I was the Captain for AA123 on Feb27 DFW-HNL. Uneventful flight enroute, smooth ride at FL 380 and good VMC weather enroute and at HNL. The aircraft we were flying was a 777-200 and one of a few of AA's 777-200's without flight deck internet so our WSI info (weather) was about 10 hours old and we had not received any updates from dispatch so we were not anticipating anything out of the ordinary. 15 mins before decent we checked in with HCF vhf and they told us that there was "light to moderate all alts". I immediately called the purser and instructed to prepare and secure the cabin early for arrival and relayed the ride info from HCF. Seat belt sign was on. Both radars were on and looking down between 1-2 degrees. 15 mins later began decent and hit the clear air turbulence at about FL310. Became mod-severe almost immediately for about 10-15 seconds. Autopilot was on and descending at .82/280. Left autopilot on and increased VS to leave turbulence. After approximately FL290 ride smoothed out and we reported the severe encounter. Received call from FAs and was informed of two FA injuries that were in the aft galley. Declared medical emergency and received priority handling to HNL.

We had no prior warning before checking in with HCF. Only a 15-minute heads up about light to moderate, no mention of severe. Not sure if dispatch had any info but regardless there was no updates from dispatch since the climb out at DFW. We were monitoring 123.45 and 121.5 and had heard nothing about bad rides. My biggest frustration is there was no WSI update capabilities on this aircraft. The passengers can use internet but we were flying without any updated weather other than ACARS, area weather and ATIS which are field reports. WSI is a robust and excellent tool but not after 10 hours without an update. AA needs a fix for this pronto.

CA Tom Schickedanz