiths write “In their teaching document (Billings and Billings, 1997) Drs John and Evelyn Billings stated that each woman is an individual and will describe her own mucus patterns in her own way” but the Smiths express their opinion that “this should not be taken as proscribing a limited vocabulary for describing the fertility symptoms in a discipline”.

In table 1 on p223, details are given of the prescribed vocabulary for billingsMentor, listing indicator characteristic and key discriminatory words. The mapping used involved the assigning of particular descriptions with a pre-ordained word: e.g. p226, the colours of “white” “cloudy” and “yellow” were
mapped to "opaque". "If the description of fluidity was omitted, then it was described as "thick" if the colour was "opaque," and "thin" (fluid) if the colour was "clear" and vice versa if the description of colour was omitted." A number of key descriptors are mapped together.

The women in this investigation have had no involvement in the standardised choices offered by billingsMentor.

The Smiths indicate that they measured the performance of billingsMentor against the teaching service by identifying the number of Peaks recognised correctly and the number of days correctly classified as belonging to the Basic Infertile Pattern (BIP) or the luteal phase. The criteria used by billingsMentor to identify a Peak or to establish a BIP is not detailed in this paper. It is difficult therefore, to discuss the results that have been quoted.

The identification of Peak and BIP following Billings Ovulation Method® guidelines, have been validated by more than 850,000 hormonal assays conducted by Professor James Brown through all stages of reproductive life.

**Some other points of difference.**

1. Method of recording a day with seminal fluid
2. Length of luteal phase exceeded 16 days – no ovulation
3. Identification of a Billings Peak

**1 Method of recording a day with seminal fluid**

Table 1: The vocabulary for billingsMentor indicates that the woman may choose “only seminal fluid” under “quantity”. The Billings Ovulation Method® requires a woman to record her observations of sensation and visual discharge every day, including days of seminal fluid. She is discouraged from writing only “seminal fluid” on her chart, as its presence may mask the subtle change to fertility. If the woman was sure it was “only seminal fluid” there would be no valid reason for Early Day Rule 2. Dr Evelyn Billings always stated that “the rules mean what they say”.

Under **Discussion** p234, the authors state “the same Billings Method sticker/symbol is used to denote a wait day after intercourse (rule 2) and a possibly fertile day (rule 3), whereas there is a clear distinction in the height of the bar chart”.

The Billings Ovulation Method® user applies the same sticker/symbol for any change from the BIP, including the presence of seminal fluid, as this may be obscuring the beginning of the mucus symptom and potential fertility.

**Comment:** Couples using the Billings Ovulation Method® are taught never to make assumptions but to chart always what is experienced.

**2 Length of Luteal Phase. “Length exceeded 16 days – no ovulation”**

**Comment:** Table 2 has a category for Luteal Phases as “Length exceeded 16 days – no ovulation.” “If bleeding does not occur within 16 days then either there is a pregnancy or there was no
ovulation at the time of the suggested Peak (only a rise in the level of the oestrogen hormone) or else there was a fault in the maturation of the follicle”.

The studies conducted by Professor Brown on ovarian activity and the Billings Ovulation Method® proved the correlation between the woman’s Billings Ovulation Method® chart and showed that the variants in ovarian activity were identified accurately in the charting. The Billings Ovulation Method® chart would not identify a Peak for an anovulatory event. Without ovulation, there is no luteal phase. A user of the Billings Ovulation Method® would not identify a Peak if the criteria are not present.

3. Identification of a Billings Peak

The authors quote, “Brown (2010, 2011) noted the correlation between ovulatory and anovulatory events at the Peak and associated subsequent bleeding.” (P227)

Comment:


In the above paper, Professor James Brown life-work on the Continuum of ovarian activity from menarche to menopause is detailed. This paper refers to oestrogens peaks and bleeding patterns following both ovulatory and anovulatory events. Brown also discuss cycles of ovarian activity both ovulatory and anovulatory, whereas Billings cycles are referred to as ovulatory menstrual cycles.

Professor Brown’s studies identified an oestrogen peak which can occur without a subsequent ovulation and can be followed by further oestrogen peaks, the last of which may result in ovulation and possibly a fertile cycle. It is only for this latter peak that the Billings Ovulation Method® user would identify a Billings Peak, based on the criteria for Peak and then apply the Peak Rule.

This explains the long discussions in this paper regarding the recognition of Peak Day, disputed Peaks or charts with several Peaks marked. This is not a feature of Billings Ovulation Method® charts.

The use of the term “completed” ovulation (page 229) is not found in the published writings of Drs John and Evelyn Billings or Professor James Brown.

On p225 the authors state “that in 2012 there was a change to the guidelines for recognising a Peak”.

Comment: This statement referred to a reiteration of the rationale behind the criteria for identifying the Peak day through an understanding of the beginning of the progesterone rise as explained by Professor James Brown and the subsequent function of the Pockets of Shaw as explained by Professor Erik Odeblad. There was no change to the authentic teaching as described by Drs John and Evelyn Billings in their published literature. These scientific understandings and the rationale behind the 4 Rules may not have been well understood when the Betts article was published in 1984 but with improved training and teaching techniques, they have certainly been taught and explained by all accredited teachers of the Billings Ovulation Method®.
Summary

The Smiths state “The main difference is that in the traditional teacher/student environment, the student must first interpret and encode her fertility by choosing a sticker or symbol for each day”. “BillingsMentor interprets and encodes fertility on behalf of the client by analysing the sequence of symptoms and then generating a chart according to the rules and meta-rules.” (P234)

The Billings Ovulation Method® respects the individuality of each woman, allowing her to identify her unique patterns of fertility and infertility and empowering the couple to make joint decisions regarding regulation of their fertility. After the initial learning stage, through an understanding of the woman’s unique patterns, the couple become autonomous and can apply this information throughout all phases of reproductive life, only seeking further assistance if required. It allows the couple to attain stewardship of their own fertility.

The Rules of the Billings Ovulation Method®, the criteria for identifying Peak and therefore ovulation, and the identification of a BIP are different from that described in the published paper. The Billings Ovulation Method® is an effective and reliable natural method of fertility regulation, validated by science and is simply taught and applied.

Kerry Bourke, Joan Clements, Marian Corkill, Marie Marshall
Directors WOOMB International Ltd.
22 January 2015
References


1. The teaching phase *Fertility and Sterility* 1981, 36, 152-8

11. The effectiveness phase, *Fertility and Sterility* 1981 36, 591-8