

# Riset Vaksin Topang Ketahanan Nasional



*“Seandainya kita diserang ebola seperti Afrika, apakah ada yang mau datang menolong? Belum tentu. Jika kita diserang H5N1 seperti dulu, apakah orang mau menolong? Belum tentu”* Dengan rendah hati dan sedikit bergetar, ucapan tersebut keluar dari mulut Direktur Utama PT. Bio Farma (Persero) Iskandar menyoal pencegahan penyakit yang perlu didorong secara mandiri oleh bangsa sendiri. *“Kita (Indonesia) harus memerdekakan diri, harus mandiri, harus berdaulat. Urusan penyakit ini tidak boleh bergantung pada siapapun, ”* ujarnya dihadapan wartawan dalam jumpa pers terkait Forum Riset Vaksin Nasional ke-4 di Jakarta, Selasa (19/8). Indonesia yang baru saja memperingati hari kemerdekaan yang ke-69 memiliki sejarah cukup panjang dalam menangkal penyakit melalui imunisasi atau vaksinasi yang terus di kembangkan sejak masa Kolonial Belanda. Memasuki abad ke-19, program imunisasi telah dilaksanakan untuk pemberantasan penyakit cacar dan penyakit itu dinyatakan bebas di Indonesia pada 1956 oleh Badan Kesehatan Dunia (WHO). Mayoritas dari program imunisasi tersebut dilakukan dengan vaksin hasil produksi negeri sendiri. Bahkan, tak hanya memenuhi kebutuhan dalam negeri, Indonesia dikenal di kancah dunia karena kemampuannya dalam memasok vaksin ke berbagai Negara. Hingga yang terbaru, melalui PT. Bio Farma yang merupakan Badan Usaha Milik Negara (BUMN), Indonesia berhasil melakukan inovasi vaksin untuk mencegah difteri, pertussis, tetanus, hepatitis B rekombinan, dan *hemophilus influenza tipe B* secara sekaligus dalam satu tetes vaksin. Walau demikian, kesuksesan tersebut terus berkejar-kejaran dengan penyakit-penyakit lainnya yang tiada hentinya terus berkembang dan kerap melampaui kecepatan perkembangan teknologi dalam pengkalannya. Dalam kesempatan yang sama, Direktur Jendral (Dirjen) Bina Kefarmasian dan Alat Kesehatan Maura Linda Situmanggung mengakui adanya kejaran antara perkembangan teknologi vaksin dengan perkembangan penyakit. *“Tidak hanya kuratif. Sering pencegahan yang harus dilakukan, (sehingga) penyakit terhindarkan. Semua Negara akan bangkrut jika semua bertumpu pada pengobatan,”* ujarnya. Dia mencontohkan bagaimana jika terjadi suatu kejadian yang luar biasa terkait dengan penyakit, Negara tertentu harus mampu menanggulangi dengan daya dirinya sendiri terlebih dahulu sehingga bisa mampu bertahan. *“Ini berarti prepentif penting di samping pengembangan obat untuk mengatasinya yang tetap diperlukan juga. Obat atau vaksin telah di pandang sebagai ketahanan obat nasional.”* sebutnya. Dalam praktiknya, Maura Linda Situmanggung melanjutkan antar pemerintah, pelaku industri itu sendiri, pelaku industri perlu terus melanjutkan sinergi dan koordinasi dalam menghadapi persoalan penyakit yang takkan kunjung usai. *“Didalam kerja sama akademisi, bisnis dan government, pemerintah support regulasi sebagai policy sehingga (industri vaksin) ini bisa bersinergi dan menghasilkan produk-produknya,”* paparnya. *Global Action Plan* yang dikeluarkan

