

Distribution of the Duration of Uninsurance in Minnesota:
An Analysis of the Minnesota Health Access (MNHA) 2004 and 2007 Surveys

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INTRODUCTION

This paper uniquely contributes to the literature on the uninsured by providing the first analysis of its kind using Minnesota survey data to develop a state-specific profile of the lengths of time Minnesota residents lack insurance coverage. Though the literature generally agrees that lacking health insurance coverage is both a short-term and a long-term problem faced by many Americans, few studies have analyzed the duration of uninsurance on a national level and none have done so for Minnesota residents. Most of the research to date has focused on characteristics of the uninsured population overall. Though some studies have evaluated the *number* of gaps in health insurance coverage little is known about the duration of uninsurance.

Though Minnesota has consistently had one of the lowest rates of uninsurance, the problem of uninsurance and its consequences can not be ignored (US Census Bureau, 2012). As attention to reducing the number of uninsured Americans – and health reform in general – continues to attract attention, Minnesota is one of a few states with a viable possibility of significantly reducing its uninsured population in the shorter-term due to its consistently low uninsurance rate relative to other states. Though Minnesota's uninsured rate has increased in recent years, it remains one of the lowest rates in the country (US Census Bureau, 2012). However, addressing the uninsurance problem requires understanding that public policy strategies must target the distinct issues that lead to either short-term uninsurance or long-term uninsurance and how short-term and long-term uninsurance contribute to overall rates of uninsurance in Minnesota. By presenting the first Minnesota-specific analysis of its kind, this paper will significantly contribute to the work state policy makers must do as they act to address the issues of uninsurance.

PURPOSE OF HEALTH INSURANCE COVERAGE

Health insurance facilitates access to the health care system and the delivery of health care services by minimizing financial barriers (Institute of Medicine, 2001; Institute of Medicine, 2003a). Insurance insulates individuals and families from costs that might overburden some by pooling their risks and resources (Institute of Medicine, 2001). Typically, insurance protects individuals and families from unlikely and expensive events, but in the case of health insurance, its role has expanded to be a mechanism of financing routine health care expenses (Institute of Medicine, 2001). It is this financing mechanism that leads to higher rates of appropriate utilization of preventive, acute, and chronic care services (Alliance for Health Reform, 2007). As a result, health insurance is associated with better health status and outcomes (Alliance for Health Reform, 2007). In addition to being protected from the risks of catastrophic costs associated with health issues, those with health insurance coverage also benefit from the discounted rates for health care services negotiated by their insurance company. Although health insurance coverage is commonly acknowledged as an important way to obtain access to health care services, health insurance does not in and of itself guarantee health care (Institute of Medicine, 2001; Devoe, Baez, Angier, Edlund, & Carney, 2007). Many Americans experience cost sharing and are subject to varying out-of-pocket costs, which can be burdensome and can limit their access to health care services, despite the lower negotiated charges (Institute of Medicine, 2001).

Because they are less likely than those with insurance to obtain sufficient or high quality medical care, the uninsured have been described as vulnerable (Pauly & Pagan, 2007). Research has shown that those lacking health insurance coverage have diminished access to health care

services, greater unmet need, reduced health status, and shorter life expectancies as compared to those with coverage (Alliance for Health Reform, 2007; Federico, Steiner, Beaty, Crane, & Kempe, 2007). In addition, uninsured individuals are faced with financial barriers to accessing the health care system, as they do not benefit from the discounted rates negotiated by insurance companies and must alone carry the burden of full cost sharing (Institute of Medicine, 2001).

FINANCING OF THE UNITED STATES HEALTH CARE SYSTEM

Consistent with Americans' penchant for capitalism, health care in the United States has historically been treated more like any other good in a free-market economy, rather than as a social good. Health insurance coverage in the United States is financed via a patchwork system of both public and private sector mechanisms. The system developed without a cohesive design as a result of incremental policies and initiatives in both the public and private sectors (Institute of Medicine, 2003a). As a result of this piecemeal system, nonelderly Americans, or those under the age of 65, are not guaranteed eligibility for health insurance nor the ability to afford to purchase or retain that coverage (Institute of Medicine, 2001). Among industrialized countries worldwide, the United States alone treats health insurance as a free-market commodity.

Historically, health insurance coverage in the United States has been anchored by employer-sponsored coverage (ESI), also called the group insurance market, where employers offer health insurance as a benefit to their employees (and often the employees' dependents as well). The majority of insured Americans under the age of 65 (61 percent in 2006) get their health insurance coverage in this way (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007).

When employers do not offer health insurance coverage or employees decline the coverage, individuals and families can choose to purchase insurance in the individual market or, if they are eligible, can gain coverage through public insurance (e.g., MinnesotaCare, Medical Assistance, etc.). Purchasing insurance in the individual market is often much more costly than insurance available through the group, or employer-sponsored, insurance market, and is often more difficult to get due to exclusions based on health status and pre-existing conditions (Institute of Medicine, 2001).

In the public sector, federal, state, and local governments provide health insurance to special populations as a means to secure health care for them (e.g., veterans receive health care through the Department of Veterans Affairs; elderly individuals receive coverage through Medicare; low-income individuals and children receive coverage through Medicaid or the State Children's Health Insurance Program (SCHIP), etc.) (Institute of Medicine, 2001). However, public insurance can be difficult to navigate and has strict eligibility requirements, which can make it challenging to acquire and retain.

Although the systems for delivering and paying for health care in the United States are far from integrated for those with health insurance, financing and delivering care to uninsured individuals and families in the United States is even more fragmented and ill-defined (Cheong, Feeley, & Servoss, 2007; Institute of Medicine, 2003a). This safety net consists of federal, state, and local programs, facilities, and providers that finance and deliver free or reduced-cost health care. Unlike their insured counterparts, medically indigent people are not entitled to any minimum set of health care benefits and the providers that treat them are not guaranteed reimbursement for the services rendered to this population (Institute of Medicine, 2003a).

WHY DO PEOPLE BECOME UNINSURED?

Though health insurance in the United States is characteristically voluntary, the Institute of Medicine warns that many people *involuntarily* lack health insurance coverage (Institute of Medicine, 2001). Uninsurance consists of both short-term and long-term spells of uninsurance and churning is defined as cycling between being insured and uninsured (Federico, Steiner, Beaty, Crane, & Kempe, 2007). Health insurance coverage eligibility and participation is linked to a number of socioeconomic characteristics including marital status, age, employment, income, and health status. The Institute of Medicine concluded that individuals have a substantial chance of experiencing a spell of uninsurance at some point during their lifetime due to how normal changes to these socioeconomic characteristics (e.g., divorce, unemployment, illness) affect one's eligibility for and participation in health insurance (Institute of Medicine, 2001). More broadly, growing health care costs, changes in low-income populations, labor market fluctuations, increases in the number of households unable to provide for basic needs, and growing immigrant populations are cited as significant factors contributing to growing rates of uninsurance nationally (Cheong, Feeley, & Servoss, 2007). In Minnesota and nationally, health care cost growth has increased faster than growth in wages, per capita income, and inflation for a number of years (Minnesota Department of Health, 2008; Institute of Medicine, 2001; Pagan & Pauly, 2006). According to the Institute of Medicine (2001), this has resulted in a gap in purchasing ability that makes health insurance unaffordable to an additional one million Americans annually.

In Minnesota, the Department of Human Services directly administers MinnesotaCare and oversees the two programs administered by counties, Medical Assistance (MA) and

General Assistance Medical Care (GAMC).¹ The state paid for all or part of the medical costs for the approximately 659,000 Minnesotans that receive their health care through the state's public health care programs (Minnesota Department of Human Services, 2008).²

A number of eligibility requirements must be met for public insurance coverage, including once or twice annual renewal processes. If the renewal process is not completed, people are disenrolled from the program, which leads to a loss of coverage. A review of the literature indicates that this type of dropout is often unintentional (Sommers, 2007). Nationally, many states have made changes in their public health insurance programs in order to contain rising health care costs and a consequence of many of these changes has been increased dropout rates (Rimsza, Butler, & Johnson, 2007). Poor retention in public health insurance programs is thought to be a significant contributor to the overall problem of uninsurance because people who disenroll from public health insurance programs often do not replace public program insurance with private insurance due to their limited incomes and the high cost of premiums (Sommers, 2007; Rimsza, Butler, & Johnson, 2007).

EMPLOYER-SPONSORED HEALTH INSURANCE COVERAGE

As previously stated, the majority of Americans with health insurance coverage get their coverage through their employer. However, employer-sponsored coverage rates have been declining in recent years across the country, especially among those with the lowest incomes

¹ GAMC was discontinued February 28, 2011.

² Fiscal year 2007.

(Alliance for Health Reform, 2007; Holahan & Cook, 2008). Blewett et al. (2008) reported a significant drop in the availability of employer-sponsored health insurance coverage nationally, with the percentage of firms offering health benefits decreasing to 60 percent in 2005, down 9 percent from the rate in 2000 (Blewett, Davidson, Bramlett, Rodin, & Messonnier, 2008). These trends are also evident in Minnesota; between 2000 and 2008, the percentage of nonelderly Minnesotans with employer-sponsored health insurance decreased from 78.4 percent to 69.9 percent (Robert Wood Johnson Foundation & State Health Access Data Assistance Center, 2010). Research also shows that declining rates of employer-sponsored coverage are correlated with poorer economic conditions (Holahan & Cook, 2008). As a result of the recent economic downturn, it is likely that employer-sponsored coverage will continue to decline both nationally and in Minnesota. In addition, employer-sponsored coverage decreased even when the economy improved (Holahan & Cook, 2008).

As health care and premium costs continue to increase, workers' total compensation packages become more costly for employers. As it becomes more difficult for employers to shift the increasing costs of insurance to their workers in the form of lower wages, they are less likely to offer health insurance coverage to employees and their employees' dependents (Holahan & Cook, 2008). The erosion of employer-sponsored coverage has a greater effect on people at lower incomes because health insurance benefits make up a larger proportion of the worker's overall compensation. In addition, people with higher incomes experience greater tax benefits from having health insurance coverage than those experienced by people with lower incomes (Holahan & Cook, 2008).

Another factor contributing to fewer Americans getting health insurance coverage through their employers is that some employees do not enroll in the employer-sponsored insurance coverage available to them, often due to the cost and other more immediate needs (Institute of Medicine, 2001). In Minnesota in 2007, only 93.6 percent of people that were eligible for employer-sponsored health insurance coverage participated, or took-up the coverage. This represents a decrease from the take-up rate in 2001 of 95.1 percent (Minnesota Department of Health & University of Minnesota School of Public Health, 2008). Declining rates of employer-sponsored coverage and employee take up are thought to have contributed to the growing uninsured population, though individual policies and public insurance may fill a portion of the coverage gap (Federico, Steiner, Beaty, Crane, & Kempe, 2007; Alliance for Health Reform, 2007; Institute of Medicine, 2001).

BACKGROUND AND SIGNIFICANCE

Although the amount of money the United States spends on health care annually (\$2,105.5 billion, or 16 percent of the nation's gross domestic product, in 2006) continues to increase, a growing number of Americans under the age of 65 lack health insurance coverage (The Kaiser Family Foundation, 2008a). The total number of people lacking health insurance coverage in the United States in 2008 was estimated to be more than 47 million (Alliance for Health Reform, 2007; The Kaiser Family Foundation, 2008a).

CHARACTERISTICS OF THE UNINSURED POPULATION

Nationally, the uninsured are more likely to be male, younger, lower income, less educated, and members of racial and ethnic minority groups (Cheong, Feeley, & Servoss, 2007; Institute of Medicine, 2001; Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007). Adults are more likely than children to be uninsured, and, among adults, young adults are more likely to be uninsured than older adults, with uninsurance rates increasing dramatically at age 19 (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Kriss, Collins, Mahato, Gould, & Schoen, 2008). Until recently, young adults were no longer able to be insured as dependents under their parents at the age of 19 or upon graduating from college. Previously, young adults, ages 19 to 29, were the fastest growing segment of the uninsured population nationally, accounting for 17 percent of the increase in the number of nonelderly uninsured Americans from 2005 to 2006 (Kriss, Collins, Mahato, Gould, & Schoen, 2008). States had already begun to change their laws, requiring some insurers to extend dependent coverage to children under the age of 23 or 25 prior to the passage of the federal Patient Protection and Affordable Care Act (PPACA) in 2010.

The Dependent Insurance Coverage provision in PPACA required insurers to extend dependent coverage to children until they reach age 26 (HealthCare.gov, 2012). Children in families with uninsured parents are less likely to be insured and receive appropriate medical care (Institute of Medicine, 2003b).

Contrary to popular belief, the uninsured generally are not higher income individuals or families that choose to go without health insurance (Cheong, Feeley, & Servoss, 2007; Kuttner & Rutledge, 2007). Approximately 80 percent of uninsured Americans have incomes below 300 percent of the federal poverty level, or about \$60,000 for a family of four in 2007 (Jacobs & Claxton, 2008; Department of Health and Human Services, 2007). In addition, lower income individuals typically remain uninsured for a longer period of time than do those with incomes above the federal poverty level (Institute of Medicine, 2001).

