CLAIMS:

1. A wearable system to pump fluid from a breast, the system comprising:

a skin contacting structure configured and dimensioned to form a seal with the breast;

a pump that provides a suction within the skin contacting structure;

a controller that automatically controls the operation of the pump;

a user interface that permits manually changing a pump setting, wherein the user interface permits manually changing waveform shape indicative of change in pressures applied to a breast by the pump; and

a variability model,

wherein the system is configured to provide a multi-dimensional array of different pumping profiles, where a given pumping profile in the array is suitable for a certain cohort of users with certain preferences, and a user self-selects a cohort based on her planned use model of the system by selecting the said profile to use from those in a sub-array already indexed using a cohort indicator,

wherein the controller is configured to automatically provide instruction messages to a user.

2. The system of claim 1, wherein the controller adjusts pump settings to be correlated with the comfort and/or efficiency of the pump sessions based on feedback.

3. The system of claim 1, wherein the controller makes pump adjustments based on analytics, and common pumping settings is tracked and identified and stored data is mined for patterns of usage and a flow profile can be created.

4. The system of claim 1, wherein the system is configured to store a variety of pump settings and to record key metrics such as time to expression, volume output, pump angle and comfort and based on such information, the system recommends specific settings for the user.

5. The system of claim 1, wherein the controller optimized pumping by correlating pump settings with high volume outputs based on correlations to a user’s output profile.

6. The system of claim 1, wherein the controller optimizes pumping by correlating pump settings with high volume outputs based on real time data at the breast.

7. The system of claim 1, wherein the pumping profiles in the multi-dimensional array comprise preferences for portions of a pumping session based upon a first pumping period for a first child age.

8. The system of claim 1, further comprising an array of pumping profiles, wherein a said pumping profile in the array is defined as a first waveform and first frequency and first suction level of a range of available levels for each of a stimulation phase and an expression phase and wherein the pumping profile is time-varying.

9. The system of claim 1, wherein a said pumping profile includes a plurality of different thresholds associated with a plurality of user alerts.

10. The system of claim 1, wherein a said pumping profile includes a plurality of different trigger events associated with a plurality of pump conditions.

11. The system of claim 1, wherein the array of pumping profiles is defined by one or more of a user's cohort indicator, personal preference indicator, session count, day count, session time or baby age.

12. The system of claim 1, further comprising a cloud-based data system that communicates user preferences to the pump.

13. The system of claim 1, wherein a cloud-based data system employs data mining over a population of users to set or suggest pumping parameters.

14. The system of claim 1, wherein a user scores satisfaction and the system uses satisfaction scoring to present pump profiles.

15. The system of claim 1, further comprising a feedback system taking multiple data sources into consideration to decide when and how to communicate with a user.

16. The system of claim 1, wherein a feedback system automates a user's onboarding on to the system.

17. The system of claim 1, wherein pumping, sales force support cases and web analytics data are merged to detect user issues and to provide advice regarding corrective measures.

18. The system of claim 1, wherein users requiring attention are flagged to experts who provide assistance.

19. The system of claim 1, wherein decision logic is employed to select from a plurality of firmware variants and make a recommendation to a user to switch to that firmware variant, that if accepted results in the reconfiguration of the pump to that variant.

20. The system of claim 1, wherein decision logic is employed to select from a plurality of pumping profile variants and make a recommendation to a user to switch to that profile variant, that if accepted results in the reconfiguration of the pump to that variant.