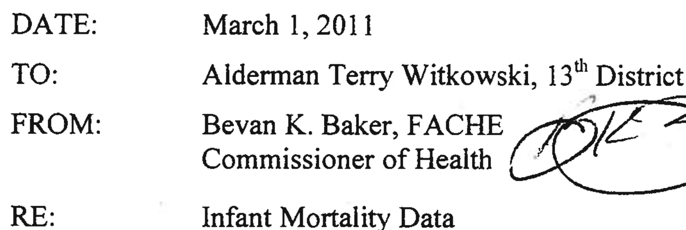
Tom Barrett
Mayor

Bevan K. Baker, FACHE
Commissioner of Health

Administration

Frank P. Zeidler Municipal Building, 841 North Broadway, 3rd Floor, Milwaukee, WI 53202-3653 phone (414) 286-3521 fax (414) 286-5990
web site: www.milwaukee.gov/health

INTEROFFICE MEMORANDUM



DATE: March 1, 2011

TO: Alderman Terry Witkowski, 13th District

FROM: Bevan K. Baker, FACHE
Commissioner of Health

RE: Infant Mortality Data

Thank you for your letter regarding infant mortality in Milwaukee. The City of Milwaukee Health Department (MHD) has made addressing infant mortality a priority. With very limited tax-payer funding, we offer programs and services that address some components of the issue.

Our Fetal/Infant Mortality Review process tracks and carefully analyzes each death. Our home visits provide much-needed support services to hundreds of the most at-risk women in the population – but by our calculation offering intensive home visiting each year to ALL at-risk Milwaukee families would cost the City more than 100 million dollars per year. Since 2009 our Cribs for Kids program has distributed nearly 1500 Pack 'n Plays for infants who would otherwise have no safe place to sleep. Through our community education component we have raised awareness about unsafe sleep, smoking during pregnancy, and immunizations. And our community partnerships and infant mortality summits have brought the community together around this issue. MHD's programs undoubtedly prevent some infant deaths each year, and mitigate some of the effects of poverty and scarce resources, but we alone cannot address all of the important causes of infant deaths. We would like to summarize those causes briefly here.

The two biggest causes of infant mortality are prematurity and unsafe sleep environments. MHD is addressing the latter, as noted above, through our Cribs for Kids program and community education. Prematurity, however, is a much bigger cause of infant mortality and, in turn, the top three correctable causes of prematurity are: access to quality prenatal care, individual behaviors during pregnancy (e.g., smoking), and broader, deep-seated socioeconomic factors such as poverty, poor education, lack of viable employment, and racism. These latter factors, experienced not only during pregnancy but throughout the lives of women, drive prematurity by altering stress hormones in the body (such as cortisol and adrenaline) which, in turn, affect blood flow to the placenta and predispose women to premature labor.

Like a barometer, infant mortality and its main cause, prematurity, are sentinel indicators of the overall health of the community. For every premature baby who dies, there are many others who suffer the long-term consequences associated with prematurity. In fact, the socioeconomic factors mentioned above are probably the strongest group of factors driving prematurity and they drive other poor health outcomes in every age group (see www.cuph.org/mhr). Without addressing the deeper issues, infant mortality rates and the racial

disparities in infant mortality (and in other health outcomes) in Milwaukee will not be significantly reduced. The Common Council can play a role in helping address the broader issues. We intend to offer an array of specific legislative proposals that would have a significant effect on the social and economic determinants of poor health in general, and poor birth outcomes in particular.

Meanwhile, through our programs we are also working to help pregnant women reduce their own risk behaviors related to prematurity (e.g., our media campaign to reduce smoking during pregnancy), and we are working with the medical community to improve access to and quality of prenatal care in Milwaukee.

We understand that you are eager to see the infant mortality data, including the number of infant deaths which have occurred in any one year, and we provide that in the table attached. But please note that the raw number of deaths is not necessarily indicative of the scope of the problem. To be meaningful, raw numbers of infant deaths should always be compared to the number of births - - the Infant Mortality Rate (IMR). Infant mortality rates are calculated as the number of infant deaths per 1000 live births.

For example, if the number of deaths in Year A is 120 and the number of births in that same year is 10000, then the rate is 12. If in the following year, Year B, the number of deaths is 115, it would appear as if the City was doing better. However, if in Year B the number of births was only 9000, the rate would be 12.8 and the infant mortality rate actually would have increased. You can see from this example why it is more important to know the rate than the specific number of infant deaths.

Further, Infant Mortality Rates have some degree of random variation from year to year, and it is difficult, if not nearly impossible, to identify any meaningful trend from one single year's IMR to the next year's IMR. That is why we much prefer to use at least a 3-year average when analyzing IMRs for trends that might indicate either worsening or improvement. While we are always happy when a given year's IMR appears to have improved over the prior years, we don't assume that it represents a true trend unless or until it is confirmed over at least a 3-year period.

Still further, we wish to point out that infant birth and death data are not collected or analyzed in the same way as traffic accidents or crime statistics. We would like to provide some clarification about the process of calculating infant mortality rates. While the MHD tracks the number of births deaths of a given year, these numbers are not final until the State of Wisconsin Bureau of Health Information certifies and reconciles the data.

Funeral directors, hospitals and clinics have a deadline of March 1st of the following year to get their birth and death data and corrections to the State, after which, the State usually checks the data for internal consistency (or "reconciles" it) and releases it to localities within 6-7 months. To date we have been unable to obtain the reconciled file of 2009 births and deaths. We have been asking for this file since November 2010. The Bureau of Health Information has recently installed a new birth certificate system and this has slowed the Bureau's ability to reconcile the data. As a result, for 2009 we only have only estimates of the number of deaths and the infant mortality rates, which in the past we have not given out as they are subject to change.

Finally, although the numbers will be imperfect and are only estimates until we receive the reconciled data from the State, we are certainly willing to share with you this table containing the 2009 raw data and the rates as we know them.

Should you have any questions or additional concerns, please feel free to contact me.

cc: Mayor Tom Barrett, Common Council Members, President Willie L. Hines, Jr., Ron Leonhardt

City of Milwaukee Infant Mortality Numbers and Rates, 2001-2009				
Year	# of Infant Deaths	Reported Rate	3-year Average period	3-year Average Rate
2001	127	11.44		
2002	133	12.38	2001-2003	11.70
2003	125	11.30	2002-2004	11.89
2004	131	11.99	2003-2005	11.59
2005	128	11.48	2004-2006	11.92
2006	140	12.27	2005-2007	11.14
2007	110	9.67	2006-2008	10.88
2008	120	10.68	2007-2009	10.44*
2009	121*	11.00*		

**Uncertified data: based on internal tracking by MHD. Subject to change when the WI Department of Health Services releases reconciled data.*