Another myth is that the uninsured are unemployed. In fact, the uninsured overwhelmingly (80 percent) live in working families (Institute of Medicine, 2001; Alliance for Health Reform, 2007; Institute of Medicine, 2004). However, the majority of nonelderly uninsured adults did not attend college thereby making them less likely to have higher-skilled and thus higher-paying jobs that more often provide health insurance coverage (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Institute of Medicine, 2004). The literature indicates that this group either does not have employer-sponsored coverage available to them or they are unable to afford available coverage (Alliance for Health Reform, 2007; Institute of Medicine, 2004).

IS LACK OF HEALTH INSURANCE COVERAGE MORE OF A SHORT-TERM OR LONG-TERM PROBLEM?

Throughout this paper, short-term uninsurance will be defined as lacking health insurance coverage for less than a year, and long-term uninsurance will be defined as a period of uninsurance lasting 12 months or longer. A report published by the Urban Institute found that one-fifth of nonelderly Americans lacked health insurance coverage at some point (uninsured at the time of the survey or in the 12 months prior to the survey) during a 12 month period from 2001 to 2002; 4.4 percent were uninsured for 5 months or less, 5.0 percent for 6 to 11 months, and 10.6 percent for 12 months or longer (Zuckerman & Haley, 2004). Though the literature agrees that the lack of health insurance is both a short-term and a long-term problem, few studies have analyzed the duration of uninsurance experienced by individuals. Most of the research is focused on the uninsured population overall, though some have studied the number of gaps in health insurance coverage experienced by individuals.³ Among the few duration of uninsurance studies, most have not analyzed the same population (e.g., adults vs. total nonelderly population), making it difficult to compare their results. For example, a Kaiser Family Foundation report found that three-quarters of uninsured adults were long-term uninsured, while another study reported that more than half (56 percent) of the total nonelderly population were long-term uninsured, nearly one-quarter were uninsured 6 to 11 months, and one-fifth lacked health insurance for 5 months or less (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Zuckerman & Haley, 2004).

³ See, for example, Collins, Davis, Doty, Kriss, & Holmgren, 2006; Short & Graefe, 2003; Blewett, Davidson, Bramlett, Rodin, & Messonnier, 2008; Federico, Steiner, Beaty, Crane, & Kempe, 2007

Despite the relative lack of studies on the duration of uninsurance, it is important for policy makers to consider the duration of uninsurance. When trying to develop policy solutions aimed at reducing the number of people experiencing uninsurance, policy makers must consider that the policies implemented may only be effective in reducing either short-term or long-term uninsurance, but not both. As the population of Americans experiencing a lack of insurance continues to grow, it may also be important for policy makers to consider whether short-term or long-term uninsurance is driving changes in the overall rate of ever being uninsured at some point in time. Though little information exists in the literature on this topic, one study using 2001-2002 data found that the rate of ever being uninsured declined because the rate of long-term uninsurance decreased (Zuckerman & Haley, 2004).

Policy makers must understand this information in order to target policy solutions to the specific – and often different – reasons for short-term and long-term uninsurance. For example, those experiencing shorter durations of uninsurance may benefit from policies that would eliminate health insurance waiting periods or less frequent public program renewal processes, while those experiencing longer durations of uninsurance may benefit from policies aimed at expanding coverage and making health insurance more affordable.

CONSEQUENCES OF UNINSURANCE

The negative implications of uninsurance are diverse and wide-ranging, including diminished access to health care services, decreased utilization, worse health outcomes and status, and increased financial risk for uninsured individuals and families. Though those who experience any time without health insurance are at risk for some adverse effects, the literature

indicates that the risks and consequences multiply for those experiencing longer spells of uninsurance (Institute of Medicine, 2001). The financial stability of families is jeopardized by having even one uninsured family member (Institute of Medicine, 2004).

The broader community in which uninsured individuals live is negatively affected as well, with higher rates of disability and disease, lower quality health care services, and increased health care costs overall resulting from having an uninsured population. As the number of Americans without health insurance coverage increase and concern about the sustainability of rising health care cost have continued to grow there has been increased interest in the uninsured (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Alliance for Health Reform, 2007; Pagan & Pauly, 2006). A Kaiser Family Foundation (2008b) poll found that health care generally, and the ability to afford the cost of health insurance specifically, top the public's list of health care-specific concerns. Of those concerned about the sustainability of health insurance coverage and costs, approximately half are mostly concerned about the amount people pay for their health insurance and health care (e.g., health insurance premiums and out-of-pocket costs) (The Kaiser Family Foundation, 2008b).

CONSEQUENCES OF UNINSURANCE – FINANCIAL RISK

The primary barrier faced by the uninsured to getting needed medical care is cost (Cunningham, Hadley, Kenney, & Davidoff, 2007). A review of the literature found that the uninsured typically have health care costs that are about half the amount incurred by those with insurance coverage (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Institute of Medicine, 2003b). Uninsured individuals and families are exposed to the risks and expenses from which

health insurance coverage typically provides protection. Though the uninsured have lower health care costs (i.e. because they use less health care) than those with insurance, unlike the insured who only pay a small percentage of the overall cost of their care, those lacking insurance are responsible for paying the entire cost of their care out of their own pockets. Because people who lack health insurance also tend to have lower incomes, the portion of their incomes spent on health care is higher, even though they have lower rates of utilization (Institute of Medicine, 2003b). The Kaiser Family Foundation found that medical bills for even minor health problems can quickly multiply for the uninsured and the financial impact on a family of even having only one uninsured member can be serious (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007). Uninsured young adults are most impacted by medical debt, with nearly 40 percent carrying medical debt (Kriss, Collins, Mahato, Gould, & Schoen, 2008). Compared to insured families, uninsured families are much more likely to be forced to choose between paying for health insurance and medical care or housing and food (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007). When considered in the context of current economic conditions in the United States that are characterized by increasing food and fuel costs and decreasing housing values, it is likely that the financial burden of health insurance and medical care costs will continue to overwhelm many people who lack health insurance coverage. This information leads to the reasonable conclusion that greater durations of uninsurance are likely associated with greater financial consequences as these individuals would be exposed to more risks and expenses from which health insurance would typically protect them.

CONSEQUENCES OF UNINSURANCE – ACCESS AND UTILIZATION

The consequences of uninsurance are compounded by the length of the duration of uninsurance a person experiences and can be severe, especially when preventable conditions are left untreated or when individuals are seriously or chronically ill (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Alliance for Health Reform, 2007; Institute of Medicine, 2002). Health care is frequently only available upon payment (or proof of insurance and payment of any coinsurance), and for uninsured individuals, health care services are often delayed or denied when they cannot pay (Alliance for Health Reform, 2007). Adults and children who lack coverage are less likely to have a usual source of care, are less able to afford prescription drugs, or complete recommended treatments (Zuckerman & Haley, 2004; Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007). Uninsured adults are five times more likely to delay or forego needed health care services (25 percent) due to cost than their insured counterparts (5 percent) and one-quarter of uninsured adults are unable to follow through with recommended treatments for the same reason (Institute of Medicine, 2001; Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Adams, Lucas, & Barnes, 2008). Additionally, uninsured children are three times as likely as their insured counterparts to go without needed care (15 percent compared to 5 percent, respectively) (Institute of Medicine, 2001). In addition to diminished access and utilization of acute health care services, the uninsured are also less likely to receive timely preventive care (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Institute of Medicine, 2001; Institute of Medicine, 2002). Even short spells of uninsurance result in decreased access to care and greater unmet need among the nonelderly population, though those experiencing longer spells of uninsurance experience more of these negative consequences. A Kaiser Family Foundation

report found that as the period without health insurance coverage lengthens, uninsured individuals experience more of these types of problems (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007).

The reduced access and utilization of health care services associated with uninsurance results in higher rates of avoidable hospitalizations (Institute of Medicine, 2003a). Once hospitalized, uninsured patients are less likely to receive high-quality care (i.e. they receive fewer diagnostic and therapeutic services) and are more likely to die in the hospital or shortly after being discharged than are insured patients (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Alliance for Health Reform, 2007; Institute of Medicine, 2002).

In addition to the general consequences noted previously, the consequences of being uninsured are uniquely experienced by young adults and children, partially due to their high preventive care needs. At a time when young adults should be forming stronger relationships to the health care system and providers and taking responsibility for their own care, a lack of health insurance coverage for young adults poses a barrier to creating or maintaining ties to a usual source of care or primary care provider (Kriss, Collins, Mahato, Gould, & Schoen, 2008). A Commonwealth Fund study reported that only 41.0 percent of uninsured young adults (19 to 29 years old) had a regular source of care, compared with more than three-quarters (79.0 percent) of those who were insured all year, and 66.0 percent had gone without needed health care due to cost (Kriss, Collins, Mahato, Gould, & Schoen, 2008). Changes to Minnesota's law and to federal law through the PPACA in recent years have required expansions to dependent insurance coverage up to the age of 26. Despite higher rates of uninsurance in Minnesota overall in recent years, these policies have resulted in a decline in the uninsurance rate among

young adults {{Minnesota Department of Health, News Release, Minnesota's Uninsured Rate Remains High, 2012}}.

Blewett et al. (2008) found that nearly one out of every ten children experiences gaps in health insurance coverage. Like their older counterparts, uninsured children are less likely to have a usual source of care, experience higher rates of delayed or foregone medical care, and even short-term spells of uninsurance have been shown to negatively affect the immunization status of young children (Federico, Steiner, Beaty, Crane, & Kempe, 2007; Blewett, Davidson, Bramlett, Rodin, & Messonnier, 2008; Raghavan, Aarons, Roesch, & Leslie, 2008; Sommers, 2007). Federico et al. (2007) found that children who are long-term, or consistently, uninsured are most likely to experience these adverse outcomes. This finding indicates that although all uninsured children are more likely to experience negative consequences due to their lack of health insurance coverage, a longer duration of uninsurance exposes these children to greater consequences. Because of the high frequency of preventive care and acute care (e.g., accidents, injuries) needs of children and young adults, continuous coverage is essential. Any period without health insurance coverage decreases the likelihood that children and young adults will receive all needed medical care in a timely manner, but logic follows that longer spells without health insurance more significantly interferes with the medical care these groups need for healthy development. In addition, because appropriate health care service utilization habits, like all habits, are more successfully established early in life, any disruption to a child's or young adult's interaction with the health care system may have a long-lasting and persistent negative impact on that person's relationship with the health care system as they age.

CONSEQUENCES OF UNINSURANCE – HEALTH STATUS AND OUTCOMES

It is well documented in the literature that the uninsured experience worse health outcomes, are generally not as healthy, have higher mortality rates, and shorter life expectancies, compared to people with health insurance coverage (Institute of Medicine, 2002). Families USA estimated that more than 26,000 people died nationally in 2006, and specifically, three people died each week in Minnesota in 2006 (for a total of more than 150) due to a lack of health insurance (Families USA, 2008). Generally, the uninsured experience a 25 percent higher mortality rate (Institute of Medicine, 2003b). This is likely because receiving insufficient medical care or not receiving it when it is most needed, typical among those without insurance coverage, is harmful (Institute of Medicine, 2002). Delayed or foregone preventive care and routine screenings can result in delayed diagnosis, and consequently, more severe illnesses. Further compounding the problem, uninsured individuals with chronic diseases are less likely to get care that meets recommended standards consistent with medical evidence (Institute of Medicine, 2002). The negative consequences to a person's health status and general well-being as a result of being uninsured increase as the duration of uninsurance increases, with longer-term spells of uninsurance more frequently associated with premature death than shorter-term spells (Institute of Medicine, 2002). Because of their reduced access to preventive services and diminished use of appropriate health care services, and the resulting negative effects to their health status, uninsured children are more likely than insured children to experience developmental delays that may affect their educational achievements or lead to educational deficits, and ultimately, diminishing their prospects later in life (Institute of Medicine, 2003b; Silverman, 2008).

CONSEQUENCES OF UNINSURANCE – ADVERSE EFFECT ON COMMUNITIES

Virtually all Americans, except those who have become eligible for Medicare, experience the hidden costs of the lack of social and economic security that stems from the voluntary nature of the patchwork health care system in the United States (Institute of Medicine, 2003b). Beyond the stress and anxiety caused by the instability associated with the American health care system, the negative effects of uninsurance are not born alone by those who lack insurance coverage, but rather, society as a whole may experience the negative spillover effects of uninsurance (Institute of Medicine, 2004). A recent study found that a community's rate of uninsurance is positively associated with unmet medical needs among the insured and uninsured members of that community, though the association was only significant for those with health insurance coverage (Pagan & Pauly, 2006). The reasons for this surprising finding were unclear. Interestingly, this spill over affect has not been widely recognized and is absent from the extensive public discourse regarding the health care system and health reform.

Having a sizable uninsured population can be detrimental to the financial well-being of local health care providers due to high unreimbursed costs accrued by the uninsured, though the extent to which providers are adversely affected is relative to the size of the community's uninsured population (Institute of Medicine, 2003b; Pauly & Pagan, 2007). Reimbursement for uncompensated care provided to the uninsured has eroded over the past 30 years, making the communities with higher rates of uninsurance the most likely to experience the spillover effects of uninsurance to providers (Institute of Medicine, 2003a). According to the Institute of Medicine (2003a), emergency medical services are the services most likely to be negatively affected.

