Research for Meeting:

What is sleep tracking, how is it done, how accurate is it, how can it be improved?:

* Sleep tracking in Microsoft band and Apple watch
* Motion sensor in watch: monitor movement and correlate it with sleep quality (more you move, more restless your sleep is)
* Health Kit – share health and fitness data (can get this somehow) – with Apple Watch
* Apple Watch doesn’t itself track sleep, companion apps do
* Heart rate can be viewed using health app
* Microsoft Band: biometric data such as heart rate and motion, creates analysis based on this
* How to track sleep best
* Jawbone UP3: heart rate, respiration rate, body temperature, galvanic skin response – tell the difference between REM, light and deep sleep (claims it’s better than Band and Fitbit)
* Sleep schedule probably affects this- no tracker checks this right now

What sleep trackers output raw data easily?

* Apple Watch: HealthKit
* Can see some of the data for Microsoft Band on your band itself
* More stats in Microsoft Band app, Microsoft Health web dashboard
* It’s hard to get Microsoft band data though
* Fitbit is really hard to get data out from though
* Band SDK not available now

How can sleep tracking be improved?

* Better way to detect sleep patterns: Withings Aura (a sensor underneath your mattress), preferred light settings
* Pollution around you
* Sonar to see through your blanket and monitor movement of your chest
* Respiratory rhythm
* Environmental factors: noise/pollution
* Beddit 3: ballistocardiography (BCG) – sleep quality, duration, heart rate, respiration rate

Links:

* <http://www.wareable.com/withings/best-sleep-trackers-and-monitors>
* <https://www.cnet.com/how-to/how-to-track-your-sleep-schedule/>