What Does it Cost Your Community To Go Without Robust, Reliable, Affordable Broadband?

Limited Access to Jobs and Economic Opportunity

1 It has become almost impossible to apply for a job today without internet access at reasonable speeds. Once in a job, employees in all walks of life are expected to have computer and online skills; the barista at the coffee shop must keep the Wi-Fi operating, and the warehouse clerk must use an online inventory system. Broadband enables home-based businesses and lets many employees work from anywhere. Downtown Wi-Fi networks drive foot traffic to retail. Overall, studies find that the availability of broadband adds as much as 1.4 percent per year to local employment growth. Agriculture has become a case in point. Farms are going digital to stay competitive, and the lack of high-speed broadband is a crippling barrier to higher productivity and profit for this vital sector.

Less Ability to Attract and Retain Employers and Investment

2 For businesses of every kind and size, broadband has become the essential infrastructure for attracting and serving customers, from online marketing and ordering to tracking, inventory management, accounting and collaboration. One small city in New Zealand has managed to retain local companies by building a fiber-to-the-premise network that lets them sell and service business literally around the planet. A small farming city in the American Midwest turned itself into a multi-state hub for expertise in precision agriculture and communication network design thanks to its robust local network and middle-mile connections. A midsize city began developing its own network when local employers made clear that they would have to move without it.

Poor and Unequal Access to Health Care

3 Telehealth applications can reduce inequalities in the delivery of healthcare in many different ways. Their power is to overcome the barrier of distance and low population density that imposes high costs on providers and long delays on patients. Communities in the Intelligent Community network use broadband telehealth applications to centralize the interpretation of medical images for an entire county at a single medical center and deliver results in hours instead of days. Psychiatric nurses use telehealth to conduct weekly meeting with patients and, by eliminating drive time, are able to complete 10 interviews instead of 1-2 in an average day. People feeling under the weather can connect with healthcare providers to check their symptoms and get recommendations before getting in the car for a long drive.

Greater Vulnerability of the Elderly Population

4 The aging of our populations confronts healthcare systems with rising costs and families with rising anxieties. The COVID19 pandemic revealed the hidden risks in the standard practice of moving the elderly out of their homes into assisted living and care facilities. Communities around the world are using broadband to enable the elderly to remain in their homes for longer while receiving the care they need. Simplified IT platforms and good connectivity bring them connection with family and friends, access to health services and engagement with the community. In one city, the health department created competitive exercise games that motivated elders to maintain their muscle tone and cardiac fitness while working to "one-up" their friends. Wi-Fi-linked wearables provide monitoring of chronic conditions and signal healthcare providers when intervention is needed.

Unequal Access to Education

5 The COVID-19 pandemic forced schools to close and education to move online – and revealed the huge inequalities among households that denied education to those without adequate and affordable broadband. Even in normal times, schools are heavy users of the internet for scheduling, assignments, research and teamwork projects, and students without broadband rapidly become second-class educational citizens, with impacts that last the rest of their lives.

Denying the Chance to Collaborate on Solving Problems

6 People go online today to collaborate in creating interest groups, organizing activities, raising money and tackling problems together. That's true of residents and just as true of businesses, where collaboration and knowledge-sharing sparks innovation, new company startups and job growth. The more your population is spread out over big distances, the more people need broadband to collaborate and innovate, because it provides the connections that city-dweller enjoy just from living so close to each other.

Lack of Resilience in the Face of Crisis

7 Robust broadband increases the resilience of the community in the face of crisis. When disease or natural disaster restricts people to their homes, broadband provides access to critical information and allows coordination on the neighborhood, municipal or county level. Decision-makers in government can connect and collaborate to share information and coordinate their responses locally and across counties, state, provinces and the nation. Sensors can capture the dangers of flooding, freezing, pollution and other risks and report to central management. Maintaining resilience requires the broadband network itself to be resilient, providing multiple paths and backups.
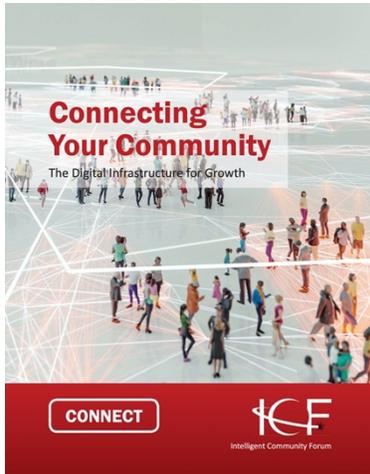
About the Intelligent Community Forum

The Intelligent Community Forum is a global network of cities and regions with a think tank at its center. Its mission is to help communities in the digital age find a new path to economic development and community growth – one that creates **inclusive prosperity**, **tackles social challenges**, and **enriches quality of life**.

More information at https://www.intelligentcommunity.org/how_to_get_started.

The digital age demands new ways of thinking about what makes a town, city or region work. Those that adapt to these demands survive and thrive amid technology disruption and global competition. Those that don't face stagnation, decline, population loss and the social and cultural erosion they bring. In this practical guide to getting started, we explain what an Intelligent Community is and outline the ICF Method of development. We then offer specific steps by which local government in a community of any size can begin its transformation into an Intelligent Community.

When you decide to take action on broadband, you have a wide range of options. You will select among them based on their cost and difficulty, the public's understanding of the challenge and your leadership's appetite for financial and political risk. Most of the options have the same goal: to make the community a more attractive market for private-sector investment in digital connectivity. The most powerful way to do so is to *reduce the upfront investment required to serve the market, which lowers the risk and increases the profit potential*.