This financial instability among a community's providers can lead to additional stresses on the local public and private system that finances health care and reduced access to a variety of health care services for all members of a community, not just those who lack insurance coverage (Institute of Medicine, 2003b; Pauly & Pagan, 2007). As local health care funding sources compensate providers for increasing amounts of unreimbursed care, they are forced to divert resources from other important community needs (Pauly & Pagan, 2007). The costs associated with delivering care to the uninsured are indirectly paid for by the insured members of a community through higher taxes, insurance premiums, and health care service costs (Institute of Medicine, 2003a; Pauly & Pagan, 2007).

In addition, the physical health of both the insured and uninsured members of a community is adversely affected when community members are uninsured. Uninsurance diminishes overall population health through lost health and longevity, including health deficits leading to developmental and educational losses for children; and lost productivity (Institute of Medicine, 2003b; Silverman, 2008). Higher rates of uninsurance, as well as longer durations of uninsurance, in a community likely results in higher rates of disability and communicable diseases because those without insurance coverage are less likely to access and receive appropriate preventive (e.g., immunizations) and acute health care services (Institute of Medicine, 2003a; Federico, Steiner, Beaty, Crane, & Kempe, 2007).

Another societal consequence that is less apparent upon initial consideration is lower quality health care services. This outcome results from the fact that people who lack health insurance tend to demand different types of health care services than do the insured. Generally, the medical care accessed, or "demanded," by those without health insurance coverage is of

lower quality, in that it lacks key aspects commonly associated with high-quality medical care – having a usual source of care and a consistent relationship with a provider that facilitates timely preventive care and chronic disease management (Institute of Medicine, 2001; Pauly & Pagan, 2007). The lack of health insurance coverage makes high-quality health care unaffordable and inaccessible to those that are uninsured (Pauly & Pagan, 2007). Persistent uninsurance, or longer-term spells of uninsurance, likely decrease the quality (as defined above) of health care services “demanded,” as it is more difficult to maintain a usual source of care and ongoing relationship with a provider over longer periods of time without the access afforded by health insurance coverage. Pauly & Pagan (2007) argue that health care service quality is a kind of public good whose level is determined by the mix of “demands” in the community and this level of quality then becomes the communal level of quality. Therefore, the quality of health care services available in a given community is inversely associated with the rate of uninsurance in that community. Longer durations of uninsurance would only compound these adverse effects on communities.

POLICY SIGNIFICANCE

Nationally, health care in general is increasingly capturing American’s attention, and in particular, are issues of affordability and uninsurance. Although uninsured individuals and families with even one uninsured member experience adverse health, psychosocial, and financial impacts, the problems stemming from uninsurance are not exclusively experienced by those who are uninsured (Institute of Medicine, 2003a). Rather, the consequences spill over to adversely affect society as a whole. The financial stability and vitality of states and the country

as a whole is limited by uninsurance; in particular, the uninsured are in poorer health, die prematurely, and experience higher rates of disability and disease, which hinders local, state, and national productivity and necessitates the diversion of increasingly precious financial resources to pay for uncompensated care. In addition, higher rates of unmet medical need among insured members of a community are associated with higher rates of uninsurance in that community (Pagan & Pauly, 2006; Pauly & Pagan, 2007). Although Minnesota has traditionally had one of the lowest rates of uninsurance in the country, the growing uninsured population and the various consequences from uninsurance to individuals, families, communities, and the nation, made the problem of uninsurance one that could no longer be overlooked and prompted the passage of the PPACA in 2010.

Policies that would make health insurance coverage more accessible and affordable to the millions of uninsured Americans would provide protection from financial risk, increased economic security, more equitable health care access and outcomes to traditionally disadvantaged populations, “peace of mind, alleviation of pain and suffering, improved physical function, disabilities avoided or delayed, and gains in life expectancy” (Institute of Medicine, 2002, p. 103). Those who have been uninsured the longest would benefit the most from health insurance coverage. Because society is adversely impacted by uninsurance, minimizing uninsurance would confer benefits to everyone, not least of which would result from increased economic productivity due to better health of those that were previously uninsured. Health insurance coverage would afford those who experienced short- and long-term uninsurance access to needed preventive and reduce delays in obtaining health care services which would result in increased health status. In addition, a 2003 report from the

Institute of Medicine concluded that public programs (e.g., Medicare, Social Security Disability Insurance) are more costly than they would be if all nonelderly Americans had health insurance coverage and received timely care (Institute of Medicine, 2003b).

RESEARCH QUESTION AND ANALYSIS PLAN

This study is a descriptive analysis of the distribution of the spells of uninsurance among nonelderly Minnesota residents using data from the 2004 and 2007 Minnesota Health Access (MNHA) surveys. Because data on the duration of uninsurance is available in both the 2004 and 2007 MNHA surveys, a comparative analysis that looks at the characteristics of the uninsured as well as whether the distribution of spells of uninsurance have changed over time is possible. At the time that this analysis was begun, this was the most recent data available. Because the data precedes Minnesota-specific health reform efforts and the PPACA and because the country's recession has deepened, it is likely that the patterns observed have changed.

A better understanding of the duration of uninsurance experienced by Minnesotans (2007) will help state policy makers design policies tailored to specific segments of the uninsured population. For example, those experiencing shorter durations of uninsurance may benefit from policies that would eliminate health insurance waiting periods or less frequent public program renewal processes, while those experiencing longer durations of uninsurance may benefit from policies aimed at expanding coverage and making health insurance more affordable.

Specifically, this analysis will address the following questions:

1. What is the distribution of the duration of uninsurance in Minnesota?
2. What are the characteristics of the short- and long-term uninsured population in Minnesota?
3. How is health care access related to duration of uninsurance?
4. How has the distribution of the duration of uninsurance changed over time?

DATA SET

The Minnesota Health Access (MNHA) Surveys are statewide stratified random digital telephone surveys conducted by the Minnesota Department of Health and the University of Minnesota School of Public Health to study trends in health insurance coverage in Minnesota. The surveys had response rates of 59 percent in 2004 and 44 percent in 2007 and cooperation rates were 68 percent in 2004 and 57 percent in 2007 (Minnesota Department of Health, 2008). The survey was completed by 13,802 individuals in 2004 and 9,728 in 2007 and interviews were conducted in English and Spanish in both 2004 and 2007 and in Hmong in 2004. Statistical weights were applied to the 2004 and 2007 data to ensure the results of the survey are representative of the total population in Minnesota.

MEASUREMENT OF HEALTH INSURANCE COVERAGE

The person most knowledgeable about household members' health insurance coverage was asked to respond to questions about each member of the household. In addition, one person was randomly selected as the target, or focus of the survey. Respondents were asked detailed questions about the target's health insurance coverage followed by questions about all other household members' insurance coverage.

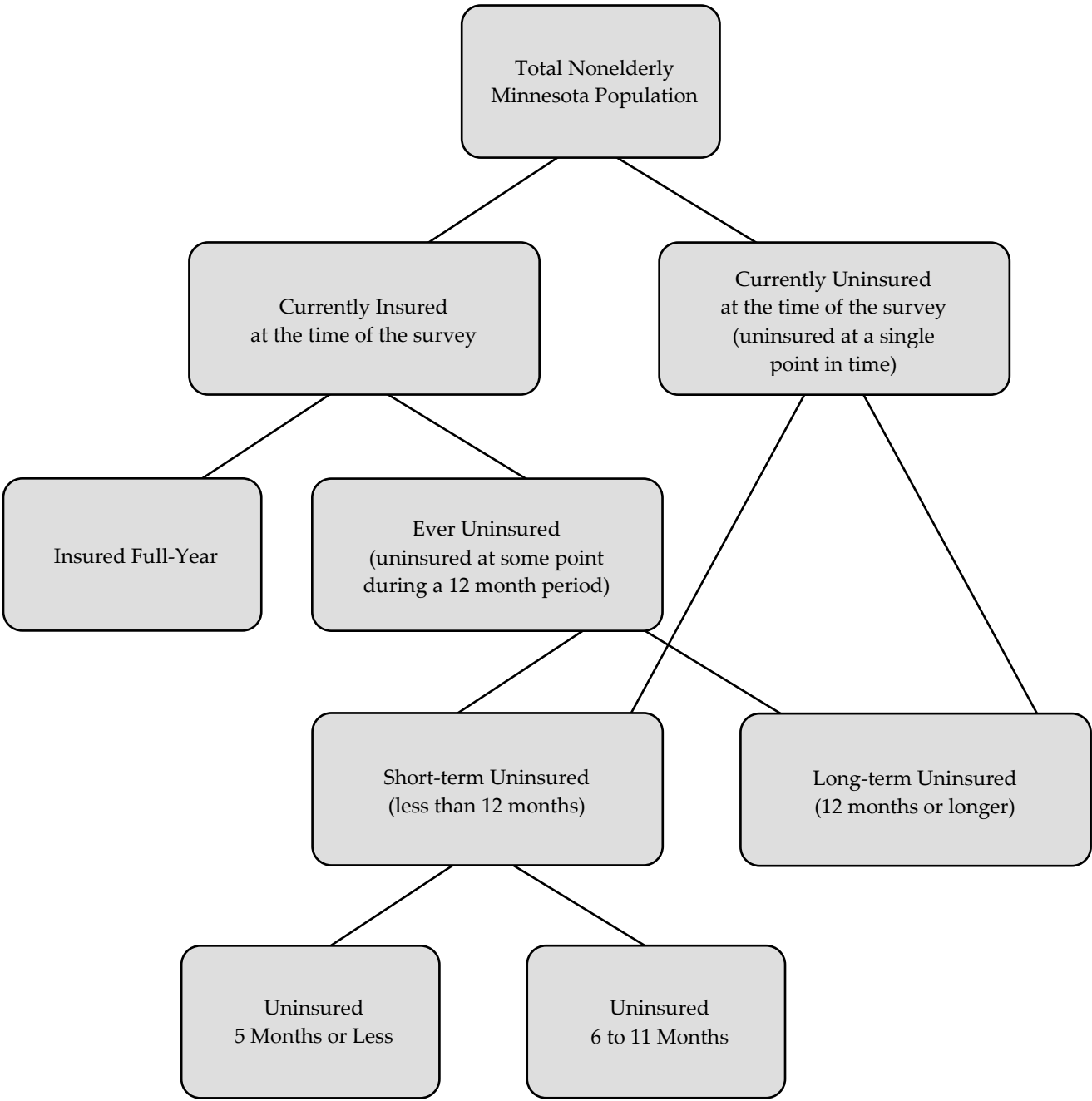
Respondents were asked whether the target and every other person in the household had specific forms of health insurance coverage (i.e., Medicare, Veterans Affairs, Medical Assistance, MinnesotaCare, health insurance through employer, individual health insurance). Those who answered that they currently had health insurance coverage were asked whether they had health insurance coverage for all of the past 12 months. If they answered that they had

not had health insurance coverage for all of the past 12 months, they were then asked how many months during the past year they were without coverage to measure the duration of uninsurance. Those who answered that they did not currently have health insurance coverage were asked whether they had been covered by any health insurance in the past 12 months, and if so, how many months it had been since they had coverage.

The 2004 and 2007 MNHA surveys contained information on insurance coverage at the time of the survey and in the prior 12 months, allowing for analysis of both point in time coverage estimates as well as estimates of the percent of the population ever uninsured in the previous year. Respondents who answered that they were uninsured at the time of the survey were classified as point in time uninsured and those who responded that they had been uninsured at any time during the 12 months prior to the survey or at the time of the survey were classified as uninsured during the previous 12 months.

Among those who were classified as ever being uninsured during the previous 12 months in both the 2004 and 2007 surveys, long-term uninsurance is defined as being uninsured for 12 months or longer and short-term uninsurance is defined as uninsured for less than 12 months. Changes to the 2007 survey formset allow for more detailed analysis of the short-term uninsured, as shorter spells of uninsurance were able to be broken into two groups – spells lasting 5 months or less and spells lasting between 6 and 11 months. (See Exhibit 1)

Exhibit 1:
Measurement of Health Insurance Coverage, Minnesota Health Access Survey, 2004 and 2007



FINAL SAMPLE

National estimates indicate that the uninsured elderly (age 65 years or older) population is very small, amounting to approximately 1 percent of the total population, or 310,000 persons, in 2006 (Adams, Lucas, & Barnes, 2008). Respondents aged 65 years or older were excluded from this analysis. The final sample for this analysis consisted of 879 uninsured nonelderly Minnesota residents in 2004 and 971 uninsured nonelderly Minnesota residents in 2007.⁴

⁴ The final samples excluded 5 percent of the 2007 sample of uninsured observations and 3.2 percent of the 2004 sample because information on the duration of uninsurance for those respondents was missing.