oleh Badan Kesehatan Dunia (WHO) menegaskan imunisasi merupakan komponen utama dalam melakukan pelayanan kesehatan dasar untuk melindungi dari penyakit. **DERAJAT KESEHATAN** Bagi Kementerian Kesehatan, sebagaimana di ungkap Maura, obat termasuk vaksin merupakan komponen penting dalam pelayanan untuk peningkatan derajat kesehatan masyarakat. "Obat dan Vaksin memiliki peranan strategis yang mempengaruhi ketahanan nasional. Oleh karena itu kemandirian produksi obat dan vaksin harus diupayakan agar Indonesia tidak tergantung kepada Negara lain," paparnya. Rencana pembangunan jangka menengah nasional 2010-2014 antara lain menyatakan perlunya meningkatkan penelitian dan pengembangan untuk mewujudkan kemandirian dalam produksi obat dan vaksin. "Tentu diperlukan inovasi. Tanpa riset tidak ada inovasi. Tanpa inovasi tidak ada pengembangan produk. Tidak ada pengembangan produk, tidak ada industri, kita tidak maju," lanjutnya. Dengan riset yang cukup banyak dilakukan, konsep pengembangan produk sampai hasil riset dapat digunakan di masyarakat, prosesnya tidak mudah. "Fungsi pemerintah berupaya mendorong hal itu. Melakukan sinergi dan koordinasi yang lebih tinggi lagi agar perkembangan teknologi vaksin tidak terhambat," katanya. Senada dengan Maura, Menteri Riset dan Teknologi (Menristek) Gusti Muhammad Hatta mengungkapkan telah cukup banyak produk dan riset teknologi yang tinggal produksi massal. "Mestinya kita merombak yang seperti itu, mengurus izin jangan susah-susah. Tingkatkan sinergi dan koordinasi. Kelemahan kita disana," ungkapnya. Dia menguraikan pembangunan kesehatan diarahkan kepada terjadinya upaya kesehatan, baik upaya kesehatan primer, sekunder, dan tersier yang bermutu, merata, dan terjangkau masyarakat. "Upaya kesehatan ini diselenggarakan dengan mengutamakan pada upaya pencegahan, preventif, kemudian upaya penyembuhan, serta pemulihan kesehatan" ucapnya. Kemenristek memiliki tantangan kedepan yakni pengembangan vaksin baru terhadap penyakit yang menyebabkan jutaan kematian di Negara berkembang, serta menyebarkan vaksin baru di Negara berkembang dengan harga terjangkau. Iskandar mengutarakan kondisi vaksin nasional, yakni terus mengejar ketertinggalan teknologi vaksin dengan Negara maju dan mengurangi ketergantungan kepada asing. "Yang kami bayangkan kemandirian vaksin nasional itu seperti yang Bio Farma miliki sekarang, ketika kami memiliki bibit vaksin dan itu tidak kami beli. Kita punya aset yang tidak perlu beli." ujarnya. Untuk dapat melakukan itu, dia menyatakan kekuatan nasional perlu bersatu dalam menghadapi kondisi ini yang perlu dimulainya dari sekarang. "Dekade 2011-2020 sebagai dekade vaksin dari WHO, dan sambutan dari Negara asing tumbuh baik (terhadap vaksin dari Indonesia)." ujarnya. Bio Farma ungkapnya, melakukan strategi pengembangan teknologi vaksin dengan *platform* yang sama, yakni melalui *platform* konjugasi dan rekombinan untuk menangkal penyakit serupa. "Ada teknologi yang sama, seperti H5N1 dengan H1N1 sama (*platformnya*)", Bio Farma lari kesana. Jika terjadi pandemi Hn5x dan HN1z, jika terjadi pandemic Hxnx kita tidak perlu gelisah karena kita sudah punya *platform* teknologi sama jika berubahnya jenis," katanya. **Sumber: Bisnis Indonesia, 20 Agustus 2014**

*"If we are attacked ebola like in Africa, does anyone want to help? Not necessarily. If we are attacked by H5N1 as it once was, do the people want to help? Not necessarily" With humility and little bit shaky, the words out of the mouth of the President Director of PT. Bio Farma (Company) Iskandar on the disease prevention needs to be driven independently by its own nation. "We (Indonesia) should liberate ourselves, to be independent, to be sovereign. The matter of the disease should not be dependent on anyone," he said to the journalists at a press conference related to the 4th National Vaccine Research Forum in Jakarta, Tuesday (19/8). Indonesia that has just commemorated the 69<sup>th</sup> Self-Reliance has a long history in warding off disease through immunization or vaccination continuously which has been developed since the Dutch colonial era. Entering the 19<sup>th</sup> century, immunization programs have been implemented for the eradication of smallpox and this disease was declared free in Indonesia in 1956 by the World Health Organization (WHO). The majority of the immunization program is carried out by the country's own vaccine production. In fact, not only fulfilling the domestic demand, Indonesia is known in the world for its ability in supplying vaccines to various countries. Until recently, through PT. Bio Farma, which is the State*