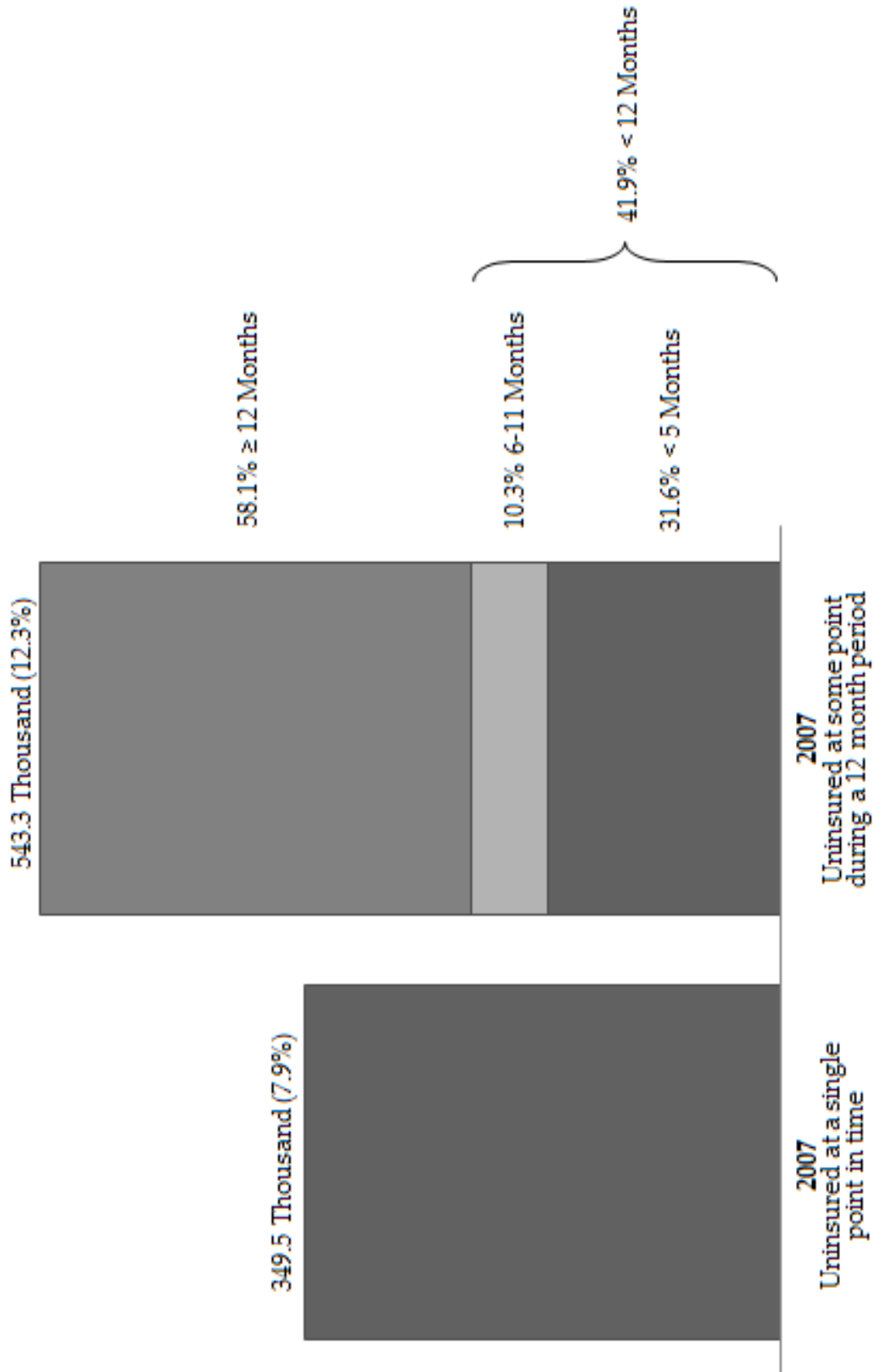
RESULTS

WHAT IS THE DISTRIBUTION OF THE DURATION OF UNINSURANCE IN MINNESOTA?

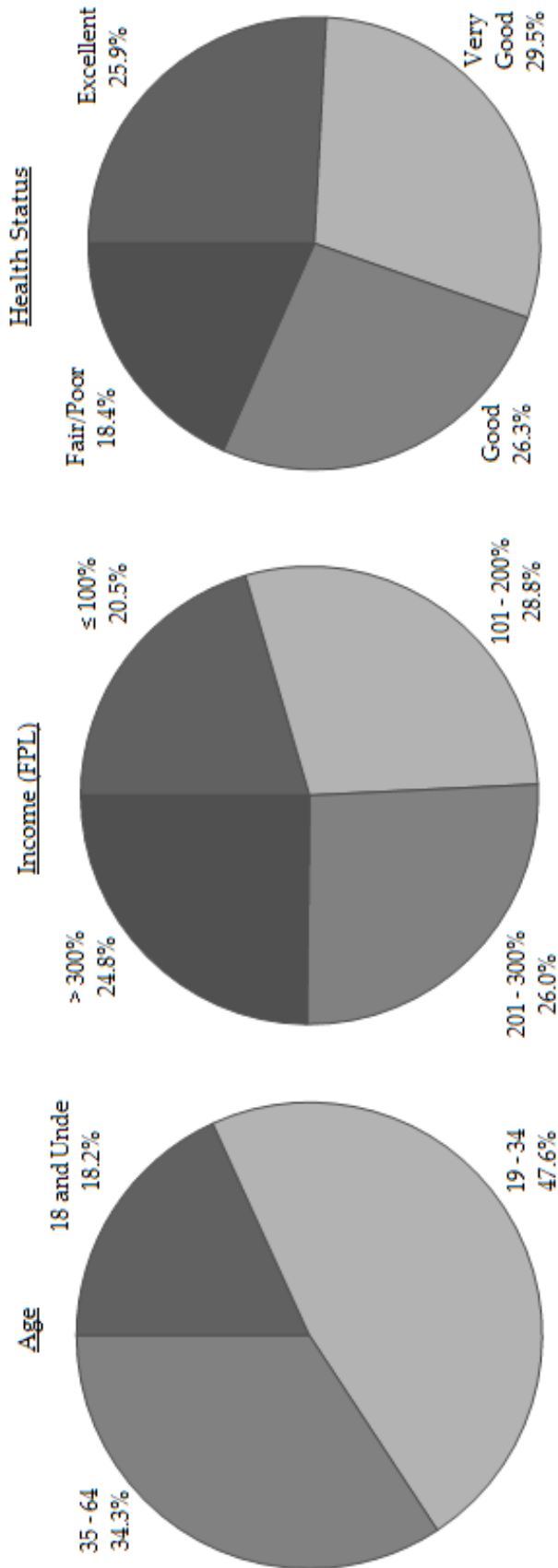
Exhibit 2 shows the number of uninsured nonelderly Minnesotans both at the time of the 2007 MNHA survey and in the 12 months prior to the survey. At the time of the 2007 MNHA survey, about 349,500 nonelderly Minnesotans, or 7.9 percent, were uninsured. An additional 193,800 nonelderly people were uninsured at some point in the 12 months prior to the survey but not at the time of the survey, for a total of 12.3 percent of nonelderly Minnesotans (approximately 543,300 people) ever being uninsured. Of the 12.3 percent of Minnesotans who were ever uninsured, less than half (41.9 percent) were uninsured for less than 12 months (31.6 percent for less than 5 months and 10.3 percent for 6 to 11 months) and nearly three-fifths (58.1 percent) were uninsured for 12 months or longer.

Exhibit 3 shows the nonelderly population in Minnesota who were ever uninsured during the previous 12 months by age, income, and health status. Age and income are of interest due to the significant role they play in an individual's eligibility for and access to health insurance coverage (e.g., children under the age of 18 have more access to public insurance programs than adults, adults with higher incomes are less likely to be eligible for public insurance programs, etc.). Additionally, reduced health status is a consequence of the lack of access to the timely and affordable health care services associated with health insurance coverage. While nearly half (47.6 percent) were adults ages 19 to 34, another one-third (34.3 percent) were adults ages 35 to 64, and less than one-fifth (18.2 percent) were children 18 years old or younger. Nearly one in three (28.8 percent) nonelderly Minnesotans experiencing uninsurance are near-poor (those with incomes between 101 and 200 percent of the federal

**Exhibit 2:
Number of Uninsured and Length of Time Uninsured, Nonelderly Minnesota Population, 2007**



**Exhibit 3:
 Characteristics of the Ever Uninsured, Nonelderly Minnesota Population, 2007**



poverty level, or FPL), more than half have incomes above 200 percent FPL (26.0 percent have incomes between 201 and 300 percent FPL and 24.8 percent have incomes above 300 percent FPL), and one-fifth (20.5 percent) are poor (those with incomes below 100 percent FPL). More than three-quarters of uninsured nonelderly Minnesotans report being in excellent (25.9 percent), very good (29.5 percent), or good (26.3 percent) health, though 18.4 percent report being in only fair or poor health.

Exhibit 4 shows the distribution of both insurance coverage and duration of uninsurance among the nonelderly population in Minnesota, which represented nearly 90 percent of the total population in 2007. 12.3 percent of nonelderly Minnesotans were uninsured at some point during the year; 5.2 percent were short-term uninsured (3.9 percent for 5 months or less and 1.3 percent for between 6 and 11 months) and 7.2 percent were long-term uninsured (lacking health insurance for 12 months or longer).

**Exhibit 4:
Distribution of Duration of Uninsurance, Nonelderly Minnesota Population, 2004 and 2007**

| 2007 | Sample Size | Weighted Count | Percent Distribution |
|---|--------------------|-----------------------|-----------------------------|
| Total Nonelderly Population | 7,284 | 4,417,052 | 88.2% |
| Insured Full-Year | 6,313 | 3,873,791 | 87.7% |
| Uninsured at Some Point During a 12 Month Period | 971 | 543,261 | 12.3% |
| Less than 12 Months | 362 | 227,438 | 5.2% *** |
| 5 Months or less | 238 | 171,535 | 3.9% |
| 6 - 11 Months | 124 | 55,903 | 1.3% |
| 12 Months or Longer | 609 | 315,824 | 7.2% *** |
| 2004 | Sample Size | Weighted Count | Percent Distribution |
| Total Nonelderly Population | 10,449 | 6,157,121 | 87.9% |
| Insured Full-Year | 9,570 | 5,367,172 | 87.2% |
| Uninsured at Some Point During a 12 Month Period | 879 | 789,949 | 12.8% |
| Less than 12 Months | 749 | 714,776 | 11.6% |
| 12 Months or Longer | 130 | 75,173 | 1.2% |

*** indicates rate is different between 2004 and 2007 at the 0.01 level

WHAT ARE THE CHARACTERISTICS OF THE UNINSURED POPULATION IN MINNESOTA?

Exhibits 5 and 6 show the distribution of the duration of uninsurance among various subgroups in 2007. The exhibits show the share of each subgroup that was ever uninsured during the year and for less than 5 months, 6 to 11 months, and 12 months or longer.

Exhibit 5 shows the distribution of the duration of uninsurance by gender, age group, income, education level, and health status. Uninsurance rates vary dramatically among these various subgroups. While 13.7 percent of males were ever uninsured during the year, 10.9 percent of females were ever uninsured during the year, a statistically significant difference at the 95 percent confidence level. At the 99 percent confidence level, there was a statistically significant difference among men and women experiencing uninsurance for 12 months or longer; 8.6 percent of males were long-term uninsured as compared to a rate of 5.6 percent for females.

Uninsurance rates vary by age group as well. Children, ages 0 to 18, had the lowest rate of uninsurance during the previous 12 months and adults ages 19 to 34 had the highest rate, at 7.4 percent and 25.2 percent, respectively, a statistically significant difference. Overall, adults had a rate of uninsurance that was nearly double the rate for children. Consistent with the literature, older adults (ages 35 to 64) had a lower rate (9.1 percent) of uninsurance than young adults. These differences persist among the different durations of uninsurance. Adults overall had rates that were significantly higher than the rates for children at a 95 percent level or higher at all three durations of uninsurance.

Differences in uninsurance rates by income (as a percent of the federal poverty level, or FPL) were statistically significant at a level of at least 95 percent for all durations of uninsurance

Exhibit 5:

Rate and Duration of Uninsurance by Gender, Age, Income, Education, and Health Status, Nonelderly Minnesota Population, 2007

| | Insured Full Year | Percent Ever Uninsured during Previous 12 Months | Duration of Uninsurance | | | | Ratio of Long-Term Uninsured (≥ 12 Months) to Short-Term Uninsured (<12 Months) |
|------------------------------------|-------------------|--|-------------------------|-------------|-------------|-------------|---|
| | | | ≤ 5 Months | 6-11 Months | < 12 Months | ≥ 12 Months | |
| Total Nonelderly Population | 87.7% | 12.3% | 3.9% | 1.3% | 5.2% | 7.2% | 1.39 |
| Male | 86.3% | 13.7% | 3.9% | 1.2% | 5.1% | 8.6% | 1.70 |
| Female | 89.1% | 10.9% | 3.9% | 1.4% | 5.3% | 5.6% | 1.07 |
| Age | | | | | | | |
| Children (0 - 18) - Total | 92.6% | 7.4% | 2.6% | 0.5% | 3.2% | 4.2% | 1.35 |
| Adults (Nonelderly) - Total | 85.6% | 14.4% | 4.4% | 1.6% | 6.0% | 8.4% | 1.40 |
| Adults 19 - 34 | 74.8% | 25.2% | 7.7% | 2.7% | 10.4% | 14.8% | 1.42 |
| Adults 35 - 64 | 91.0% | 9.1% | 2.8% | 1.1% | 3.8% | 5.2% | 1.36 |
| Federal Poverty Level | | | | | | | |
| ≤ 100% | 70.3% | 29.7% | 6.0% | 4.0% | 10.0% | 19.7% | 1.97 |
| 101 - 200% | 75.2% | 24.8% | 8.2% | 1.4% | 9.5% | 15.3% | 1.61 |
| 201 - 300% | 79.5% | 20.5% | 5.9% | 1.9% | 7.7% | 12.8% | 1.65 |
| > 300% | 95.1% | 5.0% | 2.1% | 0.7% | 2.8% | 2.1% | 0.76 |
| Education | | | | | | | |
| High School or Less | 80.8% | 19.2% | 4.6% | 2.0% | 6.5% | 12.7% | 1.94 |
| Attended College† | 91.0% | 9.1% | 3.6% | 0.9% | 4.5% | 4.6% | 1.03 |
| Health Status | | | | | | | |
| Excellent | 92.2% | 7.9% | 2.7% | 0.6% | 3.2% | 4.6% | 1.43 |
| Very Good | 88.7% | 11.3% | 4.2% | 8.0% | 5.0% | 6.3% | 1.27 |
| Good | 82.8% | 17.2% | 5.7% | 2.5% | 8.2% | 9.0% | 1.09 |
| Fair/Poor | 74.5% | 25.5% | 4.8% | 2.8% | 7.5% | 17.9% | 2.38 |

Source: 2007 MNHA Survey

Note: Calculated using Stata version 10.

Note: Bold indicate reference category for tests of statistical significance.

† Attended college is defined as attended college, college graduates, or postgraduate

** indicates group is significantly different from the reference category at the 0.05 level

*** indicates group is significantly different from the reference category at the 0.01 level

**** indicates long-term uninsured (≥12 months) group is significantly different from the short-term uninsured (<12 months) group at the 0.05 level

***** indicates long-term uninsured (≥12 months) group is significantly different from the short-term uninsured (<12 months) group at the 0.01 level

except for those with 6 to 11 months uninsurance. While only 5.0 percent of those with the highest incomes (those above 300 percent of FPL) reported ever being uninsured during the year, those with lower incomes were significantly more likely to experience a lack of uninsurance; 29.7 percent of those with incomes below the FPL (≤ 100 percent), 24.8 percent of those with incomes between 101 and 200 percent of FPL, and 20.5 percent of those with incomes between 201 and 300 percent of FPL. These differences were also evident when looking at the distribution of duration of uninsurance among the income groups. Those with incomes between 101 and 200 percent of FPL had the highest rates (8.2 percent) of uninsurance lasting less than 5 months and the those with incomes below the FPL (≤ 100 percent) had the highest rate of short-term uninsurance at 10.0 percent (6.0 percent with 5 months or less and 4.0 percent with 6 to 11 months duration of uninsurance). While only 2.1 percent of those with incomes greater than 300 percent FPL experienced spells of uninsurance lasting 12 months or longer, 19.7 percent of those with incomes of 100 percent FPL or less experienced long-term uninsurance. Nearly two-thirds of low-income uninsured and nearly three-fifths of both the near-poor and middle-income (those with incomes between 201 percent and 300 percent FPL) uninsured were uninsured for a year or more, but less than two-fifths of the highest income uninsured were uninsured for 12 or more months.

Those with a high school education or less are more likely to ever be uninsured compared to those who pursued some post-secondary level education (i.e., attended college, college graduate, post graduate), with uninsurance rates of 19.2 percent and 9.1 percent, respectively. Though these differences were also significant among the long-term (12 months or longer) uninsured, there is not a statistically significant difference compared to the short-term

(less than 12 months) uninsured. Among those who attended some college or more, the rate of uninsurance of 12 months or more is the highest (4.6 percent). Approximately 12.7 percent of people with a high school education or less were long-term uninsured; or, nearly 2 in every 3 uninsured nonelderly Minnesotans with the lowest education levels were uninsured for a year or more, as compared to 1 in every 2 uninsured nonelderly Minnesotans with more education.

Those who reported having excellent health were significantly (at the 95 or 99 percent level) less likely to be uninsured during the year and more than one-quarter (25.5 percent) of those with fair or poor health were uninsured. Among those reporting good health, these differences were also evident for each duration of uninsurance group. For all groups, except the group reporting very good health, mid-length uninsurance (lasting between 6 and 11 months), was the lowest rate. Those reporting fair or poor health had the highest rate of long-term uninsurance, at 17.9 percent, nearly double the rate for those in good health (9.0 percent), which had the next highest rate at that duration. Seventy percent of the uninsured in fair or poor health were more likely to be long-term uninsured, as were more than half of the uninsured in excellent health.

Exhibit 6 shows the distribution of the duration of uninsurance by race and ethnicity, marital status, employment status, and region. While only 10.6 percent of white Minnesotans were ever uninsured in 2007, 21.8 percent of Minnesotans of other races or ethnicities were uninsured at some point during the year, a statistically significant difference at the 99 percent level. Non-white Minnesotans had higher rates of uninsurance of every duration than their white counterparts. However, both whites and non-whites had higher rates of long-term uninsurance than short-term uninsurance, though this difference was only statistically

Exhibit 6:

Rate and Duration of Uninsurance, by Race and Ethnicity, Marital Status, Employment Status, and Region, Nonelderly Minnesota Population, 2007

| | Insured Full Year | Percent Ever Uninsured during Previous 12 Months | Duration of Uninsurance | | | | Ratio of Long-Term Uninsured (≥ 12 Months) to Short-Term Uninsured (<12 Months) |
|--|-------------------|--|-------------------------|-------------|-------------|--------------|---|
| | | | ≤ 5 Months | 6-11 Months | < 12 Months | ≥ 12 Months | |
| Total Nonelderly Population | 87.7% | 12.3% | 3.9% | 1.3% | 5.2% | 7.2% | 1.39 |
| Race and Ethnicity | | | | | | | |
| White [†] | 89.4% | 10.6% | 3.5% | 1.2% | 4.6% | 6.0% | 1.30 |
| Non-White | 78.2% | 21.8% *** | 6.3% | 1.9% | 8.2% ** | 13.6% *** ^^ | 1.67 |
| Marital Status | | | | | | | |
| Not Married | 74.7% | 25.3% *** | 7.6% *** | 3.3% *** | 10.9% *** | 14.4% *** | 1.32 |
| Married | 92.1% | 7.9% | 2.6% | 0.6% | 3.1% | 4.8% | 1.53 |
| Employment Status | | | | | | | |
| Not Employed | 83.2% | 16.8% *** | 6.3% *** | 2.4% | 8.8% *** | 8.0% | 0.91 |
| Employed | 88.8% | 11.2% | 3.3% | 1.0% | 4.2% | 6.9% ^^ | 1.64 |
| Region | | | | | | | |
| Greater Minnesota | 86.6% | 13.4% | 3.9% | 1.2% | 5.0% | 8.4% | 1.66 |
| Twin Cities Metro Area | 88.6% | 11.4% | 3.9% | 1.3% | 5.3% | 6.2% | 1.18 |
| Metropolitan Statistical Area (MSA) | | | | | | | |
| Non-MSA | 85.8% | 14.2% | 5.0% | 1.5% | 6.5% | 7.6% | 1.17 |
| MSA | 88.3% | 11.7% | 3.5% | 1.2% | 4.7% | 7.0% | 1.49 |

Source: 2007 MNHA Survey

Note: Calculated using Stata version 10.

Note: Bold indicate reference category for tests of statistical significance.

† White is defined as non-hispanic white

** indicates group is significantly different from the reference category at the 0.05 level

*** indicates group is significantly different from the reference category at the 0.01 level

^^ indicates long-term uninsured (≥12 months) group is significantly different from the short-term uninsured (<12 months) group at the 0.05 level

^^^ indicates long-term uninsured (≥12 months) group is significantly different from the short-term uninsured (<12 months) group at the 0.01 level

significant (at the 95 percent level) for non-whites. Among white nonelderly Minnesotans, 4.6 percent were short-term uninsured (3.5 for 5 months or less and 1.2 percent for between 6 and 11 months) and 6.0 percent were long-term uninsured; and 8.2 percent of nonelderly Minnesotans of other races and ethnicities were short-term uninsured (6.3 percent for 5 months or less and 1.9 for between 6 and 11 months) and 13.6 percent were uninsured for 12 or more months. Thus, approximately three-fifths of both uninsured white Minnesotans and uninsured Minnesotans of other races and ethnicities were long-term uninsured. The different rates of uninsurance between white Minnesotans and Minnesotans of other races and ethnicities for short-term and long-term uninsurance were statistically significant at the 95 or 99 percent level, respectively.

The difference between Minnesotans that are married and those that are not married is statistically significant at the 99 percent level for all measured rates of uninsurance. More than one-quarter (25.3 percent) of unmarried Minnesotans report ever being uninsured during the previous year, while only 7.9 percent of married Minnesotans were ever uninsured. Though the overall rate of uninsurance among these groups is so different, nearly three-fifths of both uninsured married respondents and uninsured non-married respondents are long-term uninsured. Among those that are married, 3.1 percent were uninsured for less than a year (2.6 percent were uninsured 5 months or less and 0.6 percent for 6 to 11 months) and 4.8 percent for 12 months or longer, as compared to their unmarried counterparts, of whom 7.6 percent were uninsured for 5 months or less, 3.3 percent for 6 to 11 months (10.9 percent were short-term uninsured), and 14.4 percent for a year or more.

Although the difference in overall rates of uninsurance was statistically significant at a 99 percent level among those that are employed (11.2 percent) and those that are not employed (16.8 percent), differences in rates of duration of uninsurance by employment status were only significant (at a 99 percent level) among those experiencing the shortest duration of uninsurance (3.3 percent of the employed and 6.3 percent of those that are not employed) and those experiencing uninsurance less than 12 months (4.2 percent of the employed and 8.8 percent of the unemployed). Approximately 2.4 percent of those that are not employed and 1.0 percent of those that are employed were uninsured for 6 to 11 months, and 8.0 percent of those that are not employed were long-term uninsured, as compared to 6.9 percent of their employed counterparts.

Though there were differences in the rates of uninsurance experienced by Minnesotans living in different regions of the state, none were statistically significant. Nearly three-fifths of both the uninsured living in greater Minnesota and in the Twin Cities metro area were uninsured for 12 months or longer. There was nearly no difference in the rates of short-term uninsurance among Minnesotans living in greater Minnesota (5.0 percent) and the Twin Cities (5.3 percent), and though the differences in the rates of long-term uninsurance were greater (8.4 percent for those living in greater Minnesota and 6.2 percent for those living in the Twin Cities metro area), it was not statistically significant. Approximately 14.2 percent of nonelderly Minnesotans living in non-MSAs (non-metropolitan statistical area [MSA]) experienced uninsurance, compared to only 11.7 percent of their counterparts living in MSAs. This difference persisted among all of the durations of uninsurance for these two groups.

HOW IS HEALTH CARE ACCESS RELATED TO DURATION OF UNINSURANCE?

Exhibit 7 shows the distribution of the duration of uninsurance by measures of health care access. Less than 1 in 10 people (9.1 percent) with a usual source of health care are uninsured, while more than two-fifths (41.4 percent) of those without a usual source of health care are uninsured, a statistically significant difference at the 99 percent level. A similar difference is also evident among the various lengths of uninsurance spells. However, while both groups have higher rates of long-term uninsurance (4.7 percent and 4.4 percent, respectively, for those with a usual source of care (USC) and 29.4 percent and 12.0 percent, respectively, for those without a USC), the difference in rates of long-term uninsurance and short-term uninsurance were only statistically significant (at the 99 percent level) for those without a USC. Nearly one-third of people (29.4 percent) without a usual source of care are long-term uninsured, whereas 12.0 percent have spells of uninsurance lasting less than 1 year; nearly three-quarters of uninsured people without a usual source of care are long-term uninsured.