Owned Enterprises (BUMN), Indonesia has made a vaccine innovation to prevent diphtheria, pertussis, tetanus, recombinant hepatitis B, and hemophilus influenza type B in one drop of vaccine. However, that success continues racing with other diseases that continue growing endlessly and often exceed the speed of technological development. On the same occasion, the Directorate General (DG) of Pharmaceutical and Medical Devices Maura Linda Situmanggang acknowledges that there is a racing of the development of vaccine technology to the development of the disease. "Not only curative. Often prevention is to be done, (so) disease is evitable. All States will go bankrupt if all rests on the treatment," he said. He pointed out how in the event of extraordinary events related to the disease, the certain State should be able to cope with their own power first so they can survive. "It means the preventive is important in addition to the drug development which are still needed to address them as well. Drug or vaccine has been viewed as a national drug resistance." He said. In practice, Maura Linda Situmanggang continued between the government, industry itself, the industrial practitioner needs to continue the synergy and coordination in facing the disease problems that will not go over. "In cooperation of academics, business and government, the government support regulation as a policy support so that this (vaccine industry) can work together and produce the products," he explained. *Global Action Plan issued by the World Health Bashan (WHO) confirms immunization is a major component in making basic health services to protect from disease.*

**HEALTH STATUS** For the Ministry of Health, as said by Maura, drugs including vaccines are the important component in service to improve community health status. "Drugs and Vaccines have a strategic role that affects the national defense. Therefore, the Self-Reliance of the production of drugs and vaccines should be pursued so that Indonesia does not depend on other countries," he said. Medium-term national development plan 2010-2014, among others, expressed the need to increase research and development to manifest Self-Reliance in the production of drugs and vaccines. "Of course it needs innovation. Without research there is no innovation. Without innovation there is no product development. There is no product development, there is no industry, we will not be developed," he continued. With quite a lot of research done, the concept of product development so that the research results can be used in the community, the process is not easy. "The function of government is attempting to push it. Conducting higher Synergy and coordination so the technology development of vaccines is not hampered," he said. In line with Maura, the Minister of Research and Technology (Technology) Gusti Muhammad Hatta said that there has been quite a lot of product and technology research, it just need to wait mass production. "We should remodel it, do not make the applying for permits complicated. Increase synergy and coordination. Our weakness is it," he said. He outlined the health development is directed toward the health effort, whether the primary, secondary, and tertiary health efforts which are qualified, equitable, and affordable to the public. "This health effort is organized by emphasising on prevention, preventive, and curative, as well as the health remedy," he said. The Ministry of Research and Technology have a future challenge that is the development of new vaccines against diseases that cause millions of deaths in Developing Countries, as well as deploying new vaccines in Developing countries at an affordable price. Iskandar explains the condition of the national vaccine, i.e. keep pursuing the legged vaccine technology with the developed countries and reduce the dependency on foreign. "What we imagine about the Self-Reliance of the national vaccine is what is owned by Bio Farma now, when we have a vaccine seed and we did not purchase it. We have assets that do not need to buy." He said. To be able to do that, he stated that the national power need to be united in facing these conditions that needs to be started today. "Decade 2011-2020 as the decade of vaccines from WHO, and the welcome from a foreign country is growing well (to the vaccine from Indonesia)." He said. Bio Farma he said, do vaccine technology development strategy with the same platform, namely through the conjugation and recombinant platforms to ward off the similar illness. "There's the same technology, such as H5N1 with H1N1 (platform)", Bio Farma run them. If a pandemic of Hn5x and HN1z occur, if the pandemic of Hxnx occurs we do not need to be nervous because we've had the same technology platform when changing is the type," he said. **Source: Bisnis Indonesia, August 20, 2014**