Similar differences are evident between those who are very or somewhat confident they can get medical care when needed and those who are only a little or not at all confident. Nearly half (46.6 percent) of those who are a little or not at all confident they can get medical care when needed are uninsured, while only 9.4 percent of those who are very or somewhat confident are uninsured. Both groups experience higher rates of long-term uninsurance than short-term uninsurance (5.2 percent and 4.3 percent, respectively, for those who are confident, and 32.0 percent and 14.7 percent, respectively, for those who are not confident), but those who are not

**Exhibit 7:
Rate and Duration of Uninsurance, by Health Care Access, Nonelderly Minnesota Population, 2007**

| | Insured Full Year | Percent Ever Uninsured during Previous 12 Months | Duration of Uninsurance | | | Ratio of Long-Term Uninsured (≥ 12 Months) to Short-Term Uninsured (<12 Months) | |
|---|-------------------|--|-------------------------|-------------|-------------|---|------|
| | | | Duration of Uninsurance | | | | |
| | | | ≤ 5 Months | 6-11 Months | < 12 Months | | |
| Total Nonelderly Population | 87.7% | 12.3% | 3.9% | 1.3% | 5.2% | 7.2% | 1.39 |
| Usual Source of Care | | | | | | | |
| Yes | 90.9% | 9.1% | 3.5% | 0.9% | 4.4% | 4.7% | 1.06 |
| No | 58.6% | 41.4% *** | 7.4% ** | 4.5% ** | 12.0% *** | 29.4% *** ^^^ | 2.46 |
| Confidence in Getting Needed Health Care | | | | | | | |
| Very or Somewhat Confident | 90.6% | 9.4% | 3.3% | 1.0% | 4.3% | 5.2% | 1.21 |
| A Little or Not At All Confident | 53.4% | 46.6% *** | 10.3% *** | 4.4% ** | 14.7% *** | 32.0% *** ^^^ | 2.18 |

Source: 2007 MINHA Survey

Note: Calculated using Stata version 10.

Note: Bold indicate reference category for tests of statistical significance.

** indicates group is significantly different from the reference category at the 0.05 level

*** indicates group is significantly different from the reference category at the 0.01 level

^^ indicates long-term uninsured (≥12 months) group is significantly different from the short-term uninsured (<12 months) group at the 0.05 level

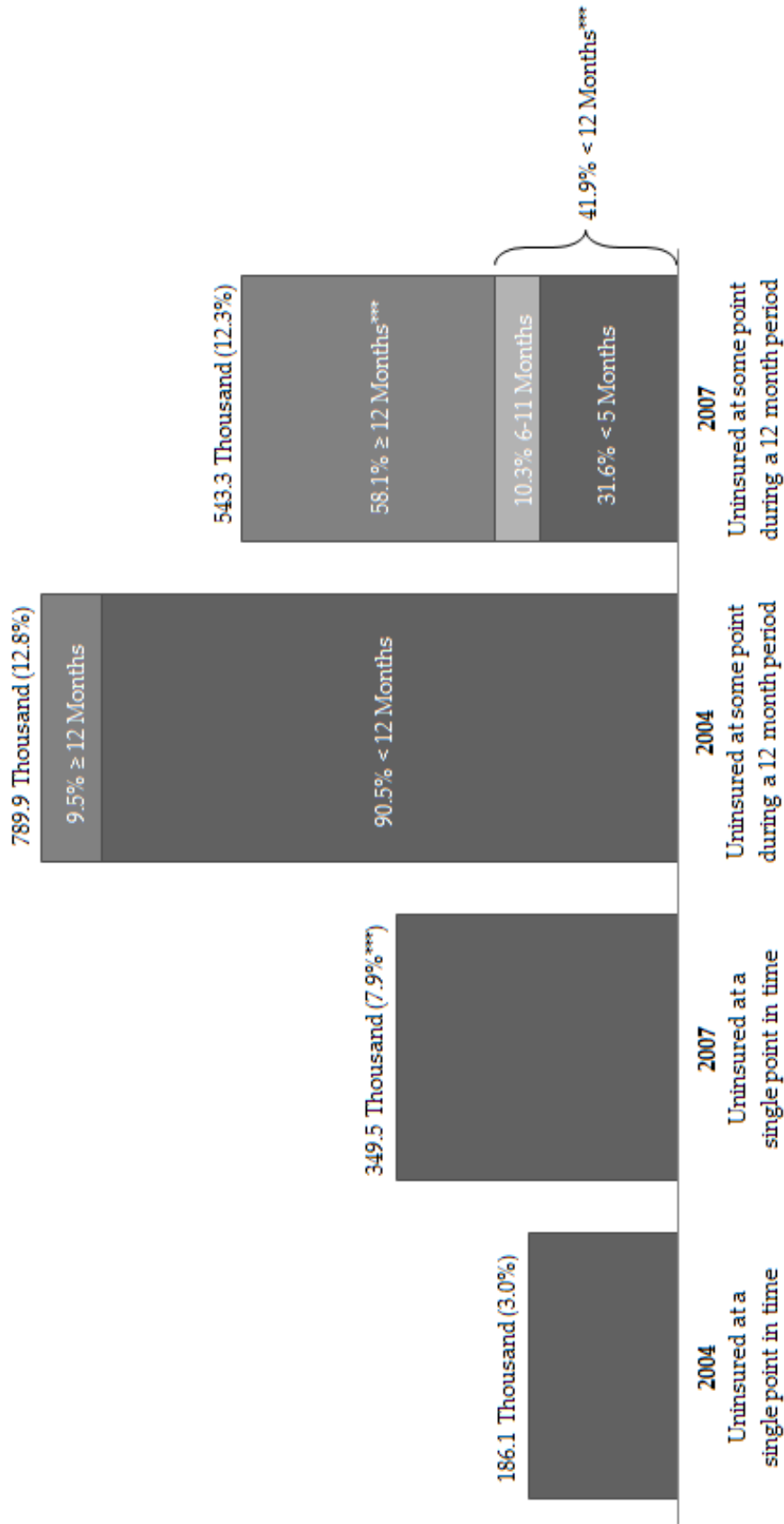
^^^ indicates long-term uninsured (≥12 months) group is significantly different from the short-term uninsured (<12 months) group at the 0.01 level

confident are much more likely to be long-term uninsured (a statistically significant difference at the 99 percent level),

HOW HAS THE DISTRIBUTION OF THE DURATION OF UNINSURANCE CHANGED OVER TIME?

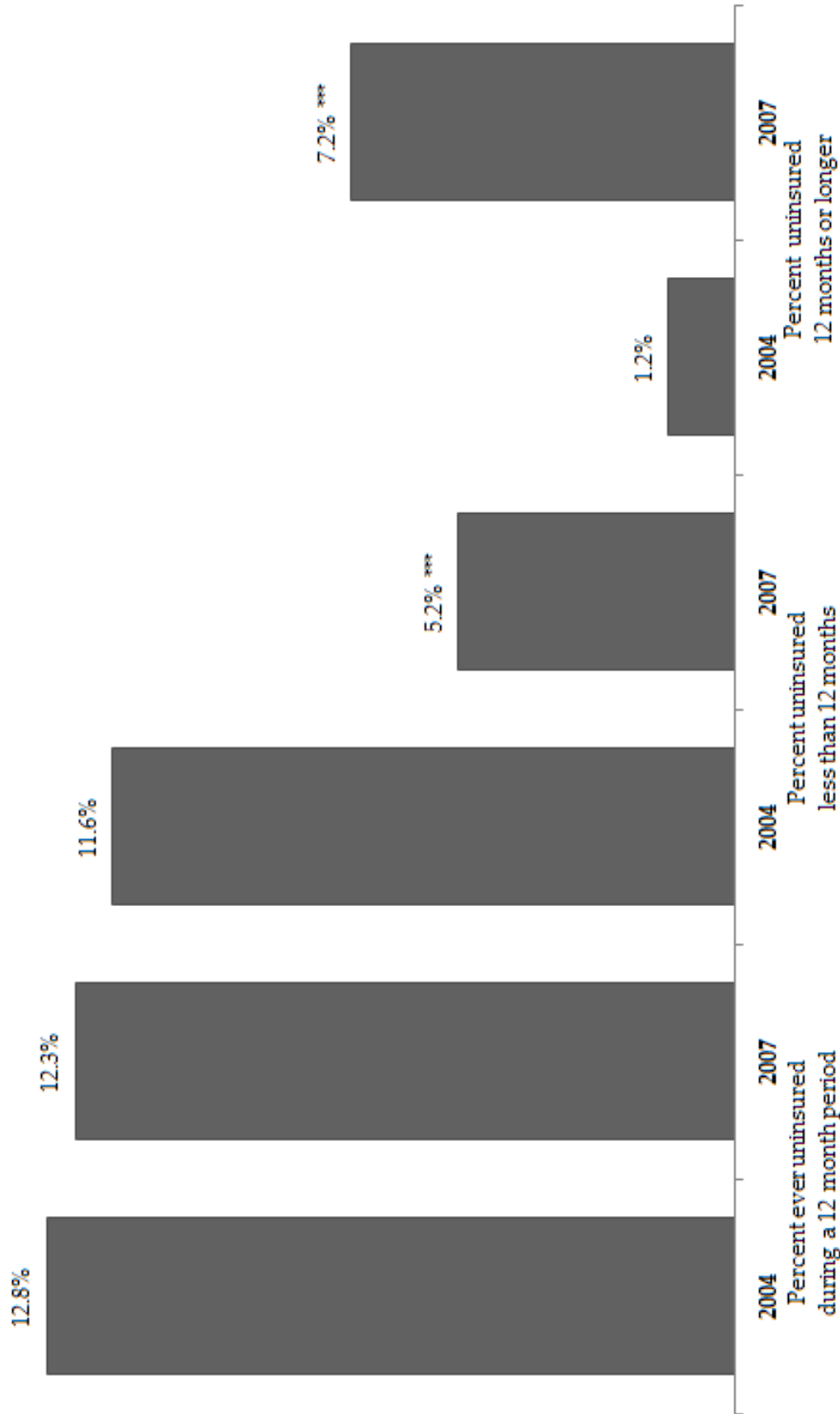
Because the social and economic factors that place a person at risk of being uninsured did not change substantially between the two survey periods, one would expect that the rate of uninsurance as well as the distribution of the duration of uninsurance would not have changed much (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007). Exhibit 8 shows the rate of being uninsured at the time of the 2004 and 2007 MNHA surveys and the rate of being uninsured some time during the 12 months prior to each survey. The point in time uninsurance rate increased from 3.0 percent in 2004 to 7.9 percent in 2007, a change that was statistically significant at the 99 percent level. While the rate of ever being uninsured has not changed significantly from 2004 (12.8 percent) to 2007 (12.3 percent), the distribution of the duration of uninsurance changed significantly between the 2004 and 2007 MNHA surveys. Exhibit 8 shows that, 41.9 percent of the uninsured were uninsured for less than 12 months in 2007 (58.1 percent uninsured 12 months or longer), compared to 90.5 percent short-term uninsured in 2004 (9.5 percent long-term uninsured). This shift towards long-term uninsurance was statistically significant at the 99 percent level. Exhibit 9 also shows the change in the distribution of the duration of uninsurance between the 2004 and 2007 MNHA surveys, illustrating the rates of duration of uninsurance as percents of the total nonelderly population. While the rate of short-term uninsurance decreased from 11.6 percent in 2004 to 5.2 percent in 2007, the rate of long-term uninsurance increased from 1.2 percent to 7.2 percent over the same period. These

**Exhibit 8:
Number of Uninsured and Length of Time Uninsured, Nonelderly Minnesota Population, 2004 and 2007**



*** indicates rate is different between 2004 and 2007 at the 0.01 level

**Exhibit 9:
Rates by Duration of Uninsurance, Nonelderly Minnesota Population, 2004 and 2007**



*** indicates rate is different between 2004 and 2007 at the 0.01 level

changes were statistically significant at the 99 percent level. Though the overall rate of uninsurance decreased slightly, the increase in the long-term rate of uninsurance likely offset much of the decline in the rate of short-term uninsurance. It is unclear why the point in time uninsured rate rose while the ever uninsured rate decreased between 2004 and 2007. It is likely due to a combination of factors including the timing of the survey in 2007 relative to the beginning of the economic recession. A recent analysis conducted by the Minnesota Department of Health (MDH) and the University of Minnesota School of Public Health found that this shift towards long-term uninsurance persisted through the recession and two years into the recovery (Minnesota Department of Health, 2012).

Exhibit 10 shows the changes in rates from 2004 to 2007 among the lengths of uninsurance across various characteristics. As stated previously, the ever uninsured rate decreased slightly between 2004 and 2007, though the overall rate of uninsurance did have a statistically significant change from 2004 to 2007 for nearly all of the characteristics analyzed. Those with little confidence in their ability to get the care they need did not have a statistically significant difference in their rate of uninsurance between 2004 and 2007. This group's uninsurance rate increased from 39.8 percent in 2004 to 46.6 percent in 2007. However, males, children ages 18 years or younger, adults ages 35 to 64, those with incomes above the FPL (101 - 200 percent, 201 - 300 percent, and greater than 300 percent), more educated (attended college, graduated from college, or received a postgraduate degree) people, those in excellent, very good, and fair or poor health, whites, married, employed, those residing in the Twin Cities and non-MSA areas, and those without a usual source of care all experienced statistically significant increases in their overall uninsurance rate. Those with little or no confidence in their access to

Exhibit 10:

Rate and Duration of Uninsurance, by Gender, Age, Income, Education, Health Status, Marital Status, Employment Status, Region, and Health Care Access, Nonelderly Minnesota Population, 2004 and 2007

| | Insured Full-Year | | Percent Ever | | Duration of Uninsurance | | | | Ratio of Full-Year Uninsured to Ever Uninsured | |
|---|-------------------|----------------------|--------------|----------------------|-------------------------|----------------------|-------------|----------------------|--|------|
| | % | | % | | < 12 Months | | ≥ 12 Months | | Uninsured | |
| | 2004 | 2007 | 2004 | 2007 | 2004 | 2007 | 2004 | 2007 | 2004 | 2007 |
| Total Nonelderly Population | 87.2% | 87.7% | 12.8% | 12.3% | 11.6% | 5.2% ^{***} | 1.2% | 7.2% ^{***} | 0.10 | 0.58 |
| Male | 90.5% | 86.3% ^{***} | 9.6% | 13.7% ^{***} | 7.2% | 5.1% ^{**} | 2.4% | 8.6% ^{***} | 0.25 | 0.63 |
| Female | 85.3% | 89.1% ^{***} | 14.7% | 10.9% ^{***} | 14.1% | 5.3% ^{***} | 0.6% | 5.6% ^{***} | 0.04 | 0.52 |
| Age | | | | | | | | | | |
| Children (0 - 18) - Total | 97.7% | 92.6% ^{***} | 2.3% | 7.4% ^{***} | 1.7% | 3.2% ^{**} | 0.6% | 4.2% ^{***} | 0.25 | 0.57 |
| Adults (Nonelderly) - Total | 81.1% | 85.6% ^{***} | 18.9% | 14.4% ^{***} | 17.3% | 6.0% ^{***} | 1.6% | 8.4% ^{***} | 0.08 | 0.58 |
| Adults 19 - 34 | 58.9% | 74.8% ^{***} | 41.1% | 25.2% ^{***} | 39.1% | 10.4% ^{***} | 2.1% | 14.8% ^{***} | 0.05 | 0.59 |
| Adults 35 - 64 | 94.8% | 91.0% ^{***} | 5.2% | 9.1% ^{***} | 3.9% | 3.8% | 1.3% | 5.2% ^{***} | 0.25 | 0.58 |
| Federal Poverty Level | | | | | | | | | | |
| ≤ 100% | 28.8% | 70.3% ^{***} | 71.2% | 29.7% ^{***} | 67.2% | 10.0% ^{***} | 4.0% | 19.7% ^{***} | 0.06 | 0.66 |
| 101 - 200% | 88.7% | 75.2% ^{***} | 11.3% | 24.8% ^{***} | 9.4% | 9.5% | 2.0% | 15.3% ^{***} | 0.17 | 0.62 |
| 201 - 300% | 94.3% | 79.5% ^{***} | 5.1% | 20.5% ^{***} | 4.4% | 7.7% ^{**} | 1.3% | 12.8% ^{***} | 0.26 | 0.62 |
| > 300% | 97.5% | 95.1% ^{***} | 2.5% | 5.0% ^{***} | 2.2% | 2.8% | 0.4% | 2.1% ^{***} | 0.14 | 0.43 |
| Education | | | | | | | | | | |
| High School or Less | 63.1% | 80.8% ^{***} | 36.9% | 19.2% ^{***} | 34.0% | 6.5% ^{***} | 3.0% | 12.7% ^{***} | 0.08 | 0.66 |
| Attended College [†] | 96.5% | 91.0% ^{***} | 3.5% | 9.1% ^{***} | 3.0% | 4.5% ^{***} | 0.5% | 4.6% ^{***} | 0.14 | 0.51 |
| Health Status | | | | | | | | | | |
| Excellent | 96.0% | 92.2% ^{***} | 4.0% | 7.9% ^{***} | 3.3% | 3.2% | 0.7% | 4.6% ^{***} | 0.18 | 0.59 |
| Very Good | 94.7% | 88.7% ^{***} | 5.3% | 11.3% ^{***} | 4.5% | 5.0% | 0.8% | 6.3% ^{***} | 0.16 | 0.56 |
| Good | 64.2% | 82.8% ^{***} | 35.8% | 17.2% ^{***} | 34.0% | 8.2% ^{***} | 1.8% | 9.0% ^{***} | 0.05 | 0.52 |
| Fair/Poor | 83.2% | 74.5% ^{**} | 16.8% | 25.5% ^{**} | 12.3% | 7.5% | 4.5% | 17.9% ^{***} | 0.27 | 0.70 |
| Race and Ethnicity | | | | | | | | | | |
| White [‡] | 94.9% | 89.4% ^{***} | 5.1% | 10.6% ^{***} | 4.4% | 4.6% | 0.8% | 6.0% ^{***} | 0.15 | 0.57 |
| Other | 47.7% | 78.2% ^{***} | 52.3% | 21.8% ^{***} | 48.8% | 8.2% ^{***} | 3.5% | 13.6% ^{***} | 0.07 | 0.63 |
| Marital Status | | | | | | | | | | |
| Not Married | 59.4% | 74.7% ^{***} | 40.7% | 25.3% ^{***} | 38.5% | 10.9% ^{***} | 2.2% | 14.4% ^{***} | 0.05 | 0.57 |
| Married | 94.6% | 92.1% ^{**} | 5.4% | 7.9% ^{**} | 4.2% | 3.1% | 1.2% | 4.8% ^{***} | 0.23 | 0.60 |
| Employed | | | | | | | | | | |
| Not Employed | 57.5% | 83.2% ^{***} | 42.5% | 16.8% ^{***} | 41.1% | 8.8% ^{***} | 1.5% | 8.0% ^{***} | 0.03 | 0.48 |
| Employed | 94.7% | 88.8% ^{***} | 5.4% | 11.2% ^{***} | 4.2% | 4.2% | 1.1% | 6.9% ^{***} | 0.21 | 0.62 |
| Region | | | | | | | | | | |
| Outer Minnesota | 77.5% | 86.6% ^{***} | 22.5% | 13.4% ^{***} | 21.3% | 5.0% ^{***} | 1.1% | 8.4% ^{***} | 0.05 | 0.62 |
| Twin Cities | 94.5% | 88.6% ^{***} | 5.5% | 11.4% ^{***} | 4.2% | 5.3% | 1.3% | 6.2% ^{***} | 0.24 | 0.54 |
| Metropolitan Statistical Area (MSA) | | | | | | | | | | |
| Non-MSA | 91.0% | 85.8% ^{***} | 9.0% | 14.2% ^{***} | 7.3% | 6.5% | 1.7% | 7.6% ^{***} | 0.19 | 0.54 |
| MSA | 86.4% | 88.3% ^{**} | 13.6% | 11.7% ^{**} | 12.5% | 4.7% ^{***} | 1.1% | 7.0% ^{***} | 0.08 | 0.60 |
| Usual Source of Care | | | | | | | | | | |
| Yes | 88.6% | 90.9% ^{***} | 11.4% | 9.1% ^{***} | 10.8% | 4.4% ^{***} | 0.6% | 4.7% ^{***} | 0.05 | 0.51 |
| No | 67.1% | 58.6% ^{**} | 32.9% | 41.4% ^{**} | 22.9% | 12.0% ^{***} | 10.0% | 29.4% ^{***} | 0.30 | 0.71 |
| Confidence in Getting Needed Health Care | | | | | | | | | | |
| Very or Somewhat Confident | 88.4% | 90.6% ^{***} | 11.6% | 9.4% ^{***} | 10.9% | 4.3% ^{***} | 0.7% | 5.2% ^{***} | 0.06 | 0.55 |
| A Little or Not At All Confident | 60.2% | 53.4% | 39.8% | 46.6% | 27.3% | 14.7% ^{***} | 12.5% | 32.0% ^{***} | 0.31 | 0.69 |

Source: 2004 and 2007 MNHA Surveys

Note: Calculated using Stata version 10.

Note: Bold indicate reference category for tests of statistical significance.

[†] Attended college is defined as attended college, college graduate, or postgraduate

[‡] White is defined as non-hispanic white

^{**} indicates group is significantly different from the reference category at the 0.05 level between

^{***} indicates group is significantly different from the reference category at the 0.01 level between

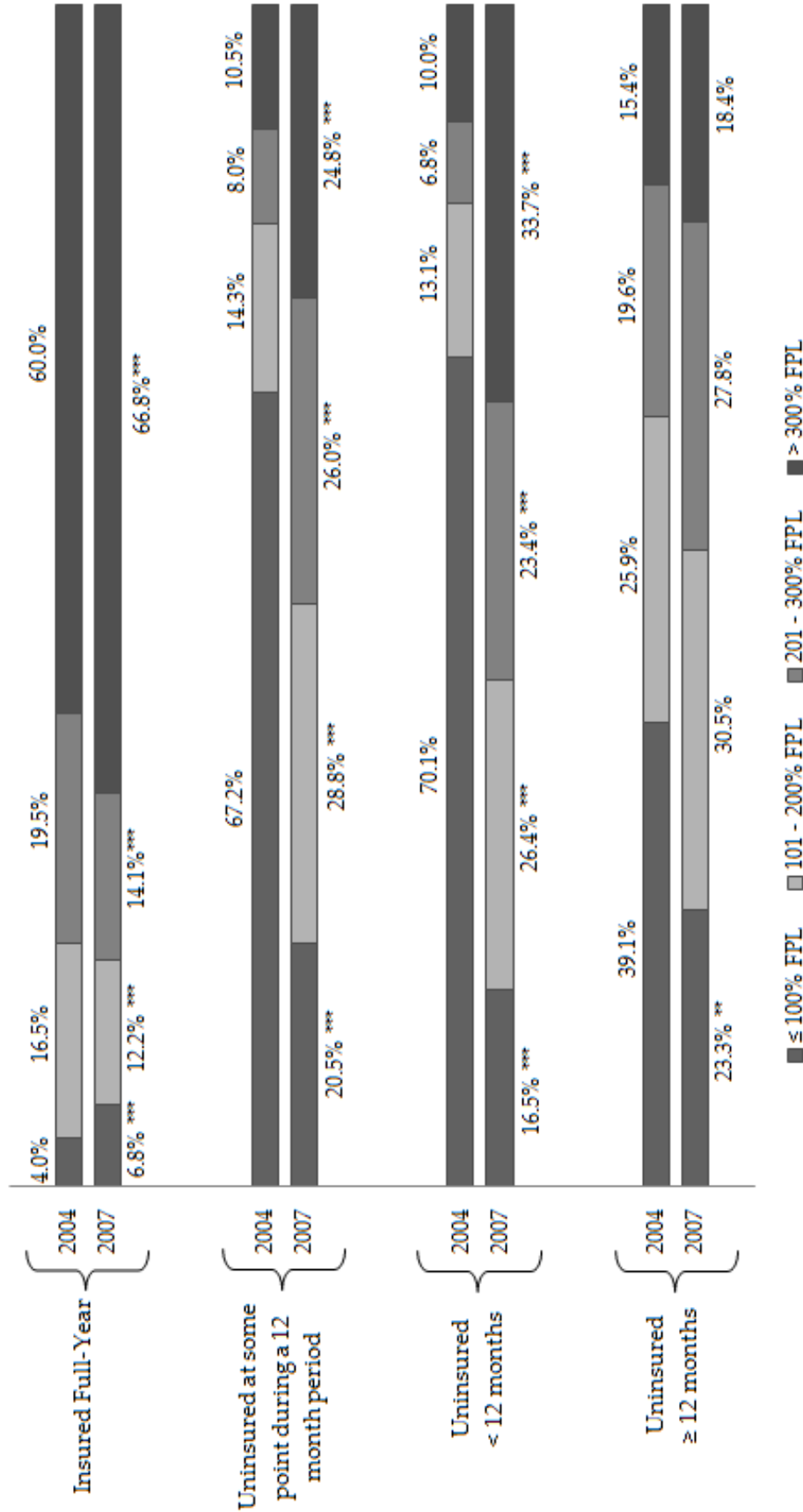
health care saw statistically significant increases in their overall uninsurance rate.

Generally, the rates of short-term uninsurance decreased for most subgroups and the rates of long-term uninsurance increased significantly for every subgroup. The rate of long-term uninsurance for children increased from 0.6 percent in 2004 to 4.2 percent in 2007 and the change in the rates of uninsurance of 12 months or longer for adults aged 19 to 34 increased from 2.1 percent to 14.8 percent. Nearly three of every five uninsured adults ages 19 to 34 were long-term uninsured in 2007, compared to approximately one of every twenty in 2004.

One of the most notable differences between 2004 and 2007 was related to income. The rate of short-term uninsurance among the poor (those with incomes less than 100 percent FPL) decreased significantly from 67.2 percent in 2004 to 10.0 percent in 2007. The poor also experienced statistically significant increases in long-term uninsurance rates. Between 2004 and 2007, the portion of the poor population that was uninsured for 12 or more months increased nearly five times, from 4.0 percent to 19.7 percent, respectively. In 2007, approximately two-thirds of the uninsured poor were long-term uninsured, an increase from only one-twentieth in 2004. All of the groups with incomes above the FPL also experienced statistically significant increases in their long-term uninsured populations as well. The rate of long-term uninsurance increased for the near-poor population from 2.0 percent in 2004 to 15.3 percent in 2007.

Exhibit 11 shows the distribution of income (grouped by percent of FPL) by insurance status and duration of uninsurance in 2004 and 2007. This information is important in the context of tailoring policy solutions to minimize the proportion of the population experiencing both short- and long-term durations of uninsurance. Generally, higher income groups (as a

**Exhibit 11:
Income Distribution by Insurance Status and Duration of Uninsurance, Nonelderly Minnesota Population,
2004 and 2007**



** indicates rate is different between 2004 and 2007 at the 0.05 level

*** indicates rate is different between 2004 and 2007 at the 0.01 level

percent of FPL) contributed to all four insurance status groups (insured full-year, uninsured at some point during a 12 month period, uninsured less than 12 months, and uninsured 12 months or longer) at a greater rate in 2007 than in 2004. Specifically, the three uninsured groups saw a statistically significant decrease (at the 99 percent level for uninsured at some point, and uninsured less than 12 months and at the 95 percent level for the uninsured 12 months or longer) in the percentage living in poverty ($\leq 100\%$ FPL). Another notable change from 2004 to 2007 was the increase in the percent of each group that had incomes greater than 300% FPL, though this difference was not statistically significant for those with durations of uninsurance 12 months or longer.

DISCUSSION AND CONCLUSIONS

This analysis uniquely contributes to the literature on the topic of uninsurance. A review of the literature revealed little information about the differences in characteristics and experience of those experiencing different durations of uninsurance. This study utilizes Minnesota survey data to develop a state-specific profile of the various rates of uninsurance.

Despite its contribution to the information about the uninsured population in Minnesota, this study does have some limitations. First, a detailed comparative analysis regarding the duration of uninsurance is limited to short-term uninsurance defined as less than 12 months. The 2004 survey did not ask those that responded that they did not have health insurance coverage at the time of the survey but were insured at some point in the previous 12 months about how many months it had been since they last had insurance coverage. Therefore, the spell of uninsurance experienced by this group of part-year uninsured respondents could only be defined as less than 12 months. The surveys also did not include any questions related to multiple spells of uninsurance. For example, for a respondent who answered that they had been without insurance for 8 months during the last 12 months, it is impossible to ascertain whether there was, for example, one 8-month spell of uninsurance or two 4-month spells. And finally, there were a limited number of variables that assessed respondents' access to needed health care services.

WERE BOTH SHORT-TERM AND LONG-TERM UNINSURANCE PROBLEMS IN 2004 AND 2007?

The main finding of this analysis is that both short-term and long-term uninsurance were problems in Minnesota in 2004 and 2007. Uninsurance for a year or longer became a

larger problem between the 2004 and 2007 MNHA surveys, responsible for nearly three-fifths (58.5 percent) of the overall rate of uninsurance in 2007, a significant increase from less than 10 percent in 2004 (Exhibit 8). However, a considerable minority continued to experience shorter durations of uninsurance. Because longer durations of uninsurance are associated with more consequences than shorter durations of uninsurance, the possible adverse effects of this shift are concerning.

ECONOMIC FACTORS

As the United States economy experienced a significant downturn and recession in the late 2000s and early 2010s, high health care costs contribute to increased pressure on the budgets of consumers, employers, and the public sector, just as higher unemployment rates, higher food costs, increasing fuel prices, and decreasing housing values also take their toll. The United States' economic situation, combined with recent state budget shortfalls nation-wide and growing uninsured populations, only further emphasizes that the problems of uninsurance are unsustainable. Without significant policy interventions, such as the passage of the federal PPACA and the full implementation of its various provisions over the coming years, it is likely that the number of uninsured Minnesotans, and Americans, will continue to grow when considering these economic factors in combination with the rising health care costs that may make insurance coverage and medical care cost-prohibitive. An issue of particular concern is that "state and local governments' capacity to finance health care for uninsured persons tends to be weakest at times when the demand for such care is likely to be highest, namely, during economic recessions" (Institute of Medicine, 2003a; Institute of Medicine, 2004).

Evidence from recent history indicates that the rate of uninsurance is likely to grow as a result of economic conditions, though it is difficult to estimate the extent of the increase. As many continue to struggle with unemployment, one would also expect that more individuals would experience longer durations of uninsurance. In addition, Holahan et al. (2008) reported a decline in real median household income of nearly 4 percent and an increase in the percent of the population living in poverty, during a recent economic recession (and its recovery), trends that can be expected as a result of the current economic downturn (Holahan & Cook, 2008). A report by The Kaiser Family Foundation found that although the economic recession in 2001 was brief, it resulted in a decline in employer-sponsored coverage that persisted through 2006, even while the economy improved from 2004 to 2006 (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Holahan & Cook, 2008). The time period from 2000 to 2006 saw an increase in the uninsured population, though some of the increase was offset by an increase in the number of Medicaid enrollees and a brief economic recovery (Hoffman, Schwartz, Tolbert, Cook, & Williams, 2007; Holahan & Cook, 2008). Contrary to these findings, this analysis shows that the proportion of the population lacking insurance coverage decreased from 2004 (12.8%) to 2007 (12.3%), though it was not a significant change (Exhibit 10). Interestingly, the only group to see an increase in the rate of uninsurance was children (2.3% in 2004 to 7.4% in 2007). Zuckerman and Haley (2004) found that low-income young adults were the most affected by downward trends in the economy. While all age groups experienced increases in their rates of long-term uninsurance, young adults saw the most significant change from 2004 (2.1%) to 2007 (14.8%). It is unclear whether this is a result of young adults' differential experiences in the current recession.

IMPLICATION OF FINDINGS FOR PUBLIC POLICY

Though the literature on uninsurance overwhelmingly acknowledges that there are major policy hurdles in addressing the various types of uninsurance, the literature also unequivocally emphasizes the need for a comprehensive approach, rather than small, incremental approaches to reducing the number of uninsured (see for example, Zuckerman & Haley, 2004). Because different factors play a role in whether an individual experiences a short-term or long-term gap in insurance coverage, the need for policy solutions that recognize and target both short-term and long-term uninsurance is also consistently noted.

POSSIBLE POLICY SOLUTIONS

A significant number of solutions being suggested for consideration by policy makers exist in the literature. Nation-wide, some of the options discussed to address the growing problem of uninsurance are: employer mandates, individual mandates, changes to public programs (e.g., public program coverage expansion via increased eligibility standards and/or buy-in options, increased outreach efforts, simplified renewal processes), tax code reforms and tax credits, and universal coverage via a single payer option. Another possible option – further subsidization of safety net providers – would not address the problem of uninsurance itself, but would rather have the goal of minimizing the consequences of being uninsured (e.g., decreased access to health care services, diminished health status, etc.) (Cunningham, Hadley, Kenney, & Davidoff, 2007).

As noted previously, short-term and long-term uninsurance stem from unique circumstances and thus must be targeted by tailoring policy solutions to meet the needs of a

diverse uninsured population. Some policy options that would specifically address the short-term gaps in insurance coverage include structural reforms, increased outreach efforts, and offering subsidies or tax credits that allow more people to purchase COBRA coverage or coverage in the individual health insurance market. An example of a private market solution aimed at addressing short-term uninsurance for young adults is the expansion of coverage requirements to include dependents up to age 26. As noted earlier, this was included as a provision in the federal PPACA legislation. Early evidence indicates this has been successful in reducing the overall rate of uninsurance among young adults in Minnesota {{Minnesota Department of Health, News Release, Minnesota's Uninsured Rate Remains High, 2012}}.

Structural reforms to public programs should involve less frequent and simplified reenrollment requirements. A complex reenrollment process that is required biannually, or even once annually, is burdensome to public program enrollees and often leads to shorter-term gaps in insurance coverage for these individuals and families. Retention of enrollees in public programs is a growing problem and is accelerated by requirements for increased citizenship documentation during the renewal process, for example. Sharing information from schools, school lunch programs, food stamp programs, SCHIP, and Medicaid would help to simplify the enrollment process and could even be used to automatically enroll children and adults that are known to be eligible for public program coverage. In addition, two options that have been shown to be effective are passive enrollment and the use of preprinted forms. Passive enrollment has been used for premium-paying SCHIP enrollees and allows them to be automatically reenrolled without any paperwork unless their circumstances have changed significantly and forms that are preprinted with the previous year's information only require a

signature. Increased outreach efforts would help by further simplifying the process and making it seem less onerous to those eligible for public programs. Because research has shown that families with coverage through one public program are less likely to experience gaps in their insurance coverage, subsidies that would allow parents to buy-in to SCHIP should also be considered by policy makers (Sommers, 2007; Alliance for Health Reform, 2007; Institute of Medicine, 2004; Hudson & Selden, 2007; Rimsza, Butler, & Johnson, 2007).

Policy solutions aimed at specifically addressing long-term uninsurance include extensive market-based health insurance reforms such as individual and employer mandates, and tax credits and premium subsidies, and public program eligibility expansions. Individual and employer mandates (like those recently implemented in Massachusetts) would significantly decrease the number of uninsured individuals and families. Tax credits and premium subsidies would be integral components of ensuring that individual and employer mandates were not overly burdensome to individuals, families, employers, and communities. Tax credits refundable upon the purchase of health insurance coverage would allow those who are otherwise unable to afford to purchase coverage in the individual health insurance market or those otherwise unable to afford the premium costs of group insurance coverage available to them to do so. Premium subsidies would help employers of low-wage workers to offer coverage to employees and their dependents in a way that minimized the financial burden of health care costs for employers.

Expanded income and age eligibility for public programs would also decrease the number of people without insurance coverage. This could be done by increasing income thresholds for programs like SCHIP and Medicaid and could include increased cost-sharing for

individuals with incomes above a certain percent of poverty level. Age eligibility for Medicare could be expanded through a buy-in option for those between the ages of 55 and 64 (near-elderly) (Sommers, 2007; Alliance for Health Reform, 2007; Institute of Medicine, 2004; Hudson & Selden, 2007). Because the consequences of uninsurance increase with the duration of uninsurance, addressing the issues that are involved in long-term uninsurance should be given priority over addressing the issues involved in short-term uninsurance. A benefit of addressing long-term uninsurance is that it may address short-term uninsurance as well.

POLITICAL WILL AND PUBLIC SUPPORT

The United States is beginning significant reform to the health care system, unlike any time previously. Though decreasing the number of uninsured Americans is consistently acknowledged as one of the top priorities, current health care reform discussions have been far broader in focus. Proposals to reform the health care system as a whole, including the problem of increasing health care costs (and decreased affordability), are wide-reaching and pervasive, partially spurred on by the recent economic recession and the burden of health care cost growth as well as unprecedented prioritizing of health reform by political leadership as seen by the passage of the Patient Protection and Affordable Care Act in 2010.

Despite controversy and ongoing conflict, the unparalleled political will recently evident throughout the country, public support for significant changes to our nation's health care system has grown immensely in recent years. A majority of adults favor a requirement that everyone have health insurance and that the burden of paying for this expanded coverage should be shared by employers, government, and individuals (Collins & Kriss, 2008).

Given the pressure from individuals, health care providers, employers, and state and local governments, the increasing recognition that the health care system is unsustainable in its current form, and the personal stories of those without health insurance coming to light more and more frequently, significant federal health reform legislation was likely to pass. While the details of its implementation are yet to be fully seen, many provisions of the PPACA are likely to reduce various durations of uninsurance. Some examples are below:

- Expanded dependent coverage requirements. As discussed above, coverage requirements were expanded to include dependents up to age 26. This provision will likely impact short-term uninsurance experienced by young adults by allowing them to remain on their parents insurance until they successfully transition to a career that affords them access to employer-sponsored coverage.
- Presumptive eligibility. This provision will expand existing efforts to streamline enrollment in Medicaid by allowing states to use it for parents and other adults, not just children and pregnant women. This provision will likely impact short-term uninsurance, by providing a bridge while longer-term coverage options are determined.
- Expansion of Medicaid to families with higher income levels and premium tax credits for those with higher income levels. Both of these provisions are more likely to impact those experiencing long-term uninsurance, as it will make health insurance accessible to those who previously were not financially disadvantaged enough to qualify for Medicaid and yet were not able to afford health insurance through another mechanism.

- Insurance exchanges. The requirement of insurance exchanges has many goals, but ultimately seeks to expand the number of affordable insurance options available. One way this will happen is through the automation of eligibility and enrollment systems which will significantly ease the Medicaid enrollment process for consumers. Other ways include promoting transparency and increasing market competition.
- Other provisions aimed at reducing overall health care costs by increasing efficiency, promoting innovative care delivery, etc., while not explicitly intended to reduce rates of uninsurance (overall, short-, or long-term) are likely to do just that by reducing health care costs for everyone, thereby making health insurance more affordable as well.

FUTURE RESEARCH

During the 2008 legislative session, the Minnesota legislature authorized a comprehensive package of health reform efforts. One component of the legislation that was signed into law authorized ongoing funding for the MNHA survey on a biennial basis. The 2009 MNHA survey results are now available and the 2011 MNHA survey was recently fielded and data are currently being analyzed. The secured funding for the MNHA survey will allow this analysis of the duration of uninsurance to be updated every other year. Trend information about the duration of uninsurance in Minnesota will be a significant contribution to Minnesota policy makers as they consider ways to decrease the overall uninsured population in Minnesota by targeting efforts at those who are short-term and long-term uninsured. In addition, this information will help policy makers to better understand the effects of the current economic downturn on health insurance coverage, as information will be available prior to, during, and after the recession. Finally, the MNHA will be an important source of information in monitoring the joint impact of state and PPACA reform efforts on the short- and long-term uninsured.

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